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Message from the editor

We are pleased to bring forth the 2nd issue of MIYCN-IAPSM, the national working group of the Indian Association of Preventive and Social Medicine for Maternal, Infant and Young Child Nutrition. MIYCN-IAPSM national working group was officially launched during the national conference of IAPSM held in March 2018 in Pune. The first issue of the biannual MIYCN-IAPSM newsletter was also launched during this conference. We have grown stronger in this year in terms of members, and increasing engagements with various stakeholders of maternal, infant and young child nutrition.

Malnutrition is the most pressing public health problem of our country. This national working group aims to bring a positive change in the community in combating malnutrition through active participation of IAPSM members throughout the country. The '1000 days' approach is the need of the hour when it comes to combating maternal and child nutrition. This approach focuses on the pregnancy period and the first two years of childhood.

IAPSM members in the various Community Medicine Departments in all the medical colleges and those who are involved in other health and nutrition programs throughout the country are already involved in provision of antenatal care and providing child health care at certain levels. This MIYCN-IAPSM working group provides a platform for all of us to come together and move together in a coordinated manner. It is engaging with government, and non-government sectors to support and promote interventions and research to comprehensively target the issue of malnutrition. IAPSM can support National Nutrition Mission, conduct community and facility based research in our field practice areas, and coordinate with department of Pediatrics and Gynecology and obstetrics in implementation of an integrated curriculum for MIYCN in our medical colleges.

This issue of the bulletin has some dedicated articles and ongoing work regarding the involvement of Medical Colleges in utilizing their teaching learning opportunities in the classrooms, the public health laboratories, and the urban and rural health centres for pre-service capacity building of the medical students regarding MIYCN. All IAPSM members and Community Medicine departments have an opportunity to get involved in this cause.

I thank all the IAPSM office bearers and especially Dr. Anil Purty and Dr. AM Kadri, and the immediate past president Dr Ratan Srivastava for their unconditional support and faith in our team. The MIYCN-IAPSM group is supported by Alive & Thrive India and we thank them for their support. I would like to especially thank Dr Ravneet Kaur for her editorial contribution towards bringing out the newsletter.

If you would want to join this group, or to subscribe to our newsletter, or want to send a feedback, or submit an article for the upcoming newsletter, just send an email at miycn.india@gmail.com . We are waiting for an email from you.

Sincerely,

Dr. Amir Maroof Khan
Editor in Chief
MIYCN-IAPSM Newsletter

1. Integrating MIYCN curriculum in medical colleges through Community Medicine Departments

Dr Ravneet Kaur, Dr Sunita Dhaked

The Sixty-fifth World Health Assembly approved a Comprehensive Implementation Plan on maternal, infant and young child nutrition in 2012, including six global targets, concerning improvements by 2025 in: stunting, anaemia, low birth weight, overweight, exclusive breastfeeding, and wasting. These targets, many of which are inter-related, cover different aspects of nutrition, acknowledging the importance of both under nutrition and overweight. By including maternal nutrition, the Plan highlights the intergenerational aspects of malnutrition.¹

Nutrition is an important indicator of development of a country. Globally, the morbidity and mortality rates are substantially higher in undernourished populations, especially among women and children. Under-nutrition accounts globally for half of deaths among under-five children and one-third of maternal deaths.² The causes, consequences, and preventive pathways for under nutrition among mothers, infants and young children are well- established.³ Optimal infant and young child feeding, and maternal nutrition have been recognised as the most effective interventions in reducing morbidity and mortality among children.⁴

The nutritional status of women and children in India continues to be compromised as under-five mortality rate (U5MR) is 43/1000 live births, 38% of children under 5 years are stunted, 36% of children under 5 are underweight and one in every two pregnant women are anaemic.⁵ Malnutrition has a negative impact on cognitive development, school performance and productivity. Stunting as well as micronutrient deficiencies like iodine and iron, combined with inadequate cognitive stimulation, are leading risk factors contributing to the failure of an estimated 200 million children to attain their full development potential. Among adults, eliminating anaemia would lead to an increase of 5% to 17% in productivity.⁶ Addressing maternal, infant, and young child nutrition (MIYCN) has been a constant challenge for Indian public health system. Even though nearly 79% of deliveries take place in health facilities, less than 50% are breastfed within first hour of birth.⁵

Medical colleges and hospitals can play a unique role in advocating the policy on maternal and young child nutrition, as well as in implementation of MIYCN programs. By including MIYCN in various domains of medical education, these institutions can help in creating a workforce of competent health care professionals who can demonstrate best practices regarding MIYCN. By conducting research in this field, the medical institutes can provide evidence to the policy makers.

Way Forward

Undergraduate medical education

- Inclusion of MIYCN in undergraduate medical curriculum in a structured and standardized manner.
- Integrated teaching by the departments of Paediatrics, Obstetrics & Gynaecology, and Community Medicine, by incorporating innovative teaching-learning methods like problem-based learning, skill-based modules etc.
- Incorporating practical assignments on MIYCN during family visits of undergraduates and during their project activities.

- Short term research projects on MIYCN
- More focus on qualitative research, so that barriers related to MIYCN practices in community can be addressed.
- Communication of MIYCN practices with the help of undergraduates by health talk, role play or street play.
- Counselling sessions during visits to malnutrition clinic/ ANC clinic/ well baby clinic/ nutrition rehabilitation centre, counselling at each and every point of service delivery.

Post Graduate education

- Inclusion of MIYCN in post-graduate medical curriculum.
- Encourage and guide post-graduate students in choosing MIYCN topics for research work with mentoring support from faculty.
- Demonstrating best practices in delivery of services, communication and counselling

Capacity building of other health professionals

- The department of Community Medicine can be a focal point for capacity building and skill enhancement for all cadres of health professionals.
- Workshops, seminars and symposiums may be held at regular intervals to share effective strategies for MIYCN program delivery.
- Capacity-building of frontline workers like ASHAs, anganwadi workers and health workers through regular training programme, along with the involvement of undergraduate and postgraduate students.

Service delivery

- Drafting and implementing standard protocols for MIYCN service delivery.
- Multi-disciplinary teams consisting of specialists of Pediatrics, Community Medicine and Obstetrics & Gynaecology to ensure delivery of optimal MIYCN services at various service delivery points antenatal care clinics, labor room, postnatal care, and outpatient visits.
- Supportive supervision and mentoring of service providers
- Establish /integrate MIYCN into skill labs and demonstration units for hands-on pre-service training and in-service skill enhancement. ^[L]_[SEP]

Research

- Under graduate and post graduate research projects
- Operational research to identify bottlenecks in implementation of MIYCN at community level and designing strategies to overcome these bottlenecks.
- Collaborations with state/centre Government for supervision and monitoring, and thus generating data for MIYCN programs.
- Dissemination of research findings by publication in journals or presentation in national and international conferences.
- Special sessions or awards for research in MIYCN at conferences.

Hence, the Community Medicine departments can play a vital role in advocacy and implementation of MIYCN, by its integration with service delivery, teaching, and research.

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2. Status of maternal, infant and young child nutrition (MIYCN) in medical college and hospital

A & T

3. Roadmap for strengthening the role of Medical Colleges and hospitals in promoting and integrating MIYCN in program and policy agenda

A&T

4. Maternal Health and Antenatal care status: India

Dr. Abhiruchi Galhotra, Dr. Abhishek Mishra

Although there are many issues related to women's health, maternal health is very important in the context of India. India has very high Maternal Mortality Ratio of 167 for every 100,000 births. Maternal deaths are preventable if women have access to proper care at the right time. In India, several important initiatives have been rolled out under the Reproductive and Child Health (RCH) programme and National Health Mission (NHM).

According to NFHS-4¹ data, total of 21% received all recommended types of ANC i.e, for the last live birth in the five years preceding the survey, mother receive four or more antenatal checks, received at least one tetanus toxoid injection, and took iron and folic acid tablets or syrup for 100 days or more. Further details are elaborated in Table No 1.

Table No 1 Certain select Maternal Health related indicators according to NFHS 4¹

Variable	NFHS 4
% of pregnancies that were registered	85.3
Timing of pregnancy registration (First Trimester)	78
% Mothers given MCP Card	89.3
% Receiving ANC from a skilled provider	79.3%
% of women who took IFA for 100 days or more	30.3%
% of women who received 2 or more TT injections	83
% for whom the child's mother received ANC & father was present for any ANC	68.2
% who had 4 or more ANC visits	51.2
% Institutional deliveries	78.9

% of Deliveries assisted by Doctor	56
% of Deliveries assisted by ANM/Midwife/LHV	24.7
% of Deliveries assisted by Dai(TBA)	11
% of Deliveries assisted by Friends and Relatives	6.4
Average Out of Pocket Cost paid for delivery at Public Health facility	Rs 3198
Average Out of Pocket Cost paid for delivery at Private Health facility	Rs 16522
Average Out of Pocket Cost paid for delivery at Any Health facility	Rs 7938
% with a post natal check up in the first two days after birth	65.1
% of new borns with a post natal check up in the first two days after birth	27.7

Table 2: Trends in Maternal Care Indicators

Variable	NFHS 4(2015-16)	NFHS 3(2005-06)
Percentage who received antenatal care ¹	83.5	79.6
Percentage who had at least three antenatal care visits ¹	64.6	56.0

Percentage who received antenatal care within the first trimester of pregnancy ¹	58.6	47.3
Percentage of births delivered in a health facility ²	78.9	39.6
Percentage of deliveries assisted by a skilled provider ^{2,3}	81.4	47.4

1 Based on the last birth to women in the five years preceding the survey

2 Based on all births to women in the five years preceding the survey

3 Doctor, auxiliary nurse midwife, nurse, midwife, lady health visitor, or other health personnel

In spite of improvement in the basic indices of maternal health (as is evident from the NFHS 4 data as is evident from Table 1 & 2), and the availability of an array of programs rolled out for Maternal Health, the MMR remains alarmingly high. This may be due to nutrition or socio economic determinants (including Literacy, role of women in decision making, etc.) of Maternal Mortality that have till recently been overlooked in the policies/programmes.

5. Maternal Infant & Young Child Nutrition (MIYCN) targets and indicators

Dr. Manish Singh, Assistant Professor, RML Institute of Medical Sciences and Research, Lucknow

The period from start of a mother's pregnancy to her child's second birthday is a critical window in determining a child's cognitive capacity & physical growth and is also essential for a healthy and productive future. Realizing the importance of this 1000-day critical period, the 65th World Health Assembly (WHA) endorsed the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition (MIYCN) in May 2012. 15

The Comprehensive Implementation Plan on MIYCN identifies six global targets to be achieved by 2025:

- 1) 40% reduction in childhood stunting (in Under 5 children)
- 2) 50% reduction of anemia in women of reproductive age
- 3) 30% reduction of low birth weight
- 4) No increase in childhood overweight
- 5) Increase in exclusive breastfeeding rates in the first six months up to at least 50%
- 6) Reduce and maintain childhood wasting to less than 5%

The MIYCN proposes 5 actions to support achievement of the above global targets.

1. Creating a supportive environment for implementation of comprehensive food and nutrition policies.
2. Inclusion of all required effective health interventions with an impact on nutrition in national nutrition plans.
3. Development of policies and program outside the health sector that recognize and include nutrition.
4. Provision of sufficient human and financial resources for implementation of nutrition interventions.
5. Monitoring and evaluation of the implementation of policies and programmes.

MIYCN has a comprehensive monitoring framework with 4 types of indicators

• **Primary Outcome Indicators that measure the progress towards the 6 global nutrition targets**

- Prevalence of low height-for-age in children under five years of age
- Prevalence of haemoglobin <11 g/dL in pregnant women
- Prevalence of haemoglobin <12 g/dL in non-pregnant women

- Prevalence of infants born <2500 g
- Prevalence of weight-for-height >2 SD in children under five years of age
- Prevalence of exclusive breastfeeding in infants aged six months or less
- Prevalence of low weight-for-height in children under five years of age
- **Intermediate Outcome Indicators that monitor how specific diseases and conditions on the causal pathways affect countries' trends towards the six targets;**
 - Prevalence of diarrhoea in children under 5 years of age
 - Proportion of women aged 15-49 years with low BMI (<18.5 kg/m²)
 - Number of births during a given reference period to women aged 15-19 years /1000 females aged 15-19 years
 - Proportion of overweight and obese women 18-49 years of age (BMI ≥25 kg/m²)
 - Proportion of overweight in school-age children and adolescents 5-18 years (BMI-for-age >+1 SD)
- **Process indicators that monitor programme and situation specific progress**
 - Proportion of population using a safely managed drinking service
 - Proportion of population using a safely managed sanitation service
 - Proportion of pregnant women receiving iron and folic acid supplements
 - Percentage of births in baby friendly facilities
 - Proportion of mothers of children 0-23 months who have received counselling, support or messages on optimal breastfeeding at least once in the last year
- **Policy environment and capacity indicators that measure the political commitment**
 - Number of trained nutrition professionals /100,000 population
 - Number of countries with legislation /regulations fully implementing the International Code of Marketing of Breast-milk Substitutes (resolution WHA34.22) and subsequent relevant resolutions adopted by the Health Assembly
 - Number of countries with maternity protection laws or regulations in place

MIYCN interventions are very relevant in our context and critical for all developing nations, where Non-Communicable Diseases (NCDs) are gradually becoming the leading cause of adult deaths, there is also a double burden of malnutrition in children i.e. underweight, stunting and overweight/obesity and poor optimal infant and young child feeding practices.

6. Employment status of mother, maternity Benefit and breastfeeding practices

Dr. Khan Amir Maroof, Dr. Nidhi Gupta

India's National Family Health Survey-4 shows that around half of the children all over India were given exclusive breastfeeding for six months of age. Maroof et al held a cross-sectional study and found the exclusive breastfeeding rates to be 57.1% in children under six months of age, while minimum dietary diversity, minimum meal frequency, and minimum acceptable diet were seen adequate in 32.6%, 48.6%, and 19.7% respectively, of children between 6 months and 2 years of age, respectively in 2012 in East Delhi.

Breastfeeding and employment status of mother:

A negative influence has been found of the working status on the duration of exclusive breastfeeding in both, the high and the middle to low income settings. Work-related factors have been often found to be a major reason for non-initiation and early cessation of breastfeeding. Ban Al-Sahab et al, in 2010 found that while the ever breastfeeding rate was 90.3%, the 6-month EBF rate was 13.8% in Canadian women and maternal employment status before 6 months of infant's age was negatively associated with exclusive breastfeeding.

Harne et al, in 2013 observed a significant gap between the awareness and practice of National Guidelines for Infant and Young Child Feeding (NGIYCF) in the working mothers in Delhi. The major reasons for this gap which unveiled were the misconceptions prevailing in elders of the family which were imposed on the mothers, short duration of maternity leave, lack of time due to job, increased dependence on maids and day care centers and other factors like socio-cultural barriers, economic status, ignorance.

A qualitative study published in 2014 found that in spite of a relatively generous maternity leave of six months available in Delhi, several factors interacted to both hinder and facilitate the process of combining breastfeeding and employment in working mothers. They were individual factors like stress to balance breastfeeding and employment, managing competing interests of baby, family and workplace, family and husband support, nuclear/ joint family, conditions at work place, actions and troubleshooting strategies implemented by the employed mothers to meet her responsibilities towards the baby as well as work.

Maternity leave and breastfeeding practices:

Several studies have shown positive association between the length of maternity leave and initiation and duration of breastfeeding. Ogbuanu et al, in 2011 investigated the data from the Early Childhood Longitudinal Study-Birth Cohort and found that women returning later to work were more likely to initiate breastfeeding and continue predominant and any breastfeeding beyond 3 months.

Kimbrow R T, in 2007 studied a sample of Fragile Families and Child Wellbeing Study, comprising mainly of low-income, unmarried U.S. mothers and found that time of quitting breastfeeding and returning to work were significantly linked. It was seen that mothers in administrative and manual jobs quit breastfeeding earlier while no significant difference was found in breastfeeding practices of women in service and the stay at home women. It was concluded that low-income women had difficulty balancing work and breastfeeding.

A study in 2016 found the rates of breastfeeding as 81%, 67%, 49% and 33% at the time of child-birth, at 6 weeks, 12 weeks, and at 6 months respectively in working mothers in United States. It also found the odds of breastfeeding cessation within six months postpartum being higher in employed mothers who returned to work within six months as compared with those who did not. Also, the mothers in clerical jobs were more likely to stop breastfeeding within six months compared to those in professional jobs.

Maternity leave policy in India:

International Labour Organization (ILO) has made provisions for the child welfare and maternity protection since its very beginning in 1919. The ILO has adopted 3 Maternity Protection Conventions: 1919, 1952 and the most recent 2000. The latest Maternity Protection Convention, 2000 (No. 183) made provision for minimum 14 weeks of maternity leave to the working mothers where they will be entitled to cash benefit to take care of themselves and their baby which will not be less than two-thirds of their previous wages.

As per a study conducted by ILO in 2014, 98 countries in the world provide equal to or more than 14 weeks maternity leave as per the ILO standards, 42 of them fulfilling the recommended 18 weeks leave or more criteria. But unfortunately, 60 countries provide maternity leave of 12-13 weeks duration, i.e. less than the current ILO standards but meeting the older ILO conventions and 27 provide maternity leave far less than 12 weeks duration.

India has provisions for 12 weeks maternity leave, still falling short of the current ILO standards. But a new maternity bill has been passed by Rajya Sabha on 11th August 2016 that proposes to increase maternity leave from 12 weeks to 26 weeks. The bill is yet to be passed in Lok Sabha. On the other hand, Central Government and Government of NCT of Delhi already provide six months of maternity leave to their employees.

7. MAA (Mothers' Absolute Affection) Programme:

Dr Pragya Kumar (Assistant Professor), Dr Ditipriya Bhar (Senior Resident), Department of Community and Family Medicine, AIIMS Patna

As we are moving towards universal institutional delivery there is a remarkable opportunity for the health system to intensify efforts to promote, protect and support optimal infant and young child feeding practices, with a focus on breastfeeding.

With this regard, 'MAA'(Mothers' Absolute Affection) Programme, is an intensified initiative taken by Govt. of India on 5th August 2016 to revitalize efforts towards promotion, protection and support breast feeding through health system in order to obtain higher breast feeding rates.

Strategies under MAA

The MAA programme is implemented at macro level by mass media, meso level through health care facility and at micro level through community. The main activities are –

1. Awareness generation by building an enabling environment & demand generation through mass media.

The awareness generation activities are planned through TV, radio programs, bulk SMS and voice messages using Mother and Child Tracking Systems (MCTS) and Kilkari and advocacy activities will be organized by releasing audio-visual messages by celebrities, launching events by ministers, MP/MLA or other public figures and organizing meetings with professional bodies of private sector professional bodies such as Indian Medical Association/Indian Academy of Paediatrics/Federation of Obstetric and Gynaecological Societies of India (IMA/IAP/FOGSI).

Apart from generating awareness and advocacy activities through mass media focusing on few critical points about breast feeding like early initiation of breastfeeding and 'no' to pre-lacteals and water; myth of not enough milk; emotional and overall support to the lactating mothers; advocacy with gatekeepers such as mother in laws/husbands and other family members to support breastfeeding; information on where to go in case of difficulty in breastfeeding, breastfeeding in case of working mothers, and ill effects of infant milk substitutes could accomplish greater outcomes.

2. Health system strengthening by capacity building of auxiliary nurse midwives (ANMs)/ nurses and doctors on lactation support and management at facilities & reinforcing on breastfeeding – at all delivery points.

Staff nurses, ANMs, doctors and RMNCH+A counsellors are the first point of contact for initiation of breast feeding and building emotional support and confidence of mothers, family members.

ANC ward/delivery ward and ANC clinics, postnatal wards, OPD and waiting areas should be equipped with IEC materials on breast feeding to reinforcing the key messages for optimal breast feeding. It should be ensured that the 10 steps of Baby Friendly Health Facilities are displayed at the health

facilities written in the local language. Special emphasis will be given on providing breastfeeding counselling on 9th of every month where essential maternal health services are being provided at identified health facilities under Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)

3. Community level interventions by capacity building of community health workers ASHAs, AWWs & ANMs on breastfeeding.

There should be dedicated breast feeding areas with proper privacy at every facility for consultation and demonstration of feeding practices. The IYCF-counselling centres (IYCF-CC) in the outpatients' area in high case load facilities (DH, CHCs) are established specifically for this purpose. In IYCF-CC, mothers and other caregivers and family members will be provided one to one counselling about breast feeding and nutrition of the child. A Nutrition counsellor/ IYCF counsellor is appointed to manage these centres.

4. Monitoring and recognizing efforts of health facilities.

One day sensitization (using MAA sensitization module) training to the healthcare workers would be conducted to equip them for assisting mothers. Further, 4 days IYCF training would be done in phased manner for RMNCH+A counsellor/staff nurses/ANMs/MOs of all delivery points and of ANMs of all sub-centres. A pool of master trainers would be prepared by involving Paediatric/PSM departments of Medical Colleges who would impart 4 day training to MOs, SNs of all delivery points and of the ANMs of all sub-centres in a phased manner.

5. Community level interventions

At the community level, ASHAs along with Anganwadi workers, would be the community mobilizer for advocacy on breastfeeding along with support and counselling for optimal IYCF practices. ANMs at all sub-centres will be trained for developing skills on lactation management and support and will address all referred cases requiring lactation support such as breast engorgement, lactation failure, inverted nipples, breast abscess, insufficient milk, counselling for lactation support, etc.

Village Health and Nutrition Days (VHNDs) and routine immunization sessions, quarterly organized mothers' meetings for pregnant and lactating women at the villages by ASHA, during routine home visits for home-based new born care, follow up of babies with low birth weight and those discharged from Sick New born Care Unit (SNCU) would be utilized for communicating and counselling on breast feeding practices.

For this, ASHAs will be skilled with one day sensitization to enable them as the first information link on breastfeeding in the community. ANM would be provided 4 days IYCF training. All the sub-centres block and district level health facilities would be provided with the breastfeeding IEC materials, flip charts, modules.

6. Monitoring & recognizing efforts of health facilities

Quarterly monitoring by a pool of assessors created at State/District level, under the oversight of National Resource Centre would be carried out of high case load delivery points regarding IYCF/breastfeeding counselling. Simultaneously, it will be integrated into the existing systems of facility assessment.

If breastfeeding could be initiated within one hour in at least in the newborns delivered at the facility then the rate of breastfeeding will be almost doubled. So this opportunity should be utilized to strengthen and promote breastfeeding.

8. Maternal Micronutrient Deficiency (MND) in India and its indicators

Dr. Priscilla Kayina

MNDs for the micronutrients such as Iron, folate, Vitamin A, Iodine and Zinc, are found across all age group but pregnant women and their children form the most vulnerable groups along with their under-5 children. The effects of micronutrient deficiencies are numerous and the most profound impact of MNDs are seen in and through mothers because of maternal mortalities and morbidities associated with micronutrient deficiencies and the “intergenerational or multigenerational effects”- the nutritional status of one generation of women affects the nutritional and physical well-being of their children in childhood and subsequently in adulthood, ranging from immediate effects of neonatal deaths, low birth weight, neural tube defects to long term effects of various chronic non communicable diseases.⁴⁻¹²

In India 62% of preschool aged children and 16% of pregnant women are deficient in vitamin A.¹³

Iron deficiency anemia among women in the reproductive age group is 53% and in children from 6 months to 5 years of age is 58.3%.¹⁴ Iodine deficiency is associated with the content of iodine in soil and consequently India's iodine deficient soil put its whole population at risk of development of Iodine deficient disorders, and currently IDD is a public health problem in India.¹⁵

Improving maternal nutrition will have an important and significant impact on the first 1000 days of a child's life-from conception to 2nd birthday of a child, ‘the 1000 golden days’, ‘window of opportunity’; to give a healthy start in life.¹⁸

World health organization has instituted 6 global nutrition targets in its comprehensive implementation plan on Maternal, Infant and Young Child Nutrition (MIYCN) which was endorsed in May 2012, to be achieved by 2025. One of the targets included is “A 50% reduction of anemia in women of reproductive age group”.¹⁹

Maternal Micronutrient supplementation programs in India are available for Iron and Folic Acid through National Iron Plus initiative, and Iodine through National Iodine Deficiency Disorders Control Program.

Global monitoring framework on MYICN has given two sets on indicators-Core and Extended indicators. The core set of indicators for monitoring of global targets, and ‘tracer’ indicators for tracking the processes required in achieving the global targets. All countries require reporting on the core set of indicators. Extended indicator also reports on processes, but are country specific.¹⁹ From there 4 types of indicators were developed and except for the primary outcome indicators, the others are proposed indicators

1. Primary outcome indicators-monitoring progress towards the 6 global nutrition targets (Given are Maternal nutrition relevant indicators)

1. Prevalence of hemoglobin less than 12 gm/dl in non-pregnant women
2. Prevalence of hemoglobin less than 11gm/dl in pregnant women

2. Intermediate outcome indicators - monitoring conditions on the causal pathways to the targets (Given are Maternal nutrition relevant indicators)

1. Underweight in women of reproductive age group (BMI <18.5 kg/m²)
2. Overweight or obesity in women of reproductive age group (BMI ≥ 25 kg/m²)

3. Process Indicators-monitoring programmes and situation specific progress (Given are Maternal nutrition relevant indicators)

1. Proportion of women receiving iron and folic acid supplementation

4. Policy environment and capacity indicators-measuring political commitment (Given are Maternal nutrition relevant indicators)

1. Maternity protection: Country has maternity protection laws or regulations in place in line with the ILO Maternity Protection Convention 183 and recommendation 191.

In India, MIYCN Indicators are

	Indicator	Data	Data Source
Primary outcome indicators			
1	Prevalence of haemoglobin less than 12 gm/dl in non pregnant women	53.1%	NFHS-4 ¹⁴
2	Prevalence of haemoglobin less than 11gm/dl in pregnant women	50.3%	NFHS-4 ¹⁴
Intermediate outcome indicators			
3	Underweight in women of reproductive age group (BMI <18.5 kg/m ²)	22.9%	NFHS - 4 ¹⁴
4	Overweight or obesity in women of reproductive age group (BMI ≥ 25 kg/m ²)	20.7%	NFHS - 4 ¹⁴
Process Indicators			

5	Proportion of women receiving iron and folic acid supplementation [Mothers who consumed iron folic acid for 100 days or more when they were pregnant]	30.3%	NFHS - 4 ¹⁴
Policy environment and capacity indicators			
6	Maternity protection	Partially in the organized sector	

We invite articles for the newsletter. Please email a 800-1000 word article in a Word document as an attachment to miycn.iapsm@gmail.com

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IAPSM National Working group on Maternal, infant and young child nutrition (MIYCN)