

# STOP stunting

Power of Maternal Nutrition

Scaling-up the Nutritional Care of Women in South Asia



7-9 May 2018, KATHMANDU, Nepal



CONFERENCE REPORT





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August 2018







## Foreword

In May 2018, the **Regional Conference on Stop Stunting: Power of Maternal Nutrition** brought together participants from the eight countries of South Asia to agree on actions to scale up the nutritional care of women during pregnancy and postpartum. The Conference provided a welcome opportunity to discuss measures to protect the lives of South Asia's women and their children. A pregnant woman with a good nutritional status and access to quality nutritional care is much more likely to experience a healthy pregnancy. Her infant is more likely to be born with a good birth weight to be able to grow and thrive in childhood, to do well in school, and to live a healthy and successful life in future.

But this is not a reality for many women and their children in the region. About one in four women are underweight and one in ten have a low stature, while anaemia remains a serious public health problem. All these conditions – underweight, short stature and anaemia – pose a danger to the mother and her infant. They increase the risk that the mother will experience complications during delivery, and that her infant will be born too early and too small. Meanwhile, the nutrition challenges in South Asia are becoming even more complex because overweight and obesity are increasing at an alarming

rate in women. In fact, the number of overweight and obese women exceeds the number of underweight women in many countries in the region. This means that we also need to balance interventions to prevent undernutrition with those to prevent overnutrition.

The 2016 WHO guidelines on antenatal care for women reinforce the importance of nutrition interventions during pregnancy. The Conference emphasized the need to position these interventions as an essential component of evidence-based programmes to support optimal nutrition and development in the first years of life of children in South Asia. It also highlighted examples of extraordinary success, innovations and lessons learned, as well as ongoing challenges in scaling up these nutrition interventions. It culminated in a *Call for Action* which identifies ten key actions that provide the future direction for the countries in the region to improve maternal nutrition. With concerted efforts from these countries and their partners, these actions can help to improve the nutritional status of women and children malnutrition across South Asia.



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## Acronyms

ANC	Antenatal care
A&T	Alive and Thrive
BMI	Body mass index
DGFP	Director General Family Planning
DGHS	Director General Health Services
DHIS	District Health Information System
DHS	Demographic and Health Survey
ENN	Emergency Nutrition Network
HMIS	Health management information system
ICDS	Integrated Child Development Services
IFA	Iron-folic acid
IFPRI	International Food Policy Research Institute
MMS	Multiple micronutrient supplement
MUAC	Mid-upper arm circumference
NNS	National Nutrition Services
ROSA	Regional Office for South Asia
SAARC	South Asian Association for Regional Cooperation
SBCC	Social and behaviour change communication
SDG	Sustainable development goal
SHG	Self-help group
SUN	Scaling Up Nutrition
UNICEF	United Nations Children's Fund
WASH	Water sanitation and hygiene
WHO	World Health Organization

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## Executive Summary

Maternal malnutrition has far reaching consequences for both the mother and her infant's survival, growth, development and long-term health. While progress has been made in South Asia, the status of women's nutrition is a serious cause for concern. One in five women in the region are too thin (body mass index <18.5 kg/m<sup>2</sup>); one in ten women in the region have short stature (<145 cm); anaemia is a severe or moderate public health problem in 7 out of 8 countries; and overweight and obesity are rapidly rising. Countries in the region may not reach the global nutrition targets of the Sustainable Development Goals and World Health Assembly without the improved nutritional care of women.

The Regional Conference on Stop Stunting | Power of Maternal Nutrition was convened by the South Asian Association for Regional Cooperation (SAARC) and UNICEF Regional Office for South Asia (ROSA), together with Nutrition International, from 7th to 9th May 2018 in Kathmandu. It brought together 120 participants, including government representatives from all eight SAARC member countries together with researchers, civil society organizations, United Nations agencies and other development partners from across South Asia and the global level to exchange regional analyses, evidence, expertise and experiences on the nutritional care of women during pregnancy and postpartum in South Asia.

The objectives of the Regional Conference were to:

- Position the nutritional care of women during pregnancy and postpartum as an essential component of evidence-based interventions to support optimal nutrition and development in the first years of life in South Asia.
- Share new regional and global evidence and guidelines on maternal nutrition, and lessons and best practices in the region.
- Identify actions to accelerate improvements in the nutritional care of women during pregnancy and postpartum, within the context of ongoing multi-sectoral actions to improve nutrition across the region.

During the three-day conference participants reviewed data on the health and nutrition of women in South Asia, examined the status of policies and programmes in the region relative to global recommendations, and discussed the actions needed to accelerate progress. Participants shared global, regional and country experiences, better practices and lessons learned in creating enabling environments for maternal nutrition, designing service delivery packages and platforms that reach

women at scale, social and behaviour change communication approaches for influencing nutrition behaviours, and strengthening nutrition information systems.

The country teams, regional and global partners identified short-term (within 12 months) and medium term (within one to three years) priorities to strengthen advocacy, policies, programme design, research and knowledge on maternal nutrition. In addition, participants jointly developed a Call to Action comprising 10 key actions to accelerate progress in the nutritional care of women during pregnancy and postpartum. With the support and engagement of development partners, South Asian countries should put these 10 key actions into practice:

### 1. National policies and guidelines on maternal nutrition should be in line with evidence-based global recommendations, adapted to the country context

- The 2016 World Health Organization (WHO) guidelines on antenatal care (ANC) provides an opportunity to review and update national policies in line with the latest scientific evidence and the local context, and to refocus attention to maternal nutrition.
- Early identification (through screening and nutritional assessment), referral and management of adolescent girls and women at nutritional risk<sup>1</sup> should be part of routine nutritional care during pregnancy.
- To address the nutritional needs of women across the continuum of care, the adoption of the global guidelines on nutrition during adolescence, preconception, pregnancy, intrapartum and postpartum, as well as food fortification, is needed.
- Key considerations during the review and update of policies and guidelines include the prevalence and epidemiology of maternal malnutrition and the cost-effectiveness of interventions.
- The design of policies and guidelines should place women at the centre of solutions.

### 2. Maternal nutrition should be prioritized in national development agenda, and sectoral plans and budgets

- The importance of maternal nutrition must be elevated and prioritized within national development agendas, including national efforts to prevent stunting and other forms of malnutrition.
- Increased investments in maternal nutrition are needed

<sup>1</sup> Includes low stature, thinness, obesity and anaemia.

to achieve coverage at scale. Costing studies and ‘value for money’ analyses (e.g. cost-effectiveness, cost of inaction, public expenditure reviews) can provide compelling data and evidence for advocacy.

- National and subnational plans should include:
  - Actions that are informed by a comprehensive analysis of the bottlenecks and barriers to implementing maternal nutrition interventions at scale, with quality and equity;
  - Targets on the coverage of maternal nutrition interventions within health sector strategies and plans.

### **3. Greater attention is needed to operationalize national policies and plans on maternal nutrition at subnational level**

- Favourable national policies, plans and budgets for maternal nutrition are an essential requirement but are not sufficient to ensure effective delivery of programmes at scale.
- Actions that can facilitate the translation of policies/plans to programme delivery at subnational level include:
  - Development of implementation guidelines that provide practical guidance on subnational planning, budgeting and implementation of maternal nutrition interventions;
  - National level tracking of performance at subnational level (e.g. using score-cards);
  - In some settings, an “Operational task force”, with appropriate representation from multiple sectors and stakeholders, could guide the translation of policies/plans to programme delivery at subnational level.

### **4. Service delivery platforms should maximize the opportunities to reach women and families with maternal nutrition interventions.**

- WHO recommends antenatal care models with a minimum of eight contacts to reduce perinatal mortality and improve women’s experience of health and nutrition care during pregnancy.<sup>2</sup>
- Community-based platforms, such as self-help groups and women groups/collectives, and local leaders can promote contact in early pregnancy, increase the number of contacts, and increase the coverage of maternal nutrition interventions.
- Community-based services can effectively provide interpersonal counselling, distribute micronutrient supplements, promote the early uptake of ANC, and provide pre-pregnancy and postpartum nutrition services.
- It is important to strengthen the linkages between the continuum of care between community and facility levels.
- Purposeful engagement with multiple stakeholders, including civil society and private sector, can expand the potential to reach communities.

### **5. Service delivery packages should include context-specific interventions according to the prevalence of undernutrition and local context.**

- Maternal nutrition interventions should be bundled at appropriate contacts during antenatal care at health facility or community level, according to the local context, including:
  - Nutritional screening (pre-pregnancy BMI, height, weight gain, anaemia screening etc.);
  - Counselling on healthy eating and physical activity to stay healthy and prevent excessive weight gain;
  - Counselling on increasing daily energy and protein intake for women who are too thin to reduce risk of low birth weight (context specific);
  - Iron-folic acid supplementation<sup>3</sup>;
  - Calcium supplementation (context specific);
  - Vitamin A supplementation (context specific);
  - Balanced protein energy supplementations (context specific);
  - Restriction of caffeine intake (context specific);
  - Counselling on early and exclusive breastfeeding;
  - Prevention and management of infectious diseases such as soil-transmitted helminths and malaria (context specific).

### **6. Evidence-informed social and behaviour change communication is needed to improve nutrition behaviours, with priority given to improving the dietary intake of women.**

- Formative research is needed to build an in-depth understanding of the enablers and barriers to:
  - Optimal dietary practices during pregnancy (including identification of supportive and deleterious indigenous beliefs and practices, and gender inequality and discriminatory practices against girls and women);
  - Appropriate physical activity levels;
  - Compliance with micronutrient supplementation.
- Countries should develop social and behaviour change communication strategies and plans to support optimal nutrition behaviours that:
  - Target family members, service providers and community leaders who influence the behaviours of pregnant and postpartum women, either directly (e.g. husbands, mothers-in-law, service providers) or indirectly (e.g. religious leaders, women leaders);
  - Utilize multiple communication channels, including individual and group interpersonal counselling, community mobilization, mass media and social media;
  - Pay special attention to adolescent girls and women experiencing their first pregnancy.

<sup>2</sup> Contact can be adapted to the local contexts through community outreach programmes and lay health worker involvement

<sup>3</sup> In settings with high prevalence of nutritional deficiencies, including in emergencies, the use of multiple micronutrient supplements may be considered.

- Mechanisms to improve the quality of counselling by health providers and community based workers are essential, including quality training that focuses on counselling skills, and supportive supervision.

#### **7. National health and nutrition information systems and surveys should include appropriate indicators to track programme performance and progress towards national and global targets on maternal nutrition.**

- Data and information on the status of women's nutrition and the coverage, quality and equity of nutrition services is needed to inform actions and build accountability.
- Indicators that should be included in health and nutrition information systems include the number of women who receive:
  - Adequate number of supplements (i.e. effective coverage of iron-folic acid and calcium supplementation);
  - Counselling on healthy eating and physical activity; counselling on increasing daily energy and protein intake (in undernourished population); and counselling on early and exclusive breastfeeding.
- Data on maternal anaemia, height, BMI and coverage of nutrition interventions should be assessed through national surveys (e.g. demographic and health surveys, national nutrition surveys) at least every 3-5 years.
- Other sources of data include sentinel surveillance, community monitoring systems (such as social audits) and information systems collecting data on nutrition-sensitive indicators.
- There is need to build the capacity to collect, analyze and utilize quality data for decision-making at all levels from the community to policy level.

#### **8. Implementation research is needed to understand the barriers, enablers and pathways to delivering maternal nutrition interventions at scale and with equity.**

- Investment in implementation research can help understand what drives improvements in the coverage, quality and equity of maternal nutrition interventions, and is needed both to inform the design as well as scale-up of interventions and programmes.
- Examples relevant to maternal nutrition include:
  - Formative research studies to gather qualitative information on the status and drivers of dietary practices (including enabling indigenous dietary practices), uptake of maternal nutrition services, and compliance with micronutrient supplementation;
  - Costing studies to determine the investments needed to scale-up maternal nutrition interventions and programmes;
  - Secondary data analysis of survey data to examine the predictors of women's nutritional status and the coverage of maternal nutrition interventions;
  - Desk reviews of existing literature;

- Process and impact evaluations;
- Rapid assessments with lighter low-cost tools.

#### **9. Investments are needed from multiple sectors to improve the maternal nutrition.**

This include investments on actions to:

- Improve the nutrition of adolescent girls (pregnant/non-pregnant, both in and out of school) and pre-pregnant women (including newly-wed women), through nutrition screening, counselling on dietary intake and iron-folic acid supplementation.
- Prevent, treat and manage infections during pregnancy and postpartum, such as soil-transmitted helminths, malaria, and urinary tract infections, including through water, sanitation and hygiene.
- Keep girls in school, delay age at marriage and strengthen family planning (to delay age at first pregnancy and reduce the number of pregnancies).
- Reduce economic barriers to nutritious diets through social safety nets such as food assistance, cash transfers and maternity benefits that reach economically vulnerable women.
- Promote the production and consumption of nutritious indigenous foods and culturally acceptable foods, and reduction in the consumption of foods high in fat, sugar and salt.
- Address gender-based violence and women's mental health.
- Introduce and/or scale-up consumer access to fortified staple foods (iodine, vitamin A, iron etc), and enforcement of mandatory fortification where it is in place.
- Purposeful engagement with multiple sectors and stakeholder is needed around tangible actions that resonate with the existing sectoral delivery channels, e.g. schools, agriculture extension services, academia and private sector.
- Tracking of budgets, allocations and expenditures can inform advocacy to increase investments and efficiencies of expenditures.

#### **10. Regional leadership and platforms on nutrition is needed to support country level actions and facilitate country exchange of knowledge and experience.**

- SAARC can continue to support countries by:
  - Developing regional guidance/framework and tools to assist South Asian countries in operationalizing global recommendations to improve the nutritional care of women during pregnancy and lactation;
  - Developing a SAARC nutrition score card to track country progress in advancing maternal and child nutrition, and monitoring progress;
  - Continuing to provide regional forums for exchange of regional and global expertise, knowledge and experience on improving nutrition across the life-cycle.



## Introduction

Poor nutrition during pregnancy and postpartum is linked to adverse outcomes for both the mother and her baby. Maternal anaemia, especially in its severe form, elevates the risk of maternal mortality (Brabin et al., 2001) and accounts for 12 per cent of low birth weight, 19 per cent of preterm births, and 18 per cent of perinatal mortality (Rahman et al., 2016). Evidence demonstrates that maternal nutritional status is linked to child stunting in South Asia (Kim et al., 2017), the impacts of which can last generations (Christian et al., 2013). A recent four country analysis suggests that maternal prenatal care use is associated with both the height for age of children at 24 months and attained school grades later in life (Liu et al., 2017).

Progress on improving maternal nutrition in South Asia has been slow. No country is on track to meet the World Health Assembly target to halve anaemia prevalence in women of reproductive age by 2025. The region carries the world's highest burden of both anaemia and intrauterine growth restriction (Stevens et al., 2013; Lee et al., 2013), as well as the world's highest burden of child stunting and wasting (UNICEF et al., 2018). Given the close links between maternal and child nutrition, efforts to improve maternal nutrition are critical to attaining the Sustainable Development Goals (SDGs) including the targets on ending hunger and all forms of malnutrition and reducing maternal and neonatal mortality.

There is progressive recognition by national Governments within South Asia of the impacts of poor nutrition during the first one thousand days between conception and a child's second birthday on national development and the costs of inaction (Aguayo & Menon, 2016). Concerted multi-sectoral efforts are currently underway across the region to scale up the coverage and quality of nutrition interventions through national systems. Nutritional interventions during pregnancy have largely focused on iron-folic acid (IFA) supplementation, together with dietary counselling. In some countries, calcium supplements and protein energy supplements are also provided. However, progress in scaling-up these interventions is uneven across countries and often slow, even for IFA supplements, which have been part of public health policy for several decades. Some of the reasons for poor coverage and adherence to IFA include poor access to antenatal care (ANC), inadequate supply of IFA, and poor demand resulting from inadequate counselling (Mason et al., 2014).

In November 2016, WHO released new guidelines on ANC for women (WHO, 2016). These guidelines include a comprehensive set of recommendations on nutritional

assessment and nutrition interventions during pregnancy, and provide additional context-specific recommendations. These guidelines can assist countries in ensuring policies and programmes are designed to meet the nutritional needs of women during pregnancy.

In line with the ambition set in the 2030 Agenda for Sustainable Development, the World Health Assembly's nutrition targets, the 2016 WHO guidelines on ANC, the SAARC Regional Action Framework on Nutrition and the regional Stop Stunting agenda, there is recognition and renewed impetus amongst stakeholders in South Asia on the need to continue to raise political commitment, investments and actions to improve maternal nutrition.

The Regional conference on STOP STUNTING |The Power of Maternal Nutrition - Scaling-up the nutritional care of women during pregnancy and postpartum in South Asia was organized jointly by the South Asia Association for Regional Cooperation (SAARC) and the UNICEF Regional Office for South Asia (ROSA), together with Nutrition International, to identify actions to accelerate the nutritional care of women during pregnancy and postpartum in South Asia. It brought together 120 participants, including government representatives, researchers, UN partners, civil society organizations and other development partners, from across South Asia to exchange regional analyses, expertise, evidence and experience on improving comprehensive maternal nutrition services delivered through ANC.

The specific objectives of the Conference were to:

1. Position the nutritional care of women during pregnancy and postpartum as an essential component of evidence-based interventions to support optimal nutrition for women, and development in the first years of life in South Asia.
2. Share new regional and global evidence and guidelines on maternal nutrition, and lessons and best practices in the region.
3. Identify actions to accelerate improvements in the nutritional care of women during pregnancy and postpartum across the region, within the context of ongoing multi-sectoral actions to improve nutrition.

During the three-day conference, participants reviewed data on the health and nutrition of women in South Asia, examined the status of policies and programmes in the region relative to

global recommendations, and discussed the actions needed to accelerate progress. Participants shared experiences, better practices and lessons learned in (1) creating enabling environments for maternal nutrition, (2) designing service delivery packages and platforms that reach women at scale, (3) social and behaviour change communication (SBCC) approaches for influencing nutrition behaviours, and (4) strengthening nutrition information systems. In addition,

country teams, regional and global partners identified country priority actions to strengthen advocacy, policies, programme design, research and knowledge on maternal nutrition, and jointly developed a Call to Action to galvanize commitment to improve the nutritional care of women. This report is intended to provide a summary of the key highlights and proceedings of conference. The conference presentations are available at: [www.unicef.org/rosa/what-we-do/nutrition](http://www.unicef.org/rosa/what-we-do/nutrition)



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## Inaugural Session

The Inaugural Session set the tone for the Conference by underlining why maternal nutrition matters in South Asia and the need for greater policy coherence and multi-sector programme actions to scale up the nutritional care of women across the continuum of care (pre-pregnancy, through pregnancy, and postpartum). The session provided an overview of the status of maternal nutrition in the region and how countries are responding in terms of policy and programme action. It highlighted that countries in the region are less likely to reach the SDGs and other global nutrition targets without improved nutritional care of women because of the far-reaching consequences of maternal malnutrition for the survival, growth, development and long-term health of both the mother and her infant. In addition, it made a call for countries in the region to position nutritional care as a critical part of a positive pregnancy and postpartum experience for women in South Asia and an essential component of multi-sectoral nutrition interventions that target the first one thousand days between conception and a child's second birthday. Various speakers in this session reflected on the required policy and programming shifts needed to optimise the 'power' of maternal nutrition in improving the wellbeing of women and in reducing childhood malnutrition in the region.

### Opening ceremony

Opening remarks were given by **Mr Philippe Cori, Deputy Regional Director of UNICEF ROSA**, **Andrew O'Connell, Asia Regional Director of Nutrition International**, and **Mr Amjad Hussain Sial, Secretary General of SAARC**.

**Mr Philippe Cori** noted that nutrition has acquired space within the mainstream development agenda in the region due to the momentum generated by the global Scaling Up Nutrition (SUN) Movement, as well as SAARC support. The Deputy Regional Director recognized the importance of maternal nutrition for women's own health well-being and in determining children's growth and development during the first 1000 days, and their work capacity in later life. He emphasized that the substantial increase in the coverage of IFA supplementation in Nepal during the last 15 years illustrates that rapid progress is possible. He also noted the positive improvements in the availability of data and information systems for nutrition in the region. He cautioned that the growing burden of overweight and obesity, alongside undernutrition, raises the complexity of the malnutrition challenges in South Asia.

**Andrew O'Connell** noted that malnutrition remains a barrier to development in the region and that cost-effective solutions exist, with returns on investment of USD 16 for each USD 1 invested. He explained that good nutrition is vital for girls and women, as well as their communities, and is essential for attaining the SDGs. He also highlighted that societies are more equal when women and girls are supported and empowered. He concluded his remarks by highlighting that the conference is an opportunity to renew the commitment of governments, SAARC, UNICEF, Nutrition International and other partners in the region to maternal nutrition, and to enable the eight countries to learn from one another.

**Mr Amjad Hussain Sial** highlighted that good nutrition, including a healthy diet, are especially important during pregnancy. He expressed his concern at the gravity of the maternal nutrition situation in the region, which is likely to underlie the high prevalence of stunting in children. He stressed that reaching girls and women during adolescence, preconception and pregnancy with evidence-based interventions to improve nutrition is essential. This includes interventions to address the underlying causes of poor nutrition, including household food insecurity, inappropriate access to health services, unhealthy environment and poor nutrition-related practices. He concluded by adding that governments need to examine how to improve the diets of women, particularly during pregnancy and lactation, and to explore other aspects of their care by engaging with mothers and their families within a multi-sectoral approach.

### Keynote Address

**Accelerating progress in South Asia to achieve positive maternal, newborn and child outcomes.**

**Dr Harriet Torlesse, UNICEF Regional Advisor Nutrition for South Asia** delivered the keynote address.

Her presentation explored the prevalence and burden of malnutrition among women in South Asia, the implications for maternal and child survival, well-being, growth and development, the status of policies and programmes on maternal nutrition, and the urgent need for action at scale in South Asia.

Countries in the region may not reach the SDGs and other global nutrition targets without the improved nutritional care of women. While progress has been made in reducing



low body mass index (BMI) and increasing women's height in South Asia, the status of women's nutrition is a serious cause for concern. One in five women in the region are too thin (BMI <18.5 kg/m<sup>2</sup>); one in ten women in the region have a short stature (<145 cm); overweight and obesity are rapidly rising; and anaemia is a severe or moderate public health problem in 7 out of 8 countries, with no country is on track to meet the World Health Assembly goal to halve anaemia in women by 2025. The double burden of malnutrition – the coexistence of undernutrition with overweight and obesity – presents policy and programming challenges for the region. The low levels of maternal education and women's participation in household decisions, adolescent pregnancy, inadequate access to ANC and poor diets underpin the high level of malnutrition in adolescents and women of reproductive age in the region.

Maternal undernutrition has serious consequences for the mother and her infant, including increased risk of maternal mortality, low birth weight and small-for-gestational age infants, preterm delivery, neural tube defects, poor growth in early life and cognitive loss. Maternal overnutrition raises the risk of haemorrhage, hypertensive disorders, gestational diabetes and macrosomia (high birth weight).

The keynote address provided a summary of the status of maternal nutrition policies and programmes in the region in relation to the nutrition recommendations in the “WHO recommendations on antenatal care (ANC) for a positive pregnancy experience” (WHO, 2016). This information was drawn from a landscape review of maternal nutrition policies and programmes in South Asia conducted by UNICEF ROSA in February to April 2018. All countries in South Asia have policy and programme guidance provisions on maternal nutrition, however, some are not fully aligned with the 2016 WHO ANC nutrition. In particular, context-specific recommendations (e.g., weekly IFA supplementation, vitamin A, calcium supplementation and caffeine intake restriction) are often not fully considered by countries. In addition, the geographic and population coverage of maternal nutrition interventions in South Asia is not currently at the level needed to transform the care of women during pregnancy.

The landscape review also examined the bottlenecks that are constraining progress in maternal nutrition action in countries in the region. Bottlenecks persist at all levels and vary by intervention and country but appear to be more concentrated at the ‘downstream’ level (i.e., programme implementation). This means that even though policy environments may be conducive, there are implementation barriers that ultimately limit the coverage and quality of interventions. The proportion of women who take IFA supplements for at least 90 days during pregnancy is closely correlated with the coverage of at least 4 ANC visits, illustrating the importance of delivery platforms in reaching women with supplements. The greatest progress in increasing the coverage of IFA supplementation is

observed in countries with good ANC coverage, in particular, in countries with strong community-based platforms to reach women with health and nutrition services during pregnancy, such as in Nepal.

While the health sector cannot solve all the underlying causes of poor maternal nutrition, it must ensure that women have access to quality nutrition and health care during pregnancy and postpartum. In addition to nutrition-specific interventions during pregnancy, a set of complementary actions is needed to improve the nutritional status of adolescent girls and women. They include actions to improve the nutritional status of adolescents and pre-pregnant women, such as weekly IFA supplements and dietary improvements; the prevention, treatment and management of infections such as soil-transmitted helminths, malaria and urinary tract infections; improved consumer access to fortified foods; and social protection schemes to reduce economic barriers to nutritious diets. Furthermore, actions to delay the age at marriage and prevent adolescent pregnancy are also crucial in the context of South Asia.

In her concluding thoughts, Dr Torlesse reiterated that rapid changes in the coverage of essential nutrition interventions are possible within short time-frames and that evidence-based review of national policies and guidelines, together with a sound understanding of the implementation bottlenecks and barriers, can assist countries in identifying the actions needed to deliver maternal nutrition interventions at scale and with equity. The 2016 WHO ANC guidelines can assist countries in identifying evidence-based intervention packages, adapted to the country context. It is important to build on the tremendous momentum on nutrition in the region in the past 12 months including, for example, Afghanistan's ascension to the global SUN movement in 2017, and new multi-sector nutrition plans and strategies in Bangladesh, India and Nepal. This momentum presents huge opportunities to scale up maternal nutrition interventions.

## Panel Discussion

The keynote address was followed by a panel discussion moderated by **Ms. Rishfa Rasheed, Director, Social Affairs Division, SAARC**. The panel of experts from across the region reflected on issues discussed in the keynote address and added their perspectives.

**Dr Alok Kumar, Adviser (Health & Nutrition), Niti Aayog, Government of India**, reflected on Niti Aayog's role as a government policy think tank and provided insights on how it is enabling the National Nutrition Mission for India to accelerate progress in improving maternal nutrition across India. Niti Aayog's first aim is to facilitate the convergence of efforts across different sectors and ensure coordination at

all relevant levels. The second aim of Niti Aayog is to monitor women and child health and nutrition outcomes in real time and ensure feedback is provided on a regular basis so that programme adjustments can be made and accountability for nutrition outcomes is strengthened. The third aim of Niti Aayog is to promote behaviour change, in particular, to create a people's movement around nutrition. Dr Alok Kumar explained that nutrition cannot be the sole responsibility of individuals or individual organizations, but rather all facets of society should align efforts and partnerships should be explored to improve the nutrition situation in the country.

**Prof Dr Archana Amatya, Professor of Public Health at the Institute of Medicine, Tribhuvan University, Nepal,** provided her insights on how Nepal was able to increase the proportion of women who take IFA supplements for at least 90 days during pregnancy from 6 per cent in 2001 to 71 per cent in 2016. The key success factors include the rising coverage of ANC during pregnancy (almost 70 per cent of women made at least 4 ANC visits in 2016, up from 14 per cent in 2001); the role of Female Community Health Workers in increasing awareness of nutrition services, facilitating access to IFA supplements at community level, and encouraging the consumption of IFA supplements; improvements in the supply chain management; and repackaging of the supplements in blister packs, which improved acceptability. These developments have been in the context of an increasingly strong enabling environment for nutrition in Nepal, including the national Multi-Sectoral Nutrition Plan, which has focused attention on the role of multiple sectors in improving nutrition, including women's education.

**Prof Veena Sikri, Convener, South Asia Women's Network (SWAN),** acknowledged the need to focus on women's nutrition

in the region, and discussed some gender perspectives that need to be taken into consideration in order to enhance the impact of maternal nutrition policies and programmes on the lives of adolescents and women. Many disadvantaged women have low education levels. They are unable to participate in decisions that affect their own lives as well as those of their children, and are denied an active role in finding solutions to problems affecting them. The design of nutrition counselling services need to take these issues into consideration, if they are to be effective. Women also need better access to health care, sanitary and hygiene facilities, and affordable healthy food choices to improve their nutrition situation. Prof Sikri concluded by reiterating that women should be placed at the centre of the solutions and involved in the design of maternal nutrition policies and programmes.

**Dr Manav Bhattarai, Senior Health Specialist, World Bank,** provided some insights on what needs to be done to increase investments to scale-up actions to improve maternal nutrition across South Asia. He provided some background context to recent global developments in nutrition, referring to the role of the Lancet series on Maternal and Child Undernutrition (Black et al., 2013) in bringing into focus the need for evidence-based nutrition interventions and in shaping the "how" in tackling undernutrition in a multisectoral fashion. Dr Bhattarai stressed the need to increase domestic financing and to ensure decision-making is driven by cost effectiveness analysis to guide budget holders on how best to invest public funds. He pointed out that innovative financing can be explored through co-financing mechanisms with potential for high returns on initial investment. He also explained the need to find ways of working more constructively with the private sector to harness its untapped potential for financing development initiatives.

## Setting the Scene

Session 2 examined the global guidelines and recommendations on maternal nutrition, and was moderated by **Dr Neena Bhatia from the Lady Irwin College, the University of Delhi in India**. Global guidelines and recommendations exist across the continuum of care from adolescence, to preconception, pregnancy, intrapartum, and postpartum. The recently released 2016 “WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience” (WHO, 2016) provide an opportunity to review and update national policies and guidelines and refocus attention on maternal nutrition. The Session highlighted the importance of the early identification, referral, timely care and management of women at nutritional risk across the continuum of care. It also included an update on the latest evidence on multiple micronutrient supplementation (MMS) during pregnancy.

### Guest Presentation Global Guidance and Recommendations on Maternal Nutrition

**Lisa Rogers, Technical Officer, WHO Geneva**, provided an overview of the global guidance and recommendations on maternal nutrition interventions, and discussed policy and programme considerations.

The WHO policy brief on preconception care, “Preconception care: maximizing the gains for maternal and child health”, explains the importance of investing in nutrition during the preconception period. The preconception care package includes evidence-based promotional, preventative and curative interventions, including screening for anaemia and diabetes; monitoring nutritional status and blood glucose; supplementation with IFA and energy and nutrition-dense food; salt iodization; information, education and counselling; exercise promotion; and the management of diabetes. Food fortification can help improve the micronutrient intake of women before they become pregnant. There is recent WHO guidance on wheat and maize flour fortification (2009), salt iodization (2014), maize flour and corn meal fortification (2016) and rice fortification (2018).

The “WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience” (WHO, 2016) has two nutrition interventions that apply to all settings (1) counselling about healthy eating and keeping physically active, and (2) daily IFA supplementation. There are seven additional recommendations that apply in specific contexts

(nutrition education and counselling to increase daily energy and protein intake; balanced energy and protein dietary supplementation; daily calcium supplementation; vitamin A supplementation; zinc supplementation; and lowering caffeine intake). The guidelines explain which interventions should be delivered at each of the recommended eight ANC contacts during pregnancy.

Other relevant global recommendations include delayed cord clamping to prevent anaemia in early life and skin-to-skin contact to promote the early initiation of breastfeeding. WHO’s “e-Library of evidence for nutrition actions” (eLENA) is an important resource that provides the latest WHO nutrition guidelines, recommendations and evidence-based interventions, with links to recent systematic reviews.

These recommendations can be incorporated into a variety of policies and strategies at country level, such as national nutrition policies and strategies and/or maternal, neonatal and child health strategies. The WHO guidelines contain remarks, implementation considerations and tools to facilitate adaptation and implementation of the recommendations at the country level. The adaptation at country level should be informed by an understanding of the epidemiological context. It is also important to analyse the projected costs to scale-up interventions and to ensure that sustainable financing plans are in place.

### Guest Presentation Identifying and Managing Women/Mothers at Nutritional Risk

**Pura Rayco-Solon, Technical Officer, WHO Geneva**, presented WHO guidance and recommendations on how to identify, refer and care for women at nutritional risk. She also provided an overview of the tools, methods and management guidance that is available to support effective implementation.

The early identification, referral and timely care of women at nutrition risk is vital because these women and their infants are most likely to experience unfavourable pregnancy outcomes, such as preterm delivery, low birth weight and poor growth in early life. Pregnant women who are obese, undernourished, or suffering from micronutrient deficiencies or gestational diabetes are often considered to be at-risk.

The 2016 WHO ANC guidelines include two nutrition-related assessments that are recommended in all settings, (1) screening



for hyperglycaemia to detect gestational diabetes, and (2) an ultrasound scan before 24 weeks of gestation. In addition, there are two context specific recommendations: screening for anaemia; and symphysis-fundal height measurement for the assessment of fetal growth. Pre-pregnancy BMI and mid-upper arm circumference (MUAC) can also be used to diagnose underweight/thinness. The optimal cut-off point for MUAC may need to be determined for specific countries, based on context-specific cost-benefit analysis that considers the availability of resources to intervene, the effectiveness of different interventions, and the degree of expected improvement in birth outcomes. WHO is currently developing guidance that will allow countries to develop fetal growth charts specific to their own country.

## Presentation

### Spotlight on MMS - evidence base on multiple micronutrient supplementation during pregnancy

Roland Kupka, Senior Nutrition Adviser, UNICEF New York, described the basis for the current WHO guidance on MMS during pregnancy, and ongoing research to strengthen the evidence base to inform policy decisions.

The dietary needs of pregnant women can be difficult to meet through dietary intake alone, and so MMS have a clear potential to address multiple nutrient deficiencies affecting pregnant women in a cost-effective manner. A compendium of 10 scientific papers summarizing a decade of research on MMS during pregnancy found that they improve micronutrient intake, reduce micronutrient deficiencies in mothers and increase birthweight relative to IFA supplements (Dalmiya et al. 2009). The WHO Guideline Development Group did not recommend MMS because of some evidence of risk and gaps in the evidence. However, the group agreed that policymakers in populations with a high prevalence of nutritional deficiencies might consider the benefits of MMS on maternal health to outweigh the disadvantages, and may choose to give MMS that include iron and folic acid.

Since this WHO recommendation was made, there has been additional evidence on MMS. A Cochrane systematic review of 17 trials found that MMS reduced mortality in the first year of life by 15 per cent for female infants, and has greater birth outcome benefits for infants born to underweight or anaemic women. A “Task Force on Maternal Multiple Micronutrient Supplementation in Low- and Middle-Income Countries”, under the Sackler Institute for Nutrition Sciences of the New York Academy of Sciences, is currently supporting

the development of guidance on the use of MMS during pregnancy in populations with a high prevalence of nutritional deficiencies, including operational guidance and cost-effective analyses. This guidance will assist decision-makers in deciding on the use of MMS versus IFA supplements. In addition, updated WHO guidance on MMS will be developed in late 2018 to incorporate the latest evidence on MMS.

There is no change in the global guidance on MMS in the context of emergencies: in populations affected by an emergency, pregnant and lactating women should be given a daily MMS that provides one recommended daily intake of micronutrients, whether they receive fortified rations or not, and in addition IFA supplements (WHO et al., 2007).

## Plenary Discussions

The key discussion themes emerging from the plenary discussion were as follows:

**Importance of food-based solutions and dietary improvement:** Participants raised a concern that food-based approaches are often overlooked but are needed to sustainably improve the diets of women both before and during pregnancy, particularly dietary diversity, and thereby prevent micronutrient deficiencies. These approaches should take local nutritional knowledge systems and existing positive practices into consideration, and address both supply-side and demand-side barriers within the food system to improving women's diets.

**Ensuring counselling a positive experience for the women:** There are indications that the more contacts women have with health service providers, the more positive they are about taking IFA supplements. However, more research is needed on how to make the counselling sessions a positive experience for pregnant women. Training tools and guidance are needed to ensure that counsellors provide culturally appropriate messages.

**Assessing the population need for calcium supplementation:** Participants sought advice on how to assess population dietary calcium intake in order to determine the need for calcium supplementation. There are two approaches: (1) use of data on food consumption and dietary patterns to estimate dietary intake of calcium; (2) population surveys of calcium deficiency. WHO representatives clarified that the recommendations on calcium supplementation are being reviewed in the light of emerging evidence.

Session 3 explored the key pathways to scaling up the nutritional care for women across the continuum of care (pre-pregnancy, through pregnancy, postpartum). Global, regional and country experiences were shared on (1) transforming the enabling environment for maternal nutrition; (2) service delivery packages and platforms that reach women/mothers at scale; (3) social and behaviour change for influencing behaviour change and demand for services; and (4) strengthening nutrition information systems to monitor coverage and impact of maternal nutrition interventions.

### 1. Transforming the Enabling Environment for Maternal Nutrition

#### Technical Lead Presentation

Dr Patrizia Fracassi, Senior Nutrition Analyst and Strategy Advisor (Scaling Up Nutrition Secretariat) examined the role of the enabling environment in improving maternal nutrition. Nutrition—including maternal nutrition—is a cross-cutting determinant of both health and development challenges, and can catalyse the achievement of key SDGs.

The global Scaling Up Nutrition (SUN) Movement calls for the strengthening of enabling environments that put nutritional requirements of girls and women at the core of their efforts. Since 2010, several lessons have been learned regarding the necessary elements to strengthen the enabling environment. They include: building political commitment and integrate nutrition into development policies; strengthening individual, organizational and systemic capacities through SUN networks; strengthening intra- and multi-sectoral coordination through multi-stakeholder platforms; designing relevant nutrition action plans; continuously monitoring and evaluating nutrition interventions and programmes; and ensuring more and better spending for nutrition.

However, strong enabling environments at national level have not fully translated into strong enabling environments at sub-national level, where delivery happens, or in improved coverage of maternal nutrition interventions or nutrition outcomes. Enabling environments, while necessary, are only powerful if they are driven by a renewed focus on pro-girls and pro-women law enforcement and policy implementation. Concomitant investments are needed in addressing gender inequalities and low women's empowerment, including low levels of girls' education, early marriage and adolescent pregnancy.

The SUN Movement has learned that the enabling environment is therefore insufficient to transform the nutrition of women. A renewed focus and deliberate efforts are needed to place women and girls at the centre of the enabling environment. This requires: political commitments that explicitly mention benefits for adolescent girls and women; the development of capacities to purposively address cultural and social norms that affect adolescent girls and women; multi-sectoral coordination that involves entities collaborating with adolescent girls and women; nutrition action plans that are designed with the needs adolescent girls and women at the core; monitoring and evaluation to understand obstacles in scaling up pro-women interventions; and pro-women budgeting. Bangladesh, Nepal, Vietnam, and Indonesia are examples of countries that have pro-women and pro-girls' national plans and approaches.

#### Bhutan Country Presentation

Mr Pema Lethro, Programme Officer, Ministry of Health Bhutan shared Bhutan's experiences in cultivating and sustaining the enabling environment for maternal nutrition interventions during pregnancy and postpartum. Maternal nutrition remains an unfinished agenda in the country due to the high rates of adolescent pregnancy, anaemia, maternal deaths, low birth weight, preterm births, and a high stillbirth rate in the country.

Bhutan's supportive environment for maternal nutrition originates in the country's Democratic Constitutional Monarchy (2008), which gives a high priority to the social sectors, including public health. Protective legal measures include six months maternity leave for civil servants. The Food and Nutrition Security Policy of the Kingdom of Bhutan (2014) recognizes the importance of maternal and child nutrition, while the National Health Policy of Bhutan (2011) calls for comprehensive quality maternal and child health care services. These policies are reflected in the National Food and Nutrition Security Strategy (2016-2025) and the government's five-year plans. A multi-sectoral taskforce involving health, education, and agriculture and forestry has been established to accelerate the implementation of high impact nutrition interventions, including adolescent nutrition. The government allocates 8 per cent of its budget to health and 20 per cent to education, and provides universal healthcare to its citizens. The openness, commitment and intent of the Government and key stakeholders, including the United Nations 'delivering as one' are also enabling factors.

Efforts to facilitate the implementation of these policies, strategies and plans include the capacity building of health service providers to deliver a comprehensive package of antenatal and postnatal care, strengthening of intra- and multi-sectoral coordination; enhanced monitoring and evaluation of nutrition interventions and programmes, including a revision of the health management information system (HMIS) and real-time monitoring through a web-based tracking system.

The Royal Government of Bhutan has plans to further strengthen the enabling environment by addressing some of the current policy and programmatic gaps in maternal nutrition through revisions of the reproductive health, anaemia control and prevention policies, and ANC and postnatal care packages with a focus on preconception, adolescents and women's nutrition needs.

### Pakistan Country Presentation

**Dr Khwaja Masood, National Coordinator Nutrition, Ministry of National Health Services Regulation and Coordination Pakistan** shared Pakistan's experiences in creating an enabling environment for maternal nutrition.

The Government of Pakistan has developed a range of policies, strategies and policy instruments at national and provincial levels to support maternal nutrition. They include the National Health Vision 2025, a 10-point priority agenda with a focus on maternal nutrition, the National Multi-Sectoral Nutrition Strategy, the National and Provincial Food Fortification Strategy, and the Punjab and Sindh Stunting Reduction Frameworks. A range of coordination mechanisms are in place at national and subnational level to oversee the implementation of these strategies and frameworks, including Nutrition Cells for multi-sectoral programming under the Chief Minister Secretariat in the high burden provinces of Punjab and Sindh. All these factors have been instrumental in creating and sustaining high level political commitment for nutrition in the country.

However, the enabling environment has not yet translated to improvements in maternal nutrition. Maternal nutrition interventions are poorly integrated into the existing health system, there is no coordinated SBCC strategy that has a focus on maternal nutrition, the network of community-based workers (Lady Health Workers) only covers 45-55 per cent of the population, there are critical gaps in the supply of IFA supplements and job aids to support counselling, and the HMIS lacks indicators to track the coverage of maternal nutrition interventions.

To address these challenges, a number of key actions have been identified. They include the adoption of the maternal nutrition interventions recommended in the 2016 WHO ANC guidelines, the integration of maternal nutrition in relevant

policies, strategies and plans, capacity building of health workers at all levels on maternal nutrition, and inclusion of maternal nutrition indicators in the HMIS.

### Plenary Discussions

The key discussion themes emerging from the plenary discussion were as follows:

**Fostering multisectoral collaboration:** Participants commented on challenges in cultivating and sustaining multi-sectoral collaboration. For example, while multi-sectoral collaboration exists in Bangladesh at both national and subnational level, the challenge is in ensuring it translates to strengthened implementation at sub-national levels.

**Sharing of best practices to deliver multisectoral approaches across the region:** A representative from the Emergency Nutrition Network (ENN) described how its Nutrition Exchange publication is documenting country progress on nutrition policy and programmes in the region. For example, a recent case study analysed the implementation of Nepal's Multi Sector Nutrition Plan (MSNP) at the sub-national level. The representative expressed the interest of ENN in supporting countries to document their success stories, including on maternal nutrition.

**Need to address gender inequality and to put women and girls at the centre of the interventions:** Participants recognized that intervening in pregnancy is frequently too late to correct malnutrition, and that it is essential for countries to improve the nutritional status of adolescents and pre-pregnant women, as well as to address the root causes of gender inequalities in the region, including child marriage, adolescent pregnancy, poor maternal education and women's low empowerment.

**Reflections from Ms. Jean Gough, the Regional Director, UNICEF ROSA:** Ms Gough stressed that the South Asia region and its countries can do much better in addressing the neglected area of maternal nutrition and that there is need to bring the power of maternal nutrition to the forefront of the 'Stop Stunting' efforts. Countries in the region carry a great responsibility to transform the design and implementation policies to improve maternal nutrition and not fail the next generation. UNICEF is engaging with supporting countries to understand their situation and translate policy to actions to reach every woman. Community health workers are central to these efforts but are often overworked. The Regional Conference on maternal nutrition is good opportunity to consider how to work more effectively in converging efforts and working collectively to enable action at the implementation level.

## 2. Service Delivery Packages and Platforms that Reach Women/Mothers at Scale

### Technical Lead Presentation

**Dr Justine A. Kavle, Nutrition Team Lead, Maternal and Child Survival Programme, PATH,** presented evidence and programme considerations for service delivery packages and platforms that reach women at scale. The presentation examined barriers to improved maternal nutrition, opportunities and challenges in the community-based delivery of nutrition interventions, and programme implications.

Maternal nutrition is a neglected area of programming in the first one thousand days period. Most programmes focus on infant and child nutrition and give inadequate attention to maternal nutrition, despite the compelling evidence of its impact on maternal and child outcomes.

Two recent systematic reviews of evidence in low- and middle-income countries examined barriers and enablers to maternal nutrition, the first on dietary intake during pregnancy and lactation, and the second on community-based distribution of IFA supplements. The first review found that cultural beliefs and food appropriateness often drive the selection and quantity of food consumed during pregnancy and lactation. Eating down for fear of a large baby and difficult delivery is common in South Asian countries, including India, Nepal and Pakistan. The second review found that community-based distribution of IFA supplements encourages earlier and consistent ANC attendance, including in Nepal, dispelling a commonly-held perception that it discourages women from seeking ANC from health facilities. Community health volunteers are also instrumental in improving access to and compliance with IFA supplementation, where there is a consistent supply of supplements.

It is important to take advantage of every contact between a pregnant woman and health provider at health facility or community level to deliver nutrition education and counselling on dietary intake during pregnancy and lactation. Strategies to improve the quality of service delivery include incorporation of maternal nutrition into pre- and in-service training curricula, supportive supervision and mentoring of frontline workers.

### Sri Lanka Country Presentation

**Dr Nethanjalie Mapitigama, Acting Director of Family Health Bureau, Ministry of Health, Nutrition, and Indigenous Medicine, Sri Lanka,** gave a presentation on nutritional support for women during antenatal and postnatal care in Sri Lanka.

Dr Mapitigama shared the policy context in Sri Lanka, which is the basis for the programme response. Maternal

nutrition is reflected in the National Nutrition Policy (2010), National Policy on Maternal and Child Health (2012) and the National Strategic Plan on Maternal and Newborn Health (2017-2025). Maternal nutrition services are delivered through health sector (via antenatal and postnatal care) as well as social protection (Thripasha, a food supplement, and maternity food allowance for 6 months during pregnancy and 4 months after delivery).

Pregnant mothers are registered in the first trimester, preferably before 8 weeks, and ANC is given through clinic- and home-based care by public health midwives. The ANC package of care includes nutritional assessment (BMI and weight gain monitoring), screening for anaemia and blood sugar level, provision of micronutrients (iron, folic acid, calcium and vitamin C), anthelmintic treatment in second trimester, food supplementation with Thripasha, and breastfeeding promotion to prepare mothers to breastfeed. The postnatal care package includes postpartum vitamin A supplementation, and home-based postnatal visits by a public health midwife. These services are part of a continuum of care which begins pre-pregnancy and continues well after delivery. Monitoring and strategic use of data is used to improve the quality of implementation. Thripasha is currently given to all pregnant women, regardless of their nutritional status, and is a costly programme.

Dr Mapitigama concluded the presentation by laying out the future plans for strengthening maternal nutrition in Sri Lanka including steps to improve the monitoring of maternal nutrition interventions through the HMIS, and an evaluation of the Thripasha nutrition supplementation and the food allowance programmes.

### India Country Presentation

**Sh. Alok Kumar, Adviser (Health & Nutrition), NITI Aayog, Government of India and Dr Uma Mahadevan, I.A.S., Principal Secretary, Department of Women and Child Development, State of Karnataka, Government of India** shared India's experiences and lessons on delivery of maternal nutrition packages through the health system and multi-sectoral platforms.

Dr Kumar set the context in India by describing the work of Niti Aayog, and how it is supporting the government's new National Nutrition Mission (known as Poshan Abhiyaan) to improve the coverage, continuity, intensity and quality (C<sup>2</sup> IQ) of maternal nutrition interventions through multi-sectoral convergent action. The country has made significant progress in reducing the maternal mortality rate, however, significant challenges remain in maternal nutrition, where progress has been slow. Maternal nutrition policies and programmes are influenced by the larger policy context, which influences the delivery of services and their impact. Niti Aayog seeks to enable



this larger policy context and to facilitate the convergence of actions across relevant sectors to support delivery at scale in priority districts. Dr Kumar underscored the importance of high-level political commitment and programme target setting and reviews at the highest decision-making levels.

Dr Mahadevan gave a presentation on the experiences of the Mathrupoorna programme, a maternal nutrition programme in Karnataka, and explained how stakeholders in the state have transformed a struggling programme through changes in the wider development policy context, increased investments, the optimization of service delivery platforms to deliver a package of evidence-based ANC interventions, and improved monitoring systems.

The state has a range of policies (Amendment to the Prohibition of the Child Marriage Act, State Girl Child Policy, and Women's Empowerment Policy) and some that have been drafted (e.g. State Nutrition Policy) that serve to create an enabling environment for maternal nutrition. By legally changing the minimum age for marriage, Karnataka became the first state in India where the number of child marriages has significantly decreased. Policies that help to keep girls in school include free education for girls up to post-graduation, free bus passes, and provision of milk to children at school, as well as the strong focus on eliminating child marriage.

The package of services of Mathrupoorna includes an on-site hot cooked meal (which was previously a poorer quality take-home ration), providing at least 40 per cent of daily nutrient needs, health services (supervised IFA and calcium supplementation, deworming, insecticide treated bednets in malaria-endemic areas, pregnancy weight gain monitoring, and an additional home visit for women gaining less than 1 kg per month between 20-40 weeks of pregnancy), and weekly counselling from 2nd week of pregnancy to 6 months postpartum. The opening hours for the Anganwadi community centres has been extended by two hours, and the honorarium of Anganwadi workers increased by 33 per cent to improve the access to services. Challenges remain in the delivery of services, including access to services in the hard-to-reach areas, breaks in the supply of supplements, and variation in preferred food staples across the state, which necessitate the need for a variety of recipes for the hot cooked meals.

A number of innovative approaches have been rolled out to enhance the programme, including the use of invitation cards and SMS messages to increase uptake of services, phone-based monitoring of on-site feeding, and various trials to reach hard-to-reach women. Future plans include a "Malnutrition management programme" to provide real time data tracking; a joint review mechanism with the ministries of health and women and child development to improve programme quality; specific programme components to identify and address

women at nutritional risk during pregnancy; and introduction of a package of interventions to prevent malnutrition in the pre-pregnancy period.

### Plenary Discussions

The key discussion themes emerging from the plenary discussion were as follows:

**Creating and sustaining policy change through cost of inaction analysis:** Participants expressed interest in understanding how the State of Karnataka in India was able to strategically influence and sustain state level investments in Mathrupoorna. The Department of Women and Child Development, State of Karnataka used data on the benefit-cost ratios and the likely loss to returns in health and nutrition as a result of inaction to argue for the policy changes and increased budget allocations for maternal nutrition.

**The importance of strengthening and systematizing real time monitoring:** In response to a question on what is new for advancing the national maternal nutrition agenda in India, the India team remarked on how the state is using information technology to track the delivery of services from pregnancy through to the child's fifth birthday.

**Promoting convergent action across sectors:** In response to a question on how the various Government Ministries are working together to deliver multi-sectoral maternal nutrition services in India, Sh. Mukesh Kumar, Director in the Department of Rural Development, provided reflections on how National Rural Livelihood Mission is supporting the goals of the National Nutrition Mission in India, and has fostered convergence and collaboration for joint service delivery and layering of multi-sectoral interventions.

## 3. Social and Behaviour Change for Influencing Behaviour Change and Demand for Services

### Technical Lead Presentation

**Mr Thomas Forissier (Asia Director) - Alive and Thrive (A&T)** presented evidence from A&T's collaborative effort with the Government of Bangladesh, BRAC and the International Food Policy Research Institute (IFPRI) to integrate maternal nutrition interventions in a maternal, neonatal and child health programme in Bangladesh underpinned by a robust social and behaviour change communication (SBCC) approach. The programme sought to increase dietary diversity, energy intake and IFA and calcium supplementation in pregnant women. It was evaluated through a randomized controlled trial which compared 'intensive' areas (programme interventions) with 'non-intensive' areas (routine maternal nutrition interventions).

Mr Forissier began by explaining that a complex pathway is required to ensure programmes impact on maternal nutrition. The behaviour change of key actors is needed at each link in the 'chain' from national agencies to sub-national units, front-line managers, frontline workers and the pregnant woman herself. Currently, there is limited evidence on what works to improve the uptake of maternal nutrition interventions and nutrition behaviours during pregnancy – most evidence is concentrated on front-line managers, frontline workers and pregnant women. Country and sub-national formative research is essential to ensure that interventions are locally relevant.

In the Bangladesh randomized controlled trial, the intervention package in 'intensive areas' included dietary counselling, provision of free IFA and calcium supplements, and weight gain measurement. Interventions were delivered by frontline workers through home visits and community mobilization events such as husband's forum and video shows. Husbands, influential family members, village elders and other social influencers were mobilized through both these channels. There was a strong emphasis on programme quality, including the quality of nutrition counselling with prioritized messages that focused on explaining 'why' women should follow the recommendations. Intensive efforts were paid to understanding how to improve the performance of frontline workers through hands-on skills building, supervision, monthly review meetings, recognizing performance, and building accountability of action. Maternal dietary diversity and the consumption of IFA and calcium supplements significantly improved in the 'intensive' areas compared with 'non-intensive' areas.

The study in Bangladesh found that the knowledge-practice gap is often large and that providing pregnant women with knowledge is not sufficient to change the behaviour of pregnant women. It is also essential to address gaps in supplies (e.g. uninterrupted supply of supplements to service delivery points, and free supplements), to involve husbands and other influential family members to support women, and to ensure that the time spent on counselling is sufficient. In fact, the quality of delivery of services is at least as important as coverage in determining impact.

The study also found that the quality of training to frontline workers and the provision of incentives to these workers showed a measurable impact on their performance, particularly at the beginning of the intervention. There was no data to assess the impact of supportive supervision (coaching, positive feedback, respect) given to frontline workers, but it is likely to be a vital component. Findings from the qualitative interviews conducted with frontline workers showed that the individual beliefs of frontline workers and their self-efficacy to deliver messages are important (but less studied) drivers of their behaviour change.

A limitation of the research findings from Bangladesh is that the interventions were delivered by a non-government organization (BRAC) in the 'intensive' areas and research on replicability of the findings is needed in settings where delivery is through public platforms.

In concluding, Mr Forissier stressed the need to develop comprehensive maternal nutrition policies, to develop behaviour change strategies for pregnant women, mothers-in-law, fathers and community influencers, as well as to conduct more research on adolescents.

### Afghanistan Country Presentation

**Dr Mamosai Zewar, Deputy Minister of the Ministry of Health for Afghanistan** gave introductory remarks on the context of maternal nutrition in Afghanistan. The country has made progress in improving maternal nutrition but more investment is needed. About 9 per cent of women of reproductive age are undernourished and 40 per cent are anaemic, mostly due to iron deficiency, which increases the risk of postpartum haemorrhage, the leading cause of maternal death in the country. Strong political engagement, policies, integrated programmes with nutrition counsellors at health facility, well-implemented community-based programmes and multisectoral approaches (e.g. Water, Sanitation and Hygiene, WASH) are all essential. In addition, it is important that interventions focus on adolescents and pre-pregnant women, as well as ANC, to ensure a child is born healthy.

**Dr Mohammad Hamayun "Ludin", Public Nutrition Manager, Ministry of Public Health, Afghanistan** shared experiences and lessons from Afghanistan on SBCC approaches to improving maternal nutrition. Afghanistan joined the SUN Movement in October 2017, confirmation of the country's political commitment to improving nutrition in the country. Programmatic responses to maternal nutrition include the integration of nutrition interventions into the Basic Package of Health Services; the community-based nutrition programme; integrated management of moderate acute malnutrition in pregnant and lactating women; food fortification; and weekly IFA supplementation for adolescent girls.

There are a number of ongoing opportunities to influence maternal nutrition behaviours and increase demand for maternal nutrition services. Formative research has been undertaken to understand the barriers to dietary diversity and IFA supplementation for pregnant women and use of iodized salt by the family, including pregnant women. The research findings have been used to inform the design of the large-scale Community Based Nutrition Package, including the development of SBCC strategies, materials and job aids for frontline workers. There are also ongoing efforts to strengthen the human resource capacity for maternal

nutrition counselling through the introduction of a new cadre of nutrition counsellors at the health facility level.

There remain considerable challenges to the implementation and impact of SBCC interventions to improve maternal nutrition in Afghanistan. They include the poor access to maternal nutrition services due to the geographic terrain, security situation, and social norms affecting women's uptake of services; the low maternal literacy and education level of women; food insecurity, which may affect the capacity of households to act on the dietary advice they receive; poor quality of the monitoring data; amongst others. Future plans include the revision of the maternal nutrition strategy/guideline, finalization of a nutrition SBCC strategy, training of service providers on maternal nutrition, inclusion of maternal nutrition indicators into the national nutrition database the HMIS, and an impact evaluation of the Community Based Nutrition Package.

### Maldives Country Presentation

**Dr Mariyam Jenyfa, Senior Medical Officer, Health Protection Agency, Government of the Maldives** shared the Maldives's experiences and lessons learnt in improving maternal nutrition outcomes through SBCC interventions.

The Maldives does not have a specific maternal nutrition strategy, however maternal nutrition provisions are covered in other strategies such as the National Reproductive Health Strategy (2014-18), Integrated National Nutrition Strategic Plan (2013-17), and the Multi-Sectoral Action Plan for the Prevention and Control of Non-Communicable Diseases (2016-20). There is universal healthcare coverage in the Maldives, and strong service delivery systems exist, which result in relatively high coverage of maternal health and nutrition services. Other supportive policies include free education from pre-school to grade 12 and social schemes, including food ration subsidies for low income countries.

The country is facing a double burden of malnutrition with rising overweight and obesity alongside anaemia and other forms of undernutrition. Barriers preventing the Maldives's women attaining optimal nutrition status exist at the individual level (unhealthy sedentary lifestyle, consumption of unhealthy diet), the household level (unhealthy family dietary practices), health system level (underutilization of ANC contact points to provide nutrition information and counselling; low capacity of health service providers to deliver information and counselling; low outreach; and weak monitoring of services etc.) and environmental (ready availability of processed and packaged foods compared with fruits and vegetables).

The Government of the Maldives has developed a SBCC Strategy for the first 1000 days of life from pregnancy to two years of age. The development of the strategy built on lessons

learned from previous SBCC campaigns and new formative research to understand the local context, and involved a broad consultative process to identify the issues and develop a theory of change. Key design features of the SBCC strategy include: (1) the need to reach actors at different levels, including individuals, families, households, the community and media; (2) use of targeted and personalised messages and skilled support; (3) use of technology and social media; (4) strengthening healthcare institutional capacity to implement the strategy; (5) and encouraging positive behaviours and norms. The high ANC attendance, literacy of women, supportive local authorities and accessibility to a range of communication tools, including internet connectivity, provide good opportunities to deliver effectively on this strategy.

### Plenary Discussions

The key discussion themes emerging from the plenary discussion were as follows:

**Behaviour change at the mid-management level:** Most programme efforts have focused on influencing the behaviour change of beneficiaries, frontline workers and their supervisors. However, it is vital to recognize the importance of actors at the mid-management level (e.g. district managers), who influence the design and implementation of programmes. More efforts are needed to understand how to influence the behaviours of mid-management actors to support programme efforts to strengthen nutrition behaviours.

**Supportive supervision for frontline workers:** Supportive supervision, including coaching, is crucial to enhance frontline worker capacities and motivation, and thereby improve and sustain the quality of nutrition counselling.

**Evidence driven approaches for SBCC:** It is challenging to effect positive change when the information on what needs to change is not known. Investment in formative research is crucial for the design of SBCC strategies and approaches.

**Social norms and food choices:** Changing social norms that underpin food choices is critical for long lasting and sustainable social behaviour change. It is important that women and their influencers understand why they should change their nutrition behaviours.

## 4. Strengthening Nutrition Information Systems to Monitor Coverage and Impact of Maternal Nutrition Interventions

### Technical Lead Presentation

**Dr Purnima Menon, Senior Research Fellow, IFPRI, South Asia** joined the conference remotely from the IFPRI South

Asia office in New Delhi to discuss the use of data systems and implementation research to advance maternal nutrition in the region.

The key elements of a data system for nutrition includes (1) data sources, including survey data, administrative data, and implementation research, (2) systems and processes for data use, and (3) data stewardship across a data value chain from prioritization of indicators, to data collection, curation, analysis, and translation to policy and programme recommendations and evidence-based decisions.

There are considerable gaps in the availability of data on the coverage of maternal nutrition interventions across countries in the region. In fact, there are only three core indicators in the Demographic and Health Surveys (DHS) (IFA supplementation, deworming and support for early breastfeeding). Because of these data gaps, the nutrition profile of the 'Countdown to 2030 Maternal, Newborn and Child Survival' initiative includes only one indicator on intervention coverage, i.e. IFA coverage. It is possible to close the data gap through the adaptation of the DHS instruments at country level to include additional coverage indicators.

India, for example, adapted the DHS data collection instrument to include indicators on the coverage of several interventions during pregnancy, including weight measurements, receipt of health/nutrition education, and energy/protein supplementation. In addition, disaggregated survey data can help identify sub-populations that require additional focus.

Implementation research is needed to enrich the understanding of how service delivery and utilization processes affect programme coverage outcomes, and how to improve coverage. Dr Menon shared insights and lessons learned from Bangladesh on how implementation research helped to elucidate the pathways to strengthen the performance of FHWs to close the knowledge-practice gaps, engage husbands and other family members to provide support to women, and improve maternal nutrition practices. Key findings from Bangladesh are that the challenges to coverage vary tremendously by the intervention type, with even seemingly simple interventions having significant system and capacity needs. Further, the reach and maturity of the service delivery platform is critical, and assuring intervention coverage requires investments, monitoring, incentives and systems capacity, even where 'at scale' delivery platforms are available.

Finding the right fit for nutrition information systems is important – not too little data, not too much. This includes platforms for synthesis and sharing of data. In India, there are currently multiple nutrition data platforms in use for sharing information (NITI Aayog Nutrition Dashboard, POSHAN District Nutrition Profiles, UNICEF NutritionInfo and TATA-

NIN Food and Nutrition Dashboard), and there is need in India and other settings to streamline the stewardship of systems to support decision-making.

Dr Menon concluded by highlighting that it is essential to close the significant gaps in data on intervention coverage, and that new modalities of service delivery need implementation research. Finding the right fit for a data system that works for multiple decision-makers is a massive need and a massive challenge. Data stewardship is central to success, and questions on: who is going to lead the data stewardship in closing coverage and achieving success? – need to be addressed.

### Nepal Country Presentation

**Raj Kumar Pokharel, Chief Nutrition Section, Ministry of Health and Population, Government of Nepal** shared lessons and experiences from Nepal in strengthening nutrition information systems to support the implementation of maternal nutrition interventions.

In Nepal, the Multi-Sector Nutrition Plan (MSNP) II, 2019-22 provides the roadmap for nutrition-specific and nutrition-sensitive programming in the country. It includes a Common Results Framework, which provides the basis of monitoring and evaluation. There are five major information systems in place: the (1) routine HMIS, (2) nutritional sentinel surveillance, (3) periodic surveys, including SMART surveys, and (4) the MNISP evaluation.

The HMIS serves to generate routine data on the delivery of nutrition interventions through the health system. Data on IFA coverage, antenatal deworming, and postpartum vitamin A supplementation is gathered using a web-based system. The quality of data remains an issue, however Routine Data Quality Assurance has been introduced to improve quality. Nutrition sentinel surveillance is being piloted in two districts, one in the Terai and another in a hill district, to provide timely information and early warning on nutritional status and its determinants, as well as to inform policy and programme implementation. It includes data on pregnancy and postnatal care (IFA and deworming) and food intake using a 24-hour dietary recall. Challenges include gaps in the technical capacity of health workers to collect and analyse data.

Periodic national surveys are conducted every 3-5 years to fill gaps in monitoring data (DHS, Multiple Indicator Cluster Surveys, National Micronutrient surveys etc). In addition, SMART surveys have been conducted in specific geographic locations to assess nutritional status of pregnant and breastfeeding women, and the impact of emergency response. Inclusion of maternal MUAC screening in these SMART surveys has been effective in sensitizing the community on the importance of maternal nutrition. Nepal has also invested



in a robust process to conduct an impact evaluation of the MSNP II, following a lifecycle approach. One of the key lessons learnt from this process was the importance of planning an evaluation design at the start of a programme.

Looking forward, the Government of Nepal recognizes the importance of information technologies to support data collection, analysis and reporting, particularly in light of the large numbers (753) of local government units under the new federal system.

### Bangladesh Country Presentation

**Dr Md. Ruhul Amin Talukder, Joint Secretary (Public Health), Health Services Division and Dr S.M. Mustafizur Rahman, Assistant Director (Directorate General of Health Services) and Programme Manager, National Nutrition Services, Institute of Public Health Nutrition, Government of Bangladesh** co-presented on Bangladesh's experiences strengthening the nutrition information system to monitor the coverage and impact of maternal nutrition interventions.

Dr Talukder explained that in 2017, the Government of Bangladesh launched its multisectoral second National Plan of Action on Nutrition (NPAN-2). A set of maternal and child nutrition interventions are delivered through the National Nutrition Services (NNS), which focuses on the first 1000 days. To ensure effective delivery of nutrition services, a robust nutrition information system is being implemented to gather data on a set of nutrition indicators through the District Health Information System 2 (DHIS-2).

Dr Rahman shared further insights on the nutrition information system in Bangladesh which captures and tracks nutrition indicators across two the wings of the Ministry of Health and Welfare: Director General Health Services (DGHS) and Director General Family Planning (DGFP). A Nutrition Information and Planning Unit has been established in Institute Public Health Nutrition to enhance evidence based planning and data driven decision-making. Nutrition service data are reported monthly by 13,500 community clinics and 480 sub-district hospitals using the online DHIS-2 platform. In the past four years, the reporting of nutrition indicators has increased substantially. The system is evolving, with data reporting transforming from an aggregate reporting of coverage to individual tracking of women. Data are automatically analysed, summarized, and presented on an online dashboard for performance reporting and tracking using the DHIS-2 platform. The system permits data analysis and presentation by district, facility type, and other administrative levels.

The government recently initiated real time monitoring and reporting of nutrition services using Smart phones or tablets by individuals conducting monitoring visit of health facilities or

supportive supervision. This monitoring data is uploaded to an online database on a real-time basis and findings are reported through an online dashboard. The system has an inbuilt feedback loops which trigger follow-up action to address any identified problems. For example, district store keepers can receive an automatic SMS requesting immediate action for resupply if there are stock-outs or low supplies, as well as follow-up messages to verify that action has been taken. This system has helped to enhance accountability in NNS service delivery.

One of the outstanding challenges is the lack of standardization on the types and definitions of indicators collected and reported by the DGHS and DGFP, which both deliver maternal nutrition services. For example, maternal nutrition counselling is not currently reported by the DGFP health facilities. These gaps need to be addressed in order to further strengthen the reporting of maternal nutrition service provision through routine system. In addition, while reporting of nutrition indicators through routine HMIS has increased substantially, the focus now is to improve the quality of reporting.

Looking forward, the priority is to align the two systems of data collection and reporting between the DGHS and DGFP, and to operationalize the integrated nutrition information system. There are also plans to develop a district profile and score card to track performance on nutrition and build accountability. In addition, Dr Rahman proposed the establishment of a regional platform where nutrition information, data and technological innovations can be discussed and diffused across the region. He also made an appeal for the countries present at the conference to join hands under SAARC's leadership to initiate the #Unite4Nutrition social movement so that no woman in the region is deprived of good nutrition.

### Plenary Discussions

The key discussion themes emerging from the plenary discussion were as follows:

**Knowledge sharing across the South Asia Region:** Dr Charulatha Banerjee from the ENN provided reflections on ENN's work on knowledge management in the region, including on maternal nutrition. She explained that the ENN can facilitate the exchange of practices and experiences in multi-sectoral programming in the region through its publications. There was an expressed need from some participants to learn from the experiences of countries in other regions.

**Gender analysis to understand the coverage gaps in maternal nutrition:** A participant commented that there are still gaps in the utilization of maternal nutrition services, despite good investments in maternal nutrition programmes and delivery systems. A gender analysis can help understand some of the issues affecting service uptake and utilization from a gender perspective.

**Need to capture data from the private health delivery systems:** The private sector is a growing health provider in countries across the region, including for ANC. There is need to strengthen the interface between public and private sector data systems in order to fully capture and track the coverage of maternal nutrition services in a country.

**Real-time data collection and reporting:** Participants commented on the need to take advantage of available technology to strengthen real time monitoring and reporting of maternal nutrition data. This will further enhance data driven decision making and timely action.

## 5. Bringing it Together to Achieve Results at Scale for Maternal Nutrition

### Guest Presentation

**Dr Jennifer Busch-Hallen, Senior Technical Advisor Maternal and Neonatal Nutrition, Nutrition International** delivered a presentation that explained how the four pathways (enabling environment, service delivery packages and platforms, SBCC and nutrition information systems) need to come together in an integrated fashion to improve the coverage of nutrition interventions and impact on maternal nutrition.

The presentation drew from Nutrition International's experience in scaling up the coverage of IFA supplementation in South Asian countries (Afghanistan, Bangladesh and Nepal) and in other regions. Nutrition International has drawn from these experiences to construct a programme logic model for IFA supplementation that shows the comprehensive and integrated pathways to increase coverage.

Effective programme delivery for IFA supplementation requires a supportive enabling environment (government

commitment and leadership, updated policies, planning, budgeting and financing, management and coordination mechanisms). On the products and supplies, there is still a long way to go in addressing supply chain bottlenecks. However, lessons from successful scale-up of IFA supplementation show that standardized formulations of combined IFA supplements, safe and attractive packaging of supplements, a reliable and quality supplier, capacity strengthening in supply quantification and forecasting, and identification and resolution of supply chain barriers are needed. Key actions to improve service delivery include functioning and accessible delivery platforms to reach women with IFA supplements (including community-based platforms) and a strategy for the management, training and motivation of healthcare providers, including capacity building on counselling skills. Special attention is needed to enhance SBCC. This requires formative research to design context-specific interventions that motivate pregnant women, their families, and health care providers to increase demand for and consumption of supplements. When all these elements are put in place they can lead to increased access and coverage of IFA supplementation, and impact on the prevalence of anaemia.

While IFA supplementation in pregnancy is just one maternal intervention, these experiences illustrate the policy and programme components that are needed to collectively improve coverage. These lessons learned can be applied to other maternal nutrition interventions, and demonstrate the importance of a comprehensive programme approach.

Dr Busch-Hallen also shared an overview and lessons from the application of the 'Outcome Modelling for Nutrition Impact' tool which integrates programme coverage data from the field and intervention efficacy values to compute nutrition and health outcome estimates. Such modelling can support nutrition advocacy efforts for programme scale up.







### Country Group Discussion

In Session 4 participants met in their country, regional and global groups to reflect on the global guidelines, evidence, lessons learned and experiences shared during the conference. The groups identified short-term (less than 12 months) and long-term (1-3 years) priority actions to address policy, programme and knowledge constraints to progress on maternal nutrition within each country, and actions that need to be taken at regional and global level to support actions at country level.

### Priority actions at country, regional and global level to accelerate progress on maternal nutrition

Session 5 was facilitated by Mr Dilliraman Adhikari, Chief of Family Planning Section, Family Health Division, Ministry of Public Health, Government of Nepal. A representative of each country delegation presented the short- and long-term priority actions in a plenary session (see Annex 2), and proposed actions that are needed at regional and global level to accelerate country progress (see Annex 3).

Mr Zivai Murira, Regional Nutrition Specialist UNICEF ROSA affirmed UNICEF's commitment to support the proposed actions at the regional level, together with other regional partners. He remarked on the need to assist countries in adapting global guidance to address the emerging double burden of malnutrition in the region, in the context of multi-sectoral actions to improve nutrition. He agreed that

regional guidelines and tools are needed to guide South Asian countries in operationalizing the global recommendations. He also backed country requests to strengthen knowledge sharing and south-to-south cooperation across the region, and to establish a mechanism to track country progress and build accountability, such as a regional nutrition scorecard.

Dr Pura Rayco-Solon, Technical Officer, WHO, and Dr Erin McLean, Nutrition Specialist, UNICEF HQ reflected on the global actions proposed by the countries. Dr Rayco-Solon acknowledged the country request for WHO guidance on (1) the identification of women at risk of adverse birth outcomes in contexts where pre-pregnancy BMI is not available; (2) nutrition interventions for adolescents, (3) the management of maternal undernutrition in the context of tuberculosis and malaria, and (4) the management of overweight and obesity during pregnancy. She explained that the WHO ANC guidelines will be updated on a regular basis as new evidence emerges, and shared the list of nutrition-related recommendations that will be updated in the next two years (calcium supplementation, vitamin D supplementation, and MMS during pregnancy, and counselling on healthy eating and keeping physically active during pregnancy). Dr McLean explained that UNICEF is in the process of developing global programme guidance on the operationalization of the nutrition recommendations in the 2016 WHO ANC guidelines. In response to the suggestion to strengthen global coordination and knowledge exchange, she clarified that UNICEF plans to convene an informal group of global partners on maternal nutrition in latter half of 2018.



## Closing Ceremony

### Call to Action

At the close of the Conference, Dr Torlesse introduced the Call to Action, a set of 10 key actions to accelerate the nutritional care of women during pregnancy and postpartum in South Asia. She explained the process to develop this Call to Action. First, a group of country representatives met at the end of Day Two of the conference to reflect on the emerging issues and to draft a set of key actions. Second, this draft was jointly reviewed by all participants and finalized during a plenary session at the start of Day Three of the Conference. Dr Torlesse further explained that the Call to Action is the collective responsibility of actors at the country, regional and country level.

The Call to Action was presented by Dr Khwaja Masood of the Pakistan country delegation and Dr Mohammad Hamayun “Ludin” of the Afghanistan country delegation.

#### 1. National policies and guidelines on maternal nutrition should be in line with evidence-based global recommendations, adapted to the country context

- The 2016 WHO guidelines on ANC provides an opportunity to review and update national policies in line with the latest scientific evidence and the local context, and to refocus attention to maternal nutrition.
- Early identification (through screening and nutritional assessment), referral and management of adolescent girls and women at nutritional risk<sup>4</sup> should be part of routine nutritional care during pregnancy.
- To address the nutritional needs of women across the continuum of care, the adoption of the global guidelines on nutrition during adolescence, preconception, pregnancy, intrapartum and postpartum, as well as food fortification, is needed.
- Key considerations during the review and update of policies and guidelines include the prevalence and epidemiology of maternal malnutrition and the cost-effectiveness of interventions.
- The design of policies and guidelines should place women at the centre of solutions.

#### 2. Maternal nutrition should be prioritized in national development agenda, and sectoral plans and budgets

- The importance of maternal nutrition must be elevated and prioritized within national development agendas,

including national efforts to prevent stunting and other forms of malnutrition.

- Increased investments in maternal nutrition are needed to achieve coverage at scale. Costing studies and ‘value for money’ analyses (e.g. cost-effectiveness, cost of inaction, public expenditure reviews) can provide compelling data and evidence for advocacy.
- National and subnational plans should include:
  - Actions that are informed by a comprehensive analysis of the bottlenecks and barriers to implementing maternal nutrition interventions at scale, with quality and equity;
  - Targets on the coverage of maternal nutrition interventions within health sector strategies and plans.

#### 3. Greater attention is needed to operationalize national policies and plans on maternal nutrition at subnational level

- Favourable national policies, plans and budgets for maternal nutrition are an essential requirement but are not sufficient to ensure effective delivery of programmes at scale.
- Actions that can facilitate the translation of policies/plans to programme delivery at subnational level include:
  - Development of implementation guidelines that provide practical guidance on subnational planning, budgeting and implementation of maternal nutrition interventions;
  - National level tracking of performance at subnational level (e.g. using score-cards);
  - In some settings, an “Operational task force”, with appropriate representation from multiple sectors and stakeholders, could guide the translation of policies/plans to programme delivery at subnational level.

#### 4. Service delivery platforms should maximize the opportunities to reach women and families with maternal nutrition interventions.

- WHO recommends ANC models with a minimum of eight contacts to reduce perinatal mortality and improve women’s experience of health and nutrition care during pregnancy.<sup>5</sup>
- Community-based platforms, such as self-help groups and women groups/collectives, and local leaders can promote contact in early pregnancy, increase the number

<sup>4</sup> Includes low stature, thinness, obesity and anaemia.

<sup>5</sup> Contact can be adapted to the local contexts through community outreach programmes and lay health worker involvement

of contacts, and increase the coverage of maternal nutrition interventions.

- Community-based services can effectively provide interpersonal counselling, distribute micronutrient supplements, promote the early uptake of ANC, and provide pre-pregnancy and postpartum nutrition services.
- It is important to strengthen the linkages between the continuum of care between community and facility levels.
- Purposeful engagement with multiple stakeholders, including civil society and private sector, can expand the potential to reach communities.

#### **5. Service delivery packages should include context-specific interventions according to the prevalence of undernutrition and local context.**

- Maternal nutrition interventions should be bundled at appropriate contacts during at health facility or community level, according to the local context, including:
  - Nutritional screening (pre-pregnancy BMI, height, weight gain, anaemia screening etc.);
  - Counselling on healthy eating and physical activity to stay healthy and prevent excessive weight gain;
  - Counselling on increasing daily energy and protein intake for women who are too thin to reduce risk of low birth weight (context specific);
  - Iron-folic acid supplementation<sup>6</sup>;
  - Calcium supplementation (context specific);
  - Vitamin A supplementation (context specific);
  - Balanced protein energy supplementations (context specific);
  - Restriction of caffeine intake (context specific);
  - Counselling on early and exclusive breastfeeding;
  - Prevention and management of infectious diseases such as soil-transmitted helminths and malaria (context specific).

#### **6. Evidence-informed social and behaviour change communication is needed to improve nutrition behaviours, with priority given to improving the dietary intake of women.**

- Formative research is needed to build an in-depth understanding of the enablers and barriers to:
  - Optimal dietary practices during pregnancy (including identification of supportive and deleterious indigenous beliefs and practices, and gender inequality and discriminatory practices against girls and women);
  - Appropriate physical activity levels;
  - Compliance with micronutrient supplementation.
- Countries should develop SBCC strategies and plans to support optimal nutrition behaviours that:

- Target family members, service providers and community leaders who influence the behaviours of pregnant and postpartum women, either directly (e.g. husbands, mothers-in-law, service providers) or indirectly (e.g. religious leaders, women leaders);
- Utilize multiple communication channels, including individual and group interpersonal counselling, community mobilization, mass media and social media;
- Pay special attention to adolescent girls and women experiencing their first pregnancy.
- Mechanisms to improve the quality of counselling by health providers and community based workers are essential, including quality training that focuses on counselling skills, and supportive supervision.

#### **7. National health and nutrition information systems and surveys should include appropriate indicators to track programme performance and progress towards national and global targets on maternal nutrition.**

- Data and information on the status of women's nutrition and the coverage, quality and equity of nutrition services is needed to inform actions and build accountability.
- Indicators that should be included in health and nutrition information systems include the number of women who receive:
  - Adequate number of supplements (i.e. effective coverage of iron-folic acid and calcium supplementation);
  - Counselling on healthy eating and physical activity; counselling on increasing daily energy and protein intake (in undernourished population); and counselling on early and exclusive breastfeeding.
- Data on maternal anaemia, height, BMI and coverage of nutrition interventions should be assessed through national surveys (e.g. demographic and health surveys, national nutrition surveys) at least every 3-5 years.
- Other sources of data include sentinel surveillance, community monitoring systems (such as social audits) and information systems collecting data on nutrition-sensitive indicators.
- There is need to build the capacity to collect, analyze and utilize quality data for decision-making at all levels from the community to policy level.

#### **8. Implementation research is needed to understand the barriers, enablers and pathways to delivering maternal nutrition interventions at scale and with equity.**

- Investment in implementation research can help understand what drives improvements in the coverage, quality and equity of maternal nutrition interventions, and is needed both to inform the design as well as scale-up of interventions and programmes.
- Examples relevant to maternal nutrition include:
  - Formative research studies to gather qualitative information on the status and drivers of dietary

<sup>6</sup> In settings with high prevalence of nutritional deficiencies, including in emergencies, the use of multiple micronutrient supplements may be considered.

- practices (including enabling indigenous dietary practices), uptake of maternal nutrition services, and compliance with micronutrient supplementation;
- Costing studies to determine the investments needed to scale-up maternal nutrition interventions and programmes;
- Secondary data analysis of survey data to examine the predictors of women's nutritional status and the coverage of maternal nutrition interventions;
- Desk reviews of existing literature;
- Process and impact evaluations;
- Rapid assessments with lighter low-cost tools.

### 9. Investments are needed from multiple sectors to improve the maternal nutrition.

This includes investments on actions to:

- Improve the nutrition of adolescent girls (pregnant/non-pregnant, both in and out of school) and pre-pregnant women (including newly-wed women), through nutrition screening, counselling on dietary intake and iron-folic acid supplementation.
- Prevent, treat and manage infections during pregnancy and postpartum, such as soil-transmitted helminths, malaria, and urinary tract infections, including through WASH.
- Keep girls in school, delay age at marriage and strengthen family planning (to delay age at first pregnancy and reduce the number of pregnancies).
- Reduce economic barriers to nutritious diets through social safety nets such as food assistance, cash transfers and maternity benefits that reach economically vulnerable women.
- Promote the production and consumption of nutritious indigenous foods and culturally acceptable foods, and reduction in the consumption of foods high in fat, sugar and salt.
- Address gender-based violence and women's mental health.
- Introduce and/or scale-up consumer access to fortified staple foods (iodine, vitamin A, iron etc), and enforcement of mandatory fortification where it is in place.
- Purposeful engagement with multiple sectors and stakeholder is needed around tangible actions that resonate with the existing sectoral delivery channels, e.g. schools, agriculture extension services, academia and private sector.
- Tracking of budgets, allocations and expenditures can inform advocacy to increase investments and efficiencies of expenditures.

### 10. Regional leadership and platforms on nutrition is needed to support country level actions and facilitate country exchange of knowledge and experience.

- SAARC can continue to support countries by:
  - Developing regional guidance/framework and tools to assist South Asian countries in operationalizing

global recommendations to improve the nutritional care of women during pregnancy and lactation;

- Developing a SAARC nutrition score card to track country progress in advancing maternal and child nutrition, and monitoring progress;
- Continuing to provide regional forums for exchange of regional and global expertise, knowledge and experience on improving nutrition across the life-cycle.

In her concluding remarks, Dr Torlesse, highlighted the active engagement of countries in shaping the Call to Action and ensuring it reflects the most pressing needs to accelerate progress in the region.

She also reaffirmed the commitments made by partners at regional and global level to support countries in moving forward to accelerate progress on maternal nutrition.

### Closing Remarks

Closing remarks were given by **Mr Philippe Cori, Deputy Regional Director, UNICEF ROSA, Ms Rishfa Rasheed, Director, Social Affairs Division, SAARC, and the Guest of Honour, Dr Bikash Lamichhane, Director, Child Health, Government of Nepal.**

**Mr Philippe Cori** acknowledged the presence of all the SAARC member countries at the Conference, and commended the resolve of all those present to accelerate progress to improve maternal nutrition in the region. The Conference demonstrated the power of maternal nutrition in driving positive change in the lives of women and their children, and the power of communities and partnerships, including the private sector, in supporting this agenda. Mr Cori expressed his concern that data and evidence gaps persist, and the need to establish regional digital platforms to facilitate the exchange of information across the region. He confirmed that UNICEF remains committed to working with SAARC, global and regional partners and all member countries to improve maternal nutrition, and called upon all actors present to collectively support the realization of the Call to Action.

**Ms Rishfa Rasheed** shared her recognition of the considerable work accomplished during the conference. She noted that a vast amount of the technical information, challenges and success stories were exchanged during the course of the Conference, and expressed her hope that this knowledge will support countries in improving the nutritional care of women. She stressed the need to identify innovative approaches to reach and support marginalized and poor populations, and to promote gender equity and women empowerment. She added that senior managers and parliamentarians should be targeted to increase the budget allocation for maternal nutrition. She noted that progress remains slow, and that

guidelines and tools are needed to accelerate the pace of progress. She confirmed that SAARC will continue to support actions at the regional level, and ended by thanking UNICEF, Nutrition International, the guest speakers, panellists and participants for their active engagement.

**The Guest of Honour, Dr Bikash Lamichhane**, noted that the Call to Action for improved nutritional care during pregnancy is highly relevant, given the high burden of anaemia among women of reproductive age in the region. He explained that Nepal's ability to succeed in meeting nutrition-related SDG goals is a prerequisite to attaining middle-income status,

and is a priority for the nation. He reflected on Nepal's tremendous progress in increasing the coverage of ANC and IFA supplementation over the last decade, and how strong multisectoral coordination at the community level has underpinned this success. In closing the session and the Conference, the Guest of Honour concluded that strong political leadership, together with complementary actions across multiple sectors including health, education and WASH, is needed to achieve the Call to Action and to improve the health, well-being and prosperity of women and children in the region.



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## Annex 1. Conference Agenda

### Monday May 7th

TIME	SESSION TITLE	PRESENTATION	PRESENTER	SESSION CHAIR
08:00 to 09:00	REGISTRATION OF CONFERENCE PARTICIPANTS			
Session 1: INAUGURAL SESSION				
09:00 to 09:30	OPENING CEREMONY	Welcome and introduction	Master of Ceremony	Ms Shivanee Thapa Basnyat
		Traditional Nepali candle lighting session		
		Remarks by UNICEF Regional Office for South Asia (ROSA)	Ms Jean Gough, Regional Director, UNICEF ROSA	
		Remarks by Nutrition International (NI)	Mr Andrew O’Connell, Regional Director, Asia	
		Remarks by South Asian Association for Regional Cooperation (SAARC)	Mr Amjad Hussain Sial, Secretary General of SAARC	
09:30 to 10:00	KEYNOTE ADDRESS	Stop Stunting   Power of Maternal Nutrition: Accelerating progress in South Asia to achieve positive maternal, newborn and child outcomes.	Dr Harriet Torlesse, Regional Advisor Nutrition for South Asia, UNICEF	Ms Rishfa Rasheed, Director, Social Affairs Division, SAARC

10:00 to 10:30	PANEL DISCUSSION	Panel discussion	<p>Panellists:</p> <p>Dr Alok Kumar, Adviser (Health &amp; Nutrition), Niti Aayog, Government of India</p> <p>Prof Dr Archana Amatya, Professor of Public Health at the Institute of Medicine, Tribhuvan University, Nepal</p> <p>Prof Veena Sikri, Convener, South Asia Women's Network (SWAN)</p> <p>Dr Manav Bhattarai, Senior Health Specialist, World Bank</p>	
10:30 to 11:00	MORNING BREAK			
Session 2: SETTING THE SCENE				
11:00 to 11:15	INTRODUCTION	Agenda overview and introduction of country teams and partners	Conference Facilitator	Ms Bharati Silawal-Giri
11:15 to 11:50	GUEST PRESENTATION	Global guidance and recommendations on maternal nutrition	Dr Lisa Rogers, Technical Officer, WHO Geneva	Dr Neena Bhatia, Associate Professor, Lady Irwin College
11:50 to 12:30	GUEST PRESENTATION	Identifying and managing women/ mothers at nutritional risk	Dr Pura Rayco-Solon, Technical Officer, WHO Geneva	
12:30 to 13:00	GUEST PRESENTATION	Spotlight on multiple micronutrient supplementation (MMS): Evidence base on MMS during pregnancy	Dr Roland Kupka, Senior Nutrition Adviser, UNICEF New York	
13.00 to 14.00	LUNCH BREAK			

### Session 3: SHARING EXPERIENCES ON KEY PATHWAYS TO SCALE UP NUTRITIONAL CARE FOR WOMEN AND IDENTIFYING COMMON THEMES

14:00 to 15:45	TRANSFORMING THE ENABLING ENVIRONMENT FOR MATERNAL NUTRITION	Technical lead presentation	Ms Patrizia Fracassi, Senior Nutrition Analyst and Strategy Advisor, Global SUN Movement Secretariat	Ms Bharati Silawal-Giri
		Bhutan	Government of Bhutan	
		Pakistan	Government of Pakistan	
		Plenary discussions		
15:45 to 16:15	AFTERNOON BREAK			
16:15 to 18:00	SERVICE DELIVERY PACKAGES AND PLATFORMS THAT REACH WOMEN/ MOTHERS AT SCALE	Technical lead presentation	Dr Justine A. Kavle - Nutrition Team Lead PATH and Maternal and Child Survival Program (MCSP)	Ms Bharati Silawal-Giri
		Sri Lanka	Government of Sri Lanka	
		India	Government of India	
		Plenary discussions		
	END OF DAY 1: WRAP-UP			

### Tuesday May 8th

TIME	SESSION TITLE	PRESENTATION	PRESENTER	SESSION CHAIR
09:00 to 09:30	WELCOME TO DAY 2	Summary of Day 1 proceedings		Ms Bharati Silawal-Giri



### Session 3: SHARING EXPERIENCES ON KEY PATHWAYS TO SCALE UP NUTRITIONAL CARE FOR WOMEN AND IDENTIFYING COMMON THEMES

09:30 to 11:00	SOCIAL BEHAVIOUR CHANGE FOR INFLUENCING BEHAVIOUR CHANGE AND DEMAND FOR SERVICES	Technical lead presentation	Mr Thomas Forissier, Asia Director, Alive and Thrive	Ms Bharati Silawal-Giri
		Afghanistan	Government of Afghanistan	
		Maldives	Government of the Maldives	
11:00 to 11:30	MORNING BREAK			
11:30 to 13:00	STRENGTHENING NUTRITION INFORMATION SYSTEMS TO MONITOR COVERAGE AND IMPACT OF MATERNAL NUTRITION INTERVENTIONS	Technical lead presentation	Dr Purnima Menon, Senior Research Fellow, International Food Policy Research Institute (IFPRI), South Asia	Ms Bharati Silawal-Giri
		Nepal	Government of Nepal	
		Bangladesh	Government of Bangladesh	
13:00 to 14:00	LUNCH BREAK			
14:00 to 14:30	GUEST PRESENTATION	Bringing it together to achieve results at scale for maternal nutrition	Ms Jennifer Buschen-Hallen, Senior Technical Advisor Maternal and Neonatal Nutrition, Nutrition International	Ms Bharati Silawal-Giri

### Session 4: VISIONING FOR THE FUTURE - COUNTRY GROUP DISCUSSIONS

14:30 to 15:30	<b>COUNTRY GROUP DISCUSSIONS</b>	Country group discussions on visioning for the future	All countries	
15:30 to 15:45	AFTERNOON BREAK			
15:45 to 18:00	<b>COUNTRY GROUP DISCUSSIONS</b>	Country group discussions on visioning for the future	All countries	Ms Bharati Silawal-Giri
18:00	END OF DAY 2: WRAP-UP			

## Wednesday May 9th

TIME	SESSION TITLE	PRESENTATION	PRESENTER	SESSION CHAIR
09:00 to 10:00	WELCOME TO DAY 3	Summary of Day 1 and Day 2 proceedings		Ms Bharati Silawal-Giri
10:00 to 10:15	MORNING BREAK			
Session 5: ACCELERATING PROGRESS IN NUTRITIONAL CARE OF WOMEN DURING PREGANCY AND POSTPARTUM				
10:15 to 12:15	PRESENTATIONS ON ADVOCACY, POLICY, PROGRAMME AND RESEARCH PRIORITIES	Afghanistan Bangladesh Bhutan India Maldives Nepal Pakistan Sri Lanka Regional/global	Government, regional and global representatives	Mr Dilliraman Adhikari, Chief of Family Planning Section, Family Health Division, Ministry of Health and Population
12:15	CONFERENCE EVALUATION			Ms Bharati Silawal-Giri
Session 6: CLOSING CEREMONY				
12:30 to 13:30	CLOSING CEREMONY	Call to Action	Representative of the government participants with Dr Harriet Torlesse	Ms Shivane Thapa Basnyat
		Closing remarks by UNICEF ROSA	Mr Philippe Cori, Deputy Regional Director, UNICEF ROSA	
		Closing remarks by SAARC	Mr Amjad Hussain Sial, Secretary General of SAARC	
		Closing remarks by the Guest of Honour	Dr Bikash Lamichhane, Director, Child Health Division, Ministry of Health and Population	
13:30	END OF CONFERENCE			
13:30 to 14:30	LUNCH BREAK			

## Annex 2. Country Action Plans

### Afghanistan

#### Short term actions (next 12 months)

1. Include maternal nutrition indicators in the HMIS and performance-based procurement/contracts (e.g. IFA supplementation).
2. Deliver context-appropriate nutrition messages through religious scholars (e.g. include maternal nutrition in the annual schedule of Friday Khotba).
3. Expand the quality implementation of the Community Based Nutrition Package as an alternative platform to increase the coverage of maternal nutrition interventions, including counselling.
4. Develop and promote food recipes for the treatment of moderate acute malnutrition in pregnant and lactating women.
5. Include supply standards in the national programme monitoring checklists, including for IFA and calcium supplements.

#### Long term actions (next 1-3 years)

1. Converge maternal nutrition interventions with actions by other sectors to address sociocultural barriers to optimal maternal nutrition, including early marriage/pregnancy and girl's education.
2. Include maternal nutrition indicators in large-scale national surveys/assessments and conduct behaviour analysis research.
3. Implement the National Nutrition Communication Strategy for optimal behaviour change in maternal nutrition.
4. Advocate for increased donor support and government budget allocation on maternal nutrition, using cost of inaction analysis for a 'call to action' conference.
5. Strengthen the regulation of food fortification (flour, oil, and salt).

### Bangladesh

#### Short term actions (next 12 months)

1. Formulate a national maternal nutrition guideline.
2. Strengthen supply chain management for micronutrients.
3. Explore the availability and use of information, education and communication materials on maternal nutrition at the service delivery point.
4. Explore the barriers to accessing ANC services among pregnant adolescents in Bangladesh.
5. Disseminate the National Plan of Action on Nutrition 2 at the sub national level.

#### Long term actions (next 1-3 years)

1. Develop an urban maternal nutrition strategy.
2. Integrate and strengthen the maternal nutrition programme in the urban setting.
3. Strengthen maternal nutrition counselling at health facility level (dietary diversity, physical activity and healthy life style).
4. Recruit District Nutritionists with adequate capacity.
5. Advocate for local level planning for maternal nutrition.

## Bhutan

### Short term actions (next 12 months)

1. Conduct an assessment on IFA supplement use by pregnant women:
  - Develop counselling materials on IFA supplementation, based on evidence;
  - Disseminate a strategy and plan;
  - Implement behaviour change communication through quality counselling;
  - Assessment modules (ANC).
2. Strengthen monitoring and supervision: develop standards/checklist to monitor anaemia.

### Long term actions (next 1-3 years)

1. Develop a guideline on intermittent IFA supplementation.
2. Improve data quality (administrative/HMIS): include relevant indicators (thinness, low stature, adolescent pregnancy, women consuming iron-rich foods, women minimum dietary diversity, women who participate in their own healthcare).
3. Assess social and cultural practices during pregnancy and postpartum period:
  - Develop dissemination plan;
  - Conduct advocacy.
4. Identify pregnant women at risk due to overweight/obesity and underweight in the absence of pre-pregnancy BMI.



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## India

### Short term actions (next 12 months)

1. Universal coverage: first trimester registration and 4 ANC check-ups. Strengthen Village Health Nutrition Days as a priority, with incentives to improve coverage and quality
2. Supply side: Address supply-side constraints, including human resources, infrastructure, essential drugs and supplies, budgets, etc.
3. Quality ANC:
  - Minimum universal nutrition service package (Take Home Rations, IFA, calcium, deworming, gestational weight gain monitoring, interpersonal communication counselling including dietary aspects, family planning commodities), trimester-wise.
  - Screen and provide additional services for women at nutritional risk (intra-uterine growth retardation). Develop screening criteria and a simple algorithm for Female Health/Integrated Child Development Services (ICDS) workers.
  - Test and treat severe anaemia with ferric carboxymaltose injection; newer methods of haemoglobin assessment
  - Improving quality of THR and pilot approaches (e.g. One Full Meal programme) in one ICDS project in districts
  - Conduct training on minimum universal nutrition service package, integrated into regular/refresher ANC trainings.
4. Demand generation:
  - Identify a few key messages, that are delivered repetitively through multiple channels, including mass and social media, community/religious events. Identify who to target (husbands, mothers-in-law, Self Help Groups (SHG), gram panchayat), as applicable, based on local context.
  - Converge and tap into the Aajeevika (National Rural Livelihoods Mission scheme of the Ministry of Rural Development) (4.8 million SHG, with 48 million members), vulnerability reduction fund to dairy and poultry, supply of nutri-mix to ICDS centres, WASH enterprise and behaviour change, business correspondents.
5. Measure progress across states and aspirational/high focus districts:
  - Align HMIS/ICDS-Common Application System/Monthly Progress Report indicators (co-locating monitoring indicators), adding process indicators (stock-outs, vacancies, timely disbursement to districts).
  - Third party validation by NITI Aayog (-to integrate the monitoring indicators – coverage, process and quality)
  - Strengthen states' accountability, engagement and replication of better practices

### Long term actions (next 1-3 years)

1. Specific plans for sub-groups:
  - Adolescent girls and women aged 15-24 years;
  - Tribal/urban slums/deprived groups;
  - Management of overnutrition, a public health emergency.
2. Food fortification and Anti-Junk Food Policy, sugar and tobacco – with Food Safety and Standards Authority of India and the private sector
3. Teen pregnancy:
  - Incentive schemes for educating the girl child up to secondary education and beyond;
  - Enforcement of laws.
4. Tap into Health and Wellness centres – for preventive and promotive aspects.
5. Citizen monitoring system



## Maldives

### Short term actions (next 12 months)

1. Conduct research to address the micronutrient data gap: retrospective analysis of hospital data to understand anaemia (laboratory reports), correlation, case-studies, trends.
2. Review and monitor the level of implementation of key policies and strategies. Review knowledge level of care providers and capacity gaps.
3. Orientation on the WHO recommendations for a positive pregnancy.
4. Advocacy to highlight the magnitude and implications of malnutrition – and target the upcoming manifesto.

### Long term actions (next 1-3 years)

1. Analyse the cost of malnutrition, including the economic implications.
2. Develop a package of ANC nutrition interventions and job aids.
3. Introduce a systematic approach to capacity building with a focus on building supportive supervision and establishing a pool of 'experts' on nutrition.
4. Explore the feasibility of food fortification (including flour, oil).
5. Explore innovations on communication for development, building capacity of health workers – tap the social media potential.

## Nepal

### Short term actions (next 12 months)

1. Undertake a gender analysis of the Multisector Nutrition Plan and other relevant sector policies, focusing on adolescent girls and maternal nutrition and involving three levels of government.
2. Conduct a bottleneck analysis related to quality supply and demand.
3. Advocate with federal, provincial and local government to expand the coverage and improve the quality of maternal health and nutrition services through health facilities and birthing centres in every ward.

### Long term actions (next 1-3 years)

#### Programme:

1. Develop gender responsive nutrition plans at provincial and local government levels in line with national nutrition policy and plans.
2. Mainstream gender into the plans at federal, provincial and local government levels.
3. Ensure quality maternal, infant feeding and young child nutrition counselling through capacity building of relevant stakeholders (health workers and Female Community Health Volunteers).
4. Promote household food production through small livestock rearing and kitchen gardening, covering all food groups.
5. Increase awareness/nutrition education including through Poshan Nanglo, social media nutrition apps, food-based behaviour change communication, and implementation of dietary guidelines.
6. Understand gender, social norms and food taboos.
7. Initiate baseline at Palika level.
8. Establish sentinel surveillance system in some local governments.
9. Provide capacity and logistic support to establish a management information system at provincial and local government levels.

#### Advocacy:

1. Conduct policy advocacy with parliamentarians, for example, on maternity leave, chhaupadi, women's workload, women eating last, food taboos during pregnancy and after delivery, child marriage and others.
2. Advocate with federal, provincial, and local government to expand the coverage and improve quality of maternal health and nutrition services through health facilities and birthing centres in each ward.
3. Increase funding for diversified food production through local government.
4. Support to declare nutrition-friendly local governance

## Pakistan

### Short term actions (next 12 months)

1. Formulate a comprehensive strategy for women's nutrition (adolescents and women of reproductive age) and its linkages with broader existing health delivery structures.
2. Conduct a bottleneck analysis of existing IFA supplementation.

### Long term actions (next 1-3 years)

1. Develop maternal nutrition guidelines and incorporate in the existing health/nutrition service delivery package (2019).
2. Analyse information on maternal nutrition to inform the development of an advocacy package (2019).
3. Review and revise the curricula and maternal nutrition delivery package (2019 - onwards).
4. Develop a social and behaviour change communication campaign (2019 - onwards).
5. Conduct training and capacity building of health care providers on counselling skills and techniques (2019-2020).

## Sri Lanka

### Short term actions (next 12 months)

1. Revise the National Nutrition Policy: ensure maternal nutrition component is well integrated into the revised policy (led by the Nutrition Division, Ministry of Health).
2. Finalize the Multi Sector Action Plan for Nutrition 2018-2025 to ensure that maternal nutrition issues are well addressed (led by Presidential Secretariat).
3. Expand the membership of the maternal and child health nutrition committee to make it more multi-sectoral (representatives from the Presidential Secretariat and Ministry of Women and Child Affairs).

### Long term actions (next 1-3 years)

1. Evaluate the Cash Transfer Programme/Thripasha programme (whether to change from blanket supplementation to targeted supplementation).
2. Conduct a study on the aetiology of anaemia (because one-third of anaemia is iron deficiency anaemia).
3. Enhance the Preconception Package (increase the programme coverage)
  - Create demand/awareness raising campaigns;
  - Invitation card at the Registrar of Marriage;
  - Increase outreach through public health midwives (domiciliary care).
4. Implement the maternal nutrition component of the communication strategy for maternal health care.

## Annex 3. Regional- and Global-Level Actions Proposed by Conference participants

### Regional-Level Actions

Advocacy
<ul style="list-style-type: none"> <li>Support advocacy efforts to strengthen the positioning of maternal nutrition as a public health priority in the South Asia region, including policy advocacy briefs with a focus on the double burden of malnutrition.</li> </ul>
Policy and programme guidance
<ul style="list-style-type: none"> <li>Develop regional guidance/framework and tools to assist South Asian countries in operationalizing global recommendations to improve the nutritional care of women during pregnancy and lactation.</li> </ul>
Knowledge, learning, research and monitoring
<ul style="list-style-type: none"> <li>Establish a regional platform to promote knowledge exchange on best practices, lessons learned and innovations on maternal nutrition in the region.</li> <li>Facilitate South-South exchanges through learning exposure visits amongst countries in the region.</li> <li>Develop a SAARC nutrition score card to track country progress in advancing maternal (and child) nutrition, and monitor progress through existing SAARC bodies (e.g. Health and Population Committee, Secretaries of Health Meeting and Ministers of Health Meeting).</li> <li>Develop and publish a special issue of the 'Nutrition Exchange' of the Emergency Nutrition Network on maternal nutrition in South Asia</li> </ul>
Coordination
<ul style="list-style-type: none"> <li>Continue to provide regional forums/platforms for exchange of regional and global expertise, knowledge and experience on improving nutrition across the life-cycle.</li> </ul>
Financing
<ul style="list-style-type: none"> <li>Explore financing opportunities through the SAARC Development Fund to improve maternal nutrition in the region.</li> </ul>

### Global-Level Actions

Policy and programme guidance
<ul style="list-style-type: none"> <li>Develop global programme guidance and tools for the operationalization of the WHO antenatal care guidelines on nutrition.</li> <li>Address gaps in global guidance on maternal nutrition, including the following: multiple micronutrient supplementation, postpartum vitamin A supplementation, nutritional care of overweight and obese women, approaches to improve dietary diversity during pregnancy.</li> <li>Develop programme tools including, gestational weight gain charts for women who do not have pre-pregnancy BMI data.</li> <li>Provide technical support for a gender analysis of sector nutrition policies, plans and programmes to address harmful gender social norms that undermine nutrition and in particular, maternal nutrition.</li> </ul>

### Knowledge, learning, research and monitoring

- Provide technical support to develop research plans to address knowledge gaps on maternal nutrition.
- Mobilize technical and financial assistance to support secondary data analysis and implementation/operational research on maternal nutrition.
- Share best practices, lessons learned, innovations and research findings from other countries.
- Support South-South learning exchanges, including cross regional exchanges between countries with similar country profiles.

### Coordination

- Establish a 'maternal nutrition forum' at the global level

### Financing

- Mobilize financial support for at scale maternal nutrition programming.



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## Annex 4. Conference Participants

Name	Designation	Organization
<b>Afghanistan</b>		
Drs Mamosai Zewar	Deputy Minister	Ministry of Public Health
Dr Mohammad Hamayun 'Ludin'	Public Nutrition Manager	Ministry of Public Health
Drs Jan Ara Sarwari	Reproductive Health Officer	Laghman Provincial Health Directorate
Drs Nafisa Faryabi	Reproductive Health Officer	Faryab Provincial Health Directorate
Ms Zakia Maroof	Nutrition Specialist	UNICEF Afghanistan
<b>Bangladesh</b>		
Mr Md. Ruhul Amin Talukder	Joint Secretary (Public Health-2)	Health Services Division, Ministry of Health and Family Welfare
Dr S.M. Mustafizur Rahman	Assistant Director (Directorate General of Health Services) and Program Manager	National Nutrition Services, Institute of Public Health Nutrition, Directorate General of Health Services
Dr Md. Mofijul Islam Bulbul	Deputy Program Manager	National Nutrition Services, Institute of Public Health Nutrition, Directorate General of Health Services
Dr Murad Md. Shamser Tabriz Khan	Deputy Program Manager	National Nutrition Services, Institute of Public Health Nutrition, Directorate General of Health Services
Mr Jaynal Haque	Program Manager, Director-Maternal Child Health, and Reproductive and Adolescent Health	Directorate General of Family Planning
Prof Dr Laila Arjumand Banu	President, Obstetrics and Gynaecological Society of Bangladesh	Obstetrics and Gynaecological Society of Bangladesh
Mr Golam Mohiuddin Khan	Nutrition Specialist	UNICEF Bangladesh Country Office
Mr U-Ba Swee Chowdhury	Nutrition Officer	UNICEF Chittagong Field Office
Mr Zaki Hasan	Country Director	Nutrition International
Ms Iftia Jerin	Senior Program Officer, ENRICH	Nutrition International
Mr Mohammad Mofijul Islam Shuvro	Technical Manager Child survival	Nutrition International
Ms Kazi Eliza Islam	Advisor, Program Development and Monitoring	BRAC International

Name	Designation	Organization
<b>Bhutan</b>		
Mr Pema Lethro	Programme Officer	Non-Control Diarrhoea Division, Department of Public Health, Ministry of Health
Mr Loday Zangpo	Programme Officer	Nutrition Programme, Ministry of Health
Ms Sonam Yangchen	Planning Officer	Policy and Planning Division, Ministry of Health
Ms Passang Lhamo Sherpa	Lecturer	Faculty of Nursing and Public Health, Khesar Gyalpo, University of Medical Sciences of Bhutan
<b>India</b>		
Sh. Alok Kumar, I.A.S	Adviser (Health and Nutrition)	NITI Aayog
Sh. Mukesh Kumar	Joint Director (Information Technology and Public Policy)	Ministry of Rural Development
Sh. Manoj Kumar Singh	Director, Integrated Child Development Services	Ministry of Women and Child Development
Ms Bindu Sharma	Director, Reproductive and Child Health	Ministry of Health and Family Welfare
Dr Uma Mahadevan, I.A.S.	Principal Secretary	Department of Women and Child Development, Government of Karnataka
Dr Neena Bhatia	Associate Professor, Department of Food and Nutrition and Lead, National Centre of Excellence and Advanced Research on Diets (NCEARD)	Lady Irwin College
Dr Mansi Chopra	Senior Nutrition Officer, NCEARD	Lady Irwin College
Dr Shashi Kant	Professor and Head of Department, Centre of Community Medicine and Lead National Centre of Excellence and Advanced Research on Anemia	All India Institute of Medical Sciences, New Delhi
Mr Rabi N Parhi	Nutrition Specialist	UNICEF Bihar Field Office, Patna
Mr Sourav Bhattacharjee	Nutrition Specialist	UNICEF Odisha Field Office, Bhubaneswar
Dr Farhat Saiyad	Nutrition Specialist	UNICEF Chhattisgarh Field Office, Raipur
Dr Khyati Tiwari	Nutrition Specialist	UNICEF Telangana Field Office, Hyderabad
Dr Vani Sethi	Nutrition Specialist	UNICEF India Country Office, New Delhi
Arjan de Wagt	Chief of Nutrition	UNICEF India Country Office, New Delhi
Ms Mini Varghese	Senior Program Officer	Nutritional International, New Delhi
Ms Archana Chowdhury	Senior Program Officer	Nutritional International, New Delhi
Ms. Sucharita Dutta	Country Director	Nutritional International, New Delhi

Name	Designation	Organization
<b>Maldives</b>		
Dr Mariyam Jenyfa	Senior Medical Officer	Health Protection Agency
Dr Mohamed Aseel Jaleel	Senior Consultant in Obstetrics and Gynecology	Indra Gandhi Memorial Hospital
Ms Aishath Shaheen Ismail	Dean	Faculty of Health Sciences, Maldives National University
Ms Aishath Shazla	Senior Public Health Programme Officer	Health Protection Agency
Ms Aishath Shahula Ahmed	Programme Specialist (Health, Nutrition, HIV/AIDS Prevention)	UNICEF Maldives Country Office
<b>Nepal</b>		
Mr Chudamani Aryal	Planning Officer	National Planning Commission
Dr Archana Amatya	Professor and Head of the Department	Department of Community Medicine and Public Health, Ministry of Health and Population
Mr Dilli Raman Adhikari	Chief (Under Secretary), Family Planning and Adolescent Section	Family Health Division, Ministry of Health and Population
Dr Punya Paudel	Chief (Under Secretary), Safer Motherhood Section	Family Health Division, Ministry of Health and Population
Mr Harihar Prasad Sharma	Senior Public Health Officer	Ministry of Health and Population
Ms Basaundhara Sharma	Senior Public Health Officer	Ministry of Health and Population
Ms Binita Bhattarai	Under Secretary	Ministry of Women, Children and Senior Citizen
Ms Shova Devi Kharel	Women Development Officer	Ministry of Women, Children and Senior Citizen
Ms Sabitri Belbase	Section Officer	Ministry of Women, Children and Senior Citizen
Mr Stanley Chitekwe	Chief of Nutrition	UNICEF Nepal Country Office
Mr Pradiumna Dahal	Nutrition Specialist	UNICEF Nepal Country Office
Mr Anirudra Sharma	Nutrition Specialist	UNICEF Nepal Country Office
Mr Naveen Paudyal	Nutrition Officer	UNICEF Nepal Country Office
Mr Sanjay Rijal	Nutrition Officer	UNICEF Nepal Country Office
Mr Prakash Chandra Joshi	Nutrition Officer	UNICEF Nepal, Field Office (Province 6 and 7)
Mr Phulgendra Prasad Singh	Nutrition Officer	UNICEF Nepal, Field Office (Province 2)
Ms Meena Thapa	Nutrition Officer	UNICEF Nepal, Field Office (Province 4 and 5)
Ms Dale Davis	Country Director	Helen Keller International

Name	Designation	Organization
Ms Kenda Cunningham	Senior Technical Advisor	Helen Keller International
Ms Pooja Pandey Rana	Deputy Chief of Party, Suaahara	Helen Keller International
Ms Asha Basnyat	Deputy Country Director	Helen Keller International
Mr Sujay Nepali Bhattacharya	Head of Nutrition and Health Department	Action Contre la Faim
<b>Pakistan</b>		
Dr Khawaja Masuood Ahmed	National Coordinator Nutrition	Ministry of National Health Services, Regulation and Coordination.
Mr Muhammad Zeeshan Ahmed	Director SAARC	Ministry of Foreign Affairs
Dr Fazal Majeed	Deputy Director Nutrition	Directorate General Health Services, Khyber Pakhtunkhwa
Ms Melanie Galvin	Chief of Nutrition	UNICEF Pakistan Country Office
Dr Shafiq Ur Rehman	Nutrition Specialist	UNICEF Pakistan Country Office
Dr Saba Shuja	Nutrition Officer	UNICEF Pakistan Country Office
Dr Ahsanullah Khan Bhurgri	National Program Manager	Nutritional International, Pakistan
Ms Faaria Ahsan	Senior Program Officer	Nutritional International, Pakistan
<b>Sri Lanka</b>		
Dr Netthanjalee Mapitigama	Acting Director	Family Health Bureau, Ministry of Health
Mrs Nayana E. Senaratne	Director	Children's Secretariat, Ministry of Women and Child Affairs
Ms Gaya Adhikari	Assistant Secretary to the President	Presidential Secretariat
Mr P.A.D. Jude Chandimal Appuhamy	Development Officer	Ministry of Foreign Affairs
Ms Safina Abdulloeva	Child Survival and Development Programme Manager	UNICEF Sri Lanka Country Office
<b>Regional and global partners</b>		
Ms Céline Soulier	Health and Nutrition Technical Advisor	Action Contre la Faim, Paris, France
Mr Thomas Forissier	Director Programs, Asia	Alive and Thrive Asia, Delhi, India
Dr Charulatha Banerjee	Regional Knowledge Management Specialist Asia	Emergency Nutrition Network, Kolkata, India
Mr Frederick Grant	Regional Director for Programs	Helen Keller International Asia, Phenom Penn, Cambodia
Dr Purnima Menon	Senior Research Fellow	IFPRI South Asia, Delhi, India



Name	Designation	Organization
Ms Allison Verney	Technical Advisor, ENRICH	Nutrition International, Ottawa, Ontario, Canada.
Ms Jennifer Busch-Hallen	Senior Technical Advisor, Maternal, Newborn Health and Nutrition	Nutrition International, Ottawa, Ontario, Canada
Ms Jennifer Hatchard	Project Technical Advisor, Maternal, Newborn Health and Nutrition	Nutrition International, Ottawa, Ontario, Canada
Ms Anjali Bhardwaj	Deputy Regional Director, Right Start	Nutrition International, Ottawa, Ontario, Canada.
Mr Andrew O'Connell	Regional Director Asia	Nutrition International Asia, New Delhi, India.
Ms Susmita Das	Deputy Regional Director	Nutrition International Asia, New Delhi, India.
Dr Loreto B. Roquero Jr	Country Director, Philippines	Nutrition International, Manila, Philippines
Dr Sri Kusyuniati	Country Director	Nutrition International, Indonesia
Dr Justine A. Kavle	Nutrition Team Lead	PATH and Maternal and Child Survival Program, Washington D.C, USA.
Mr Amjad Hussain B Sial	Secretary-General	SAARC Secretariat, Kathmandu, Nepal
Ms Rishfa Rasheed	Director, Social Affairs Division	SAARC Secretariat, Kathmandu, Nepal
Mr Manzoor Riaz	Desk Officer, Social Affairs Division	SAARC Secretariat, Kathmandu, Nepal
Ms Sangita Khatri	Project Manager	Save the Children, Kathmandu, Nepal
Prof Veena Sikri	Professor and Ambassador, Convener, South Asia Women's Network and Vice Chairperson, South Asia Foundation	South Asia Women's Network and South Asia Foundation, New Delhi, India
Ms Patrizia Fracassi	Senior Nutrition Analyst and Strategy Advisor	Scaling Up Nutrition Movement Secretariat, Geneva, Switzerland
Dr Robin Shrestha	Regional Coordinator, Asia	Tufts University - Nutrition Innovation Lab, Kathmandu, Nepal
Ms Jessica Blankenship	Nutrition Specialist	UNICEF Regional Office for East Asia and the Pacific, Bangkok, Thailand
Dr Harriet Torlesse	Regional Nutrition Advisor	UNICEF Regional Office for South Asia (ROSA), Kathmandu, Nepal
Mr Zivai Murira	Nutrition Specialist	UNICEF ROSA, Kathmandu, Nepal
Ms Puja Jha	Program Associate	UNICEF ROSA, Kathmandu, Nepal
Ms Jean Gough	Regional Director	UNICEF ROSA, Kathmandu, Nepal
Mr Philippe Cori	Deputy Regional Director	UNICEF ROSA, Kathmandu, Nepal
Ms Sufang Guo	Health Specialist	UNICEF ROSA, Kathmandu, Nepal
Ms Diane Summers	Regional Advisor Communication for Development	UNICEF ROSA, Kathmandu, Nepal

Name	Designation	Organization
Ms Shivanee Thapa	Master of Ceremony	Independent consultant to UNICEF ROSA
Ms Sophie Goudet	Nutrition researcher, Rapporteur	Independent consultant to UNICEF ROSA
Ms Bharati Silwal Giri	Conference Facilitator	Independent consultant to UNICEF ROSA
Mr Roland Kupka	Senior Adviser, Micronutrients	UNICEF, New York, USA
Dr Erin McLean	Nutrition Specialist	UNICEF, New York, USA
Dr Manav Bhattarai	Senior Health Specialist	World Bank, Kathmandu, Nepal
Dr Lisa Rogers	Technical Officer	World Health Organization, Geneva, Switzerland.
Dr Pura Rayco-Solon	Technical Officer	World Health Organization, Geneva, Switzerland.









# Afghanistan | Fact Sheet

## Women's nutrition 15-49 years

### THINNESS (2013)

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)



### OVERWEIGHT OR OBESE (2013)

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)



### OBESEITY (2013)

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)



### LOW STATURE

Women with height below 145 cm



### ANAEMIA (WRA) (2013)

Anaemia among women of reproductive age



### ANAEMIA (PREGNANT) (2011)

Anaemia among pregnant women



### MATERNAL MORTALITY (2015)

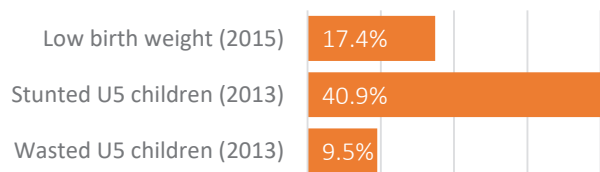
**661** per 100,000 live births

### NEONATAL MORTALITY (2016)

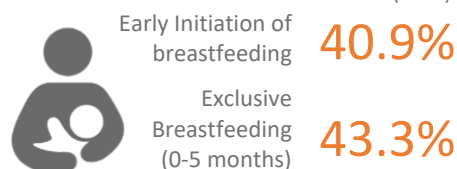
**40.0** per 1,000 live births

## Children's health and nutrition

### CHILD NUTRITION



### BREASTFEEDING (2015)



## Sociodemographic context (2015)



Women with secondary or higher education



Women minimum dietary diversity

No Data

Women consuming iron-rich foods

No Data



ANC from a skilled provider



Adolescent pregnancy

women 20-24 years who gave birth before age 20 years










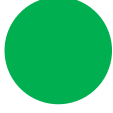



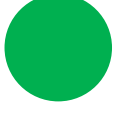




Women who participate in decisions on their own health care





# Afghanistan | Fact Sheet

## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

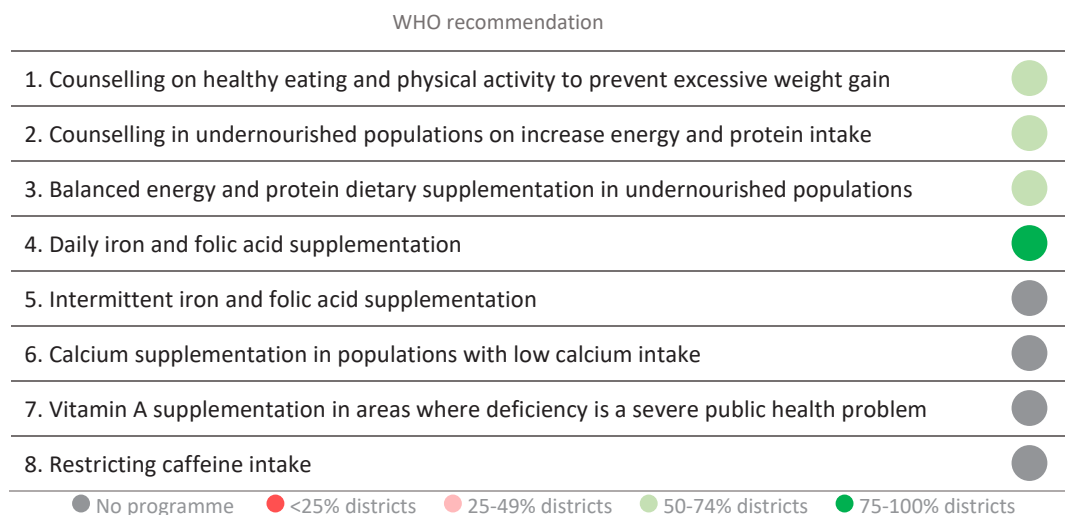
WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation	
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>	
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>	
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>	
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>	
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>	
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>	
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>	
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>	

● Not applicable ● No ● Yes

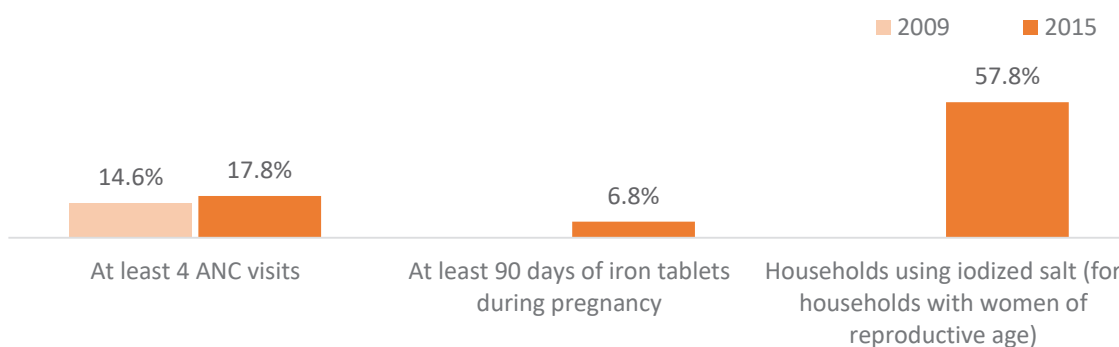


# Afghanistan | Fact Sheet

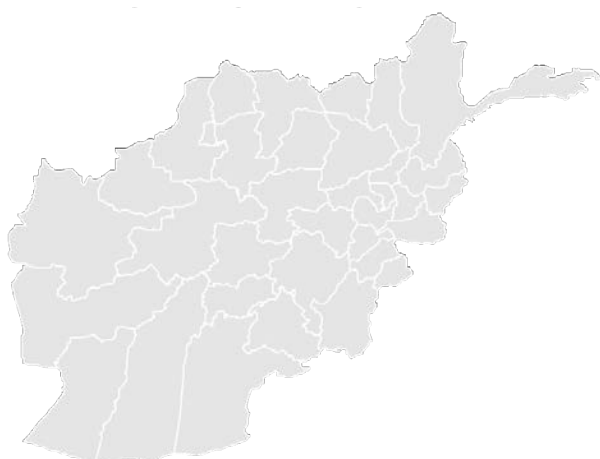
## Proportion of districts delivering maternal nutrition interventions



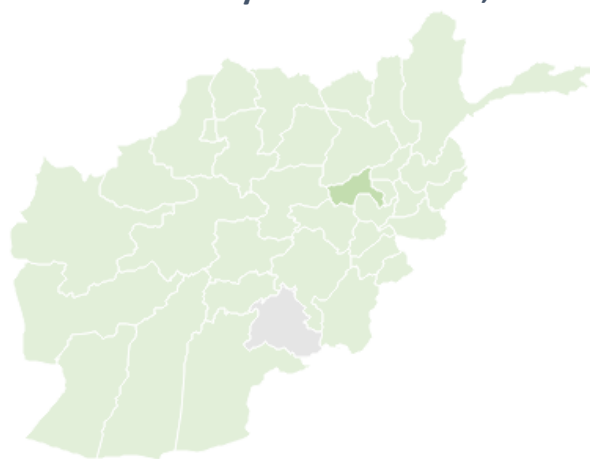
## Population coverage of interventions





### At least 4 ANC visits



### At least 90 days of iron tablets, 2015



 No data 
  <25% 
  25-49% 
  50-74% 
  ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



# Afghanistan | Fact Sheet

## Barriers and bottlenecks to implementing maternal nutrition interventions

	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
<b>WHO recommendations</b>									
Healthy eating and physical activity									
Increasing daily energy and protein intake									
Balanced energy and protein dietary supplementation									
Daily oral iron and folic acid supplementation									
Intermittent oral iron and folic acid supplementation									
Daily calcium supplementation									
Vitamin A supplementation									
Reducing daily caffeine intake									

### End-notes:

<sup>a</sup> The 2016 WHO "Recommendations on antenatal care for a positive pregnancy experience" also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefrosa@unicef.org](mailto:unicefrosa@unicef.org)





# Bangladesh | Fact Sheet

## Women's nutrition 15-49 years

### THINNESS (2014)

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)



### OVERWEIGHT OR OBESE (2014)

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)



### OBESEITY (2014)

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)



### LOW STATURE (2014)

Women with height below 145 cm



### ANAEMIA (WRA) (2011)

Anaemia among women of reproductive age (non-pregnant)



### ANAEMIA (PREGNANT) (2011)

Anaemia among pregnant women



### MATERNAL MORTALITY (2015)

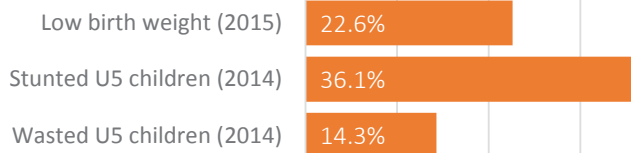
**176** per 100,000 live births

### NEONATAL MORTALITY (2016)

**20.1** per 1,000 live births

## Children's health and nutrition

### CHILD NUTRITION



### BREASTFEEDING (2014)



Early Initiation of  
breastfeeding **50.8%**  
Exclusive  
Breastfeeding  
(0-5 months) **55.3%**

## Sociodemographic context (2014)



Women with secondary or higher education



Women minimum dietary diversity

No Data

Women consuming iron-rich foods

No Data



ANC from a skilled provider



Adolescent pregnancy

women 20-24 years who gave birth before age 20 years






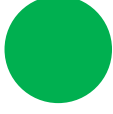



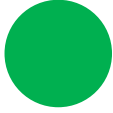



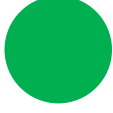




Women who participate in decisions  
on their own health care





# Bangladesh | Fact Sheet

## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

● Not applicable ● No ● Yes



# Bangladesh | Fact Sheet

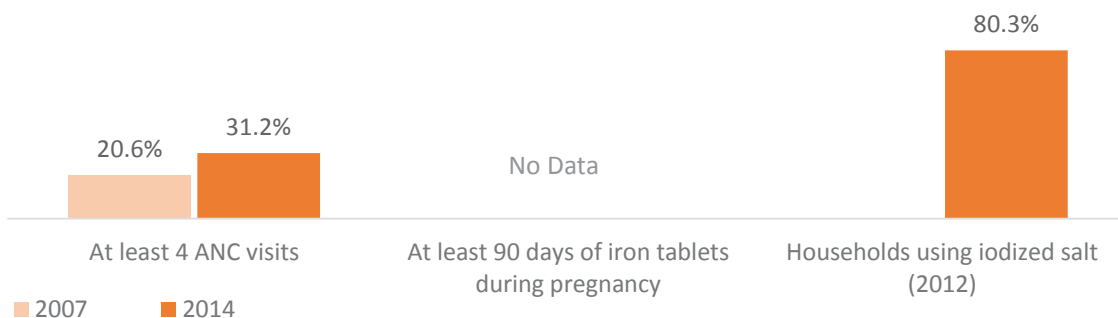
## Proportion of districts delivering maternal nutrition interventions

WHO recommendation

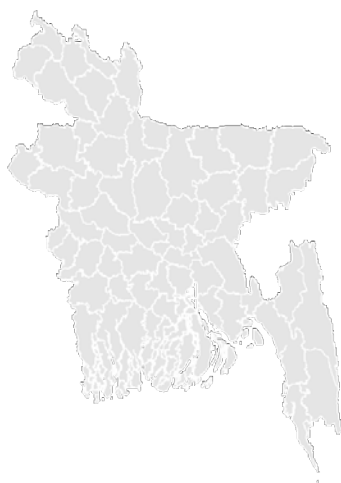
1. Counselling on healthy eating and physical activity to prevent excessive weight gain	●
2. Counselling in undernourished populations on increase energy and protein intake	●
3. Balanced energy and protein dietary supplementation in undernourished populations	●
4. Daily iron and folic acid supplementation	●
5. Intermittent iron and folic acid supplementation	●
6. Calcium supplementation in populations with low calcium intake	●
7. Vitamin A supplementation in areas where deficiency is a severe public health problem	●
8. Restricting caffeine intake	●

● No programme ● <25% districts ● 25-49% districts ● 50-74% districts ● 75-100% districts

## Population coverage of interventions



### At least 4 ANC visits



### At least 90 days of iron tablets



● No data ● <25% ● 25-49% ● 50-74% ● ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



## Barriers and bottlenecks to implementing maternal nutrition interventions

		<div><div><div></div><div>No bottleneck</div></div><div><div></div><div>Mild bottleneck</div></div><div><div></div><div>Moderate bottleneck</div></div><div><div></div><div>Significant bottleneck</div></div><div><div></div><div>No programme</div></div></div>									
		Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage	
WHO recommendations	Healthy eating and physical activity	No bottleneck	No bottleneck	No bottleneck	Mild bottleneck	No bottleneck	No bottleneck	Mild bottleneck	Mild bottleneck	No bottleneck	
	Increasing daily energy and protein intake	No bottleneck	No bottleneck	No bottleneck	Mild bottleneck	No bottleneck	No bottleneck	Mild bottleneck	Mild bottleneck	No bottleneck	
	Balanced energy and protein dietary supplementation	No bottleneck	No bottleneck	Mild bottleneck	Mild bottleneck	No bottleneck	Mild bottleneck	Mild bottleneck	Mild bottleneck	No bottleneck	
	Daily oral iron and folic acid supplementation	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	Mild bottleneck	No bottleneck	Mild bottleneck	Significant bottleneck	
	Intermittent oral iron and folic acid supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	
	Daily calcium supplementation	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	Mild bottleneck	No bottleneck	Mild bottleneck	No bottleneck	
	Vitamin A supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	
	Reducing daily caffeine intake	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	

### End-notes:

<sup>a</sup> The 2016 WHO “Recommendations on antenatal care for a positive pregnancy experience” also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefrosa@unicef.org](mailto:unicefrosa@unicef.org)





# Bhutan | Fact Sheet

## Women's nutrition 15-49 years<sup>1</sup>

### THINNESS (2014)

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)

3.6%



### OVERWEIGHT OR OBESE (2014)

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)

37.4%



### OBESITY (2014)

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)

6.5%



### LOW STATURE

Women with height below 145 cm

No data



### ANAEMIA (WRA) (2015)

Anaemia among women of reproductive age

34.9%



### ANAEMIA (PREGNANT) (2015)

Anaemia among pregnant women

27.3%



### MATERNAL MORTALITY (2012)

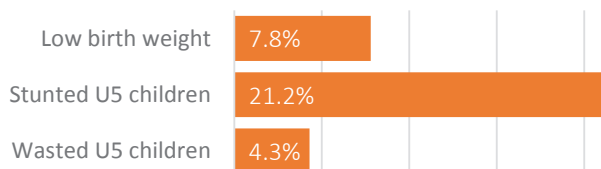
**86** per 100,000 live births

### NEONATAL MORTALITY (2015)

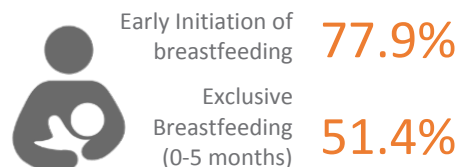
**18.1** per 1,000 live births

## Children's health and nutrition (2015)

### CHILD NUTRITION



### BREASTFEEDING



## Sociodemographic context (2010)



Women with secondary or higher education

55.0%



Women minimum dietary diversity

No Data

Women consuming iron-rich foods

No Data



ANC from a skilled provider

98.2%



Adolescent pregnancy

women 20-24 years who gave birth before age 20 years

No Data










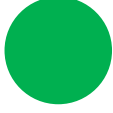








Women who participate in decisions on their own health care

No Data



# Bhutan | Fact Sheet

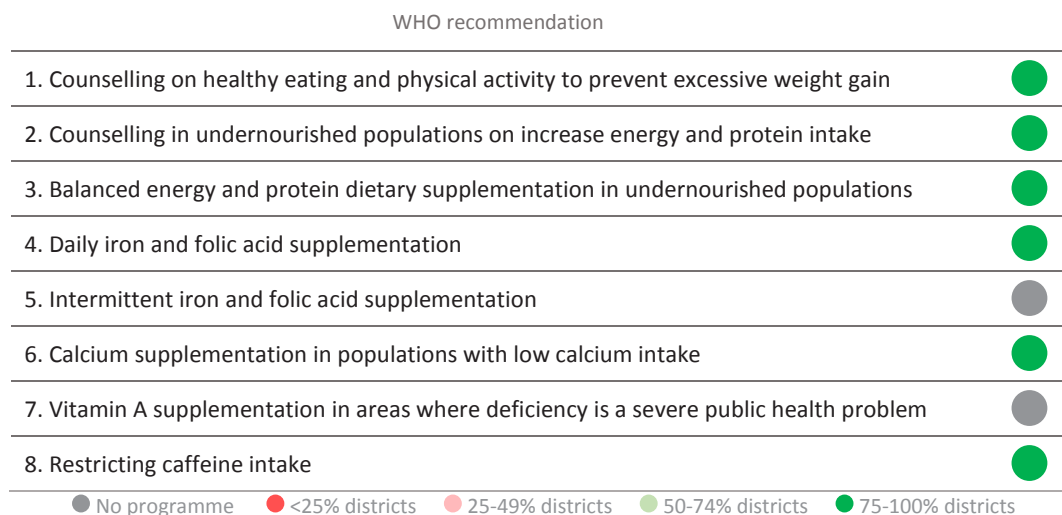
## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

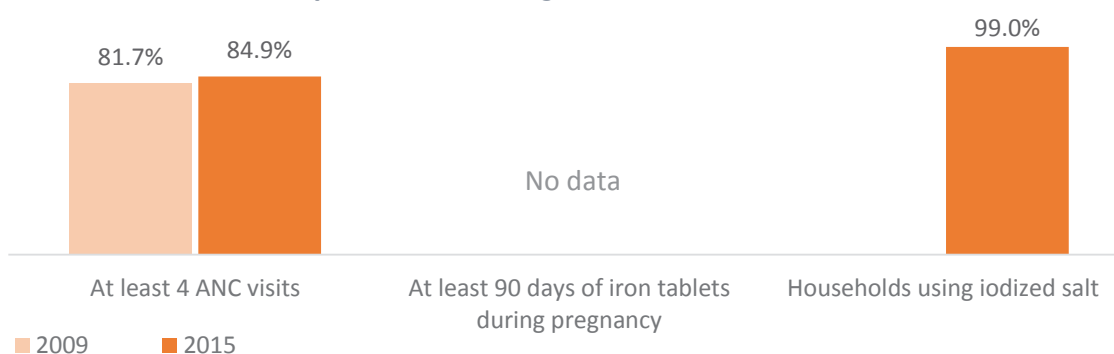
● Not applicable ● No ● Yes



## Proportion of districts delivering maternal nutrition interventions



## Population coverage of interventions



### At least 4 ANC visits, 2015



### At least 90 days of iron tablet



 No data 
  <25% 
  25-49% 
  50-74% 
  ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



## Barriers and bottlenecks to implementing maternal nutrition interventions

	<div> <div>No bottleneck</div> <div>Mild bottleneck</div> <div>Moderate bottleneck</div> <div>Significant bottleneck</div> <div>No programme</div> </div>								
	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
WHO recommendations									
Healthy eating and physical activity									
Increasing daily energy and protein intake									
Balanced energy and protein dietary supplementation									
Daily oral iron and folic acid supplementation									
Intermittent oral iron and folic acid supplementation									
Daily calcium supplementation									
Vitamin A supplementation									
Reducing daily caffeine intake									

### End-notes:

/1 18-39 years for BMI data

<sup>a</sup> The 2016 WHO "Recommendations on antenatal care for a positive pregnancy experience" also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be

up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefrosa@unicef.org](mailto:unicefrosa@unicef.org)





# India | Fact Sheet

## Women's nutrition 15-49 years (2016)

### THINNESS

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)



### OVERWEIGHT OR OBESE

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)



### OBESEITY

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)



### LOW STATURE

Women with height below 145 cm



### ANAEMIA (WRA)

Anaemia among women of reproductive age (non-pregnant)



### ANAEMIA (PREGNANT)

Anaemia among pregnant women



### MATERNAL MORTALITY (SRS, 2013)<sup>2</sup>

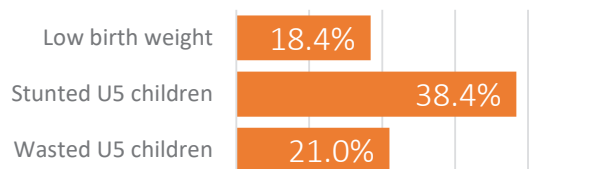
**167** per 100,000 live births

### NEONATAL MORTALITY (SRS, 2015)<sup>2</sup>

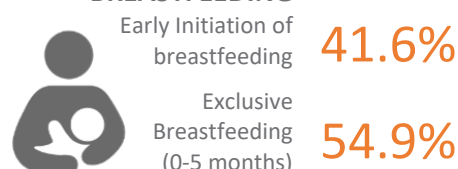
**25** per 1,000 live births

## Children's health and nutrition (2016)

### CHILD NUTRITION



### BREASTFEEDING



## Sociodemographic context (2016)



Women with secondary or higher education<sup>1</sup>



Women minimum dietary diversity<sup>2</sup>



Women consuming iron-rich foods



ANC from a skilled provider



Adolescent pregnancy  
women 20-24 years who gave birth before age 20 years








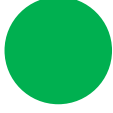



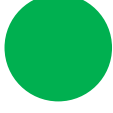






Women who participate in decisions on their own health care





## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

● Not applicable ● No ● Yes



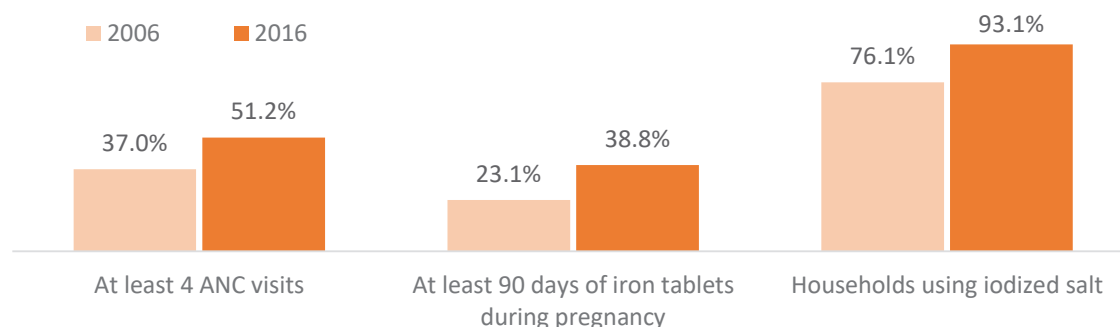
## Proportion of districts delivering maternal nutrition interventions

WHO recommendation

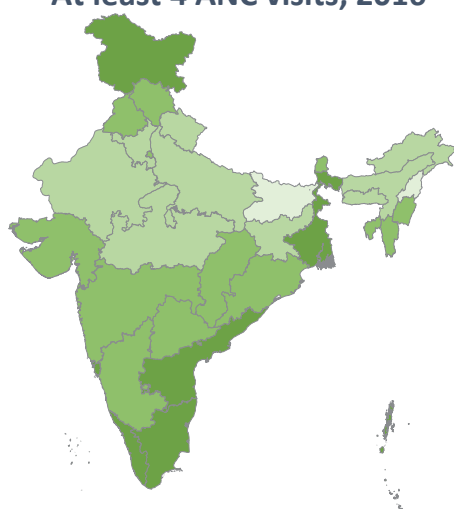
1. Counselling on healthy eating and physical activity to prevent excessive weight gain	●
2. Counselling in undernourished populations on increase energy and protein intake	●
3. Balanced energy and protein dietary supplementation in undernourished populations	●
4. Daily iron and folic acid supplementation	●
5. Intermittent iron and folic acid supplementation	●
6. Calcium supplementation in populations with low calcium intake	●
7. Vitamin A supplementation in areas where deficiency is a severe public health problem	●
8. Restricting caffeine intake	●

● No programme ● <25% districts ● 25-49% districts ● 50-74% districts ● 75-100% districts

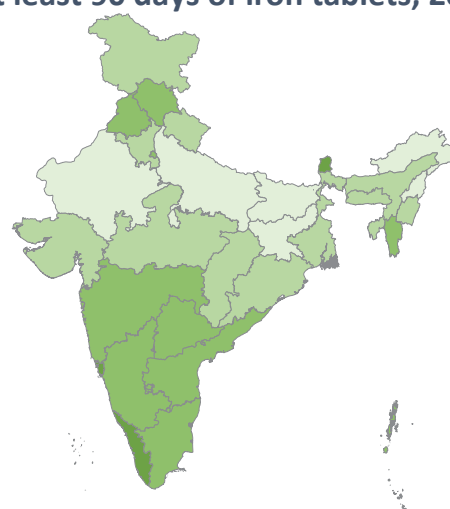
## Population coverage of interventions



### At least 4 ANC visits, 2016



### At least 90 days of iron tablets, 2016



○ No data ● <25% ● 25-49% ● 50-74% ● ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



## Barriers and bottlenecks to implementing maternal nutrition interventions

No bottleneck

Mild bottleneck

Moderate bottleneck

Significant bottleneck

No programme

	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
Healthy eating and physical activity									
Increasing daily energy and protein intake									
Balanced energy and protein dietary supplementation									
Daily oral iron and folic acid supplementation									
Intermittent oral iron and folic acid supplementation									
Daily calcium supplementation									
Vitamin A supplementation									
Reducing daily caffeine intake									

WHO recommendations

### End-notes:

1 Indicator used: Women with 10 or more years of schooling  
2 Women's minimum dietary diversity score was computed based on 6 food groups

<sup>a</sup> The 2016 WHO "Recommendations on antenatal care for a positive pregnancy experience" also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefrosa@unicef.org](mailto:unicefrosa@unicef.org)



# Maldives | Fact Sheet

## Women's nutrition 15-49 years

### THINNESS (2009)

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)

7.5%



### OVERWEIGHT OR OBESE (2009)

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)

45.5%



### OBESITY (2009)

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)

13.1%



### LOW STATURE

Women with height below 145 cm (2009)

12.1%



### ANAEMIA (WRA) (2007)

Anaemia among women of reproductive age

15.4%



### ANAEMIA (PREGNANT)

Anaemia among pregnant women

No data



### MATERNAL MORTALITY (2015)

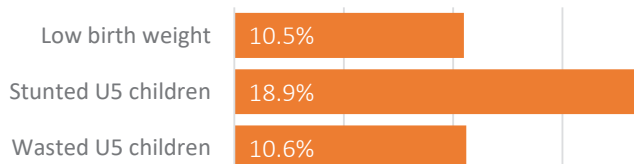
**68** per 100,000 live births

### NEONATAL MORTALITY (2016)

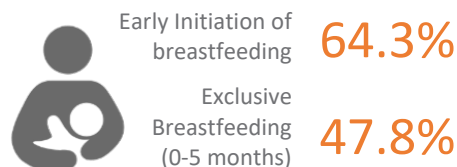
**4.8** per 1,000 live births

## Children's health and nutrition (2009)

### CHILD NUTRITION



### BREASTFEEDING



## Sociodemographic context (2009)



Women with secondary or higher education

40.9%



ANC from a skilled provider

99.2%



Women who participate in decisions on their own health care

76.0%



Women minimum dietary diversity

No Data

Women consuming iron-rich foods

86.6%



Adolescent pregnancy

women 20-24 years who gave birth before age 20 years








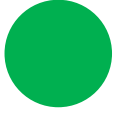








8.3%







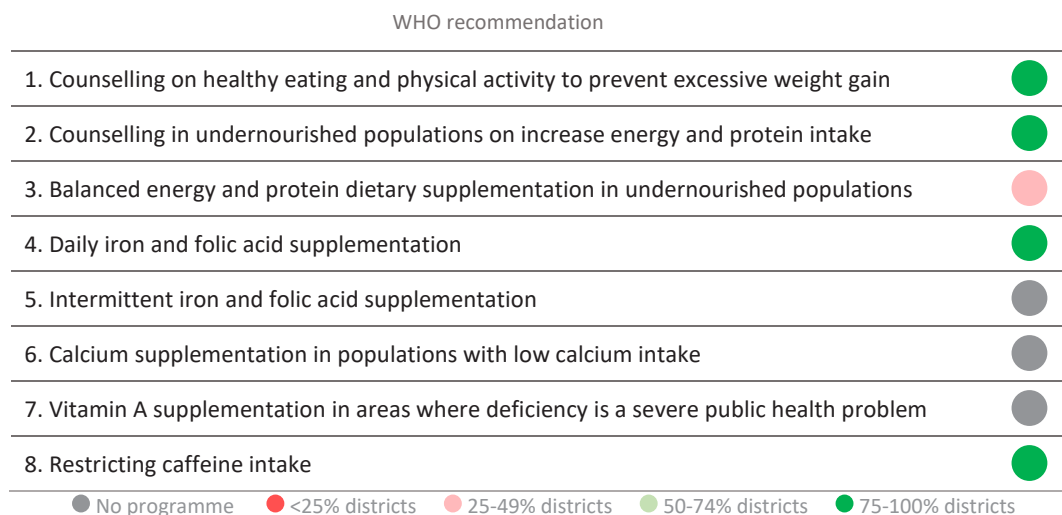
## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

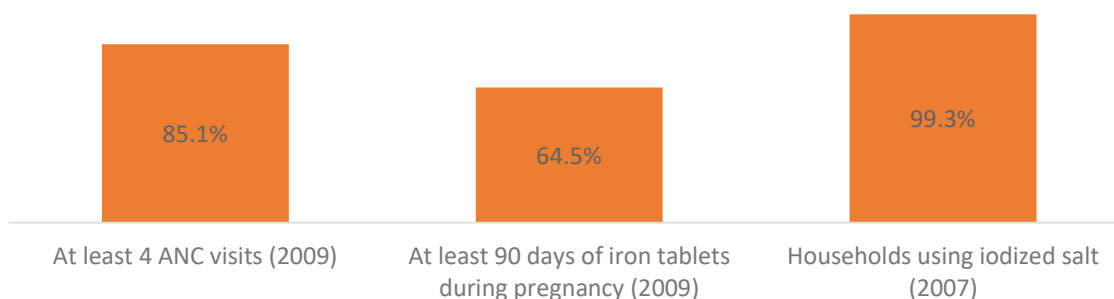
● Not applicable ● No ● Yes



## Proportion of districts delivering maternal nutrition interventions



## Population coverage of interventions<sup>/1</sup>



### At least 4 ANC visits



### At least 90 days of iron tablet, 2009



○ No data ● <25% ● 25-49% ● 50-74% ● ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



## Barriers and bottlenecks to implementing maternal nutrition interventions

	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
<b>WHO recommendations</b>									
Healthy eating and physical activity	Mild	Mild	Mild	Significant	Moderate	No	No	No	No
Increasing daily energy and protein intake	No	Mild	Moderate	Moderate	Moderate	Mild	Mild	Mild	Mild
Balanced energy and protein dietary supplementation	Mild	Mild	Moderate	Moderate	Moderate	No	Mild	No	No
Daily oral iron and folic acid supplementation	Mild	Mild	Mild	Moderate	Mild	Mild	Mild	Mild	Mild
Intermittent oral iron and folic acid supplementation	No	No	No	No	No	No	No	No	No
Daily calcium supplementation	No	No	No	No	No	No	No	No	No
Vitamin A supplementation	No	No	No	No	No	No	No	No	No
Reducing daily caffeine intake	No	No	No	Moderate	No	No	No	No	No

### End-notes:

1 The survey did test salts samples for iodine

<sup>a</sup> The 2016 WHO "Recommendations on antenatal care for a positive pregnancy experience" also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefroa@unicef.org](mailto:unicefroa@unicef.org)



# Nepal | Fact Sheet

## Women's nutrition 15-49 years (2016)

### THINNESS

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)



### OVERWEIGHT OR OBESE

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)



### OBESITY

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)



### LOW STATURE

Women with height below 145 cm



### ANAEMIA (WRA)

Anaemia among women of reproductive age



### ANAEMIA (PREGNANT)

Anaemia among pregnant women



### MATERNAL MORTALITY (2016)

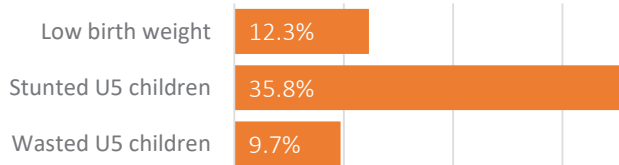
**239** per 100,000 live births

### NEONATAL MORTALITY (2016)

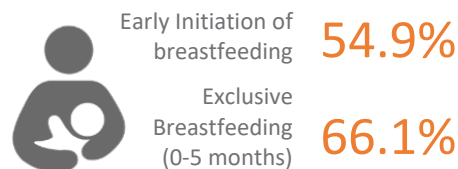
**21.1** per 1,000 live births

## Children's health and nutrition (2016)

### CHILD NUTRITION



### BREASTFEEDING



## Sociodemographic context (2016)



Women with secondary or higher education



Women minimum dietary diversity

No Data



ANC from a skilled provider



Adolescent pregnancy  
women 20-24 years who gave birth before age 20 years



Women who participate in decisions  
on their own health care








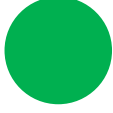










Women consuming iron-rich foods

No Data



## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

● Not applicable ● No ● Yes





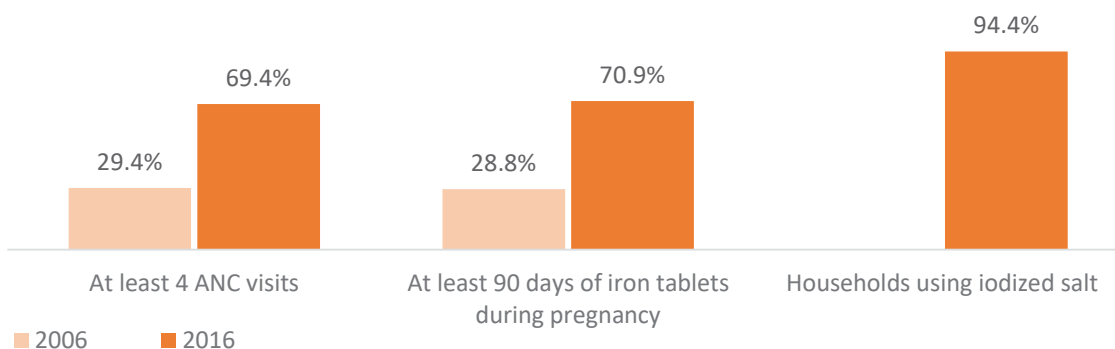
## Proportion of districts delivering maternal nutrition interventions

WHO recommendation

1. Counselling on healthy eating and physical activity to prevent excessive weight gain	●
2. Counselling in undernourished populations on increase energy and protein intake	●
3. Balanced energy and protein dietary supplementation in undernourished populations	●
4. Daily iron and folic acid supplementation	●
5. Intermittent iron and folic acid supplementation	●
6. Calcium supplementation in populations with low calcium intake	●
7. Vitamin A supplementation in areas where deficiency is a severe public health problem	●
8. Restricting caffeine intake	●

● No programme ● <25% districts ● 25-49% districts ● 50-74% districts ● 75-100% districts

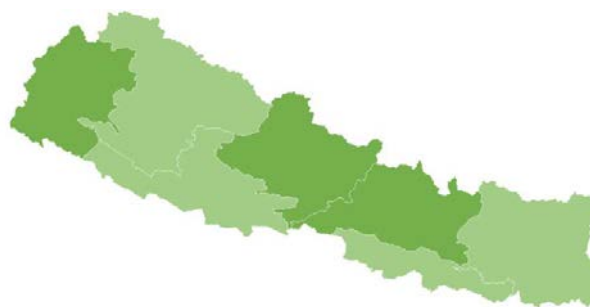
## Population coverage of interventions<sup>1,2</sup>



### At least 4 ANC visits, 2016



### At least 90 days of iron tablets, 2016



● <25% ● 25-49% ● 50-74% ● ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



## Barriers and bottlenecks to implementing maternal nutrition interventions

	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
<b>WHO recommendations</b>									
Healthy eating and physical activity	Moderate bottleneck	Mild bottleneck	No bottleneck	Significant bottleneck	No bottleneck	Mild bottleneck	No bottleneck	Moderate bottleneck	Mild bottleneck
Increasing daily energy and protein intake	No bottleneck	Moderate bottleneck	Moderate bottleneck	Significant bottleneck	Mild bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck
Balanced energy and protein dietary supplementation	No bottleneck	Mild bottleneck	Significant bottleneck	Moderate bottleneck	Moderate bottleneck	Significant bottleneck	Mild bottleneck	Moderate bottleneck	No bottleneck
Daily oral iron and folic acid supplementation	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	Moderate bottleneck
Intermittent oral iron and folic acid supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Daily calcium supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Vitamin A supplementation	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck
Reducing daily caffeine intake	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck	No bottleneck

### End-notes:

<sup>a</sup> The 2016 WHO “Recommendations on antenatal care for a positive pregnancy experience” also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefrosa@unicef.org](mailto:unicefrosa@unicef.org)



# Pakistan | Fact Sheet

## Women's nutrition 15-49 years

### THINNESS (2013)

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)



### OVERWEIGHT OR OBESE (2013)

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)



### OBESITY (2013)

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)



### LOW STATURE (2013)

Women with height below 145 cm



### ANAEMIA (WRA) (2011)

Anaemia among women of reproductive age (non-pregnant)



### ANAEMIA (PREGNANT) (2011)

Anaemia among pregnant women



### MATERNAL MORTALITY (2006)

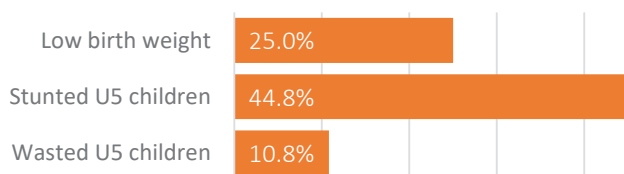
**276** per 100,000 live births

### NEONATAL MORTALITY (2013)

**55** per 1,000 live births

## Children's health and nutrition (2013)

### CHILD NUTRITION



### BREASTFEEDING



## Sociodemographic context (2013)



Women with secondary or higher education



Women minimum dietary diversity

No Data

Women consuming iron-rich foods

No Data



ANC from a skilled provider



Adolescent pregnancy  
women 20-24 years who gave birth before age 20 years








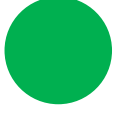










Women who participate in decisions on their own health care





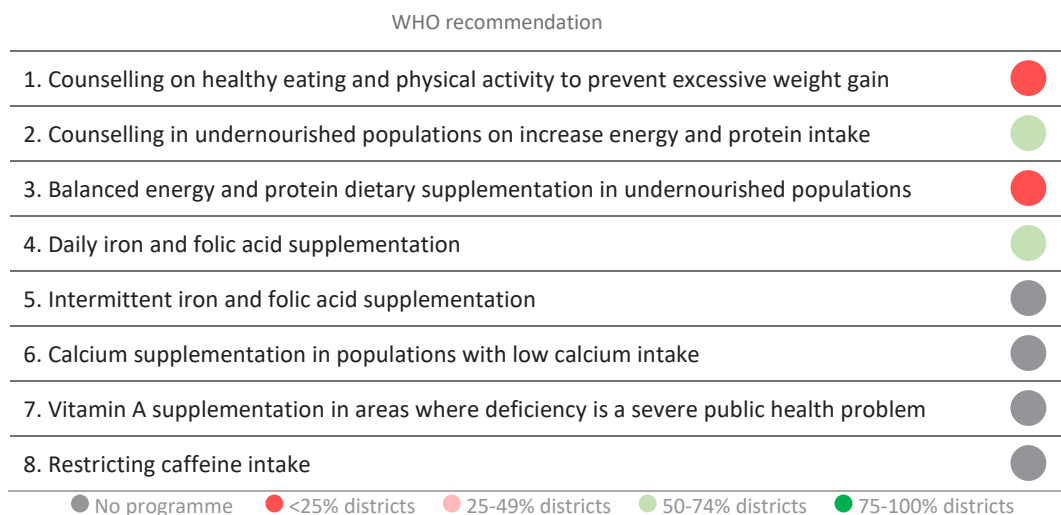
## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain<sup>1</sup></p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

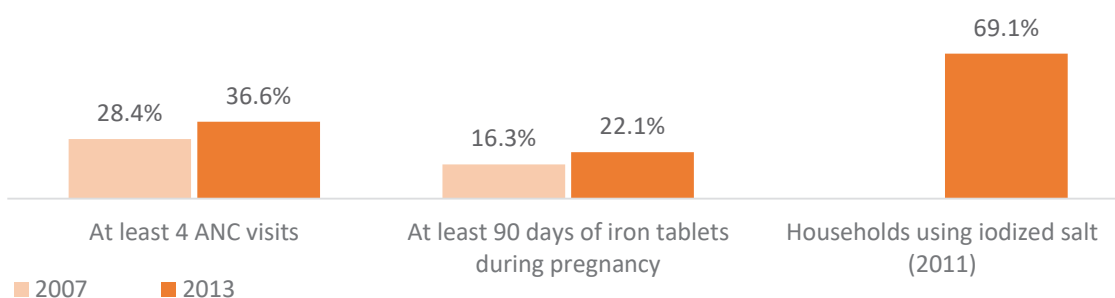
● Not applicable ● No ● Yes



## Proportion of districts delivering maternal nutrition interventions



## Population coverage of interventions



### At least 4 ANC visits, 2013



### At least 90 days of iron tablets, 2013



● <25% 
 ● 25-49% 
 ● 50-74% 
 ● ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.





## Barriers and bottlenecks to implementing maternal nutrition interventions

	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
<b>WHO recommendations</b>									
Healthy eating and physical activity	Significant bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck	No bottleneck	Moderate bottleneck
Increasing daily energy and protein intake	Mild bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck	Moderate bottleneck
Balanced energy and protein dietary supplementation	Significant bottleneck	Mild bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	No bottleneck	Moderate bottleneck
Daily oral iron and folic acid supplementation	No bottleneck	No bottleneck	Mild bottleneck	No bottleneck	No bottleneck	Moderate bottleneck	Mild bottleneck	Mild bottleneck	Mild bottleneck
Intermittent oral iron and folic acid supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Daily calcium supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Vitamin A supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Reducing daily caffeine intake	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme

### End-notes:

1 Diet counseling alone is already in practice during ANC checkup, however no guidance on physical activity and prevent excessive weight gain exist.

<sup>a</sup> The 2016 WHO "Recommendations on antenatal care for a positive pregnancy experience" also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

<sup>c</sup> In undernourished populations, balanced energy and protein dietary supplementation is recommended to reduce the risk of stillbirths and small-for-gestational-age neonates. This recommendation is for populations or settings with a high prevalence of undernourished pregnant women, and not for individual pregnant women identified as being undernourished. Areas that are highly food insecure or those with little access to a variety of foods may wish to consider distribution of balanced protein and energy supplements.

<sup>d</sup> In settings where anaemia in pregnant women is a severe public health problem (prevalence ≥40%), a daily dose of 60 mg iron is preferred over a lower dose. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.

<sup>e</sup> Iron and folic acid supplementation once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects.

<sup>f</sup> Vitamin A deficiency is a severe public health problem if >5% of women have a history of night blindness in most recent pregnancy, or if >20% of pregnant women have a serum retinol level <0.70 mol/L. Dose should be up to 10 000 IU vitamin A (daily dose) OR up to 25 000 IU vitamin A (weekly dose), and be given for a minimum of 12 weeks.

### Data sources and methods:

Data on health, nutrition, socio-demographic context and population coverage was sourced from the most recent nationally representative surveys.

Status of policies and guidelines on maternal nutrition was assessed by UNICEF ROSA through a qualitative review of national policies and guidelines against selected recommendations in the 2016 WHO *Recommendations on antenatal care for a positive pregnancy experience*. Information on the proportion of districts delivering maternal nutrition interventions and on barriers and bottlenecks to implementing these interventions was obtained through a structured questionnaire as part of a review of the status of policies and programmes on maternal nutrition in South Asia, conducted by UNICEF ROSA. For each recommendation, a qualitative assessment of the severity of nine types of barriers/bottlenecks was assessed.

The information on the qualitative review of policies and guidelines, district coverage, and barriers and bottlenecks is provisional. Feedback can be provided to [unicefrosa@unicef.org](mailto:unicefrosa@unicef.org)



# Sri Lanka | Fact Sheet

## Women's nutrition 15-49 years

### THINNESS (2016)

Women who are thin (BMI <18.5 kg/m<sup>2</sup>)



### OVERWEIGHT OR OBESE (2016)

Women who are overweight or obese (BMI ≥25 kg/m<sup>2</sup>)



### OBESEITY (2016)

Women who are obese (BMI ≥30 kg/m<sup>2</sup>)



### LOW STATURE (2016)

Women with height below 145 cm



### ANAEMIA (WRA)

Anaemia among women of reproductive age



### ANAEMIA (PREGNANT) (2015)

Anaemia among pregnant women



### MATERNAL MORTALITY (2016)

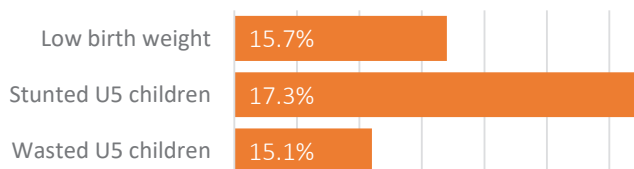
**30** per 100,000 live births

### NEONATAL MORTALITY (2016)

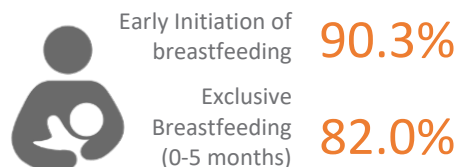
**5.3** per 1,000 live births

## Children's health and nutrition (2016)

### CHILD NUTRITION



### BREASTFEEDING



## Sociodemographic context (2016)



Women with secondary or higher education



Women minimum dietary diversity

No Data

Women consuming iron-rich foods (2007)<sup>1</sup>



ANC from a skilled provider



Adolescent pregnancy

women 20-24 years who gave birth before age 20 years










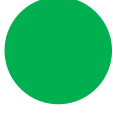








Women who participate in decisions on their own health care





# Sri Lanka | Fact Sheet

## Status of policies and guidelines on maternal nutrition interventions during pregnancy<sup>a</sup>

WHO recommendation	Existence of policy/guideline addressing recommendation	Alignment of policy/guideline with components of recommendation
 <p>1. Counselling on healthy eating and physical activity to prevent excessive weight gain</p>		<div>Healthy eating</div> <div>Physical activity</div>
 <p>2. Counselling in undernourished populations on increase energy and protein intake<sup>b</sup></p>		<div>Energy intake</div> <div>Protein intake</div>
 <p>3. Balanced energy and protein dietary supplementation in undernourished populations<sup>c</sup></p>		<div>Energy</div> <div>Protein</div>
 <p>4. Daily iron (60 mg) and folic acid (400 µg) supplementation<sup>d</sup></p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Daily frequency</div> <div>Early initiation</div>
 <p>5. Intermittent iron (120 mg) and folic acid (2800 µg) supplementation to improve acceptability<sup>e</sup> and where anaemia pregnant women is &lt;20%</p>		<div>Iron dose</div> <div>Folic acid dose</div> <div>Weekly frequency</div>
 <p>6. Calcium supplementation (1.5-2 g) in populations with low calcium intake to reduce risk of pre-eclampsia</p>		<div>Calcium dose</div> <div>From 20 weeks</div> <div>Daily frequency</div>
 <p>7. Vitamin A supplementation<sup>f</sup> in areas where deficiency is a severe public health problem</p>		<div>Vitamin A dose</div> <div>Frequency</div> <div>Duration</div>
 <p>8. Restricting caffeine intake for women with high daily intake (&gt;300 mg per day)</p>		<div>Restricting caffeine intake</div>

● Not applicable ● No ● Yes



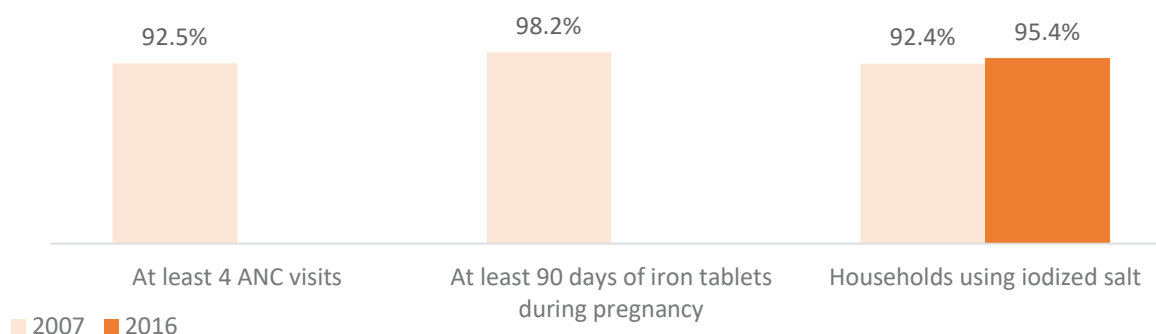
## Proportion of districts delivering maternal nutrition interventions

WHO recommendation

1. Counselling on healthy eating and physical activity to prevent excessive weight gain	●
2. Counselling in undernourished populations on increase energy and protein intake	●
3. Balanced energy and protein dietary supplementation in undernourished populations	●
4. Daily iron and folic acid supplementation	●
5. Intermittent iron and folic acid supplementation	●
6. Calcium supplementation in populations with low calcium intake	●
7. Vitamin A supplementation in areas where deficiency is a severe public health problem	●
8. Restricting caffeine intake	●

● No programme ● <25% districts ● 25-49% districts ● 50-74% districts ● 75-100% districts

## Population coverage of interventions<sup>1</sup>



### At least 4 ANC visits



### At least 90 days of iron tablet, 2016



○ No data ● <25% ● 25-49% ● 50-74% ● ≥75%

Note: The boundaries shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations.



## Barriers and bottlenecks to implementing maternal nutrition interventions

	Legislation and policies	Leadership, management, coordination and governance	Budget and financing	Data and Information	Health workforce	Essential commodities and supplies	Service delivery	Social norms and social and cultural practices	Effective coverage
<b>WHO recommendations</b>									
Healthy eating and physical activity	No bottleneck	Mild bottleneck	No bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck
Increasing daily energy and protein intake	No bottleneck	Mild bottleneck	No bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck
Balanced energy and protein dietary supplementation	No bottleneck	Mild bottleneck	No bottleneck	Significant bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck
Daily oral iron and folic acid supplementation	No bottleneck	No bottleneck	No bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck	No bottleneck	Mild bottleneck
Intermittent oral iron and folic acid supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Daily calcium supplementation	No bottleneck	No bottleneck	No bottleneck	Moderate bottleneck	Moderate bottleneck	Moderate bottleneck	Mild bottleneck	Mild bottleneck	Mild bottleneck
Vitamin A supplementation	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme
Reducing daily caffeine intake	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme	No programme

### End-notes:

1 Dietary intake (women with child <3 years) Iron-rich foods

<sup>a</sup> The 2016 WHO "Recommendations on antenatal care for a positive pregnancy experience" also include recommendations on the timing and frequency of ANC contacts, nutrition assessment during pregnancy, and the prevention of infections (e.g. soil-transmitted helminthiasis and malaria).

<sup>b</sup> In undernourished populations, education on increasing daily energy and protein intake is recommended to reduce the risk of low-birth-weight neonates. For adults, a 20–39% prevalence of thinness (BMI <18.5 kg/m<sup>2</sup>) is considered high and ≥40% is considered a very high.

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