alive&thrive
nourish. nurture. grow.

Maternal, Infant, and Young Child Nutrition In Mother- and Baby-Friendly Services

GUIDELINES FOR PRIVATE SECTOR HEALTH CARE FACILITIES

IAPSM
Indian Association of
Preventive & Social Medicine

Foreword from IAP

Dear friends,

Undernutrition continues to be a major public health issue in India associated with mortality and poor health outcomes among children and prevent them from reaching their full potential. This is coupled with undernutrition among women during their pregnancy, a significant public health challenge which takes its toll not only on the mother herself, but also on the child. The COVID-19 pandemic has made this situation further challenging.

The second phase of POSHAN Abhiyaan launched recently to accelerate the reduction of under-nutrition in the first 1,000 days of life, reiterates government's commitment at the highest level. A critical component towards improving this situation is strengthening the delivery of evidence based maternal, Infant and Young Child Nutrition (MIYCN) services.

The first 1,000 days provides the high impact window of opportunity when the foundation for a child's lifelong health is built. Addressing maternal nutrition during this period can help to prevent the intergenerational cycle of poor health and nutrition. Health and nutrition care provided in the first 1000 days is essential to ensuring child survival and for children to reach their full growth potential and enjoy a high quality of life.

As leaders within the health care delivery system, we have immense responsibility and commitment for ensuring optimum health for women, infants, and young children. It is critical to enhance the capacities of health care practitioners in both the public and private sectors and to strengthen the system to be mother and baby friendly, providing quality and evidence based maternal infant and young child nutrition services.

I sincerely hope this implementation guidance on providing comprehensive and quality mother and baby friendly health services will be of immense help to all the members of IAP who are committed to improving health and well-being of each child. IAP continues to remain committed to support Government of India in achieving the goals on reducing maternal and child morbidity, mortality, and undernutrition.

Heartiest congratulations to all the partners in this commendable effort!

Prof. Piyush Gupta MD, FIAP, FNNF, FAMS
President
Indian Academy of Pediatrics (IAP)
Professor and Head, Department of Pediatrics
University College of Medical Sciences, New Delhi

Foreword from FOGSI

Dear FOGSIans,

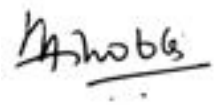
As you are aware, undernutrition continues to be a major public health issue in India associated with mortality and poor health outcomes among children, and it prevents them from reaching their full potential. This is coupled with undernutrition among women during their pregnancy, a significantly prevalent scourge, which takes its toll not only on the mother herself, but also on the newborn baby. The COVID-19 pandemic has posed further challenges to this situation.

The second phase of *POSHAN Abhiyaan* launched recently to accelerate the reduction of undernutrition in the first 1,000 days of life. This reiterates the government's commitment at the highest level. A critical component towards improving this situation is strengthening the capacity of healthcare providers for optimal maternal, infant, young child, and adolescent nutrition service delivery by translating knowledge into practice.

The first 1,000 days are a time of tremendous potential and enormous vulnerability. How well or how poorly a mother and child are nourished and cared for during this time has a profound impact on a woman's health and well-being and a child's ability to grow, learn, and thrive. This is because the first 1,000 days are when a child's brain begins to grow and develop and when the foundation for their lifelong health is built. As health care providers and leaders within the health care delivery system, we have a critical role to play to ensure optimum health for women and young children. There is a felt need to enhance the capacities of health care practitioners in both public and private sector to provide quality and evidence-based maternal, infant, and young child nutrition services, creating a mother- and baby-friendly health system environment.

I hope this implementation guidance on providing mother- and baby-friendly health services focusing on delivering quality maternal nutrition and breastfeeding services and counselling will be of immense help to all FOGSI and to those responsible for and committed to women and newborn health and wellbeing during pregnancy, childbirth, and the postpartum period.

Heartiest congratulations to the contributors for development of this key consensus guidance document!



Dr Vidya Thobbi
Chairperson, Food Drugs and Medicosurgical Equipment Committee
FOGSI

Foreword from IAP IYCF Chapter

Mothers and infants should be seen within a continuum and be approached with combined strategies to ensure they achieve the best outcomes. This segment of the population is very large and of utmost importance in public health. Integrated intra-sectoral and inter-sectoral approaches smooth coordination and thus better results can be achieved. This strategy in health and nutrition is successfully practiced world over in public health and large private sectors.

A combined document guiding maternal, infant, and young child nutrition in mother- and baby-friendly services for private sector health care facilities has been long awaited in our country. The venture by Alive & Thrive is very well appreciated to bring out the document by compiling the guidelines and information from Indian Academy of Pediatrics, Federation of Obstetric and Gynaecological Societies of India, and India Association of Preventive and Social Medicine.

This document will become a one-stop solution for reviewing the mother-infant dyad for common services and thus help private practitioners. It will support capacity building and strengthen services in health and nutrition. It will also endorse and disseminate key policies, legislation, and regulations. It will give insight in mobilizing resources and support. It is our hope that this will be followed by a series of updated versions year after year as more evidence is available.

Infant and Young Child Feeding Chapter of Indian Academy of Pediatrics congratulates Alive & Thrive for creating these detailed yet concise guidelines.

Dr Ketan Bharadva MD, DCH, FIAP
President IYCF Chapter IAP and Human Milk Banking Association of India

Foreword from IAP IYCF & HMBA Chapter

It is a privilege for me to write this foreword for Maternal, Infant, and Young Child Nutrition In Mother- and Baby-Friendly Services: Guidelines for private sector health care facilities, jointly published by FOGSI, IAP, IYCF & IAPSM.

Mother and Infant should be approached holistically with combined strategies to get the best outcomes with reference to nutrition. Integrated intra sectoral and inter sectoral approach smoothens coordination and thus better outcome can be achieved. This kind of combined strategy maternal health and nutrition is successfully practiced world over in both public and private sectors.

A combined document on "Maternal, infant and young child nutrition in mother and baby friendly services guideline for private sector health care facilities" had been long awaited in our country. It is gratifying to note these guidelines are truly practical and has been developed based on country"s experience

It will become one stop solution for reviewing the mother-infant dyad for common services and thus help every general practitioners as tabletop ready rekenor. It will also support capacity building and strengthen services in maternal health and nutrition. It will not only endorse & disseminate key policies, legislations and regulations. But also will give insight on mobilizing resources and support.

Hope I am sure this will be updated year after year with more and more advances with evidence to keep abreast of the changes in the field of medical science .

I appreciate Alive and Thrive for venturing into bringing out this valid document by compiling the guidelines with innovative ideas and information from various contributors spearheading Indian Academy of Pediatrics, Federation of Obstetric and Gynecological Societies of India & India Association of Preventive and Social Medicine.

Infant and Young Child Feeding Chapter of Indian Academy of Pediatrics & Human Milk Banking Association of India congratulates Alive & Thrive to come up with this detailed comphrehensive guidelines.

Dr. R. SOMASEKAR, MD, DCH, FIAP
Hon. Secretary, IYCF Chapter of IAP & HMBA
Vice President (South Zone) CIAP

Foreword from IAPSM

It is a proud moment for Indian Association of Preventive and Social Medicine (IAPSM), as we witness the launch of the *Maternal, Infant, and Young Child Nutrition (MIYCN) in Mother- and Baby-Friendly Services*: Guidelines for private sector health facilities, jointly issued by Federation of Obstetrics and Gynaecological Societies of India (FOGSI), Indian Academy of Pediatrics (IAP), and Indian Association of Preventive and Social Medicine (IAPSM).

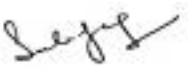
Even though a higher proportion of mother and child related services are being accessed at private healthcare facilities, we find there is a lack of focus on the MIYCN-related services and guidelines for private settings. IAPSM along with FOGSI and IAP, therefore, conducted a national survey to find out the status of MIYCN services in the private healthcare facilities. The results of the survey identified gaps in the knowledge related to MIYCN recommendations and in the delivery of MIYCN-related services in the private healthcare facilities. This prompted the creation of this set of guidelines. The support and stewardship provided by FOGSI, IAP, and IAPSM makes this work credible and will increase its acceptance among the private practitioners in this field.

This set of guidelines includes all major MIYCN-related services expected within mother- and baby-friendly health services, including MIYCN-related protocols, regulations, staffing patterns, monitoring, and the specific components of MIYCN services at various contact points. It is a comprehensive, focused, user-friendly document arranged in a logical flow from protocols to specific counselling and service-related points.

This set of guidelines will be useful for all those who are delivering MIYCN services in the healthcare facilities or who are the administrators of such facilities. Even though these guidelines are primarily intended for the private sector, the overarching guidelines can also be referenced by those in public sector. This can also be a useful resource for teaching and training the medical undergraduates and postgraduates of gynaecology and obstetrics, pediatrics, and community medicine or public health.

We, through our vast IAPSM network in all the medical colleges of India, would promote its use in the Community Medicine departments, especially at the urban and rural field practice areas and outreach centres. We urge the Community Medicine fraternity to use this document in teaching and training medical undergraduates and postgraduates.

We are grateful to the representatives of MoHFW, GoI, FOGSI, IAP, BPNI, UNICEF, Engender Health, and WHO for their expert input in developing these guidelines, and we thank Alive & Thrive India for their overall support in developing and bringing out these guidelines.



Dr Suneela Garg, DIR, PRF, HAG
Professor of Excellence, National President, IAPSM
Ex-Sub-Dean and Ex-Head of the Department of Community Medicine, MAMC
Honorary Secretary General of NPPCD

Contents

Abbreviations

ANC	Antenatal care
BPNI	Breastfeeding Promotion Network of India
BMI	Body mass index
dL	Decilitre
FIGO	International Federation of Gynaecology and Obstetrics
FOGSI	Federation of Obstetricians and Gynaecologists of India
GDM	Gestational diabetes mellitus
GoI	Government of India
HMIS	Health management information system
IAP	Indian Academy of Pediatrics
IAPSM	Indian Association of Preventive and Social Medicine
IFA	Iron folic acid
IMS	Infant milk substitutes
IU	International units
IYCF	Infant and young child feeding
kg	Kilogram
KMC	Kangaroo Mother Care
MAA	Mother's Absolute Affection
MAM	Moderate Acute Malnutrition
mcg	Microgram
mg	Milligram
MIYCN	Maternal, infant, and young child nutrition
ml	Mililitre
MNCH	Maternal, newborn, and child health
MNT	Medical nutrition therapy
OBGYN	Obstetrician and gynaecologist
OPD	Outpatient department
PNC	Postnatal care
POCQI	Point of Care Quality Improvement
SAM	Severe Acute Malnutrition

Introduction

The first 1,000 days are a time of tremendous potential and enormous vulnerability. How well or how poorly a mother and child are nourished and cared for during this time has a profound impact on the child's ability to grow, learn, and thrive. This is because the first 1,000 days are when a child's brain begins to grow and develop and when the foundation for their lifelong health is built.

As health care providers and leaders within the health care delivery system, you have a critical role to play in every child's early journey. Over the last decade, several new maternal, infant, and young child nutrition (MIYCN) guidelines have been introduced or modified by the Government of India and professional medical associations to help you play this role effectively. The different guidelines (shown in the box) provide direction and focus for the services that ensure mothers, infants, and young children receive the nutritional care they need.

Similarly, these guidelines on MIYCN in mother- and baby-friendly services for private health care facilities are meant to provide operational and technical guidance to ensure MIYCN services are prioritized, integrated, and delivered during the provision of maternal and child health services in the first 1,000 days. They are based on evidence and recommendations from all of the existing MIYCN guidelines mentioned. Other sources are referenced within.

Within this document, you will find an overview of the MIYCN services within the first 1,000 days (pages 7-8), which can be a helpful resource for staff at every level. Part 1 provides facility leadership and health care providers with a closer look at the requirements that must be in place to achieve a mother- and baby-friendly health facility. Detailed guidelines on the delivery of MIYCN services in Part 2 indicate who is responsible and the resources needed for each step. Detailed protocols for each contact point can be found in the Annex.

EXISTING MIYCN GUIDELINES

Government of India guidelines

- National Guidelines on Anemia Mukt Bharat (Anemia Free India), 2018
- National Guidelines on Calcium Supplementation, 2014
- National Guidelines on Deworming in Pregnancy and Childhood, 2014
- National Guidelines on Lactation Management Centers in Public Health Facilities, 2017
- National Guidelines on Screening and Management of Gestational Diabetes, 2018
- Feeding Norms for In-Facility Postnatal Care, 2018
- Enhancing Optimal Infant and Young Child Feeding Practices, 2013
- The Infant Milk Substitutes, Feeding Bottles, and Infant Foods (Regulation of Production, Supply and Distribution) (IMS) Act, 1992, amended in 2003

Medical association guidelines

The Federation of Obstetricians and Gynaecologists of India (FOGSI) and Indian Academy of Pediatrics (IAP) released:

- Guidelines on Early Initiation of Breastfeeding after Caesarean Section Delivery, 2019

IAP also released:

- Infant and Young Child Feeding Guidelines, 2016
- Human Milk Banking Guidelines, 2014
- Consensus on Prevention of Micronutrient Deficiencies in Children, 2019

Overview

MIYCN SERVICES WITHIN THE FIRST 1,000 DAYS

MATERNAL NUTRITION[3]

According to the national guidelines for antenatal care (ANC), it is recommended that all pregnant women be provided with appropriate nutritional assessment, counselling, supplementation, and treatment (for complications) over the course of their pregnancy. Within these standard service delivery steps, a summary of the specific maternal nutrition services and recommendations are presented below.

Assessment

1. **Weight gain.** Anthropometric measurement of height and weight and calculation of body mass index (BMI) in first contact, followed by tracking of gestational weight gain based on preconception or BMI measured within 20 weeks of gestation.[4]
2. **Dietary practices.** Assessment to understand quantity, frequency, and diversity of current diet.[5]
3. **Anaemia, gestational diabetes mellitus (GDM), and thyroid disorders.** Screening done by blood test.
4. **Nutritional deficiency disorders.** Clinical assessment done for anaemia, vitamin A deficiency, iodine deficiency disorders, and dental and skeletal fluorosis in endemic areas.
5. **Malaria.** Routine screening, management, and referral in endemic areas.

Counselling

1. **Diet.** Different advice given to women based on their BMI category:

   Normal (pre-pregnancy BMI of 18.5-24.9 kg/m2). Advised to have three main meals and two snacks to meet all nutrient requirements second trimester onwards. Advised to eat daily from at least five different food groups such as pulses, dark green leafy vegetables, vitamin A-rich fruits and vegetables, milk products, eggs, and poultry/fish/meat.

   Thin (pre-pregnancy BMI of <18.5 kg/m2). Advised to consume additional calories and nutrient-dense snacks to meet additional requirements. (Note that women with GDM are excluded from this recommendation.)

   Overweight or Obese (pre-pregnancy BMI of 25 or more). Only moderate calorie restriction recommended — not below 30% of estimated calorie intake among obese women with gestational diabetes.[6] Low-calorie alternatives recommended for main meals and snacks. This should be combined with advice on maintaining healthy and active lifestyle with regular physical exercise.
2. **IFA and calcium supplements.** Advice given to pregnant women and husband/accompanying family members on how to consume, limit side-effects, and continue supplementation despite mild side-effects.
3. **Breastfeeding.** Advice given to pregnant women in the third trimester ANC, with emphasis on the importance of early initiation of breastfeeding for both normal vaginal and caesarean section (C-section) deliveries. All pregnant women—especially those undergoing C-section—should be encouraged to identify a trusted family member to help initiate breastfeeding during recovery under the guidance of facility staff.
4. **At-risk conditions.** Tailored counselling given with treatment to pregnant women with nutritional risks, such as moderate and severe anaemia, gestational diabetes, maternal thinness, maternal obesity, inappropriate gestational weight gain <1 kg or >3 kg per month after first trimester.

Supplementation and treatment

1. **Folic acid.** Daily supplement (400 mcg) recommended during preconception and first trimester.
2. **Iron and folic acid.** Iron (60 mg) and folic acid (500 mcg) supplement recommended once daily, starting at 14 weeks gestation for 180 days and continued 180 days post-partum for all pregnant women. Dose doubled for those with mild to moderate anaemia (Haemoglobin 7-10.9 g/dL).
3. **Calcium.** Calcium (500 mg) supplement recommended twice daily, starting 14 weeks for 180 days and continued 180 days post-partum.[7]
4. **Iodized salt.** Only iodized salt or double fortified salt recommended for use in households.
5. **Deworming.** Single dose of albendazole (400 mg) recommended during second trimester.

---

3 Drawn from near-final draft of maternal nutrition guidelines developed by Technical Expert Committee on Maternal Nutrition constituted by Maternal Health Division, MoHFW; the WHO ANC Guidelines, 2016; and FIGO's Adolescent, Preconception, and Maternal Nutrition Guidelines.

4 The former national guidelines recommended an average of 10-12 kg weight gain for all women, but current recommendations have changed to address the weight gain requirements for underweight and overweight/obese pregnant women.

5 FAO and FHI 360. 2016. Minimum Dietary Diversity for Women: A Guide for Measurement. Rome: FAO. Recommended consumption of at least five of 10 food groups daily.

6 Calorie requirement is calculated based on basal metabolic rate and physical activity level.

7 National Guidelines on Calcium Supplementation during Pregnancy and Lactation, MoHFW, 2014.

INFANT AND YOUNG CHILD NUTRITION

Below is a summary of the infant and young child nutrition services and recommendations that occur immediately after delivery, during PNC, or during routine childcare, usually at immunization clinics or the pediatric OPD.

Assessment

1. **Child growth.** Baby weighed at birth and every month thereafter till five years of age. Length/height also measured, and child growth charts updated. All opportunities should be utilized to take these measurements so that early growth faltering can be detected and managed to prevent moderate and severe acute malnutrition.
2. **Breastfeeding and complementary feeding.** Assessment based on mother's/caretaker's recall of what the child had in last 24 hours.

   0-6 months: Confirm if infant is exclusively breastfed.

   6-23 months: Confirm if child is receiving adequate quantity, frequency, and diversity of foods along with breastfeeding.
3. **Nutritional deficiency disorders.** Clinical examination of newborn to screen for anaemia, Vitamin A and D deficiency, and iodine deficiency disorders.

Counselling and support

1. **Kangaroo Mother Care (KMC).** Mother and family supported to practice KMC if baby's birthweight is below 2,000 grams and there are no complications.[8]
2. **Breastfeeding.** Support provided by trained staff in delivery room and advice on sustaining breastfeeding given during postnatal period.

   Early initiation of breastfeeding. Mothers supported to immediately breastfeed after birth in the delivery room. In C-section deliveries, doctors, and nursing staff to orient a trusted family member to help with early initiation within 1 hour.

   Infant milk substitutes. Infant milk substitutes not to be used. Instead, mothers trained on expressing breastmilk. Rarely, when expressed breastmilk or donor milk options are unavailable, infant milk can be prescribed with counselling on how to identify the best options. (Written consent of family members required.)

   Exclusive breastfeeding (0-6 months). Support and counselling for breastfeeding and managing difficulties provided by trained nurses in postnatal ward. Breastfeeding to be well-established with health worker support before mother and baby discharged. Every follow-up contact in the first 6 months to include counselling on exclusive breastfeeding and importance of not giving any other fluid or food.

   Feeding the sick child. Mothers advised to continue breastfeeding during and after any illness.

   Continued breastfeeding. Mothers advised to continue breastfeeding for 2 years or beyond.[9]
3. **Complementary feeding (6-24 months).** Counselling provided using demonstrations or visuals of age-appropriate complementary foods, with a focus on feeding quantity, consistency, diversity, and frequency.

   When to start. Solid foods to be introduced when baby reaches 6 months of age.

   What to feed. Child to be fed daily from at least four of the recommended food groups, such as grains/cereals, pulses, dark green leafy vegetables, vitamin A-rich fruits and vegetables, and eggs (where culturally acceptable).

   How many times and how much to feed. Breastfed infants and young children should be fed as follows:

   - ***6-8 months:*** Twice per day, starting with 2-3 tablespoonfuls and gradually increasing to 1/2 of a 250 ml bowl per feed.
   - ***9-11 months:*** Thrice per day with 1/2 of a 250 ml bowl at each feed, plus 1-2 nutritious snacks.
   - ***12-23 months:*** 3-4 times per day with 3/4 to 1 full 250 ml bowl at each feed, plus 1-2 nutritious snacks.

   Non-breastfed Infants and young children should be fed a minimum of four times including milk feeds.

   How to feed. Cup and spoon to be used for feeding fluids after 6 months of age. Bottle feeding totally discouraged.
4. **Vaccination, supplementation, and deworming.** Advice given at every contact, especially as baby reaches 6 months of age.

Supplementation and treatment

1. **Vitamin K.** Newborns given intramuscular dose according to birthweight, after skin-to-skin contact established.

   Newborns over 1,000 g: 1 mg dose

   Newborns less than 1,000 g: 0.5 mg dose
2. **Vitamin A.** Infants and young children 6-59 months given vitamin A supplementation, as per national guidelines.
3. **Iron and folic acid.** Infants and young children 6-59 months given 1 ml IFA syrup biweekly with each ml of IFA syrup containing 20 mg elemental iron + 100 mcg of folic acid.[10]
4. **Deworming.** Children given biannual dose of albendazole after 1 year of age.

   12-23 months: 200 mg

   24+ months: 400 mg

8 Kangaroo Mother Care and Optimal Feeding of LBW Infants: Operational Guidelines, MoHFW, 2014.

9 Guidelines for Enhancing Optimal Infant and Young Child Feeding Practices, MoHFW, 2013

10 Anemia Mukt Bharat Guidelines, MoHFW, 2018.

PART 1

Requirements for MIYCN in mother- and baby-friendly health systems

This section looks at the regulations that influence MIYCN-related activities, the protocols that are necessary to actualize the services within health facilities, the staffing and training requirements when adding or integrating MIYCN services, and the monitoring that is necessary to ensure quality care and service delivery.

Requirement 1

COMPLIANCE WITH REGULATIONS AND GUIDELINES

Implementation of existing MIYCN-friendly guidelines is essential to achieving a mother- and baby-friendly health system. For maternal nutrition, the global and national recommendations are the reflected in the summary of services on page 7. For infant and young child feeding, some of the global and national guidelines are presented in the summary of recommended services on page 8. Remaining guidelines that support infant and young child feeding are described below. Compliance with the existing regulations and guidelines requires awareness and collective action by health workers, administrators, policymakers, businesses selling infant milk substitutes, and the public.

THE TEN STEPS TO SUCCESSFUL BREASTFEEDING

The Ten Steps to Successful Breastfeeding, first introduced in 1989, remained largely unchanged till a recent review of breastfeeding guidance in facilities in 2017.[11] The revised 15 recommendations fit within the following objectives:

Provide immediate support to initiate and establish breastfeeding

Support feeding practices and additional needs of infants

Create an enabling environment for breastfeeding, which includes making health facilities "baby friendly"

Mother- and baby-friendly health facilities should have a written policy on these services that is available and communicated to all staff and clients.

THE IMS ACT

All mother- and baby-friendly facilities should comply with the regulations under the Infant Milk Substitutes, Feeding Bottles, and Infant Foods (Regulation of Production, Supply, and Distribution) Act, 1992 as amended in 2003 (IMS Act).

The act covers infant milk substitutes (IMS), infant foods, and feeding bottles. The IMS Act prohibits advertisements, distribution of free samples, as well as any promotion or educational material on these products. It mandates that labels must promote breastfeeding by including the message, "MOTHER'S MILK IS BEST FOR YOUR BABY", in English and local language. It also restricts the use of any pictures of women or infants and prohibits the use of phrases to promote the product.

Direct contact with any pregnant woman or mother of an infant to promote these products is also prohibited. Further, entities that produce, supply, distribute, or sell IMS are prohibited from offering or giving any contribution or financial compensation to a health worker or any association of health workers, including funding of seminars, meetings, conferences, educational courses, contests, fellowships, research work, or sponsorships.

In India, health care providers and facilities are not only responsible for compliance with the IMS Act, but they are also responsible for reporting any violations of the IMS Act to the Ministry of Health and Family Welfare and Ministry of Women and Child Development. Violation of the act can lead to imprisonment and financial penalty.

11 WHO. Guideline- Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. Geneva: World Health Organization; 2017. License: CC BY-NC-SA 3.0 IGO.

Requirement 2

MIYCN PROTOCOLS FOR CRITICAL CONTACT POINTS

In the first 1,000 days, there are several critical contact points that must be leveraged to deliver essential MIYCN services.

Figure 1 shows the 1,000-day timeline with critical contact points during ANC checkups, during labour (in the prep room, labour room, and operational theatre), immediately after delivery (in the PNC ward), during routine immunization visits in infancy and early childhood, and during follow-up care with pediatricians for well-baby or sick baby visits. It is important that all facilities have protocols in place to provide essential nutritional care at every stage.

Protocols showing the patient flow, MIYCN services, and the responsible provider for each service are provided in Part 2. Detailed protocols for doctors and nurses handling each critical contact point can be found in the Annex. These protocols can be adopted and adapted to fit the circumstances of the different types of health care facilities. For a multispecialty hospital and nursing home, the protocols should detail roles for each cadre. In single provider OPDs and polyclinics, protocols for ANC OPD and immunization or pediatric OPD remain relevant.

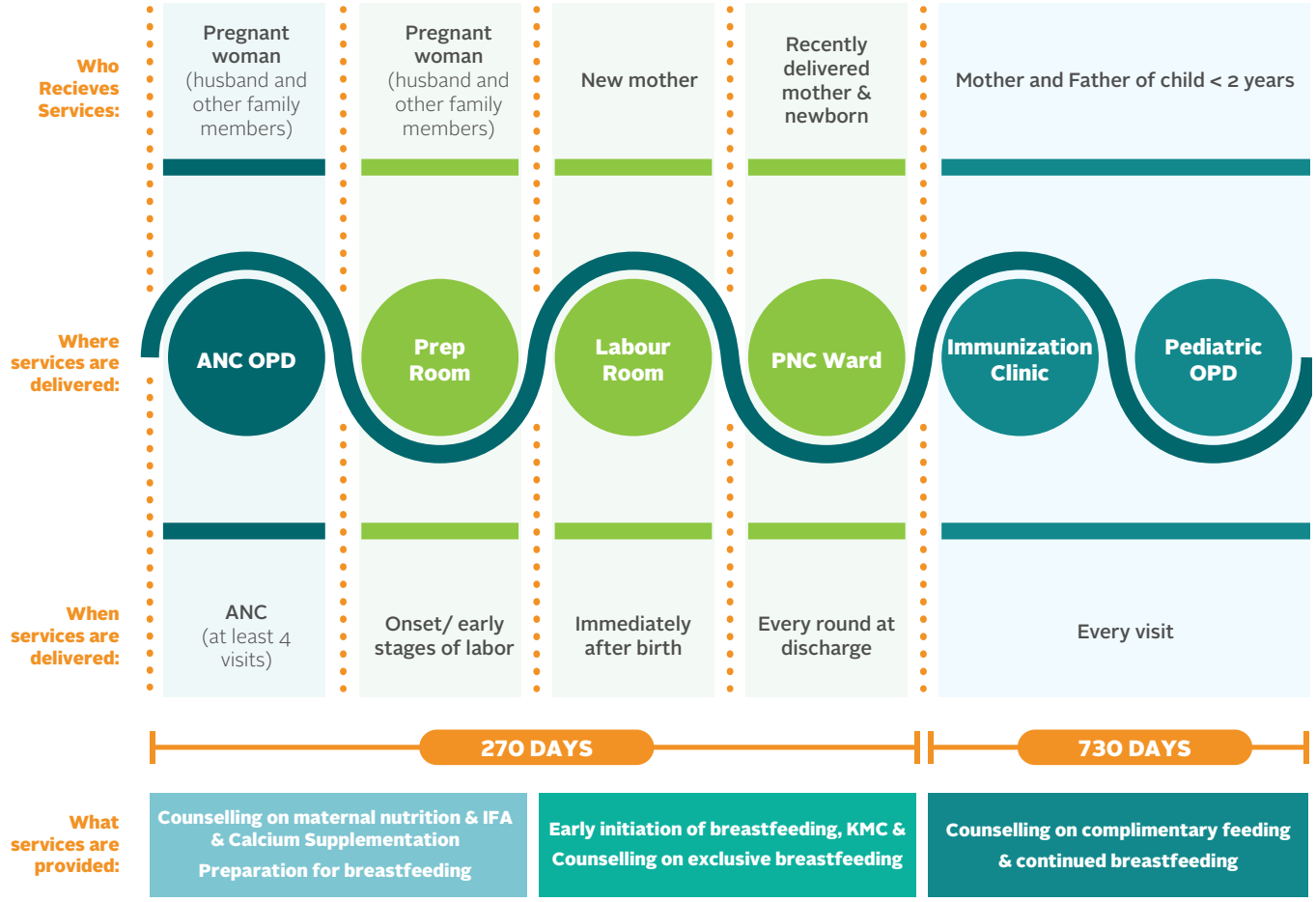


Figure 1

Requirement 3

STAFF AVAILABILITY AND CAPACITY

As evident by requirements 1 and 2, mother- and baby-friendly health facilities require appropriate staffing and training to deliver MIYCN within existing services.

STAFFING FOR MIYCN

Implementation of the MIYCN protocols discussed in Requirement 2, require the availability of the following personnel:

- Doctors, OBGYN specialists, and pediatricians
- Staff nurses trained on MIYCN
- Lactation consultants
- Dietitians or counsellors trained on MIYCN
- Laboratory technicians
- Pharmacists or authorized personnel for dispensing supplements and medicine

Nurses may be trained to manage breastfeeding difficulties under an OBGYN's or pediatrician's supervision. Pediatricians are critical in diagnosing and managing complications in newborns and severe acute malnutrition in children. For multispecialty hospitals and nursing homes, doctors may either have a trained nurse to assist with or deliver all MIYCN related services assigned to a nurse. Pregnant women and children may need to be referred to a dietitian/counsellor and advised to get supplements/medicine from authorized pharmacies.

CAPACITY BUILDING AND PERFORMANCE MANAGEMENT

There should be a regular system of training staff not just on technical aspects, but also on supporting and counselling mothers and families on maternal nutrition, breastfeeding, and complementary feeding practices. Nurses in postnatal wards need to be orientated to support skin-to-skin contact, to initiate breastfeeding (especially in post C-section deliveries) and to manage any breastfeeding difficulties. Apart from training, it is also necessary to have a system to assess hospitals' staff knowledge and skills routinely and provide support to improve their performance and provide regular updates.

Learning resources are available and may be adapted. Technical handbooks have been developed by FOGSI on maternal nutrition and by IAP on infant and young child feeding (IYCF). The Government of India's Mother's Absolute Affection (MAA) program has developed a one-day sensitization module that covers early and exclusive breastfeeding, expression of breastmilk, continued breastfeeding, and complementary feeding. Training resources on nutrition counselling are also readily available in these modules. Hospitals and facilities providing MNCH services can adapt these resources for continuing medical education sessions for doctors as well as orientation of nurses and counsellors on MIYCN roles in the health facility. The Breastfeeding Promotion Network of India (BPNI) offers a 7-day training on IYCF for doctors, nurses, counsellors, and dietitians. Multispecialty hospitals should have the complete range of trained personnel, including doctor/specialist, nurses, counsellors, and pharmacists. Other types of facilities may refer pregnant women and children for services beyond the scope of the facility service list.

Requirement 4

MONITORING FOR COVERAGE AND QUALITY IMPROVEMENT

Monitoring MIYCN indicators within the HMIS

What gets monitored, gets done. Thus, it is critical for mother- and baby-friendly facilities to have ongoing monitoring mechanisms to gather, analyze, and use data on MIYCN services for improving their delivery. Nutrition related service indicators need to be part of the hospital's health management information system (HMIS).

REAL-TIME MONITORING FOR QUALITY IMPROVEMENT

Every program has its own set of obstacles and areas in which quality suffers. There is evidence that poor-quality health services are responsible for greater mortality than inadequate access to services. Successful programs must identify quality standards for care and services and continually measure against those standards in real time to allow for necessary adjustments. Increasing health service coverage must therefore be complemented by efforts to enhance quality, which also promotes positive health-seeking behaviour and increased service utilization. WHO's Point of Care Quality Improvement (POCQI) framework—adopted globally and in India by GoI's LaQSHYA program—is a good model for mother- and baby-friendly health facilities to improve not only health services, but also the MIYCN service delivery.

It consists of 4 steps and applies the Plan-Do-Study-Act cycle to test the effectiveness of changes (Figure 2). Some of the medical college hospital settings have also used this approach to improve MIYCN service delivery.

4-STEP POCQI FRAMEWORK

1. Identify a problem, form a team, and define the aim
2. Analyse and measure the quality of care
3. Develop and test changes
4. Sustain improvements

PDSA CYCLE WAS APPLIED HERE

PLAN-DO-STUDY-ACT

Plan-Do-Study-Act (PDSA) is a cycle used to test the effectiveness of a change. It is used for action-orientated learning and was applied during Step 3 of POCQI to check the effectiveness of changes into existing systems

Figure 2

PART 2

Delivering MIYCN in mother- and baby-friendly health systems

This section details the standard MIYCN services within each contact point, the person responsible for each service at the different facilities, and the tools or resources needed to complete each service. It also provides information about special cases that need additional care beyond the routine services.

Nutrition in routine antenatal care

FIRST ANC CONTACT

Service	Responsible Provider (by facility)			Requirements
	Single / polyclinic	Nursing home	Multispecialty	
Register client	Doctor/trained assistant/ nurse	Nurse	Nurse	Mother Child Protection Cards or equivalent
Measure weight and height and calculate BMI (red mark <18.5 or >24.9)	Doctor/trained assistant/ nurse	Nurse	Nurse	Stadiometer Weighing scale Mother Child Protection Cards or equivalent
Take obstetric and family history and record	Doctor	Doctor	Doctor	Mother Child Protection Cards or equivalent
Complete physical examination and record	Doctor	Doctor	Doctor	Mother Child Protection Cards or equivalent
Assess nutritional status: – Review BMI – Examine for signs of anaemia – Assess dietary practice (using brief 24-hour dietary recall)	Doctor	Doctor	Doctor	Mother Child Protection Cards or equivalent
Provide advice on: – Rest – Weight gain – Diet – Folic acid supplementation – Caffeine restriction	Doctor	Doctor	Doctor	Checklist/counselling cards/information cards on relevant themes
Prescribe as per advice and refer to counsellor and laboratory	Doctor	Doctor	Doctor	Referral slip
Administer and update record	Doctor/trained assistant/ nurse	Nurse	Nurse	Mother Child Protection Cards or equivalent
Provide group counselling	-	-	Counsellor/ dietitian	Flipbook/flyer or leaflet on maternal nutrition[12]
Provide customized counselling for those at risk	Doctor	Doctor/ counsellor/ dietitian	Doctor/ counsellor/ dietitian	Flipbook/counselling card[13] Mother Child Protection Cards or equivalent
Dispense supplements	-	-	Pharmacist	Folic acid supplements
Conduct laboratory test	-	-	Technician	Laboratory with required testing capabilities

12 National Centre for Excellence and Advanced Research and Diets. Maternal nutrition for safe motherhood (Flipbook). http://www.nceardladyirwin.in/ToolkitFrame.aspx?flag=9

13 National Centre for Excellence and Advanced Research and Diets. Maternal nutrition for safe motherhood (By gestational month cards). http://www.nceardladyirwin.in/ToolkitFrame.aspx?flag=9

SUBSEQUENT ANC VISITS

Service	Responsible Provider (by facility)			Requirements
	Single / polyclinic	Nursing home	Multispecialty	
Measure weight	Doctor/trained assistant	Nurse	Nurse	Mother Child Protection Card or equivalent
Check for any complaint, challenge in complying with advice	Doctor	Doctor	Doctor	
Complete physical examination and record	Doctor/trained assistant/ nurse	Doctor	Doctor	Mother Child Protection Card or equivalent
Assess nutritional status: – Review weight gain – Examine for signs of anaemia – Assess dietary practices (include brief 24-hour dietary recall)	Doctor	Doctor	Doctor	Mother Child Protection Card or equivalent
Provide advice on: – Rest – Weight gain – Diet – Iron folic acid and calcium supplementation – Caffeine restriction	Doctor	Doctor	Doctor	Checklist/information cards on relevant themes
Advise on family planning and early initiation of breastfeeding (within 1 hour of birth) *(3rd trimester clients)*	Doctor	Doctor	Doctor	Checklist on relevant themes
Prescribe as per advice and refer to counsellor and laboratory	Doctor	Doctor	Doctor	Referral slip
Administer or prescribe single dose of deworming *(Once in pregnancy)*	Doctor	Nurse	Nurse	Albendazole 400mg (or prescribe)
Administer TT and update record *(Twice in pregnancy)*	Doctor	Nurse	Nurse	Mother Child Protection Card or equivalent
Provide group counselling	-	-	Counsellor/ dietitian	Flipbook/counselling card/leaflet on maternal nutrition
Provide customized counselling for those at risk	Doctor	Counsellor/ dietitian	Counsellor/ dietitian	Mother Child Protection Card or equivalent
Dispense supplements	-	-	Pharmacist	IFA and calcium supplements
Conduct laboratory test	-	-	Technician	Laboratory with required testing capabilities

Special cases

REQUIRING ADDITIONAL SERVICES DURING ANC

Thinness/underweight or poor gestational weight gain

There is no government endorsed criteria for screening thin pregnant women. However, some are advocating to classify those with a pre- or early-pregnancy BMI of <18.5 kg/m2 within the first 20 weeks or those with gestational weight gain of <1 kg per month after the first trimester.

Currently, there is no consensus on management during pregnancy. Underweight/thin women are advised to eat additional calorie and nutrient-rich snacks to meet additional calorie requirements. Balanced energy protein supplementation and micronutrient supplementation among thin pregnant women have not yielded unequivocal evidence in improving maternal and newborn outcomes.

Obesity

According to global guidelines applicable to Asian women, women considered overweight before pregnancy (pre-pregnancy BMI of 25-29.9) should gain 7-11.5 kg total during pregnancy. For obese women (pre-pregnancy BMI of 30 or more), it should be 5-9 kg.

Overweight or obese women planning to become pregnant, or those who are already pregnant, should be offered nutrition counselling—they should be encouraged to be physically active and advised to consume low-calorie alternatives for main meals and snacks. However, optimal management of obesity in pregnancy requires customized diet and physical activity plans created by a dietitian.

Those who are not yet pregnant should be advised to delay pregnancy till their ideal weight is achieved. The FIGO guidelines recommend at least 400 mcg or preferably 5mg daily preconception folic acid supplementation for women with a BMI ≥30 kg/m2.

Gestational diabetes mellitus[12]

All pregnant women should be screened for gestational diabetes mellitus (GDM). The first testing should be done in the first ANC contact, and repeated testing should occur during 24-28 weeks of pregnancy if the first test is negative.

Women diagnosed with GDM are recommended to receive medical nutrition therapy (MNT). MNT for GDM primarily involves a carbohydrate-controlled, balanced meal plan that promotes:

- Optimal nutrition for maternal and foetal health
- Adequate energy for appropriate gestational weight gain
- Achievement and maintenance of normoglycemia
- Nutritional assessments of women with GDM should be individualised to allow for an accurate appraisal of the woman's nutritional status. This assessment includes defining her BMI or percentage of desirable pre-pregnancy bodyweight and optimal pattern of weight gain during pregnancy. GDM is managed initially with MNT and if it is not controlled with MNT, insulin therapy is added. Appropriate physical activity needs to be advised and encouraged along with MNT.

Moderate to severe anaemia[13]

Pregnant women with moderate anaemia require a double dose of IFA along with close monitoring of haemoglobin levels. However, those diagnosed closer to term may also need parenteral iron. For severe anaemia cases, immediate parenteral iron therapy is recommended along with hospitalization if the woman is closer to term.

12 Guidelines on diagnosis and management of gestational diabetes, MoHFW, 2018.

13 Moderate to severe anemia: Anemia Mukt Bharat Guidelines, MoHFW, 2018.

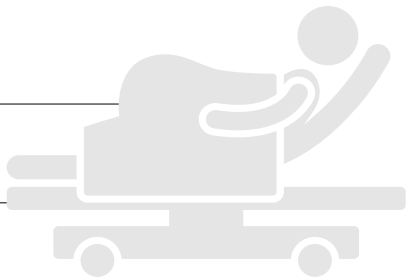
Nutrition in routine delivery care

BEFORE LABOUR

Service	Responsible Provider	Requirements
Counsel family on: – Initiating breastfeeding immediately – Feeding colostrum – No prelacteals	Nurse	
Identify family member to support mother with breastfeeding (For C-section)	Nurse	Personal protective gear for family member Video/visual showing attendant how to support baby

DELIVERY ROOM

Service	Responsible Provider	Requirements
Deliver baby on mother's abdomen (if there are no danger signs)	OBGYN	
Ensure delayed cord clamping	OBGYN	
Place baby skin-to-skin and initiate breastfeeding as soon as feeding cues are observed	Nurse	
Weigh baby	Nurse/Pediatrician	Weighing scale
Administer Vitamin K	Pediatrician	Vitamin K injectable



Special cases

REQUIRING MIYCN-TRAINED DOCTORS AND NURSES DURING AND AFTER DELIVERY

Initiating breastfeeding after C-section

An infant's sucking reflex is strongest immediately after birth. For mothers who deliver with local anaesthesia by C-section, the immediate post-operative period is an ideal time to initiate breastfeeding because the mother is stable and pain-free. However, this is rarely practiced.

In 2019, FOGSI and IAP released a joint statement on improving early initiation of breastfeeding after C-section delivery.

This guideline recommends:

1. Creating policies that support immediate skin-to-skin contact, rooming-in and bedding-in after C-section delivery;
2. Training staff on pre- and post-surgery lactational support, encouragement, and information;
3. Educating mothers and families about early initiation of breastfeeding; and
4. Trying out innovations like father's/birth companion's presence in labour room for delivery.

Two critical components of staff training relate to the fact that mothers with C-sections may experience pain at the incision site when they breastfeed their babies. Health staff should be trained to demonstrate alternative breastfeeding positions that are less likely to cause pain. They should be trained to assist mothers in controlling post-operative pain with the minimum amount of medication required to be fully effective. Most medications commonly used to control pain have not been shown to adversely affect breastfeeding infants, even in instances where the medications do pass into human milk. Post C-section mothers may have lower circulating levels of endorphins, which may make it more difficult for them to remain alert in the immediate postpartum period. Fatigue may be coupled with a misbelief that bottle feeding while the mother is recovering from surgery will not affect breastfeeding success. These mothers need strong support and encouragement and may benefit from information regarding the benefits of breastfeeding and the critical window for breastfeeding initiation.

Use of pasteurized donor human milk

Health care providers should strongly promote breastfeeding as the safest, healthiest, and most nourishing method of feeding to every new and expectant mother and family. When breastfeeding difficulties occur, this should be managed, and the mother should be supported by a lactation management counsellor. If breastfeeding (or expressed breastmilk) is clinically ruled out, wet nursing or donor human milk should be recommended wherever a donor human milk bank is available.

In rare conditions where infant milk substitutes may be needed, it should be done with proper family consent and counselling and with a follow-up plan for re-lactation wherever and whenever possible.

KMC for low birthweight newborns

If the baby weighs below 2,000 g or is preterm and has no other dangers signs (stable), KMC should be initiated as soon as possible after counselling the mother and family, based on the 2014 guidelines released by the Government of India. KMC should also be provided as priority to low birthweight babies (<2000 gm) without medical problems in postnatal care ward until the child is discharged from the hospital. Facilities may also develop an at home follow-up support system for mothers and babies after discharge. This support should include advice to continue KMC at home, as appropriate.

Nutrition in routine postnatal care

POSTNATAL WARD/WARD ROUNDS

Service	Responsible Provider (by facility)		Requirements
	Nursing home	Multispecialty	
Observe and assess breastfeeding[14] and facilitate correct position and attachment with round-the-clock, on-demand breastfeeding	Nurse/ Pediatrician/ OBGYN	Nurse/ Pediatrician/ OBGYN	
Alleviate concerns and manage non-pathological conditions preventing breastfeeding	Nurse/ Pediatrician/ OBGYN	Nurse	
Treat pathological condition(s) preventing breastfeeding	Pediatrician/ OBGYN	Pediatrician/ OBGYN	
Advise mother on: – Diet diversity – Diet quantity (at least three full meals and snacks) Provide customized diet chart (if demanded)	Consulting dietitian	Dietitian	Contextualized diet chart

DISCHARGE FROM FACILITY

Service	Responsible Provider (by facility)		Requirements
	Nursing home	Multispecialty	
Advise on: – Mother's diet – Exclusive breastfeeding – IFA and calcium supplementation – Hygiene	Nurse/OBGYN	Nurse/OBGYN	
Ensure breastfeeding has been established with correct attachment and positioning before discharge	Nurse/OBGYN	Nurse/OBGYN	
Counsel on exclusive breastfeeding and prescribe IFA and calcium supplements for mother	OBGYN	Doctor/OBGYN	Prescription Mother Child Protection Card Handout on postnatal care

14 Facility policy should include compliance to all baby friendly hospital recommendations including room-in and bedding in, no prescription of feeding bottles and formula, teaching mothers to follow responsive breastfeeding and express breast milk in case away from baby and others.

Nutrition in routine childcare

IMMUNIZATION CLINIC OR PEDIATRIC OPD (IF CHILD HAS MILD ILLNESS)

Service	Responsible Provider (by facility)			Requirements
	Single / polyclinic	Nursing home	Multispecialty	
Determine age, measure weight, and record	Pediatrician / trained assistant	Nurse	Nurse	Growth chart
Assess growth faltering and screen for Moderate Acute Malnutrition (MAM)/ Severe Acute Malnutrition (SAM)	Pediatrician / trained assistant	Nurse	Nurse	Growth chart
Assess feeding practices: – Breastfeeding for infants ≤6 months – Complementary feeding for older infants and children	Pediatrician /trained assistant	Nurse	Nurse	Assessment checklist for observing breastfeeding Job aid for recall of complementary feeding practices
Administer immunizations, and advice on: – Mother's diet – Breastfeeding (<6 months) – Diet for infants >6 months (timely introduction, age-appropriate- frequency, quantity, consistency, and diversity) – IFA supplementation (>6 months) – Hygiene	Pediatrician	Nurse under doctor's supervision	Pediatrician, dietitian/ counsellor	Child vaccination card, flip chart/poster, demonstration of recipe
Confirm MAM/SAM assessment and manage cases	Pediatrician	Doctor/ pediatrician	Doctor/ pediatrician	Protocol for SAM screening and management
Take detailed diet history and provide counselling for children with growth faltering	Pediatrician	Doctor	Dietitian/ counsellor	Counselling resources Recipe books Handouts on diet and care for growth faltering children

Conclusion

WHY MIYCN NEEDS AWARENESS AND ACTION BY EVERYONE IN THE SYSTEM — FROM SERVICE PROVIDERS TO ADMINISTRATORS

The implementation of a mother- and baby-friendly health system relies on volunteerism and an openness to change. Both health service providers and administrators must be willing to introduce changes that comply with these new requirements. However, this can be challenging, particularly in the private sector. In most private facilities, investments in infrastructure, creation of additional staff positions, and staff training are valued only if they enhance the facility's brand credibility and yield increased profits.

Adherence to mother- and baby-friendly guidelines should be integral to quality assessment and accreditation of facilities. The mother- and baby-friendly health system brand needs to be thought of as a value addition to the health facility's brand. It must become aspirational and be advocated as an essential component of the business model.

Another way that private health facilities can make progress toward mother- and baby-friendly services is to ensure proper orientation among OBGYNs and pediatricians on MIYCN guidelines and related regulations. According to a recent investigation across the different types of health facilities in five states, suboptimal knowledge on evidence-based MIYCN guidelines has been an ongoing challenge.[15] As a result, there are gaps in the delivery of essential services. For example, pregnant women and children are often only referred to dietitians and IYCF counsellors for specialized diet-related counselling, not as part of routine care, even when the dietitians and counsellors are available.

Poor orientation on the IMS Act guidelines also leads to violations; when a mother complains of insufficient milk, providers without proper training will often advise her to use formula milk or bottle feed, without providing the necessary counselling and support to address the difficulty. These challenges require more capacity building of health care providers, as well as ongoing mentoring and monitoring to ensure the guidelines are upheld.

Acknowledgements

We are deeply grateful to Dr Sumita Ghosh, Additional Commissioner, Child Health I/C, MoHFW, Government of India and Dr. Sila Deb, Additional Commissioner, Child Health and Nutrition, MoHFW, Government of India, for their valuable guidance and support to this collaborative work on strengthening MIYCN in private health care services.

Contributors

The following experts collaborated at a national consultation workshop to develop these guidelines:

FOGSI

Dr Alpesh Gandhi
President FOGSI, 2020-21

Dr. S. Shantha Kumari
President FOGSI, 2021-22

Dr Hrishikesh Pai
President FOGSI, 2022-23

Dr Jaydeep Tank
Secretary General FOGSI

Dr Hema Diwakar
FOGSI Ambassador to FIGO

Dr Ramani Devi
Vice President FOGSI

Dr Ragini Aggarwal
Vice President FOGSI

Dr Vidya Thobbi
Chairperson Food and Drug Committee, FOGSI

Dr Sneha Bhuyar
Chairperson Breast Committee

Dr. Madhuri Patel
Dy. Secretary General, FOGSI

BPNI

Dr Arun Gupta
Central Coordinator, BPNI India

Engender Health

Dr Ajay Khera
Country Representative, Engender Health & Former Commissioner MCH, MoHFW

UNICEF

Arjan De Wagt
Nutrition Chief, UNICEF

Dr Vani Sethi
Nutrition Specialist, Adolescents and Women, UNICEF

WHO

Rachita Gupta
National Professional Officer, Nutrition WHO India Country Office

IAP

Dr Piyush Gupta
President CIAP

Dr Ketan Bharadava
President IYCF Chapter of IAP

Dr R. Somasekar
Hon. Secretary, IYCF Chapter and HMBA

Dr Satish Tiwari
Founding Convener HMBA & Founding Secretary IYCF Chapter of IAP

Dr Aradhan Kankane
Asst Professor MLB Medical College, Jhansi

Dr Rupal Dalal
Adjunct Asst. Professor, CTARA, IIT Bombay

IAPSM

Dr Sanjay Zodpey
President IAPSM

Dr Suneela Garg
President IAPSM, 2021 - 22

Dr A.M. Kadri
Secretary General IAPSM

Dr Lalit Sankhe
Asst. Professor
Community Medicine
Grant Medical College Mumbai

Dr Amir Maroof
Hon. Secretary MIYCN working group, IAPSM

Dr Chhaya Rajguru
Asst. Professor Community Medicine
Grant Medical College Mumbai

Dr Yogita Bavaskar
Associate Professor, Dpt. of Community Medicine, GMC Jalgaon

Alive & Thrive

Arti Bhanot
Consultant

Dr Shailesh Jagtap
Sr. Technical and Program Advisor

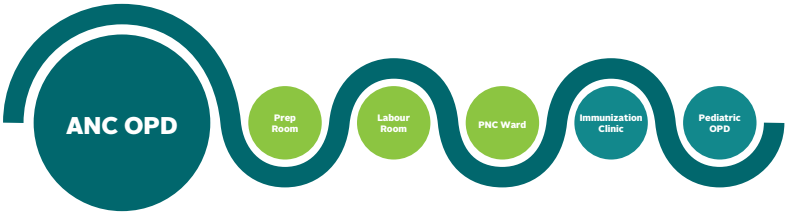
Dr Sebanti Ghosh
Country Program Director

ANNEX

MIYCN Service Delivery Protocols

FOR DOCTORS AND HEALTH FACILITY STAFF AT EACH CONTACT POINT

CRITICAL CONTACT 1: INTEGRATING MIYCN SERVICES IN 1ST ANC — 1ST TRIMESTER



Key messages for women:

1. Know your BMI and recommended weight gain.
2. Know your Hb, and other blood test results.
3. Eat small frequent meals if uneasy; but include diverse nutrient-rich foods.
4. Follow doctor's advice; consult if unable to follow advice.

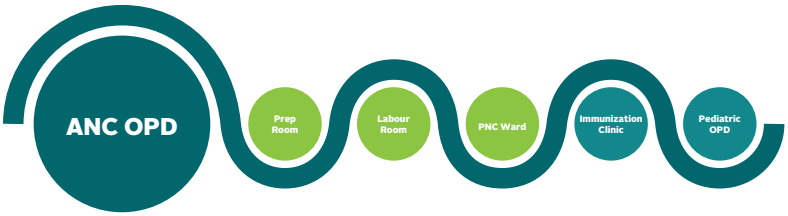
Nurse

- Measure and record weight and height, calculate BMI, and determine classification (thin, normal, overweight, obese), if pre-pregnancy BMI not available.
- Examine clinically for signs/symptoms of anaemia, goiter, and fluorosis (only in endemic areas), ask for any complaints/ discomfort, share status with OBGYN.
- Undertake/facilitate relevant blood tests, especially for haemoglobin (Hb) estimation and oral glucose tolerance test (OGTT); facilitate urine test for albumin and sugar.

Doctor/OBGYN

- Review nurse's report and probe for findings.
- Discuss 24-hour recall, dietary practices, and food consumed.
- Emphasize intake of diverse, nutrient-rich foods.
- Prescribe or continue prescription of folic acid (400 mcg daily).
- Review results for Hb test and OGTT or refer for testing if not yet done.
  - ***If OGTT is positive:*** Treat as per GDM guidelines, initiate MNT, and refer to a dietitian.
  - ***If OGTT is negative:*** Repeat test at 24-28 weeks (early third trimester).
- Advise based on BMI, clinical examination, and diet history.
- Refer for necessary services if required in malaria endemic areas and fluorosis endemic areas.

CRITICAL CONTACT 2:
INTEGRATING MIYCN SERVICES IN FOLLOW-UP ANC — 2ND TRIMESTER



Key messages for women:

1. Know your weight gain against recommendation.
2. Eat at least three full meals.
3. Add nutrient-rich foods daily from at least 5 of the 10 food groups.*
4. Take IFA and calcium supplements daily.
5. Take deworming tablet only once during pregnancy.
6. Know your Hb test results.
7. Follow doctor's advice; consult if unable to follow advice.

Nurse

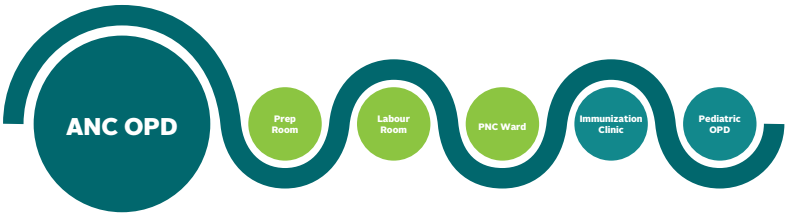
- Measure and record weight.
- Examine clinically for signs/symptoms of anaemia, ask for any complaints/discomfort, and share status with OBGYN.
- Undertake/facilitate relevant blood tests, especially for Hb estimation; facilitate urine test for albumin and sugar.

Doctor/OBGYN

- Review nurse's report and probe for findings.
- Discuss 24-hour recall, dietary practices, and food consumed.
- Emphasize intake of diverse, nutrient-rich foods.
- Review weight change since last visit.
  - ***If adequate:*** Encourage mother to continue balanced diet.
  - ***If <1 kg/month or > 3 kg/month:*** Probe for cause, changes in diet, physical activity, and manage appropriately.
- Advise on GWG as per status and determine whether to consult nutritionist.
- Prescribe IFA supplementation (60 mg iron, 500 mcg folic acid per day) and advise to:
  - Consume IFA at bedtime, preferably with lemon water.
  - Avoid IFA tablet consumption with milk, tea, or coffee.
  - Add lemon, Indian gooseberry (amla), guava, and other vitamin C-rich sources to diet to enhance iron absorption.
  - Avoid consuming IFA with calcium supplements.
  - Include iron-rich sources of food like eggs, organ meats (if non-vegetarians), and dark green leafy vegetables in diet.
- Prescribe calcium supplementation (500 mg twice a day) and advise to:
  - Avoid consuming on an empty stomach.
  - Avoid consuming calcium with IFA supplements.
- Prescribe single dose deworming tablet (400 mg albendazole)
- Review Hb test report and treat as per status.
  - ***If mild to moderate anaemia:*** Double IFA dose and advise to repeat test in a month. If Hb level returns to normal, discontinue double dose and give only single dose. If anaemia persists, review cause and determine if there is a need to administer parenteral iron (IV iron sucrose).
  - ***If severe anaemia:*** Initiate parenteral therapy.

*FAO and FHI 360. 2016. Minimum Dietary Diversity for Women: A Guide for Measurement. Rome: FAO. Recommended consumption of at least five of 10 food groups daily.

CRITICAL CONTACT 3:
INTEGRATING MIYCN SERVICES IN FOLLOW-UP ANC — EARLY 3RD TRIMESTER



Key messages for women:

1. Know your weight gain compared to recommendation.
2. Eat at least three full meals and two healthy snacks.
3. Add nutrient-rich foods daily from at least 5 of the 10 food groups.
4. Take IFA and calcium supplements daily.
5. Undertake light to moderate exercise.
6. Know your blood test results, particularly Hb and OGTT.
7. Follow doctor's advice; consult if unable to follow advice.

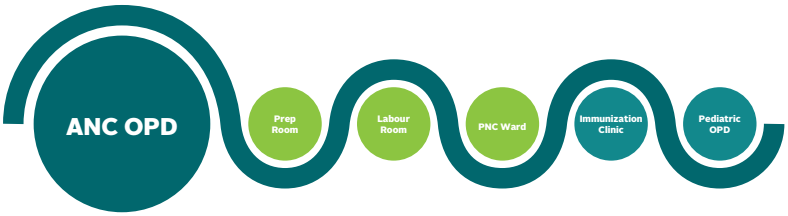
Nurse

- Measure and record weight.
- Examine clinically for signs/symptoms of anaemia, ask for any complaints/ discomfort, and share status with OBGYN.
- Undertake/facilitate relevant blood tests, especially for Hb estimation and OGTT; facilitate urine test for albumin and sugar.

Doctor/OBGYN

- Review nurse's report and probe for findings.
- Discuss 24-hour recall, dietary practices, and food consumed.
- Emphasize intake of diverse, nutrient-rich foods.
- Review weight change since last visit.
  - ***If adequate:*** Encourage mother to continue balanced diet.
  - ***If <1 kg/month or >3 kg/month:*** Probe for cause, changes in diet, physical activity, and manage accordingly.
- Advise on gestational weight gain as per status and determine whether to consult nutritionist.
- Continue prescription of Iron Folic Acid (IFA) supplementation (60 mg iron, 500 mcg folic acid per day) and advise to:
  - Consume IFA at bedtime, preferably with lemon water.
  - Avoid consuming IFA tablets with milk, tea, or coffee.
  - Add lemon and other vitamin C-rich sources in diet to enhance food iron absorption.
  - Avoid consuming IFA with calcium supplements.
  - Include iron-rich sources of food, like eggs, organ meats (if non-vegetarians), and dark green leafy vegetables.
- Continue prescription of calcium supplementation (500 mg twice a day) and advise to:
  - Avoid consuming on an empty stomach.
  - Avoid consuming IFA and calcium supplements together.
- Review OGTT and Hb test reports and treat as per status.
  - ***If OGTT is positive:*** Treat as per GDM guidelines, initiate MNT, and refer to a dietitian.
  - ***If mild to moderate anaemia:*** Double IFA dose; if anaemia persisting, review cause and may need to administer parenteral iron (IV iron sucrose).
  - ***If severe anaemia:*** Initiate parenteral therapy and hospitalization.
- Counsel on benefits of early initiation of breastfeeding and exclusive breastfeeding and discuss how mother can prepare.

CRITICAL CONTACT 4:
INTEGRATING MIYCN SERVICES IN FOLLOW-UP ANC — CLOSE TO TERM



Key messages for women:

1. Know your weight gain compared to recommendation.
2. Eat at least three full meals and two healthy snacks.
3. Supplement IFA and calcium daily.
4. Continue to be physically active.
5. Prepare for delivery and breastfeeding; arrange to have a birth companion.
6. Follow doctor's advice; consult if unable to follow advice.

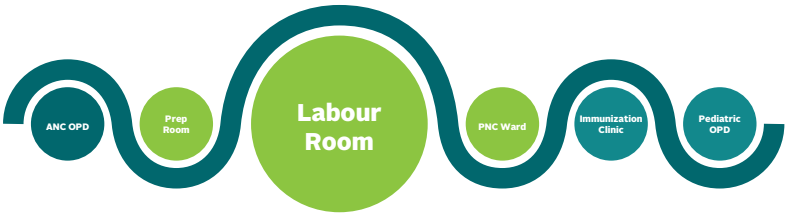
Nurse

- Measure and record weight
- Examine clinically for signs/symptoms of anaemia, ask for any complaints/ discomfort, and share status with OBGYN.

Doctor/OBGYN

- Review nurse's report and probe for findings.
- Discuss through 24-hour recall, dietary practices, and food consumed.
- Emphasize on intake of diverse, nutrient-rich foods.
- Review weight change since last visit.
  - ***If adequate:*** Encourage mother to continue balanced diet.
  - ***If <1 kg/month or > 3 kg/month:*** Probe for changes in diet, physical activity.
- Advise on GWG as per status and determine whether to consult nutritionist.
- Advise on alleviating discomfort and encourage pregnant woman.
- Continue prescription of IFA and calcium supplementation and advise to continued supplementation until six months post-partum.
- Counsel pregnant woman and husband on delivery and breastfeeding.

CRITICAL CONTACT 5A:
INTEGRATING MIYCN IMMEDIATELY AFTER NORMAL VAGINAL DELIVERY



Key messages for mother:

1. Keep baby close to you, skin-to-skin.
2. Start breastfeeding within 1 hour of birth.
3. Feed the thick, yellow milk (colostrum) to the baby. It's the best first food.
4. Do not give prelacteals like honey, sugar water, ghutti, or animal milk.
5. Breastfeed on demand.
6. Call the nurse or doctor if you have any difficulty in breastfeeding or any other complaint.
7. No bottle feeding.

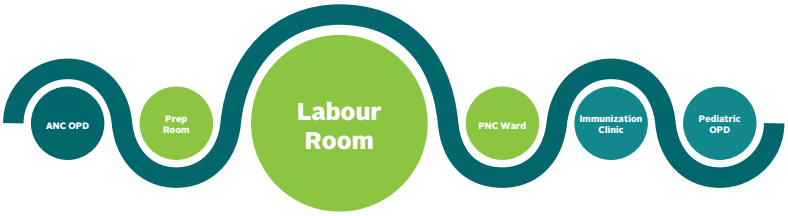
Doctor/OBGYN

- Deliver newborn on mother's abdomen.
- Dry newborn thoroughly and immediately place in skin-to-skin contact with mother.
- Check for danger signs and manage as needed.
- Delay cord clamping. (This reduces the risk of anaemia.)
- Encourage and support mother to initiate breastfeeding as soon as breastfeeding cues are observed in newborn, then shift to recovery room/ ward.
- Weigh baby and administer vitamin K1 at 90 minutes.
  - ***If newborn weighs <2000 gm, but is stable:*** Inform mother and family member about KMC. Counsel and teach technique in ward/room.

NURSE/DOCTOR/OBGYN/PEDIATRICIAN

- Support mother correct positioning and attachment for breastfeeding
- Advise mother and family member to:
  - Feed colostrum.
  - Breastfeed on demand.
  - Keep baby close to mother.
  - Not give anything other than breastmilk—not even water.

CRITICAL CONTACT 5B:
INTEGRATING MIYCN IMMEDIATELY AFTER C-SECTION DELIVERY — LOCAL ANESTHESIA



Key messages for mother:

1. Keep baby close to you, skin-to-skin.
2. Start breastfeeding within 1 hour of birth.
3. Feed the thick, yellow milk (colostrum) to the baby. It's the best first food.
4. Do not give prelacteals like honey, sugar water, ghutti, or animal milk.
5. Breastfeed on demand.
6. Call the nurse or doctor if you have any difficulty in breastfeeding or any other complaint.
7. No bottle feeding.

DOCTOR/OBGYN & PEDIATRICIAN/NURSE

- Deliver newborn, dry newborn thoroughly, and immediately place newborn in skin-to-skin contact on mother's chest.
- Check for danger signs and manage as needed.
- In C-section with regional anaesthesia, encourage mother and support mother to initiate breastfeeding as soon as breastfeeding cues are observed in newborn. (Nurse should support baby in position.)
- For C-section under general anaesthesia, support mother to breastfeed as soon as she is alert and responding.
- Weigh baby and administer vitamin K1.
  - ***If newborn weighs <2000 gm, but is stable:*** Inform mother and family member about KMC. Counsel and teach technique in ward/room.
- Shift mother and newborn to recovery/observation room.

NURSE/DOCTOR/OBGYN/PEDIATRICIAN

- Support mother with correct positioning and latching for breastfeeding.
- Help her find a position that is the most comfortable with the least pain.
- Advise mother and family member to:
  - Feed colostrum.
  - Breastfeed on demand.
  - Keep baby close to mother.

CRITICAL CONTACT 6:
INTEGRATING MIYCN IN POSTNATAL ROUNDS

Key messages for mother:

1. Breastfeed on demand.
2. Follow doctor's advice on diet, supplementation, and breastfeeding.
3. Call the nurse or doctor in case of difficulty.

DOCTOR/OBGYN & PEDIATRICIAN

- Observe and assess breastfeeding, checking for correct position and attachment.
  - ***If no difficulties in breastfeeding:*** Praise and encourage mother to continue feeding on demand.
  - ***If difficulties experienced:*** Address the challenges, support/ reinforce correct position and attachment, and counsel.
- Advise mother to eat a diverse and adequate diet and to take IFA and calcium supplements.

CRITICAL CONTACT 7:
INTEGRATING MIYCN IN HOSPITAL DISCHARGE PROCESS

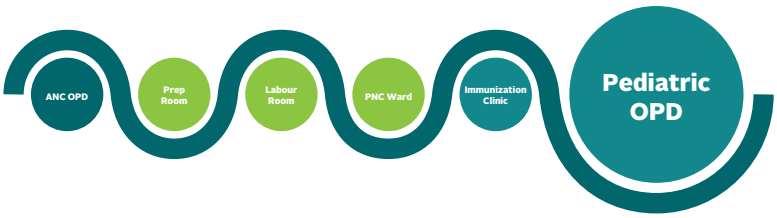
Key messages for mother, father:

1. Exclusively breastfeed.
2. Do not give water, even in hot weather.
3. Do not use bottles for feeding.
4. Do not give any formula milk.
5. Follow doctor's advice on diet, and IFA and calcium supplementation.
6. Seek doctor's consultation in case of any difficulty/ complaint. (Don't delay!)

DOCTOR/OBGYN & PEDIATRICIAN

- Advise mother to:
  - Exclusively breastfeed till 6 months—do not give water, even in hot weather.
  - Eat diverse nutrient-rich food in adequate quantity with foods from at least 5 of the 10 recommended food groups.
  - Continue IFA and calcium supplementation for six months post-partum.
  - Follow hygiene for self and in handling baby.
- Advise family members to support the mother with the recommendations above.
- Include advice on mother's diet, IFA, and calcium supplementation in prescription.

CRITICAL CONTACT 8:
INTEGRATING MIYCN IN PEDIATRIC OPD FOR INFANTS <6 MONTHS



Key messages for mother, father:

1. Exclusively breastfeed.
2. Do not give water, even in hot weather.
3. Do not use bottles for feeding.
4. Do not give any formula milk.
5. Breastfeed during illness.
6. Seek doctor's consultation in case of any difficulty/ complaint. (Don't delay!)

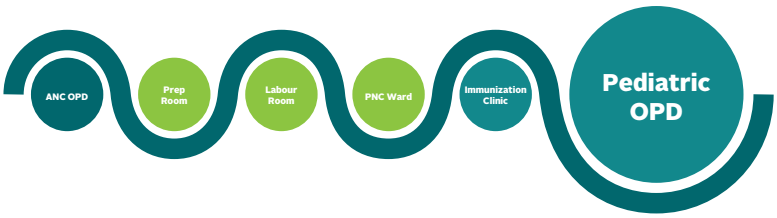
NURSE/DOCTOR/PEDIATRICIAN

- Measure baby's length, weight, and head circumference.
- Record measurements and mark on growth chart.

DOCTOR/PEDIATRICIAN

- Assess breastfeeding and confirm whether exclusive breastfeeding is being practiced. If not, probe for reasons and address concerns.
- Advise to:
  - Exclusively breastfeed, emphasizing that additional water is not needed, even in hot weather.
  - Continue breastfeeding during illness.
- Address breastfeeding difficulties, if any.
- Review growth chart.
  - ***If growth faltering noted:*** Assess breastfeeding, screen for any medical complication, counsel on appropriate feeding, and treat any associated medical complications.
- Screen for MAM/SAM, counsel on appropriate feeding, and manage as per government guidelines.
- Complete clinical examination for iron, vitamin A, vitamin D, and other vitamin deficiencies.
- Provide age-appropriate immunization.

CRITICAL CONTACT 9:
INTEGRATING MIYCN IN PEDIATRIC OPD FOR INFANTS <6 MONTHS



Key messages for mother, father:

1. Follow doctor's advice on complementary feeding and additional supplements for baby (Vitamin A, IFA).
2. Seek doctor's consultation in case of any difficulty/ complaint. (Don't delay!)

NURSE/DOCTOR/PEDIATRICIAN

- Measure baby's length, weight, and head circumference.
- Record measurements and mark on growth chart.

DOCTOR/PEDIATRICIAN

- Review growth chart.
  - ***If growth faltering noted:*** Assess breastfeeding, screen for any medical complication, counsel on appropriate feeding, and treat any associated medical complications.
- Screen for MAM/SAM, counsel on appropriate feeding, and manage as per government guidelines.
- Complete clinical examination for iron, vitamin A, vitamin D, and other vitamin deficiencies.
- Confirm whether complementary feeding has been introduced. If not, probe for reasons and address concerns.
- Assess child feeding practices and complementary foods being given based on 24-hr recall.
- Advise on:
  - Age-appropriate complementary feeding of diverse nutrient-rich food from at least 4 of the 7 recommended food groups.

    6-8 months: Feed 2-3 times per day, ½ bowl* each time.

    9-11 months: Feed at least 3 meals per day, ½ bowl each time, plus 1-2 nutritious snacks.

    12-23 months: Feed 3-4 meals per day, ¾ to 1 bowl each time, plus 1-2 nutritious snacks.
  - Continued breastfeeding.
  - Active feeding.
  - Appropriate play and communication.
  - Feeding a sick child.
    - Continue feeding in small amounts and in increased frequency.
    - Increase breastfeeding during illness.
  - Safe preparation and handling of food.
  - Safe disposal of feces.
  - Biweekly IFA supplementation after completion of 6 months.
  - Age-appropriate immunization and vitamin A.

*bowl for complementary feeding is 250 mg

alive&thrive
nourish. nurture. grow.

The Alive & Thrive initiative, managed by FHI Solutions, is currently funded by the Bill & Melinda Gates Foundation, Irish Aid, and other donors.

ALIVEANDTHRIVE.ORG