Addressing Critical Failures of Infant and Young Child Nutrition (IYCN) in South Asia: IYCN Challenges Faced by Working Women in Urban Areas in India and Sri Lanka

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Contents

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Abbreviations and Acronyms

95% CI	95 Percent Confidence Interval
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
AOR	Adjusted Odds Ratio
CAPI	Computer-assisted Personal Interview
CHDR	Child Health and Development Record
CMC	Colombo Municipal Council
CPI	Consumer Price Index
CSS3	Cascading Style Sheets Level 3
DHS	Demographic and Health Survey
EBF	Exclusive Breastfeeding
ECCED	Early Childhood Care Education and Development
FGD	Focus Group Discussion
GCE A/L	General Certificate of Education (Advanced Level)
GCE O/L	General Certificate of Education (Ordinary Level)
GND	Grama Niladhari Division
GoI	Government of India
HCP	Health Care Practitioner
HSES	High Socioeconomic Status
ICDS	Integrated Child Development Services
IDI	In-depth Interview
IQ	Intelligence Quotient
ISCO	International Standard Classification of Occupations
IYCF	Infant and Young Child Feeding
IYCN	Infant and Young Child Nutrition
LSES	Low Socioeconomic Status
MAA	Mothers' Absolute Affection
MCH	Maternal and Child Health
MDD	Minimum Dietary Diversity
MOH	Medical Officer of Health
MoHNIM	Ministry of Health, Nutrition, and Indigenous Medicine
MoWCD	Ministry of Women and Child Development
MSES	Middle Socioeconomic Status
MVC	Model-View-Controller
NFHS	National Family Health Survey
NFSA	National Food Security Act
NGO	Nongovernmental Organization
NHM	National Health Mission
NNM	National Nutrition Mission
OR	Odds Ratio

PHM	Public Health Midwife
RECS	Inter-State Migrant Workmen
RMNCH+A	Reproductive, Maternal, Neonatal, Child, and Adolescent Health
RWA	Resident Welfare Association
SAIFRN	South Asia Infant Feeding Research Network
SPSS	Statistical Package for the Social Sciences
UNICEF	United Nations Children's Fund
UT	Union Territory
VHND	Village Health and Nutrition Day
WHA	World Health Assembly
WHO	World Health Organization
XHTML	eXtensible HyperText Markup Language

Executive Summary

Promotion of optimal infant and young child feeding (IYCF) practices is a public health intervention to prevent child morbidity, child mortality, and malnutrition. However, working women in urban areas of South Asia, particularly India and Sri Lanka, face unique challenges in feeding infants and young children appropriately, which needs to be fully understood and addressed. Three key areas in the South Asian behavior, program, and policy contexts are 'critical failures' that are crucial to examine, unravel, and address to strengthen IYCF in the region

When working mothers return to their jobs before the introduction of complementary food, they find it difficult to breastfeed their babies exclusively, and full-time employment undermines the practice of exclusive breastfeeding (EBF). Among the many challenges, lack of alternate childcare and support systems for working mothers in urban areas poses a challenge to follow optimal IYCF practices. Thus, there is a need for evidence to inform the programmatic and policy decisions that would ensure optimal IYCF and, therefore, adequate nutrition of the children of working women. Women make a considerable contribution to the economies of both India and Sri Lanka, both in the formal and informal sectors. However, the female participation in the workforce declined in India from 37 percent in 2005 to 26 percent in 2018, while it remained static in Sri Lanka at about 36 percent between 2000 and 2016.

Although India and Sri Lanka have maternity benefits for working women, they are not implemented equally in the public, private, formal, and informal sectors. In India, under the Maternity Benefit (Amendment) Bill 2016, an amendment to the Maternity Benefit Act 1961, the period of paid maternity leave to which a woman employee is entitled increased from 84 days (12 weeks) to 182 days (26 weeks) with 56 days (8 weeks) before the date of expected delivery. Further, every establishment having 50 or more employees is required to have a mandatory crèche facility. In Sri Lanka, a female employee in the public sector who delivers a live baby is entitled to take 84 working days (approximately 14–16 weeks) of maternity leave with full pay, another 84 calendar days (12 weeks) with half-pay, and further 84 calendar days (12 weeks) with no pay if required. The private sector employees are entitled to take 84 working days (approximately 14 weeks) with full pay. At present, there are no provisions to support maternity benefits for women working in the informal sector in both countries.

The study was conducted in 11 districts of Delhi, the capital city of India, and in 8 Divisional Secretary divisions in Colombo District in Sri Lanka. A mixed-methods approach was adopted in both sites, combining a cross-sectional quantitative survey and a qualitative study. The quantitative survey sample included mothers with a child less than 2 years of age, living in urban areas and engaged in any economic activity either in the formal or informal sector. For the qualitative study, the study included different stakeholders, including working mothers, their family members, health care providers, and other relevant groups, for interview.

The sociodemographic data collected in India showed that most mothers belonged to nuclear families (76 percent), were 20–29 years of age (71 percent) and were illiterate (54.8 percent). The respondents were categorized into five groups based on income classification, with nearly 50 percent falling in the

middle-income-group category. The survey covered a nearly equal proportion of boys and girls. The age profile of the infants also showed a near equal distribution among the four age categories: less than 6 months, 6–11 months, 12–17 months, and 18–23 months. On the other hand, the sociodemographic data collected in Sri Lanka showed that most mothers belonged to extended families (60 percent), were 25–34 years of age (74 percent) and had an education level of GCE (A/L)[1] or above (75 percent). Half of the participants were in the middle socioeconomic class, while 27 percent were in the upper and 23 percent in the lower classes. About 46 percent of the children were less than 6 months of age.

In India, approximately 72 percent of the mothers were employed in the informal sector, and only 7.4 percent were in the public sector and 7.1 percent in the formal private sector. Almost 47 percent of these women were contributing to half or more of the total family income. In Sri Lanka, only 19 percent of mothers were employed in the informal sector, 28 percent in the public sector, and 53 percent in the formal private sector. The majority (75 percent) of these women were contributing to half or more of the total family income.

At the time of the interview, the percentage of mothers who resumed work after childbirth was higher in India (76 percent) than in Sri Lanka (45 percent). The age of the infant at which a woman returned to work was different across employment sectors in both countries. Among the informal sector participants from India, nearly 50 percent of mothers returned to work before the child was 4 months old, while 64 percent of mothers from the public sector joined work only when the baby was 6 months or older. In Sri Lanka, nearly 42 percent of mothers employed in the informal sector returned to work before the child was 4 months old, while 62 percent of mothers from the public sector joined work only when the baby was 6 months or older. In India, the mean age of the child when the mother resumed work was approximately 5 months, which did not significantly differ across the three employment sectors. In contrast, in Sri Lanka, the mean age of the child when the mother resumed work was significantly lower in the private sector (4.74 months) and the informal sector (4.21 months) than the public sector (5.68 months).

The percentage of currently breastfed children decreased with age in both countries. In India, it decreased from 97 percent in infants under 6 months of age to 63 percent by 2 years of age, while it decreased from 99 percent to 58 percent, respectively, in Sri Lanka. The EBF rate in infants less than 6 months of age was 37 percent in India and 85 percent in Sri Lanka. Very few mothers in India reported using formula feeding or breast pumps. However, in Sri Lanka, the percentage of children fed with formula milk increased after 6 months, from 34 percent at 6–8 months to 80 percent at 18–23 months, despite breastfeeding. Overall, 18 percent of working mothers in Sri Lanka have given expressed breast milk at least once, and 15 percent have used or tried to use a breast pump for extracting breast milk.

The EBF rate in infants less than 6 months of age was lower if their mothers had resumed work than if they had not, both in India (41 percent versus 49 percent) and Sri Lanka (63 percent versus 88 percent). A univariate regression analysis using data collected in India revealed that the failure to EBF in infants less than 6 months of age was significantly more likely with an extended family system (odds ratio [OR] = 1.97).

[1] General Certificate of Education (Advanced Level).

However, failure of EBF is less likely with mothers ages 25–29 years (OR = 0.370) and with mothers who have completed education till elementary (OR = 0.368) or senior secondary level (OR = 0.312). A multivariate regression analysis indicated that the mothers ages 20–29 years were less likely to fail to practice EBF than younger mothers (adjusted odds ratio [AOR]=0.326). A multivariate regression analysis using data collected in Sri Lanka revealed that failure of EBF in infants less than 6 months of age was more likely with mothers resuming work after childbirth (AOR=5.98), second or higher birth order children (AOR = 2.48); maternal age less than 25 years of age (AOR = 4.07), and lower socioeconomic class (AOR 3.20), and public and private sector employees (AOR = 8.56 and AOR = 4.51, respectively).

In Sri Lanka, the formula milk feeding rate was much higher among those who had resumed work than those who had not (65 percent versus 9 percent), with a rapid increase with age. Further analysis with multivariate regression revealed that the formula feeding among children less than 2 years of age was more likely with resumption of work (AOR=8.2); advancing age of the child (AOR = 4.86, AOR = 8.50, AOR = 9.17, and AOR = 21.69 for age groups 6–8, 9–11, 12–17, and 18–23 months, respectively); having maternal medical conditions (AOR = 2.61); and employment in the public or private sector in contrast to the informal sector (AOR = 2.10 and AOR = 2.15, respectively).

Most mothers commenced complementary feeding when the child was around 6 months of age in India and around 4–6 months of age in Sri Lanka and there was a significant advancement in introducing complementary feeding in mothers who had resumed work. By the age of 6–8 months, the percentage of infants receiving most of the food groups was low in both countries, except for grains, roots, and tubers. The percentage of infants receiving dairy products was higher in India (79.1 percent) than Sri Lanka (37.1 percent). Those fed with fruits rich in vitamin A at 6–8 months was higher in Sri Lanka (65.5 percent) than India (10 percent). Although most mothers in both countries commenced complementary feeding early, there was a delay in giving a variety of food, especially those rich in proteins and fats.

Minimum dietary diversity (MDD), which is the consumption of four or more out of seven food types, was low in India (23 percent) among children ages 6–23 months but much higher in Sri Lanka (87 percent). In India, there was a wide difference in the MDD, between those children whose mother resumed work (14 percent) and the others (86 percent), as well as between joint (28 percent) and nuclear (72 percent) families. In Sri Lanka, there was a difference in the MDD between those children whose mothers resumed work (93 percent) and the others (72 percent). The MDD was higher in the upper (91 percent) and middle (88 percent) than lower (78 percent) socioeconomic classes. In both countries, MDD rates varied across maternal education and maternal age categories.

In India, the practice of giving commercially prepared baby food was very low and it was not analyzed further; however, in Sri Lanka, 27 percent of the children less than 2 years of age were given commercially prepared baby food, mostly cereal-based fortified food. Mothers who resumed work gave commercially prepared baby food almost four times more than those who had not resumed work (46 percent versus 12 percent).

The quantitative study identified the following three main categories affecting IYCN: (a) client/family related, (b) health care related, and (c) employment related:

(a) **Client/family related:** In India, most study participants (86 percent) mentioned the availability of family support for childcare while they are out at work, mainly from their mother or mother-in-law. The situation was similar in Sri Lanka, where nearly all study participants (99 percent) mentioned the availability of family support for childcare while they are out at work.

(b) **Health care related:** In India, the main health care support for mothers was from Anganwadi workers in the informal sector and pediatricians and doctors in the formal sector. In Sri Lanka, almost all mothers received advice and support through antenatal clinics conducted by the Medical Officers of Health (MOHs) (96 percent) and postnatal home visits by the public health midwife (PHM) (98 percent). However, during pregnancy, a low percentage of mothers received advice on breastfeeding during visits to general practitioners (14 percent) and consultant gynecologists (1 percent), as well as during antenatal home visits by the PHM (4 percent).

(c) **Employment related:** In India, in the public sector, 71 percent of mothers took full-pay maternity leave, and in both the formal private and informal sectors, nearly 40 percent of mothers took unpaid leave. Only a minority of the three employment sectors reported programs supporting breastfeeding in the workplace. In the informal sector, 51 percent of mothers took the child to the workplace, and only a few mothers in the formal public and formal private sectors did so. Only a few workplaces across all three sectors had a crèche (childcare center), a room to express breast milk, or facilities to store expressed breast milk. Almost 50 percent of mothers were either highly satisfied or satisfied with childcare provided by the employer. At the same time, only 10 percent of working women had thought of leaving their job to take care of their child.

In Sri Lanka, in the public sector, almost all women took full-pay maternity leave. In the formal private and informal sectors, 23 percent and 96 percent, respectively, had not taken any maternity leave. Only a minority of the three employment sectors reported programs supporting breastfeeding in the workplace. In the informal sector, 26 percent of mothers took the child to the workplace, and only a few mothers in the formal public and formal private sectors did so. Most mothers in the informal sector (79 percent) and public sector (57 percent) were entitled to step aside from work to feed the child, but only 28 percent in the formal private sector. Only a few workplaces across all three sectors had a crèche (childcare center), a room to express breast milk, or facilities to store expressed breast milk. About 77 percent of mothers were either highly satisfied or satisfied with the childcare provided by the employer. At the same time, in the public, formal private, and informal sectors, 20 percent, 48 percent, and 13 percent of working women, respectively, had thought of leaving their job to take care of their child.

The findings of the *qualitative studies* are presented under different themes.

Breastfeeding: perceptions and practice

India

Most mothers had initiated breastfeeding within six hours of delivery. The practice of discarding colostrum was very low; however, prelacteal feeds were still common. Most mothers of low

socioeconomic status (LSES) practiced EBF, but the practice decreased as the socioeconomic status increased. Mothers rejoining work and certain traditional practices mostly hindered EBF.

Sri Lanka

Across all socioeconomic, employment, and parity categories, working mothers were aware of the importance of breastfeeding. The main sources of information on breastfeeding and the complementary feeding were the Public Health Midwives (PHMs) and the clinics conducted by MOHs, and all participants trusted their advice. EBF for the first six months was not strictly adhered to by working mothers, though these deviations were not usually captured by the 24-hour recall method used in routine surveys.

Complementary feeding

India

In most cases, mothers initiated complementary feeding at six months. The practice of breast milk expression was very low and was reported by only a few mothers of high socioeconomic status (HSES).

Sri Lanka

This was not a major theme in the qualitative survey.

Beliefs and attitude of the mother regarding the child's nutrition practices

India

In LSES households, maternal family and community workers were shaping the beliefs and attitudes of mothers while in the middle socioeconomic status (MSES) and HSES households, grandmothers and doctors were the main influencers. Social media also played a significant role in affecting the decisions among HSES households.

Sri Lanka

There was a general understanding that EBF should be practised for four months from birth. One of the readily available and widely practised alternatives was to start formula milk before returning to work. Peer advice in the workplace, particularly from those who had gone through this process, was a major force to start formula milk feeds at a very early age.

Family Support

India

Most respondents reported adequate family support.

Sri Lanka

This was not a major theme in the qualitative survey.

Maternal employment and workplace support

India

There was no maternity leave for mothers working in the informal sector. Some employers of women in the LSES and MSES groups provided work schedule flexibility and time-breaks for feeding the child. Across all socioeconomic status groups, there were no private rooms for breastfeeding or crèches.

Sri Lanka

The informal sector is not covered under the present legal framework and hardly offers any benefits to the employee. Some mothers in the public and private sectors face practical difficulties in extending maternity leave, despite regulations and legislation. The working mothers who are about to return to work face many challenges of continuing the care as they expect, especially feeding the baby in their absence. Apart from the plantation sector, there were no day-care facilities for infants and children in Sri Lanka.

Perception of health care providers and members of other relevant groups

India

Among HCPs, almost half of the respondents had received appropriate training in IYCF. However, the work pressure on such women was so high that they often had no option other than to opt out of breastfeeding. Most HCPs focused more on complementary feeding failures rather than EBF. Suggestions to improve breastfeeding practices included the provision of six months of paid maternity leave, a readily available crèche, an isolated room for mothers to express milk, counselling of family members, and the availability of certified lactation counselors.

The present legal framework in India does not cover the informal sector and hardly offers any benefits to employees. Hence, maternity benefits, such as six months of leave, were not available to women working in the private or informal sector. Facilities at the workplace such as crèches and feeding rooms are also inadequate. The family remains the main caregiver of the infant when the mother returns to work.

Sri Lanka

A PHM is the main and the designated first contact between the public health system and the mother. However, with the transition of health-seeking behavior in the country during the last two decades, including shift to private facilities, and non-implementation of clear referral policy, mainly in the middle to high-income groups, specialist medical officers are becoming the first-contact care. Still, the role of PHM is highly appreciated, and help is sought after. The health workers feel that grandmothers and peers are influencing decisions regarding initiation of formula feeds and it is necessary to educate mothers and family members on required proportions of nutrients required for children.

Study Dissemination Workshops

The study findings were shared through in-country *dissemination seminars in each country* and a *regional dissemination seminar participated by both India and Sri Lanka*. Experts from government agencies, nongovernmental organizations (NGOs), the private sector, development partners, and academic and professional bodies participated in these meetings.

In the *country dissemination* meeting in India (New Delhi, May 7, 2019), the ***key recommendations*** included:

(a) providing support to the family as the primary caregiver/influencer on IYCF and childcare practices;

(b) building knowledge and self-efficacy of mothers in IYCN;

(c) strengthening provision of maternity benefits;

(d) building capacity in IYCN; and

(e) adopting a holistic approach including hygiene and sanitation, immunization, and early childhood care.

In the meeting in Sri Lanka (Colombo, March 5, 2019), the ***key recommendations*** included:

(a) developing policies and legislation to ensure maternity benefits for the informal sector and a supportive environment at the workplace;

(b) developing a comprehensive social behavior change communication strategy to promote nutritious, low-cost food; and

(c) establishing childcare facilities at selected workplaces, considering the feasibility and sustainability.

In the **regional dissemination meeting** in **India** (New Delhi, June 25, 2019), the **key recommendations** were the following:

(a) **Develop and strengthen policies and legislation to ensure maternity benefits** for the informal sector and a supportive environment at the workplace.

(b) **Make breastfeeding aspirational.** Breastfeeding should be promoted through various media as an aspirational activity so that more mothers adopt the practice.

(c) **Support the family as the primary caregiver/influencer on IYCN and childcare practices.** The participants unanimously agreed that childcare is the collective responsibility of the family and the community. Hence, greater focus should be on the husbands' role in childcare and IYCN.

(d) **Build knowledge and self-efficacy of mothers in IYCN.** Creating awareness not only among the mothers but also among husbands and other family members is therefore crucial.

(e) **Strengthen provision of maternity benefits.** Lack of maternity benefits, especially in the informal and the private sectors, was a serious concern that emerged from the study findings as well as was expressed by many participants.

(f) **Build capacity in IYCN.** All participants expressed the need to build capacity in IYCF to include not only pediatricians and nutritionists but other medical specialists such as gynecologists. There is a

need to develop context-specific targeted behavior change communication material for mothers, particularly on breastfeeding.

(g) **Mentor, monitor, and supervise.** An important recommendation to make the IYCN initiative successful was to provide strong mechanisms for mentoring, monitoring, and supervision. Give a certification such as baby-friendly workplace so that employers would be interested in getting the certification.

1.1 Introduction: IYCN Challenges of Working Mothers in Urban Areas

1.1 Background

Optimal nutrition during the first two years of life is crucial for the survival, healthy growth, and development of infants and young children (WHO 2014). Ensuring optimal breastfeeding for all children in the first two years of life has the potential to save the lives of at least 800,000 under-five children every year (WHO 2014). The World Health Organization (WHO) for complementary feeding states that:[2]

- Infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health.
- Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods, while continuing to breastfeed for up to two years or beyond.

Breastfeeding is one of the important determinants of the health, development, nutrition, and survival of children. Studies have shown that breastfeeding within the first hour of birth decreases neonatal deaths by 22 percent (Edmond et al. 2006). Similarly, exclusive breastfeeding (EBF) for the first six months of life prevents morbidity and mortality due to common childhood illnesses such as diarrhea and pneumonia (Black et al. 2013). There is evidence that optimal breastfeeding practices prevent undernutrition as well as overweight and obesity. Recent research has shown that breastfeeding also leads to higher intelligence quotient (IQ), better educational attainment, and higher earning capacity later in life (Victora et al. 2015) apart from helping prevent noncommunicable diseases (Horta et al. 2013).

South Asia has the highest number of under-five deaths and under-five children who are underweight (Aslam et al 2014). According to the estimation done by the United Nations Standing Committee on Nutrition, 16 countries contributed 80 percent of underweight children in the world, and 5 of these countries are from South Asia. India is the leading country with 40 percent of the global burden. Of the 149 million stunted under-five children globally, the highest number of stunted children, 55 percent, are in Asia, followed by Africa with 39 percent.[3] Three countries in South Asia—Nepal, India, and Sri Lanka—are closest to moving from off course to on course on meeting the World Health Assembly (WHA) stunting target; that is, these are closest to meeting the required rate of change to reach the global goal in 2025 (International Food Policy Research Institute. 2015). It is therefore critical to accelerate the change, to identify and address specific issues related to critical failures that impede impact.

Optimal IYCF—which includes initiation of breastfeeding within an hour of birth, EBF for the first six months, and complementary feeding after six months along with continued breastfeeding for 2 years and beyond—has been identified as a public health intervention to prevent child morbidity, child mortality, and malnutrition (both under- and overnutrition). The Lancet Series on Breastfeeding (2016)

[2] https://www.who.int/elena/titles/complementary_feeding/en/
[3] https://www.who.int/nutgrowthdb/jme-2019-key-findings.pdf?ua=1

provided consolidated evidence of the benefits of optimal IYCF. For India alone, universalized breastfeeding could reduce 156,000 child deaths each year and reduce a minimum of 3,436,560 respiratory infections and 3,900,000 episodes of diarrhea, particularly in young children. It could also lead to an increase in IQ by 3 points for all children, from rich or poor households, a reduction in risk of breast and ovarian cancers, an estimated prevention of 1 in 3 new cases of diabetes, and a reduction of overweight/obesity by 26 percent (Breastfeeding Lancet Series 2016: India's Road Map).

IYCF practices remain highly suboptimal in several South Asian countries. Even in countries where there has been progress, several challenges remain, and new ones are evolving in the behavior, program, and policy arenas. Three key areas in the South Asian behavior, program, and policy contexts outlined below are 'critical failures' that are crucial to examine, unravel, and address to strengthen IYCF in the region.

Working women in urban areas face unique challenges in feeding infants and young children appropriately, which need to be fully understood and addressed. There is a considerable contribution by women to the economy of a country through engagement in economic activities in both formal and informal sectors. South Asia's rapid urbanization will increase the women's employment rate in the region, including Sri Lanka, as a preference to engage in economic activities has increased. Female participation in the workforce in Sri Lanka remained static between 2000 and 2017 (Figure 1). As shown in Figure 1, the labor force participation rate is somewhat higher in Sri Lanka than other South Asian countries, but almost half of that for Australia. The female population in the labor force was almost 3 million (3,007,180) in 2016, which is 35.9 percent of the total female population ages 15 years and above. Of them, 93 percent (2,797,735) were employed (Department of Census and Statistics 2017).

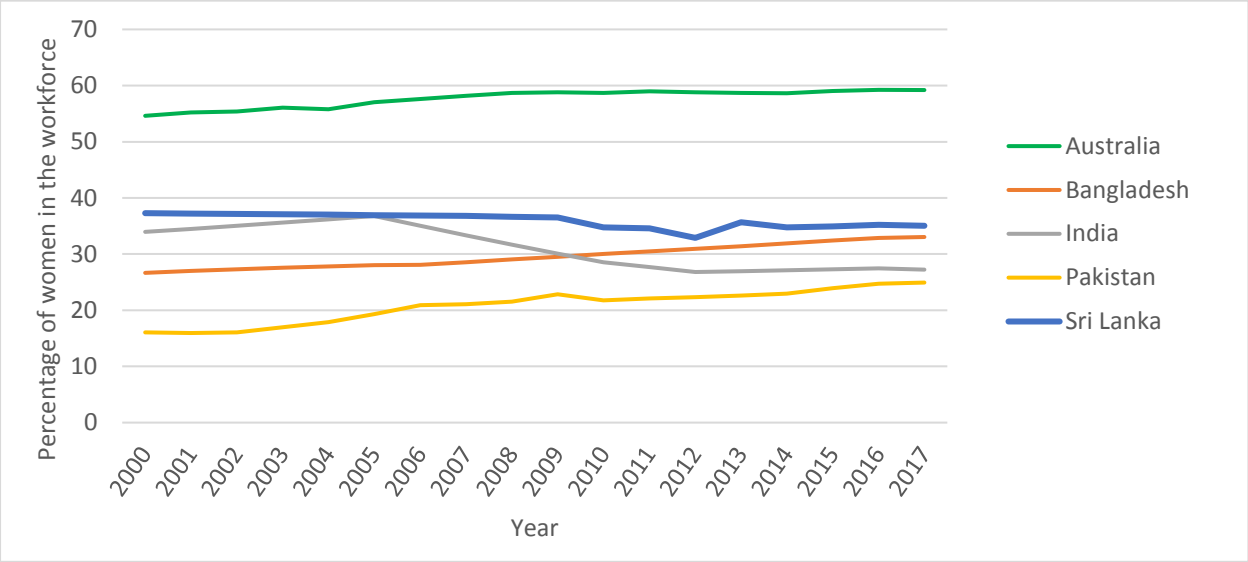
As per the 2011 Census, the workforce participation rate for females in India was 25.5 percent, while for Delhi, the figure was much lower at 10.6 percent (MoSPI 2011). A survey of 1,000 working women in New Delhi found that only 18–34 percent of women continued to work after having a child. The reluctance to continue working was in large part because women in India continue to shoulder the burden of childcare while many employers fail to provide adequate maternity and childcare support to working mothers.[4]

In India, female labor force participation fell to 26 percent in 2018 from 36.7 percent in 2005, amid lack of access to quality education and underlying socioeconomic barriers limiting the opportunities for women. The unorganized sector, or unpaid labor, accounts for around 195 million women or 95 percent of working women in India.[5] The infant feeding behavior of working women has remained an overlooked area of research to date.

[4] https://asiafoundation.org/2016/03/09/where-are-indias-working-women/

[5] Opportunity or Challenge? Empowering women and girls in India for the Fourth Industrial Revolution https://www2.deloitte.com/content/dam/Deloitte/in/Documents/about-deloitte/UNGCNI_black_final%20v6%20web%20high%20res.pdf

Figure 1. Female participation in the workforce, 2000–2017



Source: International Labour Organization, ILOSTAT database.

Therefore, the number of working mothers is likely to increase in the region in the future. Many working mothers are unable to continue optimal feeding and face failures when they feed their infants and children. When working mothers have to return to their jobs before the introduction of complementary food, they find it difficult to exclusively breastfeed their babies, and full-time employment undermines the practice of exclusive breastfeeding (Danso 2014).

A woman often plays the dual role of homemaker and breadwinner. Achieving harmony between these two roles is nothing less than a battle for her. In addition to working outside the home, women have to perform time-consuming, often arduous domestic chores. Moreover, they also have to breastfeed their children. For a working woman to practice EBF for the first six months and continued breastfeeding for two years and beyond, maternity leave of six months or more and appropriate support after that are necessary. Also maintaining IYCF requires adequate leave and appropriate worksite facilities once the woman returns to work (Shubha, Angadi, and Nagaraiachari 2016).

The feeding behavior of a working woman is a combination of her perceptions, awareness, facilities, and support. It is challenging for employed women to equilibrate their feeding responsibilities and work. The positive impact of early initiation and EBF for the first six months has been demonstrated to prevent nearly one-fifth of neonatal deaths whereas a delay of just one day has been shown to advance the death rate by 2.6 times (Gupta, Dadhich, and Faridi 2010). Working full-time has a strong negative impact on the duration of breastfeeding (Fein and Roe 1998). Employment modifies breastfeeding behavior of a woman significantly with full-time employment having the most detrimental impact (Kimbro 2006; Ryan, Zhou, and Arensberg 2006; Sudarshan and Bhattacharya 2009). Mandal and his coworkers (Mandal 2010) established that in comparison with nonworking mothers, probability of breastfeeding cessation among full-time workers was four times higher for women availing maternity leave of less than six weeks while it was just half as much for women with less than 12 weeks of leave.

Although some South Asian countries do have maternity leave, it is not implemented equally in the public, private, formal, and informal sectors. Also, some of these mothers have to return to their jobs,

usually during or before the introduction of complementary food, predisposing the infants for suboptimal feeding. Women in the informal economic sector are further disadvantaged and have less access to resources, information, and services.

Urbanization is rapidly taking place across South Asia. Along with its many benefits, it also comes with several challenges, particularly for new migrants from rural settings, especially the poor. Among the many challenges of housing, water, sanitation, the loss of familiar community support structures of the rural settings, and the lack of alternate childcare and support systems, working mothers migrated from rural settings to urban areas face a huge challenge in following optimal IYCF practices. Unavailability of adult childcare support is associated with increased risk of malnutrition among children of both nonworking and working mothers. Peer childcare was not significantly associated with child malnutrition among children of nonworking mothers, but it was associated with an increased risk of malnutrition among children of working mothers (Nakahara et al. 2006).

The working mothers in urban settings may not get appropriate information on optimal and young child feeding practices. Though some working mothers know the relevant information regarding feeding practices, they may not be able to feed their infants and children due to the workload at the workplace and lack of support at home. Therefore, many working mothers usually face many challenges and barriers when they feed their infants and young children. The specific nature of these issues and the constraints faced by working women in urban settings are not well understood and documented. Understanding and addressing these issues are critical to support working women in urban environments to adopt positive IYCF practices. If adhered to, these interventions can have a positive impact on the growth and development of children less than 2 years of age.

1.2 IYCN Behavioral Practices in India and Sri Lanka

India

In India, the National Family Health Survey (NFHS-4) (2015/16) report describes in detail IYCF practices, and it presents a gloomy picture of the nation with respect to the state of child health and nutrition. Only 41.6 percent of the children were breastfed within the first hour of the birth despite a tremendous increase in the rates of institutional deliveries over 10 years from a mere 38.7 percent (NFHS-3) to 78.9 percent (NFHS-4). Also, nearly half (45.1 percent) of the children under 6 months of age are not exclusively breastfed for the first six months. The complementary feeding practices present the worst situation as the percentage of children ages 6–8 months receiving solid or semisolid food and breast milk has fallen from 52.6 percent (NFHS-3) to 42.7 percent (NFHS-4) instead of improving. Also, only 9.6 percent of the total children ages 6–23 months receive an adequate diet (breastfed children receiving four or more food groups and a minimum meal frequency, non-breastfed children fed with a minimum of three IYCF practices) (NFHS-4 2015/16). A secondary analysis of NFHS 2005/06 observed that among children ages 6–23 months, the minimum dietary diversity (MDD) rate was 15.2 percent, minimum meal frequency was 41.5 percent, and minimum acceptable diet was 9.2 percent (Patel et al., 2012).

Sri Lanka

In Sri Lanka, the malnutrition rate in under-five children was almost static during the past 10 years (Department of Census and Statistics 2008, 2017). In 2016, the prevalence of stunting was 17.3 percent, wasting 15.1 percent, and underweight 20.7 percent. However, it is noteworthy to observe that the rate of stunning almost doubled in Colombo District, from 8.6 percent to 16.4 percent between 2006 and 2016.

The Demographic and Health Survey (DHS) report describes in detail the IYCF practices (Department of Census and Statistics 2017). According to the report, 82 percent of infants less than 6 months of age were exclusively breastfed, and almost 90 percent of the infants were introduced complementary food between ages 6 and 8 months. The MDD, meal frequency, and acceptable diet among the children ages 6–23 months were 78 percent, 89 percent, and 72 percent, respectively. In general, the proportion of children who received animal sources of proteins (dairy food, flesh food, and eggs) was low. The bottle-feeding rate (any liquid) was also unacceptably high (39 percent) in this age group. In-depth analyses of Sri Lanka DHS data revealed that the EBF rate was lower in working mothers than nonworking (Senarath et al. 2010; WHO 2018 unpublished data). The complementary feeding practices were better among working mothers than nonworking mothers (Senarath et al. 2012; WHO 2018 unpublished data). However, these surveys have not explored in detail the challenges faced across different working categories in urban settings.

1.3 Service Provisions from the Health Sector for IYCN with Special Emphasis on Working Mothers in India and Sri Lanka

India

The main programs that support IYCN in India include Poshan Abhiyaan, Mother's Absolute Affection, Integrated Child Development services and National Health mission.

Poshan Abhiyaan (National Nutrition Mission [NNM]) is India's flagship program to improve nutritional outcomes for children, pregnant women, and lactating mothers. Launched in March 2018, the program, through use of technology, a targeted approach, and convergence, strives to reduce the level of stunting, undernutrition, anemia, and low birth weight in children, as well as focuses on adolescent girls, pregnant women, and lactating mothers, thus holistically addressing malnutrition. The program aims to ensure service delivery and interventions by use of technology and behavioral change through convergence and lays down special targets across different monitoring parameters for the next few years. The program was implemented in all 36 states/Union Territories (UTs) and districts in phases, that is, 315 districts in 2017/18, 235 districts in 2018/19, and the remaining districts in 2019/20. More than 100 million people will benefit from this program. Poshan Abhiyaan, on the one hand, looks to synergize all these efforts by leveraging technology to achieve the desired goals and, on the other, intends to convert Nutrition Awareness into a Jan Andolan. Poshan Abhiyaan is thus envisioned to be a 'Jan Andolan' and a 'Janbhagidaari', meaning 'People's Movement'.

Jan Andolan[6] will work toward achieving the following objectives:

- Build awareness across sectors in the country on the impact of malnutrition and 'call to action' for each sector's contribution to reducing malnutrition.

- Mobilize multiple sectors and communities to create an intent to consume nutrient-rich food.

- Build knowledge, attitude, and behavioral intent to practice optimal breastfeeding, complementary feeding, maternal nutrition, and adolescent nutrition practices to prevent malnutrition, including severe acute malnutrition and anemia.

Mothers' Absolute Affection (MAA)[7] is a nationwide program of the Ministry of Health and Family Welfare to bring increased focus on promoting breastfeeding and providing counseling services to support breastfeeding through the health system. The program has been named 'MAA' to signify the support a lactating mother requires from family members and at health facilities to breastfeed successfully. The goal of the MAA Programme is to revitalize efforts toward promoting, protecting, and supporting breastfeeding practices through health systems to achieve higher breastfeeding rates.

The key components of the program are communication for enhanced awareness and demand generation through mass media and mixed media and training and capacity enhancement of nurses at government institutions, auxiliary nurse midwives (ANMs), and accredited social health activists (ASHAs). They provide information and counseling support to mothers for breastfeeding, community engagement by ASHAs for breastfeeding promotion, who conduct mothers' meetings. Breastfeeding mothers requiring more support are referred to a health facility or the ANM subcenter or the Village Health and Nutrition Day (VHND) organized every month at the village level. Monitoring and impact assessment are integral parts of the MAA Programme. Progress will be measured against key indicators such as availability of skilled persons at delivery points for counselling, improvements in breastfeeding practices, and the number of accredited health facilities. Recognition and team awards are given to facilities showing good performance, based on evaluation against predetermined criteria.

The objectives of the MAA Programme are as follows:

- Build an enabling environment for breastfeeding through awareness generation activities, targeting pregnant and lactating mothers, family members, and society to promote optimal breastfeeding practices. Breastfeeding is to be positioned as an important intervention for child survival and development.

- Reinforce lactation support services at public health facilities through trained health care providers and skilled community health workers.

[6] https://icds-wcd.nic.in/nnm/NNM-Web-Contents/LEFT. MENU/Guidelines/JanAndolanGuidelines-English.pdf
[7] https://www.nhp.gov.in/maa-(mothers'-absolute-affection)-programme-for-infant-and-young-child-feeding_pg.

- Incentivize and recognize those health facilities that show high rates of breastfeeding along with processes in place for lactation management.[27]

The Integrated Child Development Services (ICDS) scheme is mainly focused on reducing infant and child mortality and improving maternal health outcomes through nutrition education, supplementary nutrition, growth monitoring, and promotion. Launched in 1975, ICDS is a unique early childhood development program, aimed at addressing malnutrition, health, and development needs of young children and pregnant and nursing mothers. The ICDS consists of four different components: early childhood care education and development (ECCED); care and nutrition counseling; health services and: community mobilization, awareness, advocacy, and information, education, and communication. A centrally sponsored scheme, the ICDS is anchored by the Ministry of Women and Child Development (MoWCD), Government of India (GoI). The Anganwadi Services (under the umbrella ICDS scheme) is a centrally sponsored scheme, and the GoI releases grants-in-aid to the states/UTs. Objectives of the scheme are broadly classified as follows:

- Institutionalize essential services and strengthen structures at all levels
- Enhance capacities at all levels
- Ensure appropriate inter-sectoral response at all levels
- Raise public awareness and participation
- Create a database and knowledge base for child development services (ICDS 2017)

National Health Mission (NHM) has goals of improving the maternal and child health (MCH) and their survival. One of the main programmatic components of the NHM is reproductive, maternal, neonatal, child, and adolescent health (RMNCH+A), which essentially aims to address the major causes of mortality among women and children as well as the delays in accessing and utilizing health care and services. Promotion of IYCF is accorded a high priority in this approach. The RMNCH+A strategy is built upon the continuum of care concept and is holistic in design, encompassing all interventions aimed at RMNCH+A under a broad umbrella and focusing on the strategic life-cycle approach. The 'plus' within the strategy focuses on

- Including adolescence as a distinct life stage within the overall strategy;
- Linking MCH to reproductive health and other components such as family planning, adolescent health, HIV, gender, and preconception and prenatal diagnostic techniques;
- Linking home and community-based services to facility-based services; and
- Ensuring links, referrals, and counter-referrals between and among various levels of the health care system to create a continuous care pathway and to bring an additive/synergistic effect in terms of overall outcomes and impact.

Sri Lanka

In Sri Lanka, the Family Health Bureau of the Ministry of Health, Nutrition, and Indigenous Medicine (MoHNIM) is mandated with improving the nutrition status of under-five children through an integrated package of MCH services. This integrated package of services includes a spectrum of activities spanning development of policies and strategies, provision of technical guidance, capacity building of health staff, and logistics management at the national level to implement all relevant evidence-based nutrition-specific interventions at the grass-root level across the country through the national MCH Programme. The national program covers the following service areas (MoHNIM 2018):

- Promotion of appropriate IYCF (breastfeeding and complementary feeding)
- Growth monitoring and promotion
- Nutrient supplementation of children under five years
- Managing nutritional problems of children under five years
- Support for child (0–5 years) nutrition during emergency

In the MCH Programme, there are ample opportunities to communicate information and skills on IYCF to parents. Three antenatal classes, one in each trimester, which both the wife and the husband are expected to attend, are conducted according to a standard guideline that contains extensive information on IYCF. At the Medical Officer of Health (MOH) level, routine breastfeeding and complementary feeding classes are conducted in many of the MOH areas, and health education sessions that include IYCF as a key topic are conducted at child welfare clinics. Growth monitoring sessions in clinics as well as in field weighing posts provide opportunities to impart knowledge and supportive services and counselling on IYCF. Special nutrition clinics at the MOH level as well as in hospitals have been established to address nutrition problems of children and mothers. Routine home visits by the public health midwife (PHM) also provide a good opportunity to support mothers and build their capacities on IYCF.

To enable effective implementation of nutrition-specific interventions through the MCH Programme, capacity building of health staff on child nutrition is done through regular in-service training with standard training packages; five-and-half days of IYCF counselling—an integrated course, four days of growth monitoring and promotion (WHO new growth standards) and 40 hours of lactation management training for hospital staff. Lactation management centers established at hospitals islandwide provide breastfeeding support to lactating mothers and are opened on weekends, enabling working mothers to seek support.

Among such routine services provided for mothers and children through the MCH Programme, specific service provision points for working women are implemented considering their difficulty in accessing routine services, that is, conducting Saturday central clinics for working mothers at the MOH level.

The PHM is expected to undertake four postpartum home visits at 1–5 days, 6–10 days, 14–21 days, and around 42 days, and during the latter visit at 6 weeks, the PHM is expected to teach expression and cup feeding and develop a plan to ensure EBF by identifying and training a caregiver to feed the infant in the absence of the mother. Monthly home visits by the PHM for infants are recommended by the program, which is an opportunity to support appropriate IYCF. However, due to human

resource constraints and work overload except for the four postpartum visits mentioned above, the coverage of home visits for infant care is rather low.

Detailed information on appropriate IYCF is provided in the Child Health and Development Record (CHDR) in a set of separate pages for parents on childcare as well as in a special booklet on complementary feeding provided free of charge to mothers. This booklet is given to mothers who bring their children for the fourth-month vaccination to child welfare clinics so that they have ample time to study the booklet and prepare to commence complementary feeding at six months. A comprehensive book on breastfeeding is also provided to PHMs to be lent to mothers. This book contains a chapter on 'working mother and breastfeeding'.

1.4 Maternity Benefits Entitled to Employed Women in India and Sri Lanka

India

In India, the Maternity Benefit (Amendment) Bill 2016 (the 'Amendment Bill'), an amendment to the Maternity Benefit Act, 1961 ('Act'), is applicable to all establishments that are factories, mines, plantations, government establishments, shops, and establishments under the relevant legislation or any other establishment as may be notified by the central government. Under this Act, the period of paid maternity leave ('Maternity Benefit') to which a woman employee is entitled increased to 26 weeks. Further, the Act previously allowed pregnant women to avail Maternity Benefit for only 6 weeks before the date of expected delivery, but this period was increased to 8 weeks.

In case a woman has two or more surviving children, the Amendment Bill provides that the woman shall only be entitled to 12 weeks of Maternity Benefit, of which not more than 6 weeks shall be taken before the date of the expected delivery.

The Act also states that every establishment having 50 or more employees is required to have a mandatory crèche facility (within the prescribed distance from the establishment), either separately or along with other common facilities. The woman is also to be allowed four visits a day to the crèche, which will include the interval for rest allowed to her. Provision for crèches exists under the following:

- Section 48 of the Factories Act, 1948
- Section 44 of the Inter-State Migrant Workmen (RECS) Act, 1979
- Section 12 of the Plantations Labour Act, 1951
- Section 14 of the Beedi and Cigar Workers (Conditions of Employment) Act, 1966
- Section 35 of the Building and other Constructions (Regulation of Employment and Conditions of Service) Act, 1996

If the nature of work assigned to a woman is such that she can work from home, an employer may allow that post the period of Maternity Benefit. The conditions for working from home may be mutually agreed between the employer and the woman.

This Act is implemented in the government sector, but more effort is needed to ensure there is adequate maternal protection in the private or informal sectors. Currently, the Act does not support

women in informal employment or women working in the unorganized sector such as farmworkers or household staff. The issue of maternity protection is critical for the success of breastfeeding. The National Food Security Act (NFSA) also ensures maternity protection for six months and covers women employed in the government sectors and some nongovernment but organized sectors (Puri, Fernandez-Rao, and Puranik 2017).

In Sri Lanka, female government employees, whether permanent, temporary, casual, or trainee, are covered under the Public Administration Circular 4/2005 (Maternity Leave - Chapter XII of the Establishment Code), which provides 84 working days of maternity leave with full pay excluding public holidays and weekends, 84 calendar days of leave with half pay, and another 84 calendar days of no-pay leave for every childbirth. This 84-day no-pay leave does not affect the seniority of the employee and is considered as a period of active service for all purposes. Also, after the expiration of the maternity leave with full pay, the employee is allowed to leave office one hour before the normal time of departure for her to breastfeed the child provided no half-pay leave has been obtained. This concession is granted only until the child completes the age of 6 months. Further, Public Administration Circular 03/2006 on Paternity Leave entitles a father three days of special leave to be taken within three months of childbirth.

In the formal private sector, female employees in the business of a shop or office are covered under the Shop and Office Employees (Regulation of Employment and Remuneration) Act No. 19 of 1954, amended as Act No. 14 of 2018 or the Maternity Benefits Ordinance No. 32 of 1939, which was amended as Maternity Benefits Act No. 15 of 2018 in case of women workers other than the above category or a woman whose employment is casual on wages in any trade. In the private sector, only 84 working days of paid maternity leave is granted, and this benefit is granted to any number of live births according to the amendment in 2018. Two nursing intervals per day are provided for breastfeeding; each interval is not less than one hour if no crèche or suitable place is provided, and each interval is not less than half an hour if a crèche or suitable place is provided.

No paternity leave is granted for private sector employees. At present, in Sri Lanka, there are no provisions to support maternity benefits for women working in the informal sector.

The Sri Lanka Code for Promotion, Protection, and Support of Breastfeeding and Marketing of Designated Products also includes provisions for supporting breastfeeding under Article 1:

> 1.3. All mothers shall be granted paid maternity leave, provided with job security and economic support.
>
> 1.4. Crèches, breastfeeding breaks without loss of remunerations, and other facilities shall be provided by the employer to promote breastfeeding.

General Circular No. 01-48/2012 issued by the Ministry of Health on Establishment of Breastfeeding Rooms in health institutions advocates provision of facilities for lactating female employees to express breast milk at regular intervals during working hours.

Different laws governing different groups of workers, differences in the period of leave granted, and restrictions based on the birth order are some limitations of these laws (Goonetilleke 2016).

1.5 Policies and Stakeholders for IYCN in India and Sri Lanka

The GoI has made significant advances in policy and guidelines in child health and nutrition such as promulgating the NFSA, ensuring maternity protection and food security for children, and restructuring the ICDS, which now has more comprehensive provisions related to IYCF. Although there are legislative provisions to promote access to maternity leave and workplace support for women working in informal or unorganized sectors, these could be improved by including women in nongovernment and informal employment (Puri, Fernandez-Rao, and Puranik 2017).

IYCF practices play a critical role in the growth and development of children in any country. A favorable environment supported by appropriate policies and positive contributions from all stakeholders are prerequisites for achieving optimal IYCF practices.

A total of 24 Sri Lankan policies were identified by Godakandage et al. (2017) that contained provisions in line with global recommendations for best-practice IYCF, marketing of breast milk substitutes, strengthening of health and non-health systems, maternity benefits, inter-sectoral collaboration, capacity building, health education, and supplementation. Even though there is no separate written policy in Sri Lanka, the National Nutrition Policy and Maternal and Child Health Policy specifically address IYCF. Further, a separate National Strategy on IYCF 2015–2020 is available. All evidence-based recommendations are covered in related policies in Sri Lanka. However, advocacy should be targeted toward strategic support for IYCF in high-level policy documents. The stakeholder analysis confirmed a network led by the government health sector. Enhancing the multisectoral commitments stressed in policy documents is an opportunity to strengthen the IYCF policy process in Sri Lanka.

1.6 Objectives

1.6.1 General Objective

To identify the challenges, barriers, and facilitating factors for appropriate IYCN behaviors, programs, and policies related to the working women engaged in both formal and informal sectors and living in two metropolitan areas of South Asia, namely, Delhi, India, and Colombo, Sri Lanka. Nepal was not included because of limited financial resource.

1.6.2 Specific Objectives

1. To identify the challenges and barriers to appropriate IYCN behaviors in working women engaged in both formal and informal sectors and living in urban settings

2. To identify the facilitating factors for appropriate IYCN behaviors in the study population

3. To describe the challenges, barriers, and facilitating factors to implement the programs and policies for appropriate IYCN among working women in the study setting

2. Methods

2.1 Study Setting

The study was conducted in two metropolitan areas: Delhi in India and Colombo District in Sri Lanka.

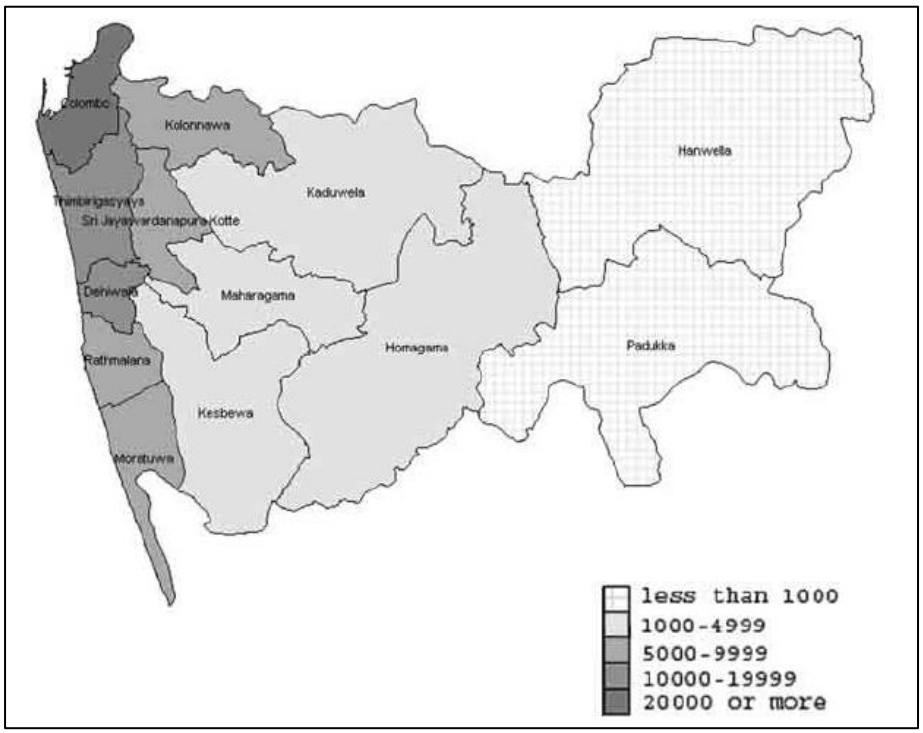
Delhi is the capital city of India. Although Delhi city has a population of 11,034,555, its urban/metropolitan population is 16,349,831, of which 8,750,834 are males and 7,598,997 are females according to Census India reports. Delhi is divided into 11 administrative districts, as shown in Figure 2. Representative clusters from upper-income, middle-income, and low-income groups were identified in all the districts, according to the income group stratification used by the Consumer Price Index (CPI) (Pandey et al. 2019). The study included a total of 64 clusters with 10–12 participants in each cluster in the study.

Colombo District is located in the Western Province of Sri Lanka and had a population of 2,324,349 in 2012, which was almost 11 percent of the country's total population (Department of Census and Statistics 2012). Colombo District is the most urbanized district in the country, with 78 percent of its residents living in urban areas. The community health services in the district are provided through 15 MOH areas under the purview of the provincial health authority and 5 MOH areas under the Colombo Municipal Council (CMC).

Administrative divisions (divisional secretary divisions) in Colombo District with a population density more than 5,000 persons per square kilometer were selected for this study. The areas included Colombo, Thimbirigasyaya, Kolonnawa, Sri Jayawardenapura, Dehiwala, Rathmalana, Moratuwa, and a segment of Kaduwela divisional secretariat divisions (Figure 3).

Figure 2. District map of Delhi

Figure 3. Map of Colombo District showing the divisional secretary divisions with their population density



2.2 Study Design

A mix of quantitative and qualitative data collection methods was used in the study. A community-based descriptive cross-sectional study (community-based survey) was conducted to assess and explain the IYCN practices, and a formative study (in-depth interviews [IDIs] and focus group discussions [FGDs]) was carried out to explore the facilitators and barriers for optimal IYCN behavior among working mothers in urban areas.

2.3 Study Participants

The participants were mothers with a child less than 2 years of age, living in urban areas of the different districts in Delhi, India, and the divisional secretary divisions, in the district of Colombo, and engaged in any economic activity either in the formal or informal sector. The government, private, and informal sector employments were considered. Mothers who contribute to the family economy as an unpaid family worker or paid in kind for work were also included as working mothers. Also, the family members of these mothers, health care providers, employers, and other relevant stakeholders were involved in the qualitative study only.

2.4 Sample Size

2.4.1 Quantitative Survey

The sample size was calculated to estimate the proportion of mothers who had 'IYCF failure'. IYCF failure is defined as either not being exclusively breastfed (in infants ages less than 6 months) or not receiving minimum acceptable diet (children ages 6–23 months). A sample of 770 mothers per site was required for an anticipated proportion of 50 percent, with 95 percent confidence intervals to be within ±5 percent, and a design effect of 2 to account for clustering. The sample size was calculated using the formula described in Annex 1 (Lwanga and Lemeshow 1991). An additional 10 percent was added for nonresponses. The total sample was approximately 850 mothers per site.

In India, a cluster sampling method was employed to select mothers, identifying 10–12 eligible participants per cluster. A cluster was a geographically demarcated area within a selected district. Though the anticipated sample estimate was 850 mothers, due to time constraints, a total sample of 677 was achieved.

In Sri Lanka, a cluster-sampling method was employed to select mothers, identifying 10–15 eligible participants per cluster. A cluster was a geographically demarcated administrative area referred to as 'Grama Niladhari Division' (GND).

The required number of clusters (for example, 76 GNDs) were randomly selected from a list of GNDs. An attempt was made to stratify these clusters by socioeconomic strata (upper, middle, and lower) based on the available data at the GND level.

2.4.2 Qualitative Study

The qualitative study selected working mothers and a wide range of stakeholders, including the family members, health care providers, and other relevant groups, to gather information through IDIs. The number of participants was decided on the information saturation points.

Table 1. Sampling plan for qualitative research

Category of participants	Number of participants	
	India	Sri Lanka
FGD/IDI with mothers	37	8
IDI with family members (husbands, paternal grandmothers, and maternal aunt)	7	9
IDI with employers	4	6
IDI with health care providers (dieticians, pediatricians, and lactation counsellors)	6	8
IDI with other relevant groups (policy makers and community workers)	2	4

2.5 Sampling Technique

2.5.1 Quantitative Survey

Delhi. The participants were selected through a two-stage stratified cluster sample. In each district, representative samples from different socioeconomic groups were selected, based on their residential patterns, by purposive sampling, for example, the low socioeconomic group in slums/resettlement colonies, as well as the middle and upper socioeconomic group in government housing colonies, private colonies with small built-up units of less than 100–150 square yards, and private housing colonies/societies with larger plot sizes. However, all households in a cluster categorized as a specific socioeconomic cluster did not have all households of the same socioeconomic type. Most of the clusters had a mix of households of different socioeconomic levels.

This problem was addressed during the second stage of sampling by screening households. The study team assessed the socioeconomic status of the subjects based on the modified BG Prasad scale. The method uses the per capita monthly income from the CPI that is released every month by the Labour Bureau of India, and this approach is widely used in India. In the present study, the CPI Index 307 was used for February 2019 to evaluate socioeconomic class by categorizing the selected households into different groups. To locate the potential participants, the study sought the assistance of the Anganwadi workers, community leaders, nongovernmental organizations (NGOs), and Resident Welfare Associations (RWAs) working in the selected areas. Depending upon the population, each area may have had more than one cluster. In each selected cluster, with the help of the local workers, a list of working mothers with a child less than 2 years of age was prepared along with the age of their children and mothers contacted.

Colombo. Participants were selected through a two-stage stratified cluster sample. GNDs were considered as clusters for this study. In Sri Lanka, GNDs are the geographically demarcated lowest level of public administrative units. In the first stage, all GNDs which belonged to the eight divisional secretary areas were listed, and the required number of primary sampling units (for example, 76

clusters) were selected from this list. GNDs were stratified as 'upper', 'middle', and 'lower' socioeconomic strata based on available data.

To locate the potential participants, the PHMs who serve in the selected GNDs were identified. In most cases, the geographical area of the GNDs was similar to the PHM areas. From each selected cluster (GND), a list of working mothers with a child less than 2 years of age was prepared along with the age of their children.

In the second stage of sampling, the required number of mothers was selected from the list (approximately 12 participants per cluster) to represent the age categories important for IYCF indicators in adequate proportions. The anticipated number in each age category per cluster is as follows:

(a) Infants <6 months - 5 mothers

(b) Infants 6–11 months - 4 mothers

(c) Children 12–23 months - 3 mothers

2.5.2 Qualitative Study

The study purposively selected the samples ensuring representativeness of different age categories of infants/young children (<6 months, 6–11 months, and 12–23 months) and different employment categories (public, private, and informal sectors). The employers were selected purposively in different industrial categories (government, private companies, and independent employer). Refer to Table 2.1 for the sampling plan for the qualitative study.

2.6 Data Collection

In India, the survey data were collected data through face-to-face interviews using a structured questionnaire. Data collection took place in Anganwadi centers, health centers, and pediatric clinics located in the community. In some areas, investigators also conducted interviews at the house of the respondents. Three project associates were recruited on a full-time basis to collect data. A field assistant also provided support for data collection. All the data collectors were appropriately trained.

In the Sri Lanka survey, data were collected through face-to-face interviews and captured by Computer Assisted Personal Interviews (CAPIs) using tablet computers. A structured questionnaire was prepared and converted to web-based forms, which were customized to tablet computers. The system for CAPIs was developed using PHP: Hypertext Preprocessor language. The database was developed using phpMyAdmin software. System skeleton was in eXtensible HyperText Markup Language (XHTML) and styled with Cascading Style Sheets Level 3 (CSS3). For validations, PHP and JavaScript were used. Model-View-Controller (MVC) combined framework was used for general development. The pathway of dataflow and specifications for tablet computer are given in Annex 3

In Sri Lanka, data collection took place predominantly at the field health centers or maternal and child clinic centers located in the community since most mother-baby pairs were attending these centers. However, there were a few mothers who did not visit the clinic and such mothers were interviewed at their household. Two project assistants (pre-intern medical graduates) were recruited on a full-time

basis to collect data. A group of field assistants also provided support for data collection. All data collectors were adequately trained.

The qualitative data generated through FGDs or IDIs were audio-recorded with the permission of the respondents. Data collectors were adequately trained and supervised by an expert in qualitative research.

2.7 Data Analysis

Quantitative data were extracted from the data server in Microsoft Excel form and converted to Statistical Package for the Social Sciences (SPSS) and Stata data files for analysis. Following data cleaning, the percentages/means were calculated with 95 percent confidence intervals (95% CI) for the key outcomes. Cross tabulations between feeding practices and hypothesized factors of critical failures were generated and tested for significance using the chi-square test and bivariate and multivariate regression analyses ($p < 0.05$ was considered as statistical significance).

The study analyzed the qualitative data using a thematic analysis approach. This exploration includes the level of family support, practical difficulties, why working mothers are reluctant to leave expressed breast milk, issues in establishing crèche facilities in government and private sector establishments, issues in the informal sector, and bottlenecks for providing paid maternity leave for six months. An expert in qualitative research read all interview transcripts and developed the codes. Facts according to final themes and important narratives were summarized.

2.8 Ethical Consideration

Informed written consent was obtained from all participants in the study while ensuring the confidentiality of data.

Ethics approval was obtained from the respective ethics review committees (Institutional Ethics Committee of the Institute of Home Economics, the University of Delhi, and Ethics Review Committee of the Faculty of Medicine, University of Colombo). Health Ministry Screening Committee clearance was also obtained from the Indian Council of Medical Research. In Sri Lanka, the administrative clearance was obtained from the Director-General of Health Services on the recommendation of the Maternal and Child Nutrition subcommittee.

The details of the methodology including the sampling plan and study tools are available in the two individual country reports.

3. IYCF Practices and Critical Failures: Findings of the Quantitative Study

The two-country sample comprises 677 working mothers from 64 clusters in urban Delhi in India and 850 working mothers from 76 clusters (*Grama Niladhari* divisions) in urban areas of Colombo District in Sri Lanka.

3.1 Sociodemography

3.1.1 Sociodemographic Characteristics of Mothers

The age distribution of mothers showed that almost 54 percent of the Sri Lankan participants were in the age group of 20–29 years in contrast to 71 percent of Indian participants. In Sri Lanka, the majority belonged to extended families (59.4 percent), whereas in India, the majority belonged to nuclear families (75.6 percent) (Table 2 (annex)).

Working women in the Sri Lankan sample were more educated (75 percent have passed GCE (A/L)[8] or above), in contrast to the Indian sample, which had 55 percent illiterate women (Tables 2 and 3 (annex)).

In Sri Lanka, half of the participants were in the middle socioeconomic class, while 27 percent and 23 percent were in the upper and lower socioeconomic classes, respectively. On the other hand, majority of the Indian mothers belonged to Class II and III of the socioeconomic classification (57.5 percent) (Table 3 (annex)).

3.1.2 Age, Gender, and Birth Order of Infants and Young Children

In India, the proportion of males and females were similar in the sample. The percentages of infants/children ages less than 6, 6–11, and 12–23 months were 28 percent, 23 percent, and 49 percent, respectively. Most of the infants (41.2 percent) were firstborn children. However, in Sri Lanka, the number of females was higher than males in the sample. The percentages of infants/children ages less than 6, 6–11, and 12–23 months were 46 percent, 27 percent, and 27 percent, respectively. The majority (63.2 percent) of them were firstborn children (Table 4).

Table 2. The basic characteristics of the infants/children of the working mothers in India (n=677) and Sri Lanka (n=850)

Characteristic		India		Sri Lanka	
		n	%	n	%
Gender	Female	337	49.7	463	54.5
	Male	340	50.2	387	45.5
Age category (months)	<6	188	27.7	388	45.6
	6–8	100	14.7	116	13.6
	9–11	54	7.9	114	13.4
	12–17	164	24.2	138	16.2
	18–23	171	25.2	94	11.1
Birth order	1	279	41.2	537	63.2

[8] General Certificate of Education (Advanced Level).

	2	52	7.6	249	29.3
	3	137	20.2	59	6.9
	4	209	30.8	5	0.6
Total		**677**	**100.0**	**850**	**100.0**

3.1.3 Employment of Mothers

In India, approximately 72 percent of the mothers were employed in the informal sector, and only 7.4 percent were in the public sector and 7.1 percent in the formal private sector. In Sri Lanka, only 19 percent of mothers were employed in the informal sector, 28 percent in the public sector, and 53 percent in the formal private sector.

Of the occupational categories, half of the Indian mothers were employed in elementary occupations (52.4 percent), while lesser proportions were involved in craft and related trade work (9.3 percent), professional (8.2 percent), and service workers (6.9 percent). Approximately 69.5 percent of employed mothers had a daytime work shift, while 16 percent had an evening shift.

In the case of Sri Lanka, one-fourth of mothers were employed in elementary occupations (25.3 percent), while considerable proportions were professionals (20.6 percent), technicians/associated professionals (16.8 percent), and clerical support workers (13.2 percent). Approximately 90 percent of employments had a daytime-only work shift, while 10 percent had day and night shifts. The proportional contribution to total family earnings by the employed women was higher in Sri Lanka than in India. The proportion contributed half or more than half was almost 75 percent in Sri Lanka in comparison to 47 percent in India. However, it is noteworthy to mention that 28 percent of the Sri Lankan women reported having job stress. The corresponding information was not reported in India (Table 5).

In Sri Lanka, accessibility to workplace analysis found that the median distance from their home to the workplace was 4 km and the median time taken to travel to work (one-way) was 20 minutes. The median number of working hours per day was 8 hours (data not shown).

Table 3. Details of the employment and nature of work of mothers with children less than 2 years of age in India (n=677) and Sri Lanka (n=850)

Characteristic		India		Sri Lanka	
		n	%	n	%
Employment sector	Formal public	50	7.4	234	27.5
	Formal private	48	7.1	451	53.1
	Informal	489	72.2	165	19.4
	No sector mentioned	90	13.2	—	—
Type of occupation (ISCO[a] group)	Manager	8	1.1	22	2.6
	Professional	56	8.2	175	20.6
	Technicians/associated professional	8	1.1	143	16.8
	Clerical support worker	10	1.4	112	13.2
	Service worker	47	6.9	78	9.2
	Sales worker	30	4.4	82	9.6
	Skilled agricultural, forestry, and fishery worker	4	0.5	10	1.2
	Craft and related trade worker	63	9.3	3	0.4
	Plant and machine operator/assembler	7	1	3	0.4
	Elementary occupations	355	52.4	215	25.3

Characteristic		India		Sri Lanka	
		n	%	n	%
	Armed forces	1	0.1	4	0.5
	Not mentioned	—	—	3	0.3
Working shift	Daytime only	471	69.5	760	89.4
	Nighttime only	—	—	5	0.6
	Day and night both	—	—	85	10.0
	Evening time only	16	2.3	—	—
	No particular shift	190	28.0	—	—
Job stress[b]	Not mentioned	—	—	1	0.1
	Yes	—	—	238	28.0
	No	—	—	611	71.9
Contribution to family income[b]	Less than half	260	38.4	209	24.6
	About half	243	35.8	623	73.3
	More than half	75	11	18	2.1
	Not applicable	99	14.6	—	—
Total		**677**	**100.0**	**850**	**100.0**

Note: a. ISCO = International Standard Classification of Occupations.
b. As perceived by the mother.

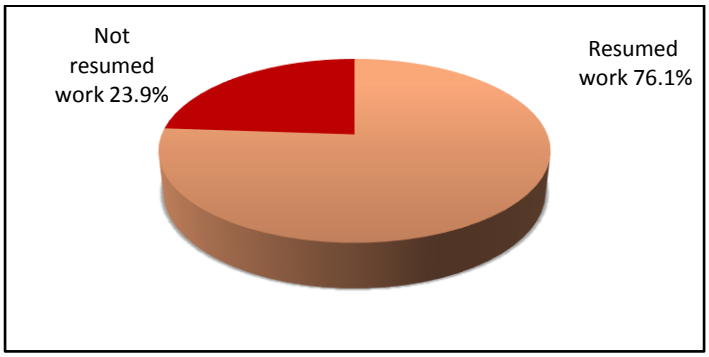
3.1.4 Resuming Work Following Childbirth

The survey inquired whether mothers had resumed work after childbirth. It was found that the percentage of mothers who resumed work at the time of the interview was higher in the Indian sample than in the Sri Lankan sample (Figure 4). In India, almost 76 percent of mothers (n=515) had resumed work following childbirth. Of them, 46 percent had resumed work before the infant reached 4 months, 14 percent between 4 and 5 months, 28 percent between 6 and 8 months, and 12 percent after 9 months. The pattern is such that early reporting to work is more evident in the informal sector than in the formal public and private sectors (Table 6).

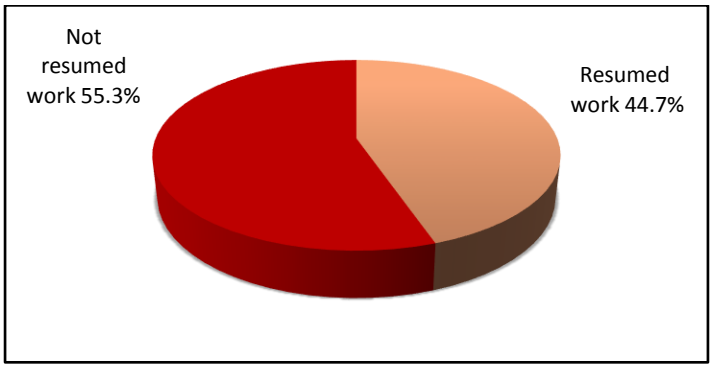
In Sri Lanka, at the time of interview, almost 45 percent of mothers (n=380) had resumed work following childbirth. Of them, 21 percent had resumed work before the infant reached 4 months, 42 percent between 4 and 5 months, and 33 percent between 6 and 8 months. The pattern is such that early reporting to work is more evident in both the private and informal sectors than in the public sector (Table 6).

Figure 4. Mothers with children less than 2 years of age who resumed work after childbirth in India (n=677) and Sri Lanka (n=850)

a. India



b. Sri Lanka



On average, a mother returns to work when the child is around 5 months old. Across the employment sectors in both countries, there are some differences in the age of the child when resuming work. However, in India, the mean age of infants when mothers returned to work was not significantly different across employment sectors. In contrast, in Sri Lanka, the mean ages were significantly low in private and informal sectors compared to the public sector in Sri Lanka (Table 7).

Table 4. The age of the child when the mother returned to work by employment sector among mothers who resumed work in India (n=515) and Sri Lanka (n= 380)

Age of child when mother reported to work (months)	Employment sector (%)					
	India			Sri Lanka		
	Formal public (n=50)	Formal private (n=48)	Informal (n=422)	Formal public (n=122)	Formal private (n=186)	Informal (n=72)
< 4	24.0	39.6	49.2	13.9	18.3	41.7
4–5	6.0	10.4	15.4	24.6	59.1	26.4
6–8	64.0	45.8	21.8	54.1	19.4	30.6
9 and higher	6.0	4.2	13.5	7.4	3.2	1.4

Table 5. The age of the child when the mother returns to work according to the employment sector in India (n=515) and Sri Lanka (n= 380)

		India			Sri Lanka	
Employment Sector	Mean (months)	Standard deviation	n	Mean (months)	Standard deviation	n
Formal public	5.37[a]	2.281	50	5.68[a]	2.243	122
Formal private	5.05[b]	2.729	48	4.74[b]	2.034	186

		India			Sri Lanka	
Employment Sector	**Mean (months)**	**Standard deviation**	**n**	**Mean (months)**	**Standard deviation**	**n**
Informal	4.78[c]	3.946	417	4.21[c]	2.155	72
Total			**515**	**4.94**	**2.647**	**380**

Note: India: ANOVA, F=0.620, p = 0.538; multiple comparisons: a versus b p = 0.906; a versus c p = 0.544; b versus c p = 0.884.
Sri Lanka: ANOVA, F=11.02, p < 0.001; multiple comparisons: a versus b p = 0.001; a versus c p ≤ 0.001; b versus c p = 0.21.

3.2 Maternal and Childcare and IYCF

3.2.1 Care during Pregnancy

During pregnancy, working mothers in Sri Lanka have received advice on breastfeeding from multiple sources, mostly from antenatal clinics (95.9 percent), government hospitals (65.8 percent), and antenatal classes (26.6 percent). Mothers receiving advice from antenatal care (ANC) home visits, obstetricians, relatives, and peers were low (Table 8). Corresponding data are not available for India.

Table 6. Source of advice on breastfeeding received during pregnancy by working mothers in Sri Lanka (n=850)

Source	Number	Percentage
From government hospitals	559	65.8
Antenatal clinic of MOH	815	95.9
Antenatal classes of MOH	226	26.6
During the visit to consult an obstetrician	10	1.2
During the visit to a general practitioner	118	13.9
Antenatal home visits by PHM	37	4.4
Relatives and neighbors	4	0.5
Peers at the workplace	6	0.7

3.2.2 Care during and after Childbirth

Almost 95 percent of deliveries in India were institutional deliveries. In Sri Lanka, all mothers except one delivered at a hospital. Almost two-thirds them delivered in teaching hospitals and one-fourth in private hospitals/nursing homes. Delivery by Cesarean section was approximately 16 percent in India in contrast to 36 percent in Sri Lanka. The presence of husband or relative at delivery was high in India when compared to Sri Lanka (Table 9).

Table 7. The place, mode, and persons present at childbirth of working mothers in India (n=677) and Sri Lanka (n=850)

Characteristic		India		Sri Lanka	
		Number	**Percentage**	**Number**	**Percent**
Type of institute	Institutional delivery	643	94.9	849	99.9
	Home delivery	34	5.0	1	0.1
Delivery mode	Vaginal/assisted vaginal delivery	571	84.3	546	64.2
	Cesarean section	106	15.7	304	35.8
	Baby's father	331	48.8	182	21.4

Persons present at childbirth[b]	Mother/mother-in-law/relative or friend	346	51.1	17	2.0
	Other[a]	7	1.0	0.0	0.0
	No one other than health staff	114	16.8	651	76.6
Total		**677**	**100.0**	**850**	**100.0**

Note: a. Any professional labor support other than health staff such as Yashoda workers in India.
b. Multiple responses were allowed in the Indian study for the variable 'persons present at childbirth' whereas in the Sri Lankan study it was a single response.

Table 10 shows breastfeeding and related practices during the immediate postnatal period and found that breastfeeding practices in the immediate postnatal period were better in Sri Lanka than in India.

Breastfeeding was initiated in 41.7 percent of newborns within one hour of birth in India, in contrast to 92.7 percent in Sri Lanka. Colostrum was given to almost 88 percent newborns in India and 99 percent in Sri Lanka. It is important to note that prelacteal feeds were given after birth in 36.2 percent cases in India, which is almost twice as high as in Sri Lanka (17.4 percent). On further inquiry, it was found that prelacteal feeds were mainly water (as advised by a grandparent/relative) or honey (as a traditional practice) in both settings.

In India, a considerable percentage (almost 22 percent) of newborns were given milk other than breast milk at health institutions. In contrast, in Sri Lanka, a small percentage of newborns (2.6 percent) were given milk other than breast milk in the hospital due to medical reasons.

Support by the hospital staff for breastfeeding was high in both settings: 81.4 percent in India and 98 percent in Sri Lanka. A great majority of mothers in Sri Lanka (97.2 percent) and a high percentage in India (81.4 percent) reported that breastfeeding was established before discharge from the hospital/health facility. Though the hospital staff helped almost all mothers for successful breastfeeding, their assistance to identify breastfeeding support groups in the community was about 20 percent in Sri Lanka and 29 percent in India.

Table 8. The establishment of breastfeeding after childbirth and immediate postnatal period of working mothers in India (n=677) and Sri Lanka (n=850)

Indicator	India		Sri Lanka	
	Number	Percentage	Number	Percent
Early initiation of breastfeeding (<1 hour)	282	41.7	788	92.7
Given colostrum to child	596	88.0	841	98.9
Prelacteal feeds given after birth	245	36.2	148	17.4
Given milk other than breast milk in hospital	154	22.7	22	2.6
Hospital staff helped to breastfeed the child	551	81.4	830	97.6
Breastfeeding established on discharge	551	81.4	826	97.2
Information was given about breastfeeding support groups on discharge	197	29.1	171	20.1

3.3.3 Postnatal Support for IYCF

In Sri Lanka, almost all mothers (98.4 percent) reported at least one home visit by a PHM for providing care for the mother and baby. The frequency of PHM home visits declined with the age of the infant. Around 42 days after childbirth, about half (53.1 percent) of the mothers were visited at home by a

PHM. Majority of mothers (86 percent) reported that the PHM has advised about or supported expressed breast milk (Table 11). Corresponding data are not available for India.

Table 9. Postnatal care and support provided to working mothers with children less than 2 years of age, the PHM visits, and support for expressing breast milk in Sri Lanka (n=850)

Visit/Support by PHM	Percentage	95% CI	
PHM visit after delivery (at least once)	98.4	97.2	99.0
PHM visited home			
1–5 days after birth	92.8	90.9	94.4
6–10 days after birth	74.5	71.4	77.3
14–21 days after birth	66.7	63.5	69.8
Around 42 days after birth	53.1	49.7	56.4
PHM advised or supported for expressed breast milk	85.9	83.4	88.1

Table 12 summarizes household support for childcare in general. In India, mothers/mothers-in-law (74.6 percent) were the family members providing predominant support, followed by siblings of the child (24.2 percent) and husband (14.3 percent) for childcare and feeding.

In Sri Lankan households, mothers were supported by both the husband (64 percent) and the mother/mother-in-law (60.6 percent) for childcare and feeding.

Table 10. Household support for childcare[a] for children of working mothers in India (n=677) and Sri Lanka (n=850)

	India		Sri Lanka	
Caregiver	Number	Percentage	Number	Percentage
Husband	97	14.3	544	64.0
Mother/mother-in-law	505	74.6	515	60.6
Siblings of child	164	24.2	11	1.3
Paid caregiver	22	3.2	25	2.9
Domestic helper	—	—	57	6.7
Others (includes relatives/neighbors)	22	3.2	27	3.2

Note: a. Some mothers gave more than one response.

3.3 Current Feeding Practices of Working Mothers

3.3.1 Breastfeeding and Formula Milk Feeding

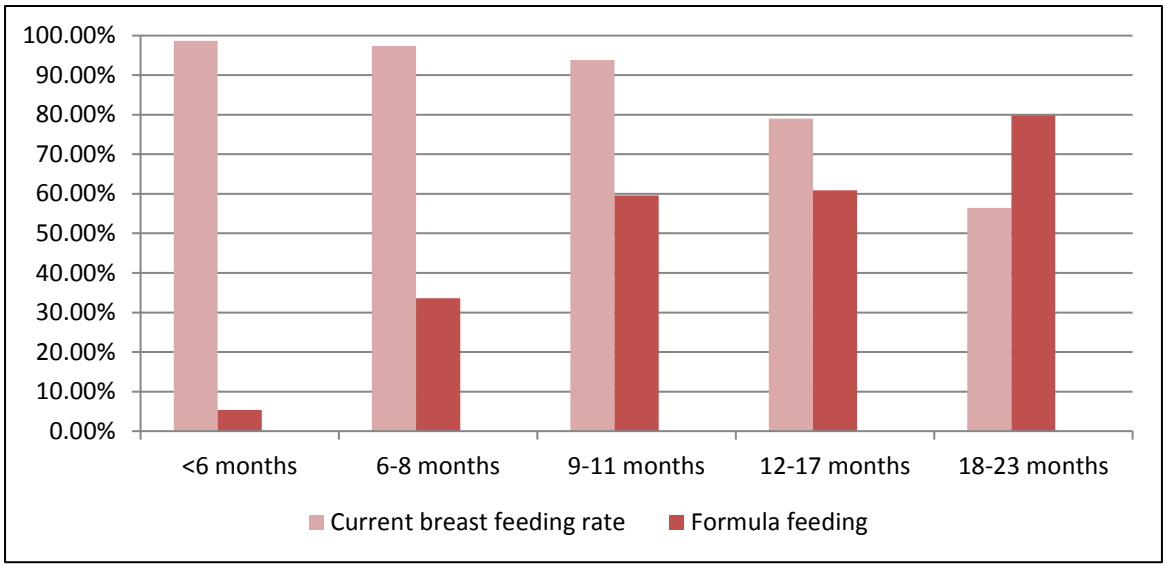
As shown in Table 13, the proportion of currently breastfed children in India declined as they advanced with age, from 96.8 percent in infants below six months of age to 62.6 percent by 2 years of age. A similar pattern was observed in Sri Lanka too, from 98.7 percent in infants under six months of age to 57.7 percent by 2 years of age (Figures 5 and 6).

The EBF rate in infants less than 6 months of age was 85 percent in Sri Lanka, a value much higher than that of India (37.2 percent).

In India, the rate of using a breast pump was low in the early months but increased after 9 months. In Sri Lanka, 15.3 percent of working mothers have used or tried to use a breast pump for extracting breast milk and 18.1 percent have given expressed breast milk at least once (Table 13).

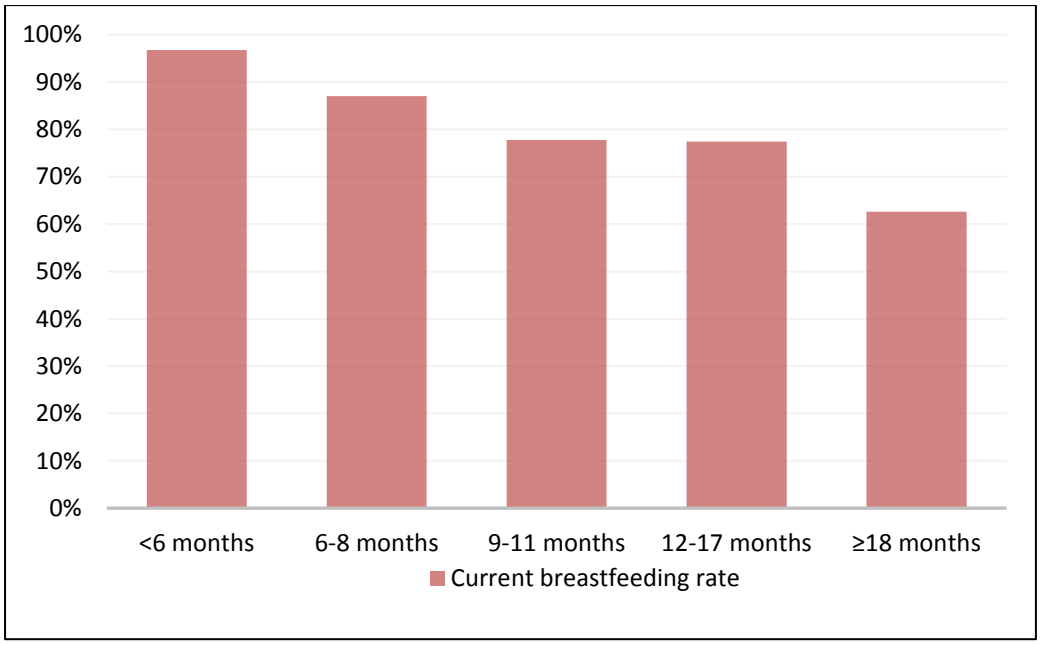
In Sri Lanka, the children fed with formula milk increased after six months, from 33.6 percent in 6–8 months to 79.8 in 18–23 months. Figure 5 demonstrates that in Sri Lanka, with the fall of breastfeeding after six months, the formula feeding rates were rising steadily. The corresponding data are not available for India.

Figure 5. Current breastfeeding and formula milk feeding rates of working mothers, by the age of the child in Sri Lanka (n=850)



Note: Some had both breast milk and formula milk.

Figure 6. Current breastfeeding rates of working mothers, by the age of the child in India (n=677)



In both India and Sri Lanka, among mothers who had resumed work, there was a decline in breastfeeding with an increase in the child's age. However, this trend was not seen among those infants whose mothers had not resumed work (Table 14 (annex)).

The EBF rate among infants under six months of age was markedly lower in those who had resumed work. In India, the EBF rates of those who had resumed and had not resumed work were 40.9 percent

and 49.0 percent, respectively. A significant difference was found among Sri Lankan working mothers, the rates being 62.5 percent versus 88.2 percent between the two categories, respectively (Figure 7).

Table 14 compares the breastfeeding rates among those who resumed their job with those who did not resume. As shown in Figure 8, the current breastfeeding rates did not differ much between these subgroups in both countries, though there is a slight reduction in mothers who resumed work.

The formula milk feeding rates are presented only for Sri Lanka in Table 14 and Figure 11. The formula milk feeding rate was much higher among those who resumed work (65.0 percent) than the mothers who had not resumed work yet (8.5 percent), with a phenomenal increase with the age of the babies.

Table 11. The breastfeeding and formula milk feeding practices of working mothers, by the child's age in India (n=677) and Sri Lanka (n=850)

Indicator	<6 months		6–8 months		9–11 months		12–17 months		18–23 months			All 0–23 months	
	IND	SL	IND	SL	IND	SL	IND	SL	IND	SL		IND	SL
Current breastfeeding[a]	96.8	98.7	87.0	97.4	77.8	93.0	77.4	79.0	62.6	56.4		80.5	89.9
EBF	37.2	85.1	—	—	—	—	—	—	—	—	—	—	—
Expressed breast milk		5.4	—	22.4	—	33.3	—	35.5	—	21.3		—	18.1
Tried breast pump	4.8	8.0	—	12.9	11.1	21.9	11.6	26.8	14.8	23.4		9.2	15.3
Formula milk feeding	—	5.4	—	33.6	—	59.6	—	60.9	—	79.8		—	33.8

Note: IND=India; SL= Sri Lanka.

a. Some children receive both breast milk and formula milk.

The proportion of those who had given expressed breast milk was higher in those who resumed work than those who did not resume work in Sri Lanka (Figure 9). A similar disaggregation is not available for India.

The proportion of working mothers who have used or tried a breast pump was relatively higher among those who resumed work in both countries. In Sri Lanka, 24.2 percent of those who resumed work had used or tried a breast pump in contrast to 8.1 percent who were still at home. Use of a breast pump was higher in Sri Lanka than India (Figure 10).

Figure 7. EBF rates in children less than 6 months of age between the mothers who resumed work and those who did not in India (n=188) and Sri Lanka (n=330)

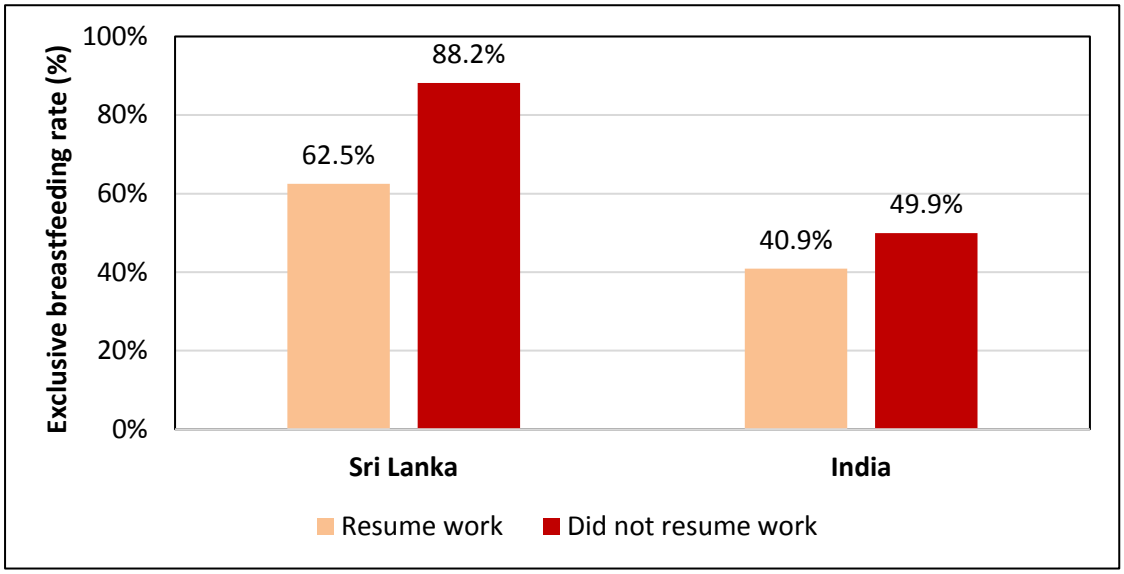
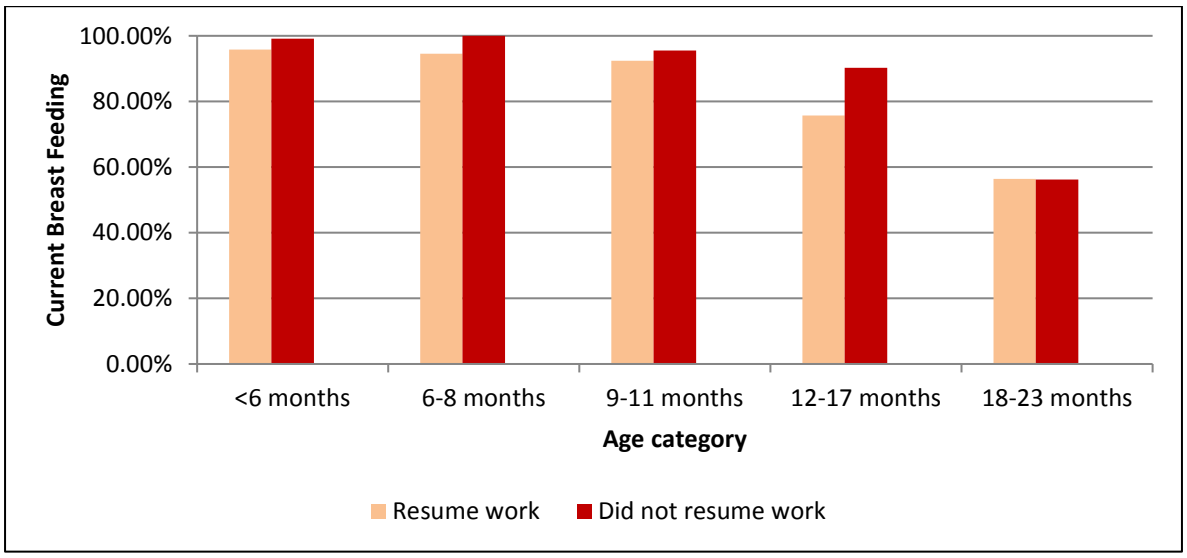


Figure 8. Comparison of current breastfeeding rates in children between the mothers who resumed work and those who did not, by the child's age

A. Sri Lanka (n=850)



B. India (n=677)

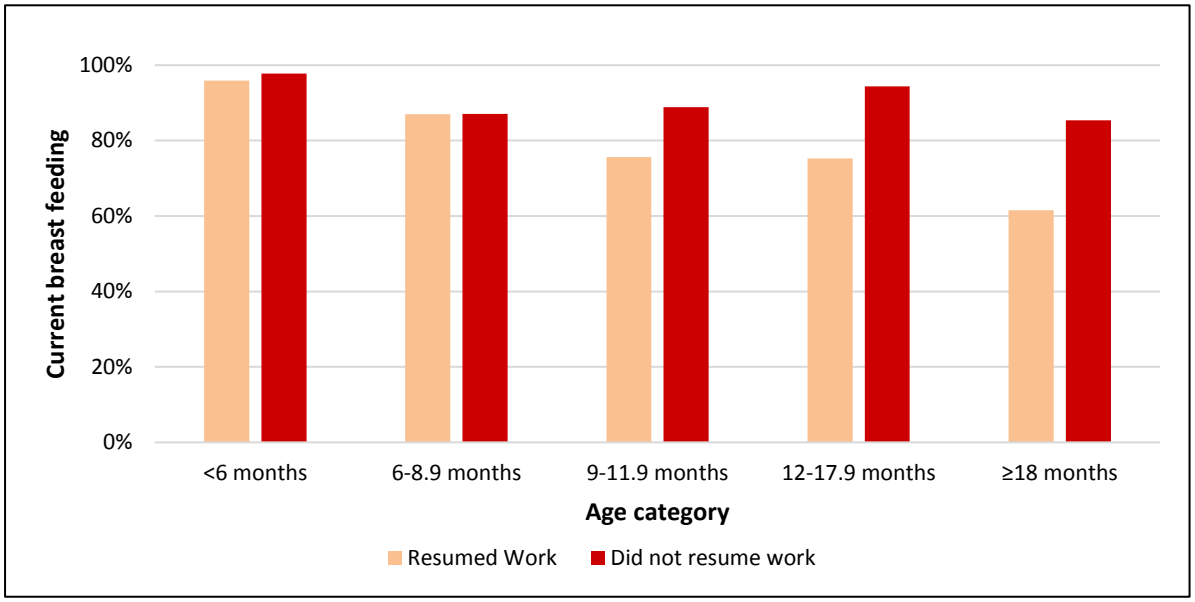
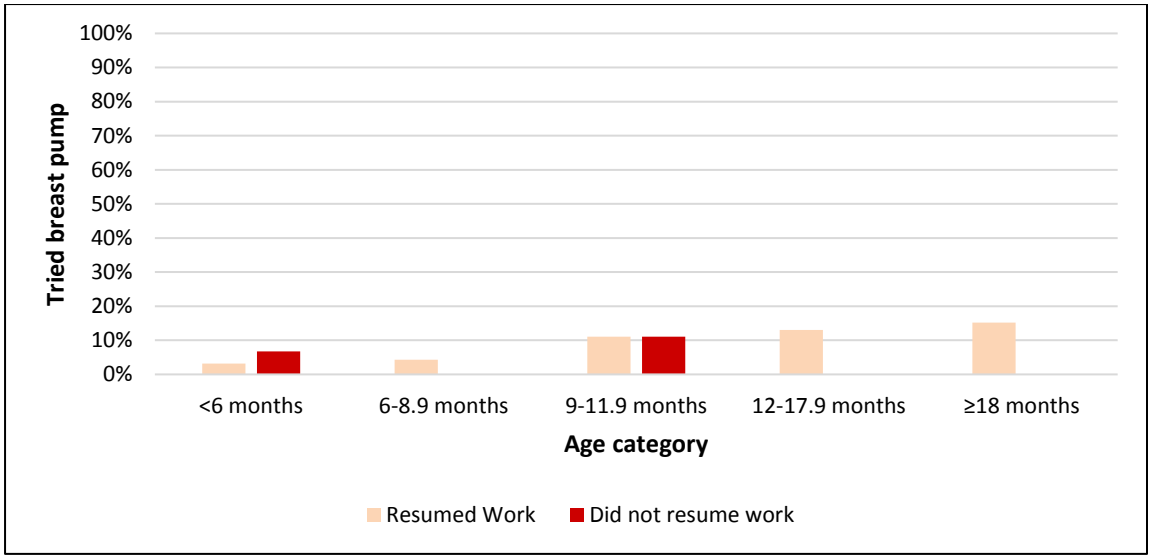


Figure 7. Use of expressed breast milk (at least once) between the mothers who resumed and who did not, by the age of the child in Sri Lanka (n=850)

Figure 8. Mothers who tried the breast pump (at least once) between those who resumed and those who did not, by the age of the child in India (n=677) and Sri Lanka (n=850)

A. India


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Tried breast pump
<6 months
6-8.9 months
9-11.9 months
12-17.9 months
≥18 months
Age category
Resumed Work
Did not resume work

B. Sri Lanka

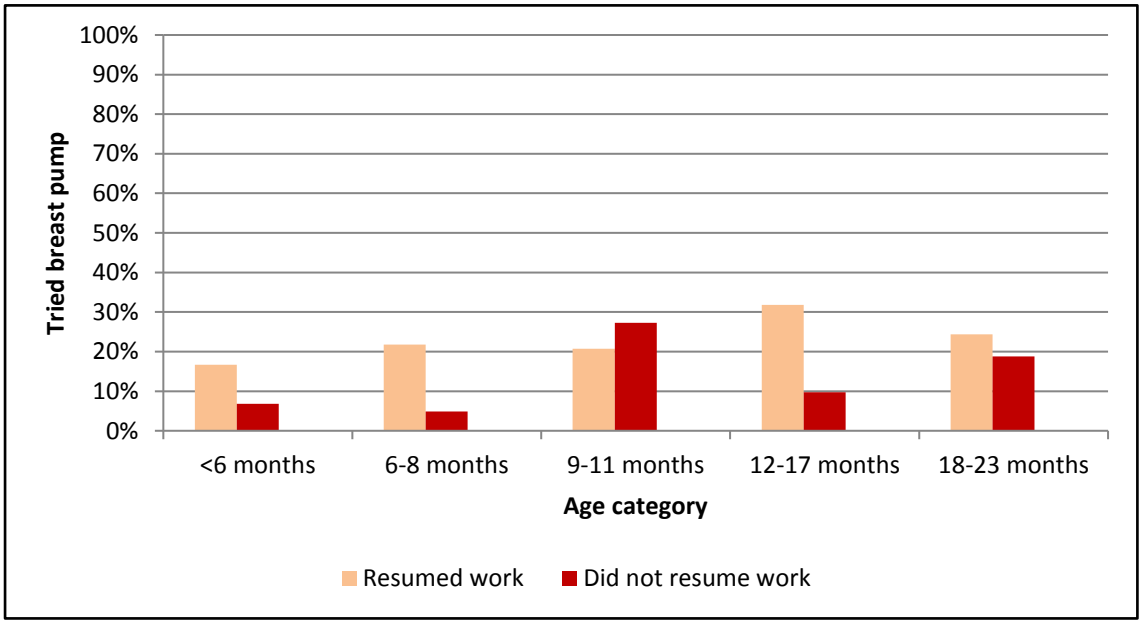
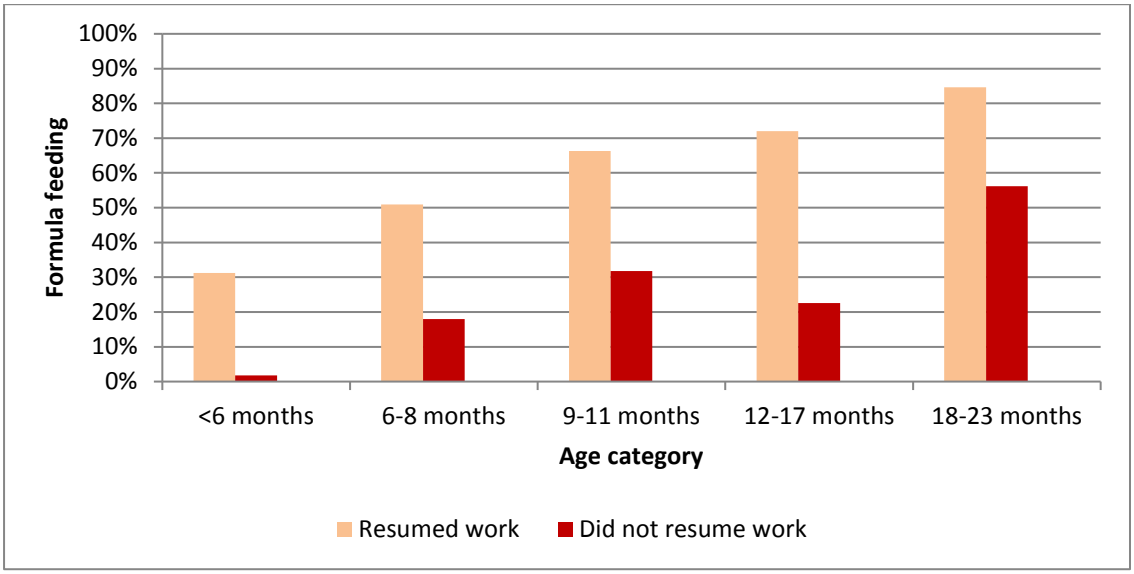

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Tried breast pump
<6 months
6-8 months
9-11 months
12-17 months
18-23 months
Age category
Resumed work
Did not resume work

Figure 9.: Rate of formula feeding in children between the mothers who resumed work and those who did not, by the age of the child in Sri Lanka (n=850)



3.4 Differentials of Exclusive Breastfeeding and Determinants of Failure

The factors associated with EBF were determined by bivariate and multivariate regression analysis. The analyses were performed for India and Sri Lanka separately and the results are presented separately for both countries.

India

Table 15 below shows the regression analysis for the determinants of failure of EBF in infants under six months of age of working mothers in India.

Table 15. Regression analysis for the determinants of failure of EBF in infants under six months of age of working mothers in India: unadjusted and adjusted OR (n=188)

Characteristic		Unadjusted OR				Adjusted OR[a]			
		p	OR	95% CI		p	AOR	95% CI	
Resumed work	Yes	0.125	0.755	0.526	1.082				
	No		1.000						
Gender of child	Female	0.362	0.868	0.640	1.177				
	Male		1.000						
Family type	Joint	0.173	1.529	0.830	2.818				
	Extended	0.055	1.974	0.987	3.949				
	Nuclear		1.000						
Age of mother (years)	<25		1.000				1.000		
	25–29	0.011	0.370	0.172	0.798	0.010	0.326	0.139	0.766
	30–34	0.205	0.606	0.279	1.315	0.219	0.585	0.248	1.376
	≥35	0.442	0.727	0.323	1.639	0.490	0.727	0.294	1.798
Education level of the mother	Illiterate		1.000						
	Elementary	0.024	0.368	0.155	0.876				
	Secondary	0.142	0.482	0.182	1.276				
	Senior secondary	0.020	0.312	0.117	0.833				
	Higher secondary	0.269	0.525	0.167	1.646				

Characteristic		Unadjusted OR				Adjusted OR[a]			
		p	OR	95% CI		p	AOR	95% CI	
	Graduate	0.071	0.369	0.125	1.088				
	Postgraduate	0.092	0.438	0.167	1.143				
Any medical condition of the mother	Yes		1.000						
	No	0.562	0.731	0.254	2.108				
Socioeconomic status	1		1.000						
	2	0.338	1.559	0.628	3.868				
	3	0.275	1.605	0.686	3.755				
	4	0.962	1.021	0.437	2.386				
	5	0.479	1.378	0.567	3.347				
Employment sector	Formal public		1.000						
	Formal private	0.057	1.780	0.983	3.224				
	Informal	0.363	1.300	0.738	2.290				

Note: a. AOR was based on the following regression equation for the final model:
Log [y/(1−y)] = 0.981 − 1.015 ×Age of mother
Y = failure of EBF

As depicted in Table 15, considering the non-adjusted OR, the bivariate regression analysis indicated that the extended family system (OR = 1.974) was significantly associated with failure of EBF in India. Further, maternal age between 25 and 29 years (OR = 0.370) and maternal education status of completed elementary school (OR = 0.368) and till matriculation (OR = 0.312), significantly decreased the odds of failure of EBF. However, considering the AOR in the multivariate regression analysis, maternal age between 25 and 29 years (AOR = 0.326) was found to be significantly inversely associated with failure of EBF in India.

Sri Lanka

Though the overall EBF rate was high in Sri Lanka, the rates vary widely across different subgroups. The EBF rate was significantly lower in both public and private sector employees than those in the informal sector. Mothers with any medical conditions reported lower EBF than others (Table 16).

Table 16. Differentials of exclusive breastfeeding of children ages less than 6 months, of working mothers in Sri Lanka (n=330).

Characteristic		Exclusively Breastfed			
		Number	Percentage	95% CI	
Resumed work	Yes	30	62.5	48.1	75.0
	No	300	88.2	84.3	91.3
Age of infant (months)	0–2.9	197	94.7	90.7	97.1
	3.0–3.9	34	82.9	68.2	91.7
	4.0–4.9	79	81.4	72.4	88.0
	5.0–5.9	20	47.6	33.1	62.5
Gender of child	Female	194	86.2	81.0	90.2
	Male	136	83.4	76.9	88.4

Birth order of child	Firstborn	239	87.2	82.7	90.7
	2nd or more	91	79.8	71.4	86.2
Family type	Extended	215	87.8	83.0	91.3
	Nuclear	115	80.4	73.1	86.1
Age of mother (years)	<25	41	80.0	61.4	84.3
	25–29	162	85.7	79.9	90.0
	30–34	95	90.5	83.2	94.8
	35 and above	32	82.1	66.8	91.2
Education level of mother	Below GCE O/L	17	81.0	58.7	92.7
	Passed GCE O/L	74	83.1	73.9	89.6
	Passed GCE A/L	164	86.3	80.6	90.5
	Degree and above	75	85.2	76.2	91.2
Any medical condition of mother	Yes	18	75.0	54.3	88.4
	No	312	85.7	81.7	89.0
Socioeconomic class	Upper	85	89.5	81.5	94.3
	Middle	163	84.9	79.1	89.3
	Lower	82	81.2	72.3	87.7
Employment sector	Formal public	72	80.9	71.4	87.8
	Formal private	176	83.4	77.7	87.9
	Informal	82	93.2	85.6	96.9
PHM postnatal home visit by 42 days	No	195	88.6	83.7	92.2
	Yes	135	80.4	73.6	85.7

As shown in Table 17, both univariate and multivariate regression analyses were performed, considering 'failure in EBF' in infants below 6 months of age as the dependent variable. In the multivariate regression analysis, all potential determinants are shown in the Table 16 irrespective of their statistical significance and were entered as covariates in the first step, and only the significant ($p < 0.05$) variables were retained in the final step. Details of the multivariate logistic regression analysis are given in Annex 1.

Table 17. Regression analysis for the determinants of failure of exclusive breastfeeding in infants under 6 months of age of working mothers in Sri Lanka: unadjusted and adjusted OR (n=330)

Characteristic		Unadjusted OR				Adjusted OR[1]			
		p	OR	95% CI		p	AOR	95% CI	
Resumed work	Yes	0.000	4.500	2.30	8.800	0.000	5.98	2.49	14.32
	No		1.000				1.00		
Age of infant (months)	0.0–2.9		1.000				1.00		
	3.0–3.9	0.012	3.690	1.34	10.180	0.019	3.76	1.24	11.42
	4.0–4.9	0.001	4.080	1.84	9.030	0.001	4.17	1.76	9.88
	5.0–5.9	0.000	19.700	8.36	46.440	0.000	17.62	6.80	45.71
Gender of child	Female	0.448	0.810	0.46	1.410				
	Male		1.000						
Birth order of child	Firstborn		1.000				1.00		
	2nd or more	0.065	1.730	0.97	3.08	0.015	2.48	1.19	5.16
Family type	Extended		1.000						
	Nuclear	0.052	0.570	0.33	1.010				
Age of mother (years)	<25	0.054	0.490	0.24	1.010	0.042	4.07	1.04	15.71
	25-29	0.010	0.310	0.13	0.750	0.416	1.64	0.50	5.37
	30-34	0.391	0.640	0.23	1.770	0.731	0.80	0.22	2.87
	35 and above		1.000				1.00		
	Below GCE O/L	0.629	1.360	0.39	9.680				

Characteristic		Unadjusted OR				Adjusted OR[1]			
		p	OR	95% CI		p	AOR	95% CI	
Education level of mother	Passed GCE O/L	0.705	1.170	0.52	2.630				
	Passed GCE A/L	0.808	0.920	0.45	1.880				
	Degree and above		1.000						
Any medical condition of mother	Yes	0.161	2.000	0.76	5.270				
	No		1.000						
Socioeconomic class	Upper		1.000				1.00		
	Middle	0.289	1.510	0.70	3.250	0.091	2.29	0.88	5.99
	Lower	0.107	1.970	0.86	4.490	0.039	3.20	1.06	9.80
Employment sector	Formal public	0.020	3.230	1.21	8.620	0.000	8.56	2.61	28.12
	Formal private	0.030	2.72	1.10	6.720	0.005	4.51	1.56	13.04
	Informal		1.000				1.00		
PHM postnatal home visit by 42 days	No	0.025	0.524	0.298	0.922				
	Yes		1.000						

Note: AOR was based on B coefficient values of the following regression equation (Refer to Annex 1 for details):

$$\log[Y/(1-Y)]=a+B_1X_1+B_2X_2+B_3X_3+ B_4X_{4+} B_5X_{5+} B_6X_6$$

Y= failure of EBF
a = constant (intercept) =-6.136
X_1 =Resumed work
X_2 =Age of infant (3 categories: 3.0–3.9; 4.0–4.9; and 5.0–5.9 months)
X_3 =Birth order of child 2nd or above
X_4 =Age of mother (3 categories <25; 25–29; and 30–34 years)
X_5 =Socioeconomic class (2 categories: middle and lower)
X_6 = Employment sector (2 categories: public and formal private)
Variable removed from the final step: gender of child, family type, education level of mother, any medical condition of mother and PHM postnatal home visit by 42 days due to non-significance.

As shown in Table 17, the multivariate regression analysis indicated that the following factors are significantly associated with failure of EBF in Sri Lanka:

(a) Resumed work after childbirth (AOR = 5.98)
(b) Advancing age of child beyond the third month (AOR = 3.7, 4.1, and 17.6 for fourth, fifth, and sixth month respectively).
(c) Second or higher birth order (AOR = 2.48);
(d) Maternal age less than 25 years (AOR = 4.07);
(e) Lower socioeconomic class (AOR = 3.22);
(f) Public and private sector employees (AOR = 8.56 and AOR = 4.51 respectively);

3.5 Differentials and Determinants of Formula Milk Feeding

Detailed analysis of determinants for formula milk feeding is available only for Sri Lanka. The percentage of infants/young children fed with formula milk varies widely across different subgroups. It varied with socioeconomic status, maternal age, education, and medical illness. The rate of formula milk feeding increases rapidly after three months (Table 18).

Table 12. Differentials of formula milk feeding of children ages less than 2 years, of working mothers in Sri Lanka (n=850)

Characteristic		Formula milk feeding			
		Number	Percentage	95% CI	
Resumed work	Yes	247	65.0	60.1	69.6
	No	40	8.5	6.3	11.4
Age of child (months)	<2	0	0.0	—	—
	2–3	5	2.0	0.8	4.7
	4–5	16	11.5	7.2	18.0
	6–8	39	33.6	25.6	42.7
	9–11	68	59.6	50.4	68.3
	12–14	75	61.5	52.5	69.7
	15–17	9	56.3	32.3	77.6
	18–20	58	81.7	70.9	89.1
	21–23	17	73.9	52.7	87.8
Gender of child	Female	144	31.1	27.0	35.5
	Male	143	37.0	32.3	41.9
Birth order of child	Firstborn	170	31.6	27.8	35.7
	2nd or more	117	37.5	32.3	43.0
Age of mother (years)	<25	20	22.7	15.1	32.6
	25–29	119	31.8	27.3	36.7
	30–34	92	35.7	30.0	41.7
	35 and above	56	43.1	34.8	51.7
Education level of mother	Below GCE O/L	9	23.7	12.8	39.6
	Passed GCE O/L	42	23.7	18.0	30.6
	Passed GCE A/L	148	35.1	30.7	39.8
	Degree and above	88	41.3	34.9	48.1
Any medical condition of mother	Yes	38	54.3	42.6	65.5
	No	249	31.9	28.7	35.3
Socio-economic class	Upper	93	40.8	34.6	47.3
	Middle	146	34.6	30.2	39.3
	Lower	48	24.0	18.6	30.4
Employment sector	Formal public	96	41.0	34.9	47.5
	Formal private	153	33.9	29.7	38.4
	Informal	38	23.0	17.2	30.1
PHM postnatal home visit by 42 days	No	114	28.6	24.3	33.2
	Yes	173	38.4	34.0	42.9
Supported by a PHM for expressed breast milk	Yes	260	35.6	32.2	39.2
	No	27	22.5	15.9	30.8
Any problem in breastfeeding child?	Yes	55	33.7	26.9	41.4
	No	232	33.8	30.3	37.4
Occupational category	Manager	12	54.5	34.1	73.6
	Professional	63	36.0	29.2	43.4
	Technicians/associated professional	65	45.5	37.5	53.7
	Clerical support worker	43	38.4	29.8	47.7
	Service worker	29	37.2	27.2	48.4

Characteristic		Formula milk feeding			
		Number	Percentage	95% CI	
	Sales worker	24	29.3	20.4	40.0
	Skilled agricultural, forestry, and fishery worker	2	20.0	5.0	54.1
	Craft and related trade worker	1	33.3	4.3	84.7
	Plant and machine operator/assembler	2	66.7	15.3	95.7
	Elementary occupations	42	19.5	14.8	25.4
	Armed forces	3	75.0	23.7	96.7

Table 13. Regression analysis for the determinants of formula milk feeding in children less than 2 years of age, of working mothers: unadjusted and adjusted OR in Sri Lanka (n=850)

Characteristic		Unadjusted OR				Adjusted OR[a]			
		p	OR	95% CI		P	AOR	95% CI	
Resumed work	Yes	0.000	19.96	13.56	29.39	0.000	8.29	5.263	13.07
	No		1.00				1.00		
Age of infant (months)	<6		1.00				1.00		
	6–8	0.000	8.85	4.93	15.88	0.000	4.86	2.57	9.20
	9–11	0.000	25.83	14.50	46.02	0.000	8.50	4.46	16.19
	12–17	0.000	27.19	15.58	47.45	0.000	9.17	4.95	16.99
	18–23	0.000	68.99	35.36	134.6	0.000	21.69	10.50	44.81
Gender of child	Female		1.00						
	Male	0.073	0.77	0.58	1.02				
Birth order of child	Firstborn		1.00						
	2nd or more	0.080	1.30	0.97	1.74				
Family type	Extended		1.00						
	Nuclear	0.823	0.97	0.73	1.29				
Age of mother (years)	<25	0.096	1.59	0.92	2.73				
	25–29	0.027	1.88	1.08	3.30				
	30–34	0.002	2.57	1.40	4.72				
	35 and above		1.00						
Education level of the mother	Below GCE O/L		1.00						
	Passed GCE O/L	0.995	1.00	0.44	2.29				
	Passed GCE A/L	0.161	1.74	0.80	3.78				
	Degree & above	0.044	2.27	1.02	5.03				
Any medical condition of mother	Yes	0.000	2.53	1.55	4.15	0.010	2.62	1.26	5.42
	No		1.00				1.00		
Socioeconomic class	Upper	0.000	2.18	1.44	3.32				
	Middle	0.008	1.68	1.14	2.45				
	Lower		1.00						
Employment sector	Formal public	0.000	2.33	1.49	3.63	0.013	2.10	1.17	3.79
	Formal private	0.010	1.72	1.14	2.59	0.006	2.15	1.25	3.70
	Informal		1.00				1.00		
PHM postnatal home visit by 42 days	No	0.003	0.64	0.48	0.86				
	Yes		1.00						

Note: a. AOR was based on B coefficient values of the following regression equation (Refer Annex 2 for details):
$\log[Y/(1-Y)]=a+B_1X_1+B_2X_2+B_3X_3+ B_4X_4$

Y= given formula milk

a = constant (intercept)= =−4.114

X_1 =Resumed work

X_2 =Age of infant (4 categories: 6–8; 9–11, 12–17, and 18–23 months)

X_3 =mother with any medical condition

X_4 = Employment sector (2 categories: public and formal private)

Variable removed from the final step are gender of the child, birth order of child, family type, age of mother (years), education level of the mother due to insignificance.

As shown in Table 19, multivariate logistics regression analysis revealed that the following factors are significantly associated with high rates of formula feeding in Sri Lanka:

(a) Resumed work (AOR = 8.2)

(b) Advancing age of the child (AOR = 4.86, 8.50, 9.17, and 21.69 for age groups of 6–8, 9–11, 12–17, and 18–23 months)

(c) Having maternal medical conditions (AOR = 2.61)

(d) Employed in the public or private sector in contrast to the informal sector (AOR = 2.10 and AOR = 2.15, respectively)

3.6 Complementary Feeding Practices

3.6.1 Introduction of Complementary Food

The survey included questions about the month when the complementary feeding commenced. In India, the majority (70 percent to 80 percent of mothers) started complementary feeding by 6 to 9 months. In India, there were no significant differences in the time of commencement between mothers who had resumed work and those who had not (Table 20). In contrast, in Sri Lanka, it was found that most infants commenced complementary feeding in 4–6 months. There is a significant advancement of the commencement of complementary feeding in mothers who resumed work (Figure 12, Table 21 (annex)).

Table 14. Age of introduction of complementary feeding among those who commenced complementary feeding in India (n=604)

Status of mother	Percentage of children introduced complementary food by age category (%)						
	<4 months	4–5.9 months	6–8.9 months	9–11.9 months	12-14.9 months	≥15 months	Total
Resumed work	3.5	10.6	70.1	4.6	9.4	1.8	100
Did not resume work	2.5	12.5	80.0	2.5	2.5	0.0	100

Figure 10. Percentage of children receiving complementary food currently by age (months) and by the status of working mother in Sri Lanka (n=850)

3.6.2 Type of Food Given

A 24-hour food frequency questionnaire was used to assess the frequency of different food items offered to the child during the previous day or night. The food items were grouped into seven food categories as per WHO guidelines on estimating IYCF indicators. The proportions disaggregated by age are shown in Figure 13 (Table 22 (annex)).

In India, at the age of 6–8 months, the proportion of infants receiving most of the food types were very low, except for grains, roots, tubers (93.9 percent), dairy foods (79.1 percent), and legumes (43.5 percent). However, by the age of 9–11 months, the consumption of these food groups declined, and other foods were introduced in the child's diet. However, no significant trends emerged.

Among Sri Lankan children, the proportion of infants receiving most of the food types was very low at the age of 6–8 months, except grains, roots, tubers (82.8 percent), and Vitamin A-rich fruits (65.5 percent). However, by the age of 9–11 months, the proportions fed with different items increased except eggs, which remained at a lower level even by 18–23 months. Although the majority commenced complementary feeding early, there is a delay in giving a variety of food, especially those rich in proteins and fats.

Figure 11 a. Percentage of children fed with protein-rich food and oils/fats by age in India (n=604)

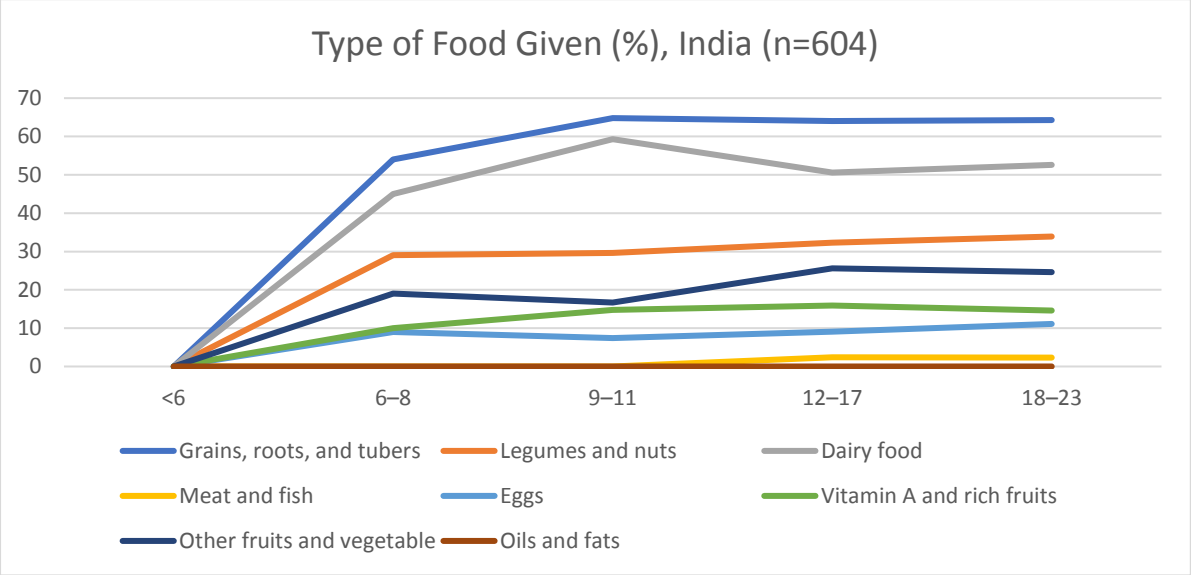
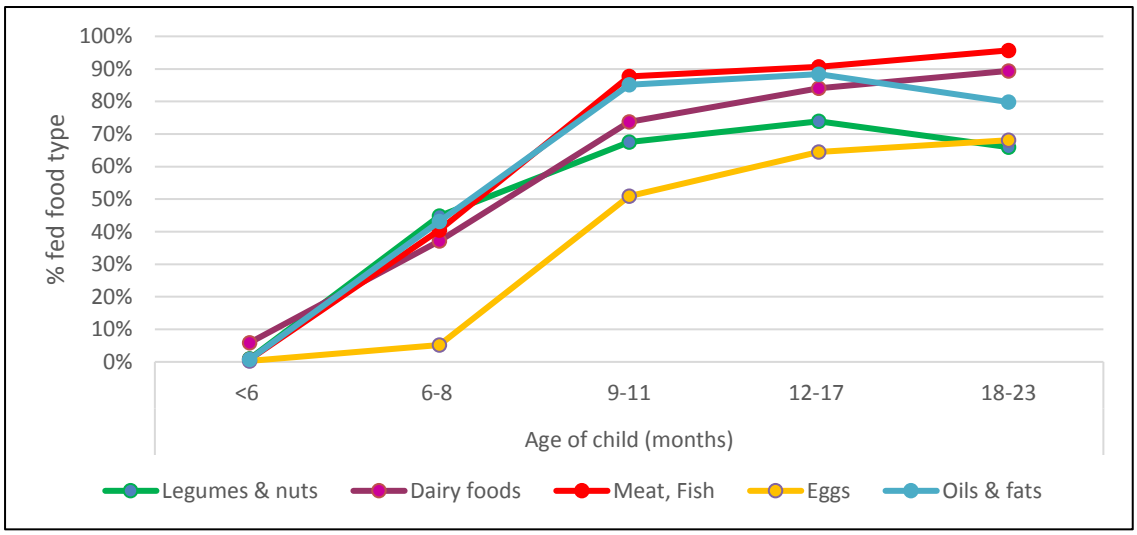


Figure 12. Percentage of children fed with protein-rich food and oils/fats by age in Sri Lanka (n=850)



3.6.3 Dietary Diversity

The MDD is the percentage of children (ages 6–23 months) who were given four or more out of seven food types.

India

In India, the MDD in children ages 6–23 months was extremely low as 22.5 percent. There was a significant variation across the employment sectors, with formal private sector mothers having relatively higher dietary diversity (42.3 percent) than the public (28.0 percent) and informal sectors 22.0 percent. Male children had somewhat lesser diversity than females, 19.6 percent versus 25.3 percent. The changes across other sociodemographic strata were minimal. However, there was a similar pattern between Sri Lanka and India for example, the child's age, maternal age, and the education level (Figure 15, Table 23 (annex)).

Sri Lanka

In Sri Lanka, the MDD was 86.8 percent. The age disaggregation shows that MDD was poor in the age group of 6–8 months (52.6 percent) but improved after that with age. There is a wide difference in the MDD, between those resumed work (92.8 percent) and the others (71.5 percent). The MDD rate was higher in the upper (91.0 percent) and middle (88.3 percent) than lower (77.8 percent) socioeconomic classes. MDD rates varied from low to high rates across maternal education and maternal age categories (Table 23 (annex)).

The MDD in infants ages 6–8 months was higher in those of mothers who resumed work than those who did not resume work in Sri Lanka (Figure 14, Table 24 (annex)).

Figure 13. MDD of children ages 6–23 months according to the mother's return to work and age of the child in Sri Lanka (n =462)

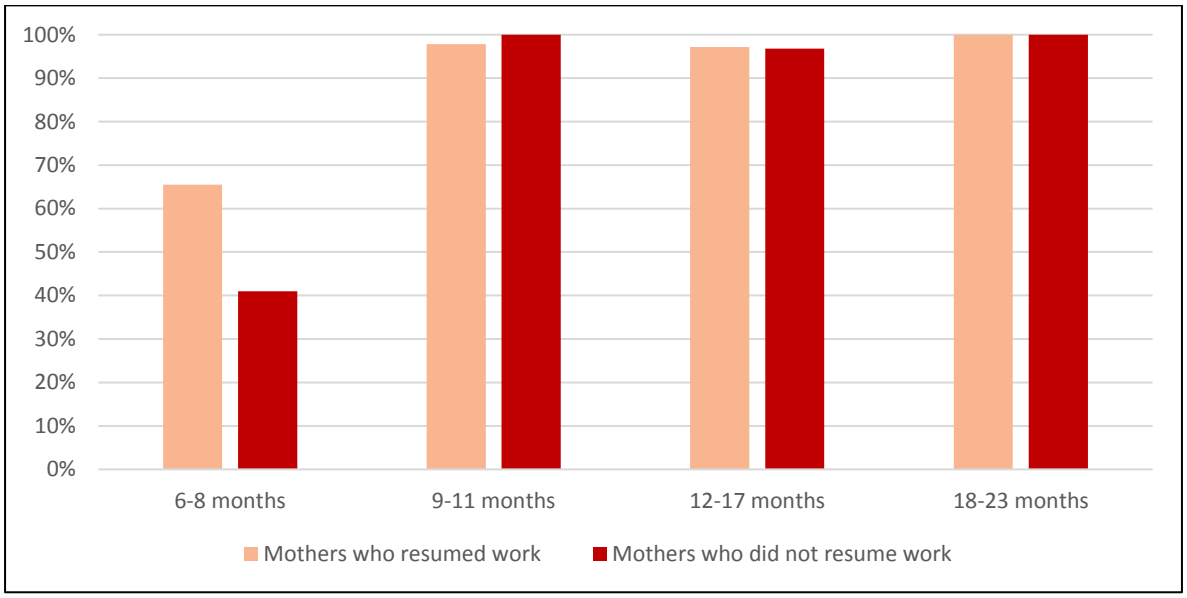


Figure 14 a. MDD for children ages 6–23 months according to maternal and child characteristics in Sri Lanka (n=462)

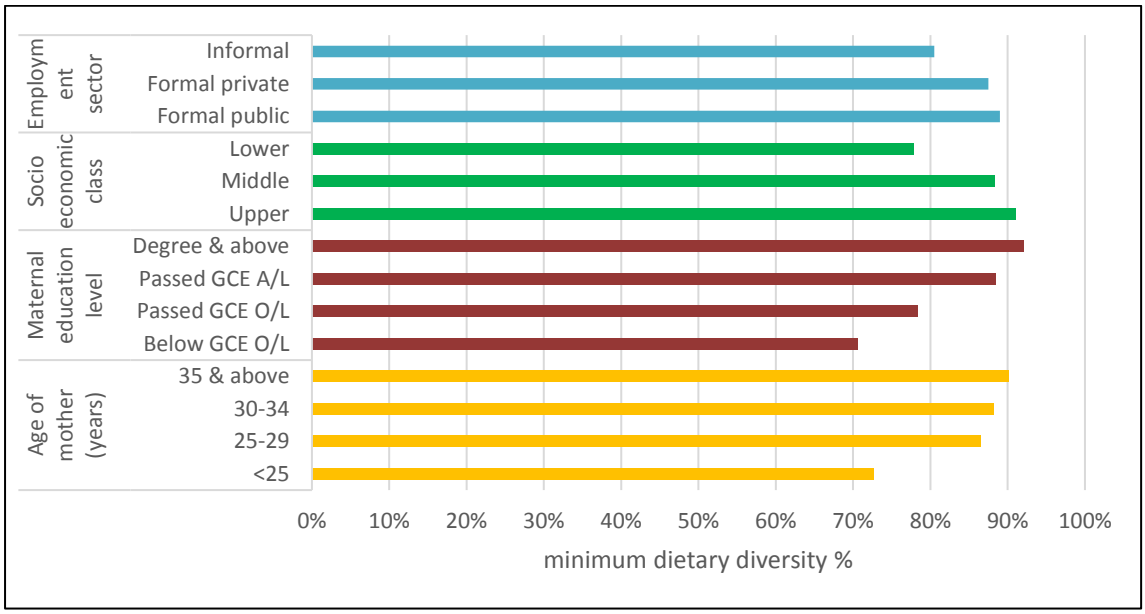
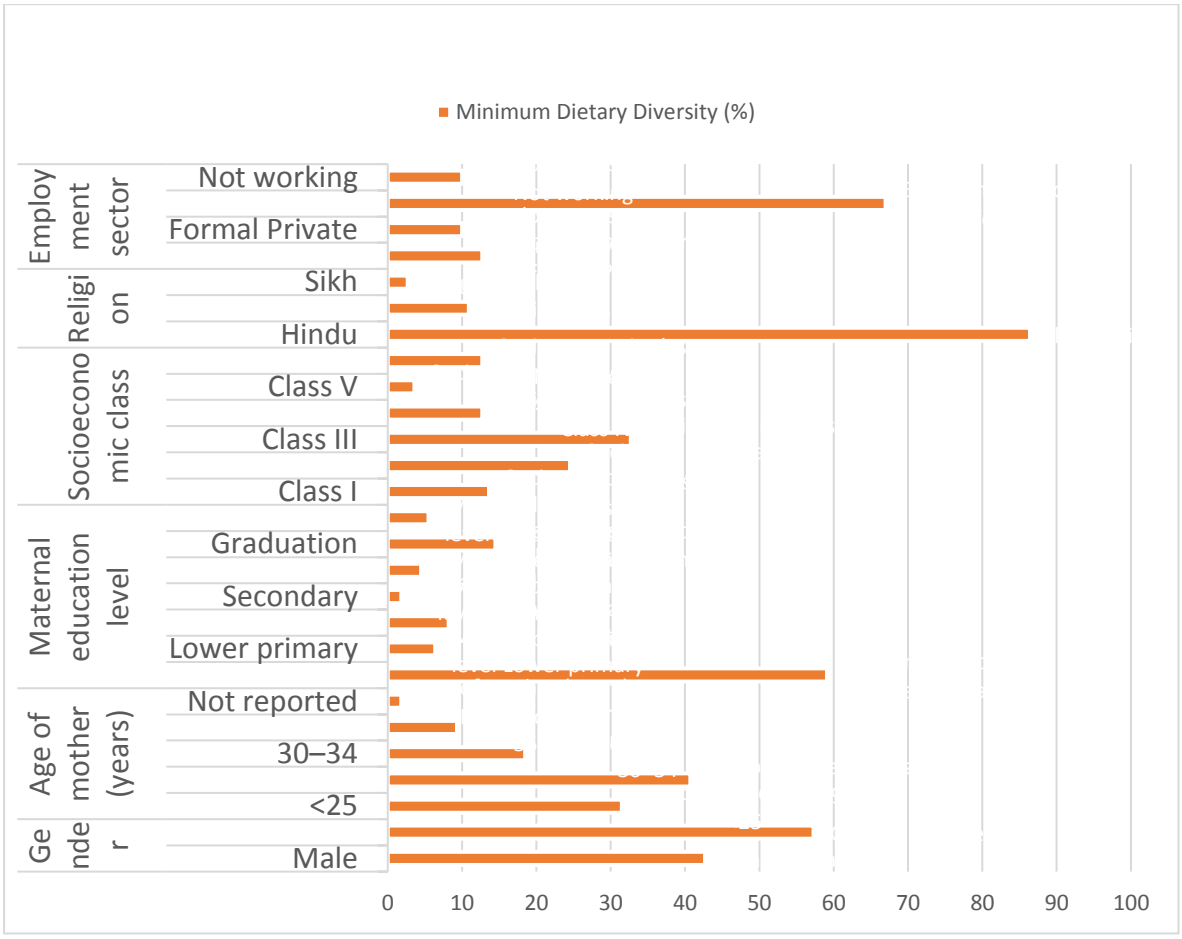


Figure 15 b. MDD for children ages 6–23 months according to maternal and child characteristics, India (n = 489)



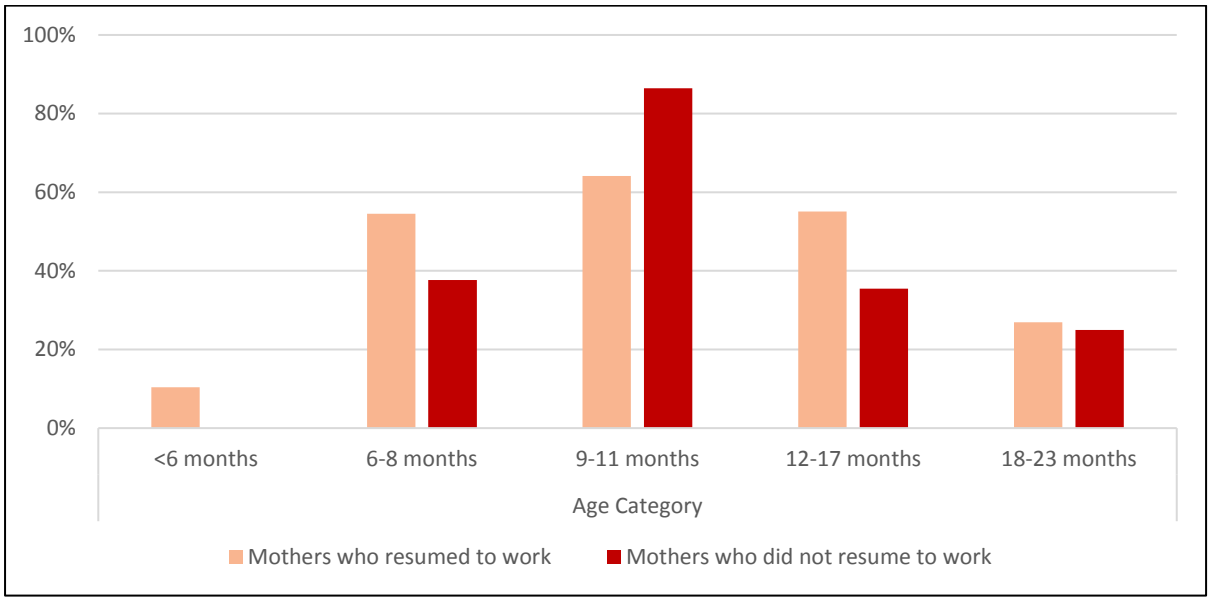
3.6.4 Commercially Prepared Baby Food

Enquiry and analysis of commercially prepared baby food was restricted to Sri Lanka as in India it was very low. Therefore, the results presented are only for Sri Lanka participants (Table 25 (annex)).

Of the children less than 2 years of age, 27.2 percent were given commercially prepared baby food (cereal-based fortified food) which are available in the market in Sri Lanka. Only a few (1.3 percent) infants in the age under six months were given such food; however, the rates increased markedly after that, that is, 45.7 percent in 6–8 months, 68.4 percent in 9–11 months, and 50.7 percent in 12–17 months. The practice of giving commercially prepared baby food increased with the maternal education level and socioeconomic status. Those employed in the informal sector reported a lower rate of giving commercially prepared baby food than the other two sectors in Sri Lanka.

Sri Lankan mothers who resumed work reported feeding commercially prepared baby food nearly four times more than those who did not resume work (45.8 versus 12.1). The proportions were higher among those resumed work, in younger age categories under 6 and 6–8 months indicating that the early return to work necessitated practice of feeding of commercially prepared baby food (Figure 16, Table 26 annex)).

Figure 15. Percentage given commercially prepared baby food by age category, between those who resumed work and those who did not in Sri Lanka (n=850)



4. Barriers and Facilitating factors to Appropriate IYCN in Urban Working Women

4.1 Barriers and Facilitating Factors - The Quantitative Study

The cross-sectional survey identified key factors that facilitate appropriate IYCF practices in urban working females as well as barriers to them. The facilitating factors and barriers are grouped into to three main categories: client/family related, health care related, and employment related.

4.1.1 Client/Family-related Barriers and Facilitating Factors

Availability of household support is a critical facilitating factor for successful IYCF practices (Mangasaryan et al. 2012).

Figure 17. Type of Support Available (%), India

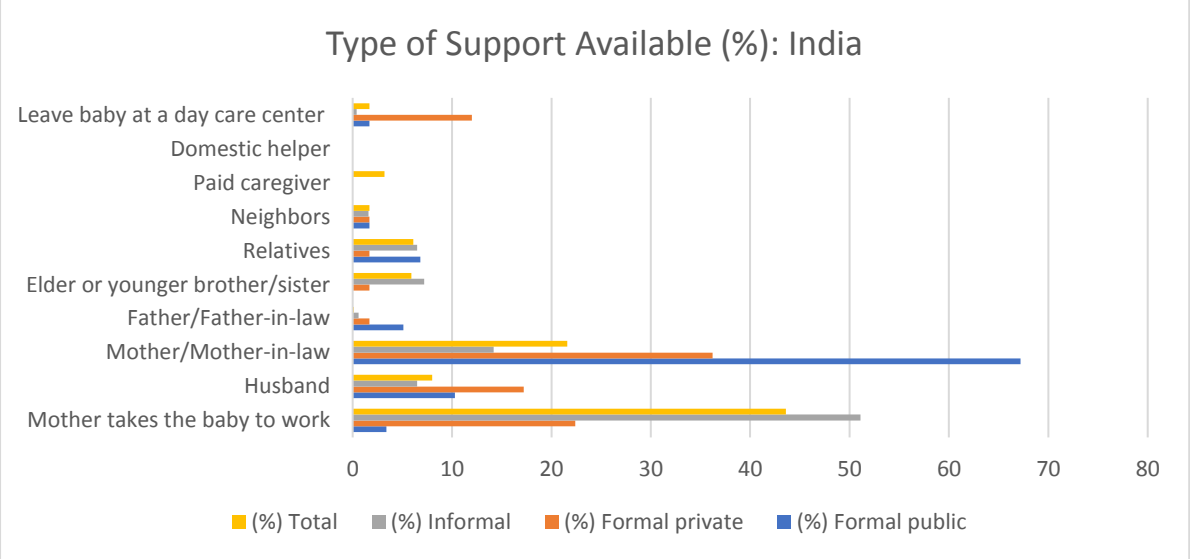
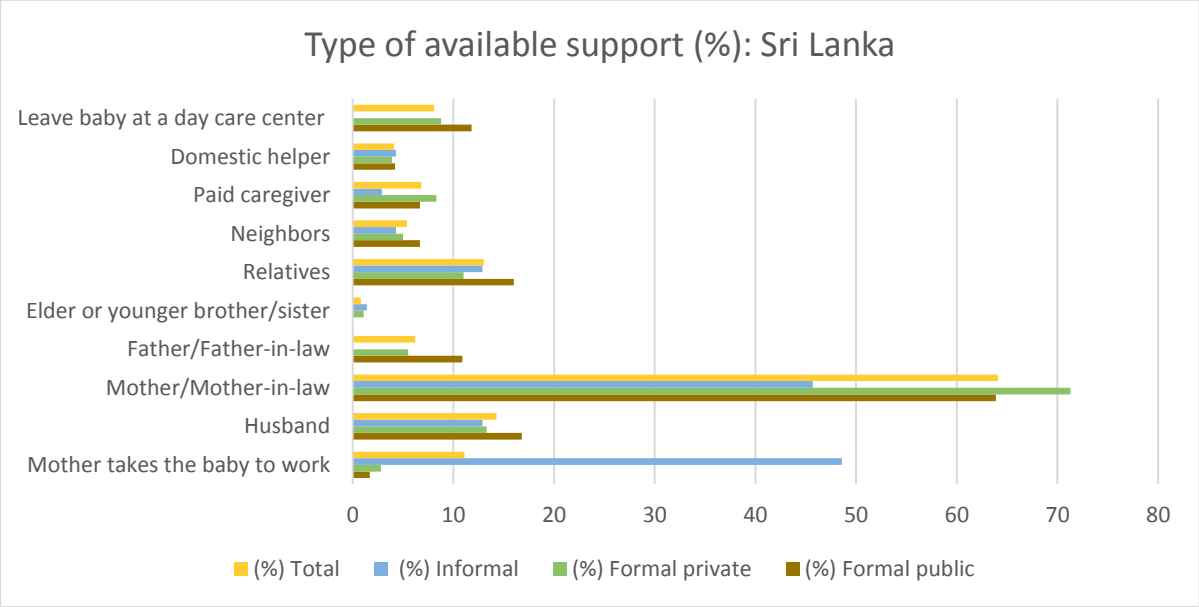


Figure 18. Type of Support Available (%), Sri Lanka



India

In India, the situation was slightly different. More than 50 percent of the mothers working in the informal sector took their child to work. However, in the formal sector, the mother or mother-in-law of the working women took care of the infant while she was at work (Figure 17, Table 27 (annex)).

Sri Lanka

In Sri Lanka, a clear majority (99 percent) of the study subjects mentioned the availability of family support for childcare while they are out at work (data not shown in the table). In the study sample, 14.3 percent mentioned 'husband' as the family member supporting, while a majority (64.1 percent) mentioned 'mother' or 'mother-in-law' (Figure 18, Table 27 (annex)). These point toward the availability of household childcare support both in nuclear as well as in extended family settings.

4.1.2 Health Care-related Barriers and Facilitating Factors

Facilitating factors, as well as barriers related to health care, both during the antenatal period and postnatal period, were assessed. Counselling pregnant females regarding breastfeeding during the antenatal period is considered a high-impact practice for successful breastfeeding (Voramongkol and Phupong 2010).

India

As evident in Figure 19, (Table 28 (annex)), in India, the main health care provider was the Anganwadi worker in the informal sector, while the pediatrician/medical specialist was the main health care provider in the formal public and private sectors. However, the focus on breastfeeding counselling during the antenatal period was very poor. During the postnatal period also, support for breastfeeding through home visits of health functionaries was not reported by most of the women. Around two-thirds received advice from the mother or mother-in-law, and a similar percentage reported receiving advice from the doctor or health worker (Figure 20).

Sri Lanka

In contrast, it is encouraging to note that 95.9 percent of working mothers in Sri Lanka had received advice on breastfeeding at field antenatal clinics. Communication of the same message by all the health care workers at every level would be more effective in inculcating positive health behaviors. However, a relatively low percentage of mothers had received advice on breastfeeding during visits to a general practitioner (13.9 percent) and consultant obstetrician and gynecologist (1.2 percent), as well as during domiciliary visits by a PHM (4.4 percent) (Figure 20).

In Sri Lanka, the PHM is the frontline health care provider responsible for MCH care. Breastfeeding is a key area that is addressed during postpartum domiciliary visits by the PHM. It is a facilitating factor for successful IYCF practices to note that 98.4 percent of mothers had received at least one postpartum visit by the PHM in Sri Lanka. In the case of working mothers, the ability to express breast milk is a facilitating factor for successful breastfeeding (Perera et al. 2012), and 85.9 percent of mothers had received support for it from the PHM (Figure 22, Table 30 (annex)).

Figure 19. Main health care provider of the infant/young child according to the employment sector of the mother, India

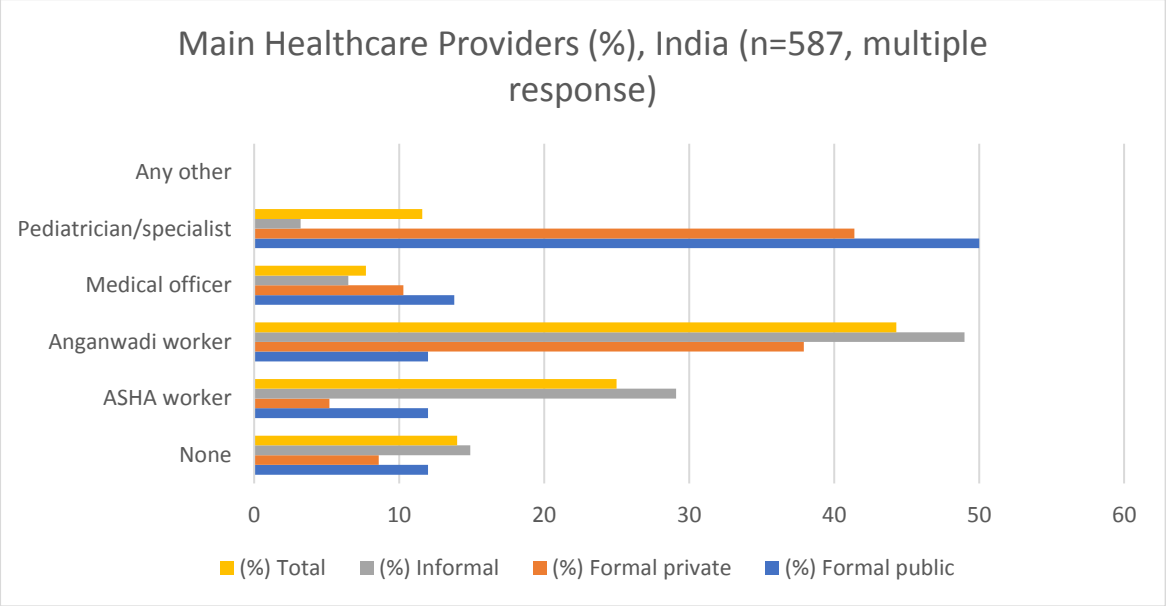


Figure 20. Source of advice on breastfeeding received by working mothers during pregnancy in India (n = 677)

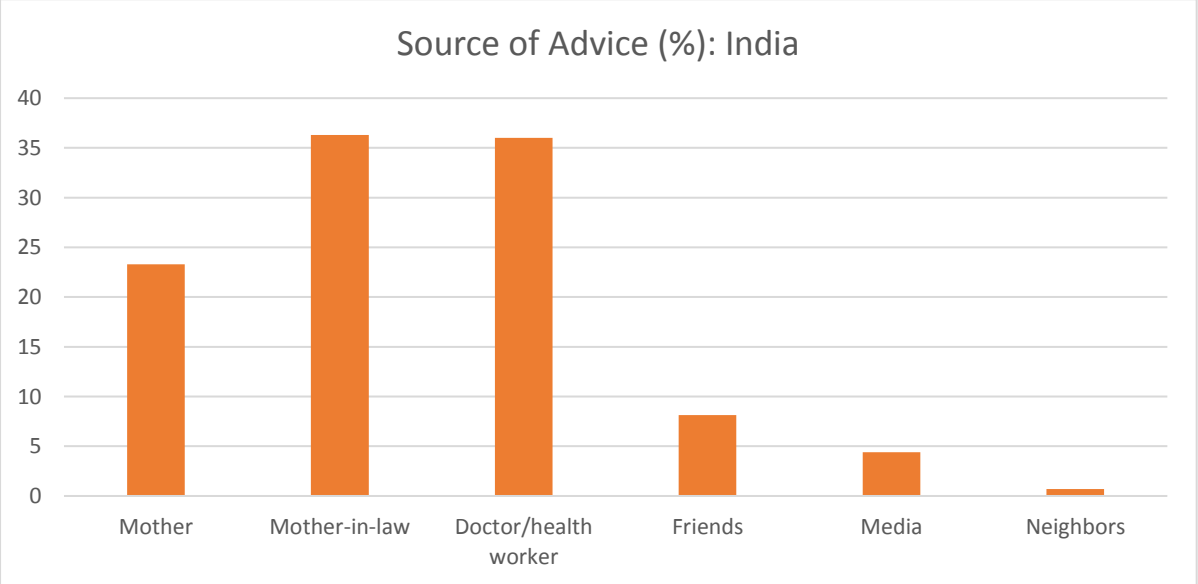


Figure 21. Source of advice on breastfeeding received by working mothers during pregnancy in Sri Lanka (n = 850)

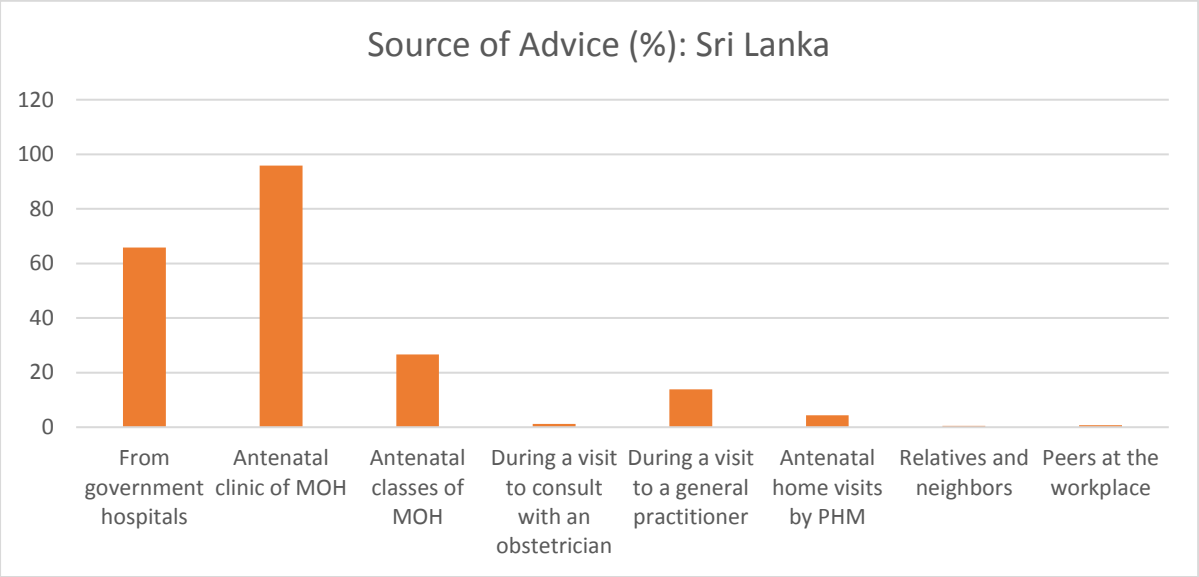
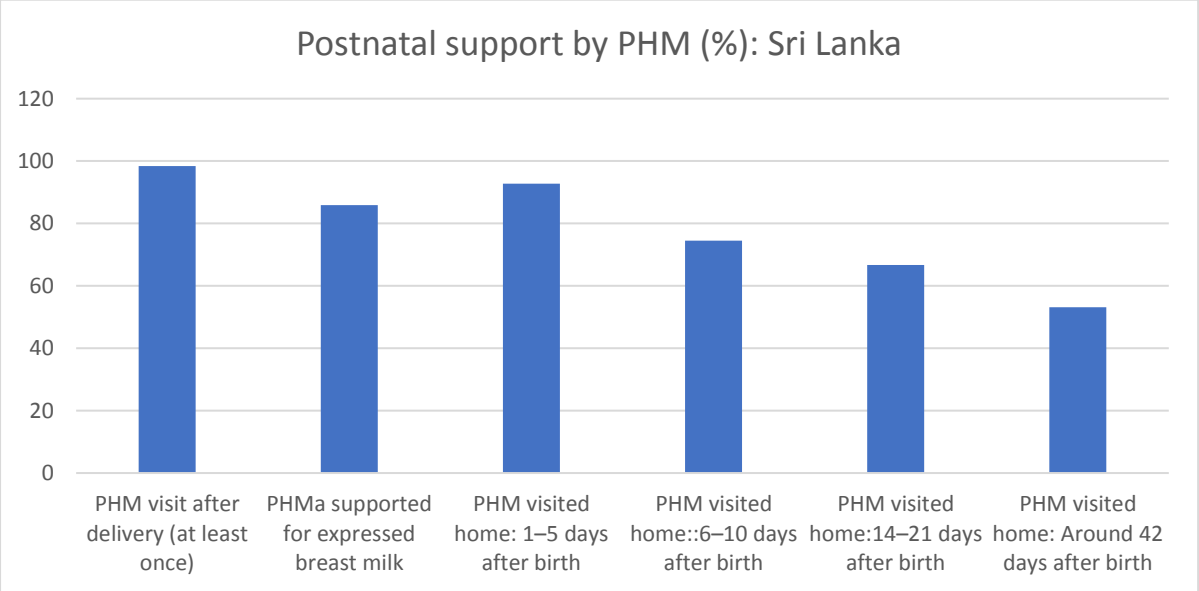


Figure 22. Postnatal support given to working mothers with children less than 2 years, the PHM visits, and support for expressing breast milk, in Sri Lanka (n = 850)



4.1.3 Work-related Barriers and Facilitating Factors

Work-related facilitating factors and barriers are critical for successful IYCF practices for an employed mother (Torlesse and Raju 2018). Maternity leave is a right enjoyed by working mothers, which facilitates success in IYCF practices.

Over 70 percent of public sector employees in India reported that they were entitled to full-pay maternity leave, while some (27.6 percent) reported unpaid maternity leave. Most mothers (41.4

percent) in the private sector were entitled to full-pay maternity leave, but only a few (2.8 percent) in the informal sector had this benefit (Table 31). On the other hand, the Sri Lankan public sector employees reported that they take full-pay (98.7 percent), half-pay (76.9 percent), and no-pay (70.5 percent) maternity leave. The majority employees (76.9 percent) in the private sector take full-pay maternity leave, but a few (2.4 percent) in the informal sector have this benefit. In the formal private and informal sectors, 22 percent and 96 percent, respectively, had not taken any maternity leave in Sri Lanka (Table 31). The number of days of maternity leave taken under each category for Sri Lanka is given in Table 32. In the government sector, 99 percent of mothers take full-pay maternity leave of 84 working days (Table 32).

Table 15. Category of maternity leave reported by mothers, by employment sector in India (n = 587) and Sri Lanka (n = 850)

Category of maternity leave	India			Sri Lanka		
	Public sector (n = 58)	Private sector (n = 58)	Informal sector (n = 471)	Public sector (n = 234)	Private sector (n = 451)	Informal sector (n = 165)
Fully paid	70.7	41.4	2.8	98.7	76.9	2.4
Half paid	—	—	—	76.9	2.2	0.6
Nonpaid	27.6	41.4	37.8	70.5	10.9	0.6
No maternity leave	1.7	17.2	59.5	1.3	22.2	95.8

Table 16. Days expected to utilize maternity leave according to mother, by the employment sector, in Sri Lanka (n = 850)

Category of maternity leave	Percentage of mothers by employment sector		
	Public sector (n = 234)	Private sector (n = 451)	Informal sector (n = 165)
Fully paid			
84 working days	99.1	76.5	3.6
Less than 84	0.0	0.4	0.0
Not taking	0.9	23.1	96.4
Half paid			
84 working days	76.1	2.0	0.6
Less than 84	0.4	0.0	0.0
Not taking	23.5	98.0	99.4
Nonpaid			
84 working days	67.9	2.9	0.0
Less than 84	0.0	0.2	0.6
Not taking	32.1	96.9	99.4

In the Sri Lankan sample, 69.2 percent of mothers in the public sector had tried to extend maternity leave beyond the period of their official entitlement, and 63.2 percent had received the extension. However, in the informal sector, 95.8 percent had not tried to extend their maternity leave; possibly they are not entitled to any maternity leave (Table 33).

The numbers were much less in the Indian sample; perhaps it is not a common practice to extend maternity leave. Only 25.9 percent of mothers in the formal public sector had tried to extend maternity leave beyond the period of their official entitlement, and 13.8 percent had received the extension. In the formal private sector, 22.4 percent had tried to extend maternity leave, and 17.2 percent had received the extension. However, in the informal sector, since they had no formal leave system, the majority had not tried to extend leave, if availed (Table 33).

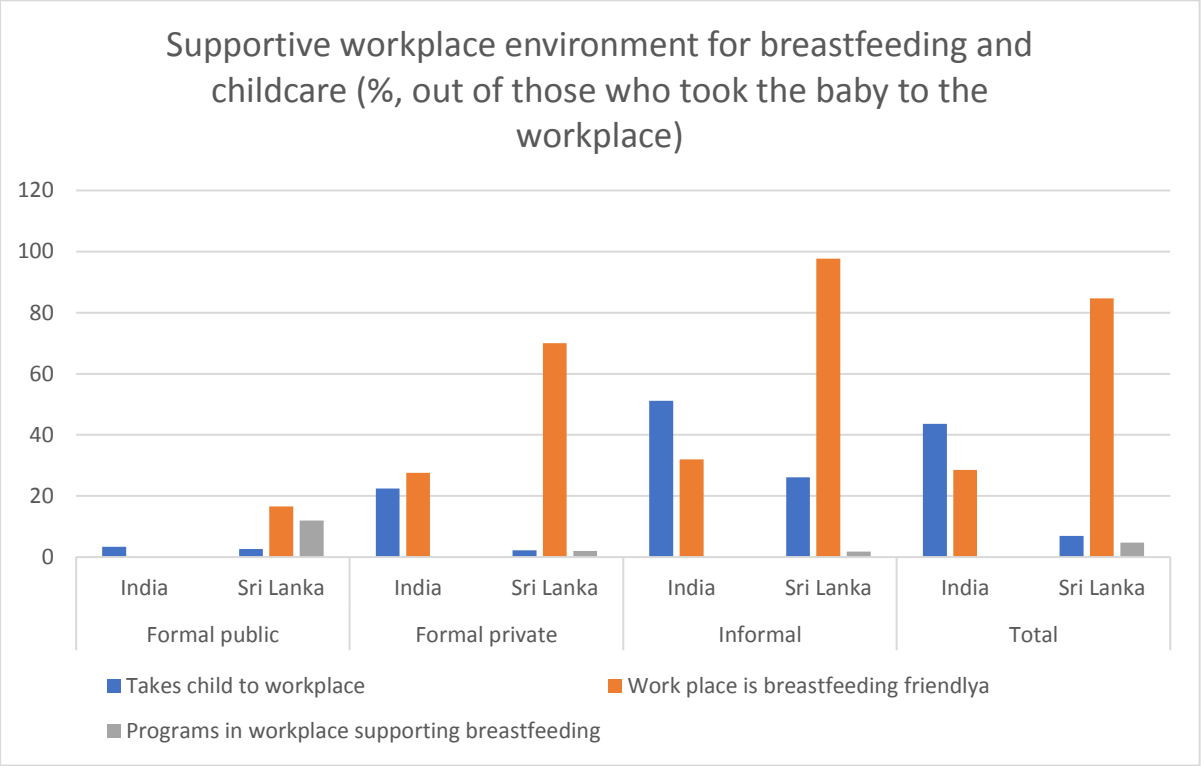
Table 17. Extension of maternity leave by sector in India (n = 587) and Sri Lanka (n = 850)

Maternity leave extension	India (%)			Sri Lanka (%)		
	Public sector (n = 58)	Private sector (n = 58)	Informal sector (n = 471)	Public sector (n = 234)	Private sector (n = 451)	Informal sector (n = 165)
Mother tried to extend maternity leave	25.9	22.4	3.0	69.2	38.4	4.2
Mothers were granted extension by employer	13.8	17.2	1.1	63.2	20.2	1.8

In Delhi, India, most mothers in the informal sector (51.1 percent) and some in the informal private sector (22.4 percent) took the child to the workplace. However, only 32 percent of mothers in the informal sector and 27.6 percent of mothers in the formal private sector said that the workplace was breastfeeding friendly (Table 34).

In Sri Lanka, 26 percent of mothers of the informal sector took the child to the workplace, and only a minority of mothers in the formal public and formal private sectors did so. One out of 6 mothers who took the baby to the workplace in the public sector (16.7 percent), 7 out of 10 (70 percent) in the private sector, and 42 out of 43 (97.7 percent) in the informal sector said that the workplace is breastfeeding friendly (Table 34). Only a minority of mothers across all three employment sectors mentioned that they had programs in the workplace supporting breastfeeding (12.0 percent, 2.0 percent and 1.8 percent, respectively, in the formal public, formal private, and informal sectors) (Figure 23, Table 34 (annex)).

Figure 23: Supportive workplace environment for breastfeeding and childcare according to the employment sector in India (n = 687) and Sri Lanka (n = 850)



Concerning employers being flexible to relieve mothers at work, in India, nearly 48 percent of the mothers working in the formal public sector agreed, while mothers working in the formal private

sector received the least support. Majority of mothers (67.2 percent) working in the formal sector reported that they discuss child feeding and care practices with their colleagues. The practice was found to be low among mothers working in the formal private and informal sectors (Table 35).

In Sri Lanka, the majority of the mothers in the informal sector (78.8 percent) and public sector (56.8 percent) were entitled to deviate from work to feed the child, while it was only 27.9 percent in the formal private sector. However, 81.3 percent of the mothers in the formal private sector were flexible to relieve them from work to feed the child (Table 35).

Table 18. Support at the workplace by employer and coworkers regarding feeding the child in India (n = 587) and Sri Lanka (n = 850)

Support		Percentage of mothers by employment sector (%)			
		Formal public	Formal private	Informal	Total
India (n = 587)		**n = 58**	**n = 58**	**n = 471**	**n = 587**
Employers flexible to relieve mother from work		48.3	27.6	30.4	31.9
Discuss with colleagues at the workplace on child feeding and care		67.2	17.2	15.7	21.0
Sri Lanka (n = 850)		**n = 234**	**n = 451**	**n = 165**	**n = 850**
Employers flexible to provide relief from work	Yes, always	12.4	5.5	3.0	6.9
	Yes, sometimes	79.1	75.8	6.7	63.3
	No	6.8	13.7	1.2	9.4
	Not applicable	1.7	4.9	89.1	20.4
Entitled to deviate from work to feed the child	Yes	56.8	27.9	78.8	45.8
	No	43.2	72.1	21.2	54.2
Discuss with colleagues at the workplace on child feeding and care	Yes	77.8	60.8	10.3	55.6
	No	15.8	19.1	5.5	15.5
	Not applicable	6.4	20.2	84.2	28.8

Availability of physical facilities for childcare at the workplace is an important facilitating factor for IYCF practices. Only a minority of mothers across all three sectors had crèches, room to express breast milk, or facilities to store expressed breast milk at workplaces, both in Sri Lanka and India (Table 36). In fact, in India, the practice of expressing breast milk was uncommon, and that coincides with a poor rating of breastfeeding friendliness at the workplace.

Table 19. Availability of physical facilities for childcare at the workplace, by employment sector in India (n = 587) and Sri Lanka (n = 850)

Facility	Percentage of mothers by employment sector							
	Formal public		Formal private		Informal		Total	
	No.	%	No.	%	No.	%	No.	%
India	**n = 58**		**n = 58**		**n = 471**		**n = 587**	
Crèche	5	8.6	6	10.3	3	0.6	14	2.4
Sri Lanka	**n = 234**		**n = 451**		**n = 165**		**n = 850**	
Crèche	6	2.6	3	0.7	2	1.2	11	1.3
Room to express breast milk	1	0.4	5	1.1	0	0.0	6	0.7
Facilities to store expressed breast milk (refrigerator available)	1	0.4	2	0.4	0	0.0	3	0.4

As shown in Table 37, both in India and Sri Lanka, around 20 percent of mothers were highly satisfied with their employers regarding childcare. In India, respondents belonging to the formal private sector were the most satisfied (44.8 percent), followed by respondents working in the formal public sector

(34.5 percent). Mothers working in informal sectors were found to be less satisfied compared to the others. On the other hand, in Sri Lanka, more mothers (54.5 percent) working in the informal sector were highly satisfied with their employers.

Although the number was low in both countries, still a higher proportion of mothers working in the formal private sector followed by the formal public sector had thought of quitting their job to take care of the child (Table 37).

Table 20. Level of satisfaction with employers on the support for childcare and thought of leaving the job to take care of the child, by employment sector in India (n = 587) and Sri Lanka (n = 850)

Perception by mother (%)		Employment sector							
		Formal public		Formal private		Informal		Total	
		India	Sri Lanka	India	Sri Lanka	India	Sri Lanka	India	Sri Lanka
Satisfaction with current employer on support for childcare	Not at all satisfied	1.7	3.0	1.7	9.1	7.9	0.6	6.6	5.8
	Somewhat dissatisfied	17.2	2.6	13.8	3.5	34.2	0.0	30.5	2.6
	Neither satisfied or dissatisfied	—	2.6	—	11.3	—	26.1	—	11.8
	Somewhat satisfied	46.6	67.1	32.8	65.6	28.0	18.8	30.3	56.9
	Highly satisfied	34.5	24.8	44.8	10.4	15.5	54.5	20.3	22.9
Thought of leaving job to take care of child		19.0	20.1	20.7	47.9	8.1	13.3	10.4	33.5

4.2 Barriers and Facilitating Factors – The Qualitative Study

4.2.1 Introduction

The qualitative study was conducted in parallel to the quantitative survey. IDIs and FGDs (in India) were used as the qualitative method for data collection. In Sri Lanka, the participants were selected from those attending the child welfare field clinics conducted by the MOHs while in India, participants were purposively selected ensuring representation from different age categories of infants/young children (<6 months, 6–11 months, and 12–23 months), and as different employment sector. A range of stakeholders, including working mothers, their family members, health care providers, and other relevant groups, were selected to gather the relevant information. Altogether, 8 mothers from Sri Lanka and 37 mothers from India, belonging to different employment categories, public, private, and informal sectors, with diverse experiences, were recruited for the study. Furthermore, in Sri Lanka, four fathers, two other caregivers, and three health workers were interviewed, and in India, five fathers, two other caregivers, four employers, six health care providers, and two members from other relevant groups were also included.

The findings are presented under six main themes as they emerged from the data for India and Sri Lanka. The themes are (a) breastfeeding: perceptions and practice, (b) complementary feeding, (c) beliefs and attitude of the mother regarding the child's nutrition practices, (d) family support, (e) maternal employment and workplace support, (f) perception of the health care providers and members of other relevant groups. Themes are linked to each other, and some content overlaps.

4.2.2 Breastfeeding: Perceptions of the Mothers

Early Initiation of Breastfeeding

India

In India, concerning the early initiation of breastfeeding, it was found that most mothers had initiated breastfeeding within six hours of the delivery. Moreover, the practice of discarding colostrum was very low, as colostrum was fed by most mothers (94 percent) irrespective of the socioeconomic status.

> "...Actually, my baby was born in a government hospital. And as you know, in government hospitals they only prefer breast milk"- MO/HSES/02 (India)

Still, the practice of consumption of prelacteal feeds by the baby was prevalent among mothers across all socioeconomic status groups. Common foods given included jaggery, honey, ghutti, and dates. Reasons provided for giving prelacteal feeds were the belief that they are better for the child's health and it is a traditional practice among certain families. It was seen that the decision was mostly influenced by an elder member of the family. Factors due to which early initiation of breastfeeding was hindered were - Cesarean section delivery, lack of breast milk at the time of birth, and certain obstetrics emergencies. In such cases, formula feeds were mostly given to the child.

Sri Lanka

In Sri Lanka, across all socioeconomic, employment categories, and parity, mothers were aware of the importance of breastfeeding. They are knowledgeable on the importance of early initiation of breastfeeding after childbirth and continuation of breastfeeding.

One of the key factors for establishing breastfeeding and element of the baby-friendly hospital is early initiation of breastfeeding. Importance of early initiation of breastfeeding is well known among mothers. Also, the mothers are aware of the need to feed colostrum to their newborn. Myths on the need to discard colostrum are no more held due to effective health education programs.

A mother of two related her experiences:

> "...As soon as he was born I gave breast milk, the midwife brought him to me and helped me. This first breast milk has colostrum as we are told in the clinics it has good immunity power and makes child grow healthy." IDI/Mo/LSE/01 (Sri Lanka)

The support mothers receive from the health care staff to initiate breastfeeding at the labor room is illustrated by a mother:

> "...Immediately after birth, I gave breast milk, as the midwife brought her and helped me to feed her." IDI/Mo/USE/01 (Sri Lanka)

Even in the case of difficult labor, surgical intervention and admission to special baby care unit, attempts are made in the government hospitals to initiate the practice of breastfeeding. When the baby cannot be directly breastfed during the initial period following the delivery, expressed breast milk feeding is attempted in government hospitals.

A prime mother who underwent surgical intervention at the delivery shared her experiences during the first 10 days following childbirth:

> "...My pregnancy was complicated, and baby was in Neonatal Dependency Unit for ten days, I had to express milk and give to the nurse, and she took it and fed it. I was only given the child to my hand on the 4th day, where she started to suckle milk and drink it." IDI/Mo/MSE/05(Sri Lanka)

Some mothers were concerned about the exact time of initiating breastfeeding:

> "...The first feed I gave him was breast milk within 20 minutes he was born. Until the first 6 months, the immunity and all necessary nutrition is found in breast milk, it is the main food to the child." IDI/Mo/MSE/02 (Sri Lanka)

Exclusive Breastfeeding

India

In India, EBF was followed by the majority of low socioeconomic status (LSES) mothers; however, the practice decreased as socioeconomic status increased. The major reasons for opting out of EBF included mother rejoining the work and certain traditional practices (for example, Annaprashan or rice-feeding ceremony). Other factors that influenced EBF were the distance between the home and workplace, working hours flexibility, and adequate family support. Interestingly, it was noticed that among the LSES groups, EBF was practiced much longer than just six months while among the high socioeconomic status (HSES) groups, EBF ended much early.

> "...Breastfeeding in itself is very advantageous. I really feel it is a blessing and those mothers who are able to do it should definitely go ahead. I personally feel it is a blessing to be able to feed your child because we know that mother's milk is something which is nutrient-rich, easily digestible"- MO/HSES/04 (India)

In a few cases, due to the hot summers in the capital, only water was given to the child in addition to breast milk. Foods that were given to the child included formula feeds, cow milk, and drops of certain fruit juices (grapes and cherries). It was seen that the consumption of formula feeds was more prevalent in the HSES where it was offered as early as at one month, due to the mother's work commitments and peer and family advice.

> "...Breastmilk only offers benefits. Breastmilk does not cause any problem, top milk does "- MO/LSES/05 (India)

> "...so many times, she may refuse to bottle feed and would just deny having it. However, she never does so when I try to breastfeed her. So, it is something which is liked by the child also. That is what I have observed"- MO/HSES/04 (India)

Sri Lanka

In Sri Lanka, it was found that the mothers are aware of the nutritive value of breast milk compared to any other food for the infant. Among mothers, the lowest school attainment was up to grade 9, and one participant was qualified with a health-related bachelor's degree. Despite the differences in the education status, the core knowledge on the value of breastfeeding for their children was high.

A mother who works as a housemaid stated:

> "...Breast milk has all the essential nutrients for a child at birth and until food is given. It gives immunity to the child as well." IDI/Mo/LSE/01 (Sri Lanka)

A mother with a health-related degree emphasized the importance of breastfeeding:

> "...Breastfeeding is very important to the child as all essential nutrients and immunity is provided by it at the younger ages." IDI/Mo/USE/01 (Sri Lanka)

An accountant executive in a private sector establishment elaborated her understanding of breast milk and the importance of breastfeeding:

> "...Breastfeeding is something that is important to child, it contains all the required nutrition to the child. In the clinics at the antenatal visits, there are special classes about it taught by midwives, and I also read about breastfeeding and childcare during my pregnancy time." IDI/Mo/MSE/04 (Sri Lanka)

Intention to continue EBF, the realization of breastfeeding versus EBF and the need to shift to alternatives when nearing a return to work creates a dilemma among many mothers. This dilemma is influenced by many factors which finally determines the outcome of adhering for EBF for six months.

Sri Lanka's findings also revealed that the stipulated duration of EBF is not clear in the minds of mothers. The general understanding is that EBF is to be practiced four months from birth. This belief is substantiated by the understanding of the duration of maternity leave of 84 days, which practically coincides with four months. Hence, EBF until six months is not strictly held among working mothers.

This understanding is clearly reflected by the experiences shared by participants.

> "...I didn't start any food other than breast milk as he is still 4 months old." IDI/Mo/LSE/01 (Sri Lanka)

> "...At 4 months itself, I started to give her complementary feeds as I had to return to work. I expressed milk and also gave rice porridge for her." IDI/Mo/LSE/02 (Sri Lanka)

According to the definition, apart from prescribed medication, no other liquids or foods are permitted during the EBF period. However, this is not strictly adhered to by the mothers, even those with a higher level of education. Most of those deviations are not reported in 24 hours recall unless specifically asked. Further, the standard period of 24 hours is not sensitive to capture the irregular deviations.

A mother of an infant approaching four months of life recalled an event where she had given water:

> "...One day he was crying. I thought he had a stomach pain I gave a little bit of gripe water and water as well." IDI/Mo/MSE/04 (Sri Lanka)

Breast Milk Expression

<u>India</u>

In India, the practice of expressing milk to be able to continue EBF until six months was found to be very low. Rather, formula milk or diluted animal milk was the preferred alternatives among the mothers.

The practice of using a breast pump or other means to express the milk and then feeding it to the child was not common in LSES mothers. The awareness was also found to be very low regarding such methods. There was awareness about the breast pump among both the middle socioeconomic status (MSES) and HSES groups, but the practice was found among the HSES groups only as mothers belonging to the MSES reported that they did not feel the need to do so. It was used primarily because the mother had to join work back. Regarding the use of a breast pump, mostly the expressed milk was stored in the bottles attached with the pump and was kept in a cool place for not more than —five to six hours. Refrigeration was avoided to prevent thermal shock. Concerning the pros, mothers found it convenient and feasible when they were in places where direct breastfeeding is not possible. However, some felt that milk production was not much when a breast pump was used, and complaints of engorgement of breasts and painful processes were also reported.

> "...Like we have always heard that the more the sucking, more is the milk production. But I didn't witness the same thing with the pump. This principle did not apply with the pump. That's what I observed! Also, if it is used for 3-4 times a day, it causes soreness" -MO/HSES/04 (India)

> "...Even when I used to go out with her, I would keep a clean bottle and pump with me, so if anytime it was difficult for me to breastfeed outside, I would go out and pump it and would feed through it. So, it was convenient in that way also" -MO/HSES/05 (India)

Sri Lanka

However, the practice was more prevalent in Sri Lanka compared to India. When mothers are nearing the time to return to work, mostly at the end of four months, they are advised by the PHM to practice feeding expressed breast milk. This practice is to preserve EBF practices even if the mother is away. The advice on expressed breastfeeding is perceived and practiced in different ways by the mothers. The general advice is to feed expressed breast milk using a spoon to retain the suckling practice of the infants. The study found that some mothers use feeding bottles instead of a spoon.

A mother working in the informal sector, who started moving out of the house for her livelihood even before 4 months of age stated:

> "...I have to go out for selling lunch packets so that I express and keep my milk and give it to my mother-in-law in a feeding bottle to give to child. I also go out to my thyroid clinic as well that time also I express my milk and go." IDI/Mo/LSE/01 (Sri Lanka)

Another mother expressed her experiences in feeding expressed breast milk:

> "...I express milk manually, store in a cup and give to my neighbours and go. They feed it with the bottle to her." IDI/Mo/LSE/02 (Sri Lanka)

A mother who had to leave for work after the maternity leave within the six months of the EBF period used expressed breast milk only to familiarize her infant to bottle feeding so that she can use formula feeds with a bottle. She shared her intention:

> "... I don't express milk and give, and I did it only once to make my child used to the bottle milk so that it will be easier to feed her the formula. IDI/Mo/MSE/01 (Sri Lanka)

The understanding of mothers on the adequacy of expressed breast milk also become a deterring factor for continuing EBF when returning to work. The dilemmas of this nature push them to early cessation of EBF to resort to complementary food or formula feeds.

A mother who was about to return to work at the age of 4 months to her child expressed her dilemma:

> "...I am planning to express milk and go, but since that is not enough, I thought to give complementary feeds by starting with fruit juice and rice porridge." IDI/Mo/MSE/04 (Sri Lanka)

Cessation of EBF was mainly connected to returning to work. Mothers willingly or unwillingly find alternative methods of feeding the child when the end of maternity leave is reached. Although expressed breast milk is an alternative, most mothers found it difficult to use expressed breast milk as the sole source of nutrition to the child in their absence. Many practical issues hinder the use of expressed breast milk as an alternative. The study found that the decision to continue or not to continue EBF was based on several factors at the time of returning to work.

The key factors were the distance to the workplace, ability to extend the maternity leave, support at home to take care of the child during the daytime, working environment and the facilities available, economic difficulties at home to sustain without a salary/income, and availability alternatives for maintaining the nutrition.

One of the readily available and widely practiced alternatives was starting formula feeds before returning to work. Depending on the individual factors as well as structural reasons stated, mothers took different decisions on the use of formula feeds. However, the practice of giving formula feeds to the child in India was found to be very low; diluted animal milk was given instead.

Peer advice, particularly of those who have gone through this process seemed a major force in the workplace to start formula feeds at a very early age. Correct support and advice from the family can secure mothers against such practices as revealed by a mother working in a semi-government agency:

> "...Yes, many people told me about using formula milk, my neighbours, friends. But my husband told me not to give formula so I didn't start it yet. My friends are giving formula milk when child is two months old but I don't follow those. My family members also don't follow it. My friends told me not only to start formula but also to start complementary feeding to child at three months itself. My friends give formula milk during the day and breastfeed at the night." IDI/Mo/MSE/ 03 (Sri Lanka)

Still, due to lack of alternatives and practical issues, mothers are compelled to resort to formula feeding when they return to work. Mothers about to return to work and had no options but to return to work at 4 months expressed their intentions and experiences:

> "...Yes, I have heard about giving formula milk as my colleagues tell me. But I don't like to give formula milk, my husband also doesn't want me to give it. But in case we need, I think we may start." IDI/Mo/MSE/04 (Sri Lanka)

"...I give formula milk because it takes me almost 2 hours to come home from work, so when there is no breast milk at home, I compensate it by formula milk while I return home." IDI/Mo/MSE/02 (Sri Lanka)

The perception of reduced breast milk also led to formula feeding by mothers. Some reverted to EBF when they found the amount of breastfeeding was adequate:

"...Midwife told me not to give formula milk, she insisted on giving expressed breast milk. I myself thought to give the child formula because sometimes milk secretion decreases and is not enough to feed." IDI/Mo/MSE/02 (Sri Lanka)

"...At the beginning, I couldn't secrete milk well so had to give her some formula milk, later after medications, I started to secrete properly, then I stopped formula and continued breastfeeding. I express and give her using a pump and sometimes manually also. It is quite painful." IDI/Mo/USE/01 (Sri Lanka)

4.2.3 Complementary Feeding

India

In India, complementary feeding was initiated at six months in most cases. However, among HSES mothers, only 40 percent started it at six months, others started earlier. This practice may be because they had to rejoin the work and started top feeding. In some cases, especially among LSES mothers, it was started as late as 12 months as the mother felt that breast milk was enough for baby:

"...In our family, we follow the Annaprasana procedure. So, for my elder daughter, it came at 7 months, for the middle one it came at 6 months and for this baby it came at around 5 months, so I started giving few things from the 5th month only" -MO/HSES/02 (India)

Occasionally, the mother had to stop breastfeeding within 12 months as she conceived again. Foods given included—khichdi, Parle-G (Glucose biscuits), rice, dal ka pani (clear lentil soup), dalia (broken wheat), Suji sheera (semolina porridge), and so on. Vegetables and fruits were introduced much later. By the time the child turned 12 months, the baby starts eating everything:

"...So, I started with the same things I was consuming. So, that's why he now has developed taste for it and has become habitual of everything, and eats everything"-MO/HSES/02 (India)

"...Actually, doctor said that it's okay if I stop breastfeeding at this point of time (18 months), but now it feels like that the baby has developed this addiction for the milk. So, it is getting difficult for me now to stop that"- MO/HSES/03(India)

"...Because baby was taking too much feed, so, the doctor suggested that it is sufficient now that you've breastfed the baby for 1 ½ years, now focus should be put more on complementary food for the health of the baby" -MO/HSES/05 (India)

Persons influencing the decision were mostly husbands, mothers-in-law, and Anganwadi workers. Among the HSES groups, social media, doctors, and maternal relatives were influencing the decision.

Sri Lanka

This was not a major theme in the qualitative study of Sri Lanka.

4.2.4 Beliefs and Attitude of Mothers Regarding Child's Nutrition Practices

India

In India, consumption of good and hygienic food and freshly made preparations by the child was thought to improve the child's health by most participants. Packaged food was not considered a healthy option among HSES groups but not so in others.

> "...I feel like giving juice, tonics, nice biscuits to my child" -MO/LSES/02(India)

> "...Cerelac (Commercial infant formula) is good for child's health. My brother advised about it as his son also consumes it"-MO/LSES/05(India)

About the person influencing the mother's beliefs/attitude regarding the child's nutritional practices, in LSES groups, maternal family and Anganwadi workers were seen to be influencers. In HSES groups, paternal grandmother and doctors were major influencers. Social media also played a significant role in affecting the decisions, especially among HSES groups.

> "...I live in a joint family, so yes family members advise on various things. My mother-in-law wanted to start giving cow milk early but as she is too young, I was a little apprehensive about it. She was like, all of our children have consumed it. But as a new mother, I felt a little apprehensive, so yes, I take mixed advices from my doctor as well as my mother-in-law"-MO/HSES/04(India)

> "...we now, you know, google things through which we get a lot of information. Like once, I read that if you put your child on bottle feed after 3 weeks, then only he becomes habitual to it. And if you don't do that, the child will not accept it. So, I did this with my daughter, and I experienced that if you continue with just breastfeeding for 15-20 days, the child then doesn't accept top feed" -MO/HSES/03(India)

Among the HSES and MSES groups, pediatricians were mostly consulted regarding any health concerns faced by the child. Growth monitoring of such children was relatively more irregular than the children belonging to the low-income group. About community support, LSES mothers also got food provided by the Anganwadi centers for the child. However, in some cases, mothers did not avail this service due to various reasons, including hygiene and taste issues. ASHAs and Anganwadi workers were also providing counselling to some mothers belonging to the LSES.

> "...In the hospital, where the baby was born, they took my number and since then, they share information regarding feeding practices, hygienic practices around every 2-3 days."-MO/LSES/07 (India)

Sri Lanka

In Sri Lanka, while following the PHM's advice and support, mothers also seek information from magazines and books. They specially referred to the material available in the antenatal and child welfare clinics:

> "...When we go to the clinics the midwife teaches us about feeding the child and gives us advice regarding it. They provide the booklet also about the nutrition. I also read magazines

and books regarding child care and nutrition and get my knowledge about it." IDI/Mo/LSE/01 (Sri Lanka)

"...From the clinic books they provide information regarding nutrition. I also get information from my cousins as well from the way they brought up their kids." IDI/Mo/USE/01(Sri Lanka)

"...I get details about feeding from the clinic visits, the booklet they gave regarding nutrition requirements as well. I also see in the internet and read books about it." IDI/Mo/MSE/01 (Sri Lanka)

The mothers who attend both the PHM and the private sector for services also consulted medical persons for advice on nutrition issues of their children. A mother belonging to a higher socioeconomic stratum stated:

"...I take advice from the pediatrician and the midwife regarding any nutrition problems or growth problems. Yes, I trust their advice as whatever they told me. It all worked well after I tried them, my child was returning to normal weight." IDI/Mo/USE/01 (Sri Lanka)

In Sri Lanka, the families' trust in the nutrition information and the delivery of the information was also explored. All the participants clearly stated that the main sources of information on breastfeeding and the complementary feeding are the PHM and the clinics conducted by MOH. Mothers expressed their trust as:

"...I always consult my midwife to discuss about the child care and nutrition." IDI/Mo/MSE/05(Sri Lanka)

"...Yes I trust the health care workers advice, as they have good experience and knowledge about child feeding and nutrition. So following their advice is worth, and my child is also growing well. I was able to follow these advices without any difficulties." IDI/Mo/MSE/02(Sri Lanka)

"...It's the midwife from whom I take advice. She has a good follow up on child's weight, if he has not gained weight then she advises me especially on how to correct it, she calls and follows up." IDI/Mo/MSE/04 (Sri Lanka)

"...I have another 1 month to resume work. I get all advice regarding child nutrition from the midwife, she told me how to give other foods, or if a need arises to start formula milk. I have a plan of expressing my breast milk and going to work, they asked me to feed using a spoon and not to use teats and not to start bottle teats." IDI/Mo/MSE/03 (Sri Lanka)

4.2.5 Family Support

India

In India, among the LSES groups, the primary caretaker was found to be the mother herself. Next, to the mother, the paternal grandmother (generally living nearby) mostly took care of the baby, especially if the mother was at work. Among the MSES and HSES households, the child's father was very supportive, but mostly the paternal grandmother took care of the child, including preparing the food, feeding, and taking care of the child:

> "...Daadi (Paternal grandmother) takes care of the baby and is very supportive. She takes care about everything more than me" -MO/HSES/05 (India)

He asked about if they have ever received support from outside the family concerning taking care of the child, most mothers reported that they had never relied on anyone outside the family. Other caregivers included the maternal grandmother, maternal, and paternal aunt. Mothers living in a joint family system were more stress free than mothers living in a nuclear family setup:

> "...at times, I face difficulties when I leave my child with others. Like if he is sick, I prefer not going to the office and taking care of the baby myself. It's hard to focus then if I am at work" -MO/HSES/03 (India)

> "...she was not even one month old when I started working again, so it's not that you are not trusting someone, but just that you are worried" -MO/HSES/04(India)

When fathers were interviewed, it was found that in most cases (especially among LSES and MSES households), no paternity leave was provided to the father due to which fathers believed that they could not contribute much to childcare. Among the HSES households, a leave of three days was provided. They felt that there is a need for paternity leave for at least 4–5 days as the mother requires some support, especially when the family is living in a nuclear setting. When the fathers were asked about the problems faced regarding childcare, most shared that due to the adequate support provided by the family, no such problems were faced.

Sri Lanka

In Sri Lanka, family support did not come out as a major theme in the qualitative study.

4.2.6 Maternal Employment and Workplace Support

Maternal Employment

India

In India, mothers belonging to the LSES and MSES were mostly employed in the informal sector, and no maternity leave was provided to such mothers. However, they could rejoin whenever they wanted (provided that there was a vacancy) after delivery. One respondent shared that because of the baby, they had to work from home for which the salary was very less, and they were under financial stress:

> "...In order to take care of the child, our electricity has also been cut off. I think of doing some work but can't because of the baby"-MO/LSES/06 (India)

As leave was unpaid, mothers either had to leave the job or join in as early as 15 days. In a few cases, the job was retained if the mother provided a substitute for that particular period. Among the mothers belonging to the MSES, almost 66 percent rejoined after 3–4 months due to unpaid leave. In the HSES households, mothers working in the government sector as a permanent employee got 6 months paid leave and additional two years childcare leave (CCL), if required. However, temporary employees did not get any such leave. Such mothers had to join back in as early as 20 days.

Factors influencing the decision of getting back to work early were mostly—unpaid leave, financial stress, and no job security. Extension of maternity leave was possible only among the MSES and HSES groups, who were in permanent employment.

Many mothers, irrespective of the socioeconomic status, at some point, felt that the baby was getting neglected and the thought of leaving the job did strike their mind. On the other hand, several mothers felt that because they had family support (joint family), it was easier for them to manage the job and baby as compared to the ones living in nuclear families:

> "... I started working right after my stitches were dissolved. I shouldn't have started working so soon as I had a C-section delivery but there was compulsion. What can be done" -MO/LSES/06 (India)

> "...There is no maternity leave. I took some personal leaves for some time and started working very soon. I was discharged from the hospital on the third day and on fourth day I was in office for an important meeting."-MO/HSES/04 (India)

> "...I had to join back on 20th day anyhow. Even after having C-section, I used to do all my normal work and everything, since I was aware that I had to join back on the 20th day. I couldn't simply lie down and rest as people do after the delivery."-MO/HSES/05 (India)

When employers were interviewed, similar results were found that no paid maternity leave was being provided to mothers (LSES and MSES) as most were working in the informal private sector. Some employers provided leave for a few days (2–4 days). Some mothers leave their job for some time after the delivery and they were allowed to rejoin the work only if they provide a substitute for the time being or if the vacancy was still open.

Carrying a child to the workplace was practised mainly by LSES mothers. In the HSES it was not a general practice. According to various employers, work efficiency decreases when such mothers are employed as concentration is divided. However, no bias was practiced regarding the employment of such mothers, as reported by the employees.

> "...when mothers carry their baby, hat obviously causes some problems, babies cry loudly. Then we have to tell her to check on her baby and leave work." -EM/LSES/01 (India)

Sri Lanka

In Sri Lanka, the public sector and, to some extent, the formal private sector enjoyed paid maternity leave from work. The informal sector was not covered under the present legal framework and hardly offer any benefit to the employee. It was found that despite the convention, actual applicability varied even in the public sector when extended maternity leave was requested.

A mother employed in the public sector institution elaborated her experiences on the benefits of maternity leave:

> "...I am working in a semi government facility. I got 84 days full pay maternity leave and later my child got sick and lost weight. So I had to extend my leave by giving a medical regarding my child and extended it to a further 6 months. We also have a 2-hour milk hour that is something good." IDI/Mo/MSE/01 (Sri Lanka)

Another mother working in the formal private sector shared benefits she enjoyed after childbirth:

> "...I got my full pay 84 days leave and now I am currently on my half pay 84 days leave. After joining work also, we can take leave. We have 42 days annual leave allocated, I can also take half day. I can also take leave regarding my childcare eg: like coming to the monthly weighing clinics." IDI/Mo/MSE/ 03 (Sri Lanka)

Even for those working in the professional category in the formal private sector may have to decide on leaving the employment due to issues of caring for the child after the maternity leave period. One mother working as a professional in a private hospital shared her dilemma.

> "...I got paid maternity leave for 84 days, I got it extended for about another one month also. I never wanted to quit the job, but until last minute I could not think of a way to manage my child and work together. So I had to resign from my job." IDI/Mo/USE/01 (Sri Lanka)

Requesting additional leave beyond 84 days in the formal private sector mainly depends on the administrative culture of the institution. There is no guarantee that the leave will be approved until the last moment. Further, the employees fear that they will lose their employment. An employee of a private sector corporate establishment raised her concern:

> "...I got 84 days full pay leave, I didn't extend as they may ask to resign it and take someone else to the post, so I didn't go to ask about it." IDI/Mo/MSE/04 (Sri Lanka)

In the informal sector, maternity leave is nonexistent. They do not enjoy any relief. Childbirth marked the end of her employment. A mother formally employed in the apparel industry shared her experiences during her formal employment and subsequent engagement in the informal sector:

> "...When I was working in the garment (apparel industry) I got 84 days full paid leave. Then I stopped it when I got pregnant for the second time and my husband was also sick. Then I joined as a housemaid. I didn't get maternity leave. I stopped working after delivery and re-joined in 4 months." IDI/Mo/LSE/02 (Sri Lanka)

Some mothers are satisfied with the period of maternity leave they were offered:

> "...I got 84 days full paid maternity leave. I also got holiday pay as well and around 4 ½ months. I stayed with my child and reported back to work." IDI/Mo/MSE/02 (Sri Lanka)

In the formal sector, mothers were offered a short leave of a maximum of one hour during the end of their work shifts to enable the continuation of breastfeeding. This leave allowed them a shorter working day at the workplace. Almost all mothers used this benefit to come late or leave early. However, during the EBF period, many mothers were not able to use this allowance in a productive manner to continue EBF due to the distance of the workplace from their residence.

A spouse of a mother expressed his understanding of the maternity leave:

> "...The government sector has a better freedom than the private sector, I am aware that they have more benefits than the private sector. The private sector mostly works looking for profits, so it has a set of strict rules than the government sector. I worked in the private sector before. I understand that the private sector has to deal with profits and losses so giving a full

pay leave for 3 months is a very good step they have taken. I do not criticize them. That is what they can provide." IDI/FO/MSE/01 (Sri Lanka)

Workplace Support

India

In India, concerning workplace support, work schedule flexibility and breaks to go and feed the child were provided by the employer in the LSES and MSES groups. No availability of feeding facilities, private rooms for breastfeeding purposes, or crèche was there across all socioeconomic status groups. Medical insurance facility covering maternity benefits was not provided, except in a few cases among the HSES groups.

> "...mother has full permission to take in-between gaps to go and feed her baby at home, as the house is nearby"-EM/LSES/02 (India)

Among LSES groups, most mothers either took their baby to work with them or were working from home. Few mothers would take the older siblings of the child to work as well, to take care of the baby. However, some mothers were not allowed to do so. Some mothers were also permitted to take in-between breaks to go check on their babies or to breastfeed the child if they lived nearby. Colleagues generally were very supportive, and almost half of the mothers found the work environment breastfeeding friendly. Few said that they faced difficulties in managing both the things if they carry the child with them as their work requires much focus. So, the income also drops as there is less time is devoted to work.

> ".. they will just say, if baby is so important then you don't have to come from tomorrow, we'll fire you"- MO/LSES/02 (India)

Sri Lanka

In Sri Lanka, mothers who were working away from their home despite being in public or formal private sector experienced the least flexibilities. Apart from the working mothers in the corporate plantation sector in Sri Lanka, there is no systematic arrangement of day-care facilities for infants and children in Sri Lanka. It was found that even in large public sector or private sector establishments, employer organized day-care facilities were rare. Also, it was found that the nature of the employment, workplace setting, the willingness of the employer and other externalities were not generally conducive to establish day-care facilities within the workplace.

A mother employed in a private health institution stated:

> "...I can bring my child to work, but I don't like to bring him here as it is a hospital and I am working in a lab so it's infectious." IDI/Mo/MSE/02 (Sri Lanka)

Another mother in a government institution finds no facilities or ability to take her infant to her workplace:

> "...It is difficult to take the child to the workplace there is no place to keep child." IDI/Mo/MSE/03 (Sri Lanka)

A father also stated that the work environment in his wife's workplace was not conducive to take the child. He stated that he was looking at the current work station, where the mother is engaged in her routine work.

> "...We can't take the child to work as the surrounding is not good as there are machines around and packaging work goes on, so we can't bring child to work." IDI/FO/LSE/01(Sri Lanka)

Another father was not sure if establishing day-care centers within the workplace is possible due to the many complications it could create:

> "...If they keep a daycare centre in the workplace itself, the mother can bring the child with her and keep him near her. But I do not know how possible it will be with the employer. How he will take it? He should decide it properly. As it will be a problem of the mother staying with child and not working on time, problems like this may arise. I do not like the fact to keep the child in private daycare where parents are not around, it concerns me about the childcare." IDI/FO/MSE/03 (Sri Lanka)

Even if the workplace does not prevent the mother from taking her infant to her workplace, they are unable to do it due to the lack of suitable means of transport. Most of the working females use public transport and travel extended distances to reach the workplace. The travel time inconveniences in using public transport system in Sri Lanka prevent them from using the flexibilities of the employer, a factor acting as a barrier for working women in India as well.

Mothers from a semi-government institution and a private sector establishment raised their concerns;

> "...My workplace environment is good to take child with me but the problem is travelling, I go by train everyday so it's difficult for me to carry a baby in a crowded train and go to work." IDI/Mo/MSE/01 (Sri Lanka)

> "...I can take the child to the workplace and keep him in cot next to me. The environment is breastfeeding friendly. There is a lunchroom and can be used to feed. But it is difficult to travel to work with child in a bus, it takes around 1 hour to travel." IDI/Mo/MSE/04(Sri Lanka)

Those who are employed away from home did not have any flexibilities to take their children to the workplace. Their working arrangements are temporary and mostly paid on a daily basis. Hence, they have to choose between work and childcare. A mother who was currently working as a housemaid explained her difficulties:

> "...I can't take my child to work now, I am a housemaid. I can't take my child there." IDI/Mo/LSE/02 (Sri Lanka)

Those in the informal sector, but self-employed, enjoyed some flexibility depending on the nature of work. This flexibility was also subjected to the support they received from the family and others.

> "...As I am doing a self-employment, my workplace is my kitchen. I work for 4 hours per day. I need someone to look after my children when I am working. My mother in law and neighbours help me with that. I am also happy with my husband who supports me with my work. He looks after the children when I am doing the household work." IDI/Mo/LSE/01 (Sri Lanka)

4.2.7 Perception and Standpoint of HCPs and Respondents of Other Relevant Groups

Understanding of IYCN Program in India

Among the LSES, Anganwadi and ASHA workers (the frontline workers) were the main health care providers while among the MSES and HSES, specialist doctors and pediatricians were the main health care provider. The knowledge and awareness regarding the IYCN practices were found to be good among the respondents. IYCN is now a part of Indian Academy of Pediatrics, and they have devoted a separate division to address this issue. When asked about how the IYCF is being practiced at their facility, it was revealed that EBF is advised, propagated and being implemented in the respective facilities.

In some facilities, provision of Kangaroo mother care unit, lactation counsellors to ensure EBF and appropriate complementary feeding, well-baby clinic which tracks the children till 2 years of age to ensure proper feeding practices were there. Almost half of the respondents had received proper training regarding IYCF.

> "...an important thrust of the program, for a long time was just on exclusive breastfeeding. Now, there is increasing recognition that just focusing on breastfeeding is not enough, the whole steam is taken away after six months if the child is not getting right kind of food and hygiene is not maintained. So, optimal nutrition needs coupled with hygienic environment is an important issue to the current thrust of IYCF programs, and because of it, complementary feeding has been given a boost in terms of importance." -HW/01 (India)

> "...With the kind of load at the government hospital, group counselling are difficult, but, individual counselling at the OPD level is given." -HW/02 (India)

IYCN Practices among Working Women

Few respondents felt that even though knowledge is propagated, many times they do not see it getting translated into practices, especially by the working mothers as they have no option but to opt out of breastfeeding. It was shared that work pressure on such women is so high that even if the mother wants to engage in proper feeding of the child, work commitments do not allow them to do so. It was also said that there is so much awareness now about breastfeeding that mothers now want to engage in it, but for the working women, there are many hindrances.

> "...Working mothers struggle to find time."-HW/01 (India)

> "...The non-working women are more receptive to the advice provided- maybe because there are no other distractions. With working women, there are distractions, career pressure is there, so the time is divided."-HW/01(India)

Discussions also revealed that working mothers often found it convenient to give formula feeds, top milk. Among HSES households, mothers were forced to start top feed (family acting as an influencer and sometimes, doctors themselves suggesting that). Even at low-income group level, people got influenced by the market trends and believed that formula feeds and commercial infant formulas were better for the child. To make mothers unlearn these things was a challenge, according to a few practitioners:

> "...Information from other sources, e.g. friends, media, saying that for healthy baby, there are other ways to achieve it. To make such women unlearn those things and to tell that breastmilk is the best thing is difficult."-HW/01 (India)

Interestingly, most HCPs focused more on complementary feeding failures than EBF. It is now increasingly being recognized that feeding after six months is being neglected. It was shared that when the mother is not able to breastfeed their baby, they move toward readily available formulations, and seeing that the baby is gaining adequate weight, the whole purpose of complementary feeding is forgotten by the mothers. There is a lack of awareness around the importance of timely initiation of complementary feeding. According to most respondents, there is much information about EBF, but there is rarely any focus put on complementary feeding by the mothers, which is causing many problems. Few practitioners felt that certain traditional practices are very prevalent, and it is hard for them to make people change their minds. Few mentioned that mothers try to feed every kind of food that is normally eaten at home as early as at 6 months of age, fearing that if not given exposure to different tastes at this time, the baby will not accept it later in life, for example, salty food and feeding cow milk. So, making people aware that complementary feeding must be started at 6 months of age should be made a very prominent focus of nutrition education. Some practitioners reported that there is a lack of intake of freshly made foods when the child is put on complementary feeding. However, this notion of HCPs does not match with the mother's practices.

> "...there is a need to tell people that complementary feeding is not governed by the socio-economic status."-HW/01 (India)

When asked about what the barriers are they feel come between adequate feeding of the infant of a working mother. Most felt that the provision of maternity leave for at least six months, regardless of the employment sector, is necessary and should be given to every mother as her right. Other suggestions included, a readily available crèche, isolated room for mothers to express milk, work from home facility, and working hours flexibility. Also, focused IYCF session, counselling of family members, availability of certified lactation counsellors was also suggested. Some said that lactation counsellor/doctors should emphasize age-appropriate complementary feeding and should propagate methods through which breast milk can be properly expressed and stored hygienically.

Many said that in private jobs, mothers are not given any maternity leave and practitioners cannot force them to quit the job. So, counsellors/HCPs have to also adapt to the mothers need and advise top feeding.

> "...Many HIG mothers are forced to start top feed, either family acting as an influencer or even forcing the mother. Even in LSES, people get influence by the market trends. Some quacks also suggest such top feeds. Many a times, doctor tells them to start the formula feeds (especially among the HIG)"-HW/02 (India)

Understanding of IYCF Program in Sri Lanka

A PHM is the main and the designated first contact between the public health system and the mother. However, with the transition of health-seeking behavior in the country during the last two decades and non-implementation of clear referral policy, mainly in the middle to high-income groups, specialist medical officers are becoming the first-contact care. Still, the role of PHM is highly appreciated, and help is sought after. As upper-middle to higher income groups are shifting to private health care, even

for well-established maternal and childcare services in the public sector, the public health system and the policy direction from the state, may not reach this group adequately as the care provider (PHM) is gradually detached from the loop. The working mothers in the formal private sector and even skilled workers and professionals in the public sector in the urban centers also seemed to be shifting towards private sector slowly. The present role and influence of the public health system and the care provider, the PHM, on IYCF should be understood and managed within this environment.

A PHM of an urban setting related her work experiences on the current status of IYCF:

> "...According to my visits in the field I found that non-working mothers follow our advice properly but sometimes they also have certain problems. Such as the mother is weak and not enough milk secretion. Then they don't follow our advice. In case of working mothers, the maximum EBF is 2 months that they give breast milk as far as I have seen." IDI/MidW/MOH/01 (Sri Lanka)

Another PHM expressed that the involvement of grandmothers in IYCF was still making things difficult in certain communities. She stated:

> "...There are mothers who visit us telling about problems at home. Example like the grandmothers who insist not only to give milk but to give water as well during the exclusive breast milk period. If the child loses weight, then they soon start formula or complementary feeds thinking that breast milk is not enough. This is mainly emphasized by the grandmothers." IDI/MidW/MOH/02 (Sri Lanka)

She further elaborated and proposed a solution:

> "...I would say firstly to educate the grandmothers in the community regarding this issue and make them understand that the practices are now different from their times. Mainly this is seen in the Muslim community, we have many mothers who tell us that they were pressurized by their in-laws about giving water and herbal remedies during the exclusive breastfeeding period." IDI/MidW/MOH/02 (Sri Lanka)

PHMs also were critical on the information sources for formula feeding:

> "...Many working women if you ask how did you go into choosing formula milk, they say it's from my friend or relative, so this is a common practice in society now. Use of formula feeds is increasing among working mothers. Even the non-working mothers sometimes start complementary feeds if the child loses weight. The working mothers start complementary feeds before 6 months of the child and even take doctor's advice to start formula milk. This has become a normal practice among them." IDI/Midw/MOH/02 (Sri Lanka)

A Pediatrician working in the private sector stated:

> "...When it comes to the feeding pattern of the 1-5 years old children we have to strengthen up a bit in this side. We can make a separate page in the CHDR showing different feeding patterns to the children. Eg: we can introduce a 'model plate' with all the required proportions of nutrients and add it in the CHDR. We have to implement training for midwives and nurses in clinics about young child feeding as it is lacking. About the infant feeding part, we are quite strong and alright." IDI/PEAD/Pvt (Sri Lanka)

5. Key Recommendations for Policies and Programs

Based on the results of the quantitative survey and qualitative study, the following recommendations are made:

1. Policies and legislations need to be developed to ensure maternity benefits for the informal sector and a supportive environment in workplaces both public and private. Further, the effective implementation of these policies needs to be ensured through a sound monitoring mechanism.

2. Support the family as the primary caregiver/influencer on IYCF and childcare practices**.** Greater focus should be made on the grandparents and husbands' role in childcare and nutrition. Prelacteal feeds should be discouraged as they are prevalent across all socio-economic groups in India study.

3. Explore ways and means of providing more support to private sector employees—flexible hours, part-time work, and extended paid leave.

4. Restructure health systems to further accommodate service provision to working mothers; provisions for conducting special antenatal classes for working women and their spouses during non-working days; and educating other caregivers such as grandparents, by the preventive health care system. Alternate modes of communications, depending upon socioeconomic strata, such as m-Health, and social media may be used to educate about IYCF.

5. Focus on generating awareness among mothers regarding IYCN should begin during the pre-pregnancy period and continue throughout pregnancy so that the mother is prepared to breastfeed immediately after delivery. Mothers should be made aware that exclusive breastfeeding should be for at least six months and that it does not coincide with their false belief with the paid maternity leave which is less than six months after delivery.

6. Provide more support by preventive health staff to working mothers and their families to acquire adequate knowledge and skills to express breast milk and cup feeding by improved postnatal home visits.

7. Explore mechanisms to ensure access to breastfeeding support to mothers who do not avail government health services, especially mothers of upper socioeconomic class, and those who resume work early.

8. Develop a comprehensive context-specific, targeted, social behavior change communication strategy to promote home-based complementary feeding and improve dietary diversity through inclusion of eggs, lentils, other animal-source of proteins and vegetables and fruits.

9. Identify the factors that contributed to giving formula milk as well as the use of commercial complementary food among mothers who have not resumed work since it is expected that they can breastfeed and provide home-cooked complementary food. This may apply particularly to the Sri Lankan setting.

10. Considering the high usage of commercial products as complementary food, strong regulatory mechanisms to ensure that commercial products conform to IYCF recommendations of safety, nutrition adequacy, and age-appropriate consistency as well as minimizing adverse impact on developing healthy food habits from infancy. This may apply particularly to the Sri Lankan setting.

11. Explore the feasibility of conducting IYCF promotion activities at or close to workplaces.

12. Make workplaces baby-friendly. Establish childcare facilities (crèches, breastfeeding rooms and breast milk storing facilities) at or closer to workplaces, considering the feasibility.

13. Build capacity in IYCN of all relevant health care providers by training of IYCN counselors, pediatricians, gynecologists and other health functionaries

14. Ensure adherence by all health care providers to national recommendations on IYCF by advocacy skill development so that a consorted effort is made by all relevant stakeholders to support appropriate IYCF practices.

15. Strengthen mechanisms to monitor and ensure that employers comply with legislation on maternity benefits, especially in the private sector.

16. Conduct comprehensive nationwide qualitative studies to elicit root causes for noncompliance with proper IYCF practices, with a view of better targeting appropriate interventions to address such causes.

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Annex 1: Multivariate Logistic Regression Analysis for the Determinants of Failure of Exclusive Breastfeeding in Infants under 6 Months of Age of Working Mothers in Sri Lanka: (n = 388)

Adjusted OR was based on B values of the following regression equation:

$Log[Y / (1 - Y)] = a + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6$

Y = Failure of EBF

a = Constant (intercept) = −6.136

X_1 = Resumed work

X_2 = Age of infant (3 categories: 3.0–3.9, 4.0–4.9, and 5.0–5.9 months)

X_3 = Birth order of child (2nd or higher)

X_4 = Age of mother (3 categories: <25, 25–29, and 30–34 years)

X_5 = Socioeconomic class (2 categories: middle and lower)

X_6 = Employment sector (2 categories: public and formal private)

Values for B are given in the following table:

Determinant	B	S.E.	Wald	df	Sig.	Exp(B) (AOR)	95% CI for Exp(B)	
							Lower	Upper
Resumed work (Yes)	**1.788**	0.446	16.070	1	0.000	5.976	2.493	14.322
Age of infant (3.0–3.9 months)	**1.325**	0.567	5.458	1	0.019	3.760	1.238	11.424
Age of infant (4.0–4.9 months)	**1.427**	0.440	10.503	1	0.001	4.166	1.758	9.876
Age of infant (5.0–5.9 months)	**2.869**	0.486	34.814	1	0.000	17.624	6.795	45.712
Birth order of child (2nd or higher)	**0.907**	0.375	5.867	1	0.015	2.478	1.189	5.164
Age of mother	**—**	—	8.269	3	0.041	—	—	—
Age of mother (<25 years)	**1.404**	0.689	4.153	1	0.042	4.071	1.055	15.706
Age of mother (25–29 years)	**0.493**	0.606	0.662	1	0.416	1.637	0.499	5.369
Age of mother (30–34 years)	**–0.224**	0.652	0.118	1	0.731	0.799	0.223	2.871
Socioeconomic class	**—**	—	4.355	2	0.113	—	—	—
Socioeconomic class (Middle)	**0.828**	0.491	2.849	1	0.091	2.290	0.875	5.991
Socioeconomic class (Lower)	**1.169**	0.568	4.242	1	0.039	3.219	1.058	9.795
Employment sector	**—**	—	12.556	2	0.002	—	—	—
Formal public	**2.147**	0.607	12.527	1	0.000	8.563	2.607	28.122
Formal private	**1.507**	0.541	7.755	1	0.005	4.514	1.563	13.039
Age of infant	**—**	—	34.973	3	0.000	—	—	—
Constant (a)	**–6.136**	0.999	37.751	1	0.000	0.002	—	—

Variables removed in the final step: Gender of the child, family type, education level of the mother, any medical condition of the mother, and PHM postnatal home visit by 42 days.

Annex 2: Multivariate Logistic Regression Analysis for the Determinants for Formula Milk Feeding in Children under 2 Years of Age of Working Mothers in Sri Lanka: (n = 850)

Adjusted OR was based on B values of the following regression equation:

$\text{Log } [Y/(1-Y)] = a + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4$

Y = Given formula milk

a = Constant (intercept) = −4.114

X_1 = Resumed work

X_2 = Age of infant (4 categories: 6–8, 9–11, 12–17, and 18–23 months)

X_3 = Mother with any medical condition

X_4 = Employment sector (2 categories: public and formal private)

Values for B are given in the following table:

Determinant	B	S.E.	Wald	df	Sig.	Exp(B) (AOR)	95% CI for EXP(B)	
							Lower	Upper
Resumed work (Yes)	**2.115**	0.232	83.147	1	0.000	8.293	5.263	13.066
Age of infant	—	—	82.156	4	0.000	—	—	—
Age of infant (6–8 months)	**1.581**	0.326	23.516	1	0.000	4.860	2.565	9.207
Age of infant (9–11 months)	**2.140**	0.329	42.339	1	0.000	8.499	4.461	16.192
Age of infant (12–17 months)	**2.216**	0.314	49.662	1	0.000	9.172	4.952	16.988
Age of infant (18–23 months)	**3.077**	0.370	69.089	1	0.000	21.690	10.499	44.807
Mother with any medical condition	**0.962**	0.372	6.703	1	0.010	2.617	1.263	5.420
Employment sector	—	—	8.239	2	0.016	—	—	—
Formal public	**0.743**	0.301	6.107	1	0.013	2.103	1.166	3.792
Formal private	**0.764**	0.277	7.580	1	0.006	2.147	1.246	3.698
Constant (a)	**–4.114**	0.353	136.060	1	0.000	0.016	—	—

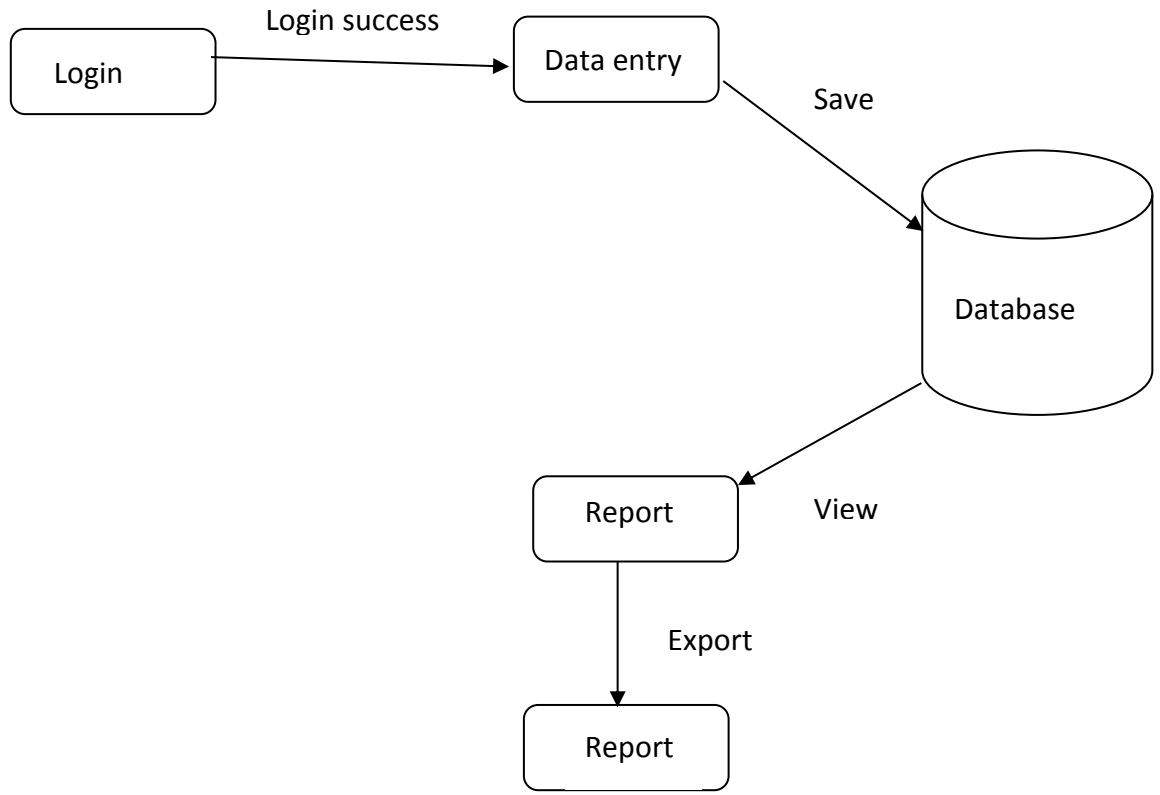
Variables removed in the final step: Gender of child, birth order of child, family type, age of mother (years), and education level of mother.

Annex 3: System Development Process

System Development Process

The system was developed using PHP language. The database was developed using phpmyadmin. The system skeleton was in XHTML and styled with CSS3. For validations, PHP and javascript were used. An MVC combined framework was used for general development.

Flow chart of the system



Specification of Tab

DISPLAY

Technology (Main Display) TFT
Size (Main Display) 8.0 "(203.1mm)
Resolution (Main Display) WXGA 1280 x 800
Colour Depth (Main Display) 16M
Pixel Density ~189 PPI
S Pen Support - No

PROCESSOR

Type Quad Core Processor
Clock Speed 1.4GHz
Cores 4 Cores (Quad Core)
GPU Adreno 308

MEMORY

RAM Size (GB) 2GB
ROM Size (GB) 16GB
External Memory Support Up to 256GB

Annex 4: Tables

Table 21. Age and family characteristics of the mothers included in the study in India (n=677) and Sri Lanka (n=850)

Characteristic		India		Sri Lanka	
		n	%	n	%
Age of mother (years)	<19	17	2.5	5	0.6
	20–24	242	35.7	83	9.8
	25–29	237	35.0	374	44.0
	30–34	133	19.6	258	30.4
	35 and above	36	5.3	130	15.3
	Not reported	12	1.7	—	—
Family type	Extended	165	24.3	505	59.4
	Nuclear	512	75.6	345	40.6
Family size	≤ 4	277	40.9	510	60.0
	5–6	325	48.0	320	37.6
	>6	75	11.0	20	2.4
Total		**677**	**100.0**	**850**	**100.0**

Table 22. Level of education and socioeconomic class classification in India (n=677) and Sri Lanka (n=850)

Characteristic		n	%
Education level of mother (India)	Illiterate	371	54.8
	Lower primary	69	10.1
	Upper primary	60	8.8
	Secondary	28	4.1
	Senior secondary	34	5.0
	Graduation	75	11.0
	Postgraduation	31	4.5
	Not reported	9	1.3
Socioeconomic class[a] (India)	Class I - upper	87	12.8
	Class II - upper middle	198	29.2
	Class III - middle	192	28.3
	Class IV - lower middle	107	15.8
	Class V - lower	24	3.5
	Not reported	69	10.1
Education level of mother (Sri Lanka)	Below GCE O/L[b]	57	6.7
	Passed GCE O/L	158	18.6
	Passed GCE A/L	422	49.6
	Degree and above	213	25.1
Socioeconomic class (Sri Lanka)	Upper	228	26.8
	Middle	422	49.6
	Lower	200	23.5

Note: a. Based on the modified BG Prasad's scale using per capita monthly income.
b. GCE O/L = General Certificate of Education (Ordinary Level).

Table 23. The breastfeeding and formula milk feeding status of children, by the mother's return to work and the child's age in India (n=677) and Sri Lanka (n=850)

Resumed work in India (n=520) and Sri Lanka (n=380)							
Breastfeeding/formula feeding status		**Age category**					
		<6 months	**6–8 months**	**9–11 months**	**12–17 months**	**18–23 months**	**0–23 months**
Current breastfeeding	IND	95.9	87	75.6	75.3	61.5	—
	SL	95.8	94.5	92.4	75.7	56.4	81.1
EBF	IND	40.9	—	—	—	—	—
	SL	62.5					
Expressed breast milk	IND	—	—	—	—	—	—
	SL	37.5	38.2	39.1	45.8	25.6	37.9
Tried breast pump	IND	3.2	4.3	11.1	13.0	15.2	—
	SL	16.7	21.8	20.7	31.8	24.4	24.2
Formula milk feeding	IND	—	—	—	—		
	SL	31.2	50.9	66.3	72.0	84.6	65.0
Did not resume work in India (n= 157) and Sri Lanka (n=470)							
Breastfeeding/formula feeding status		**Age category**					
		<6 months	**6–8 months**	**9–11 months**	**12–17 months**	**18–23 months**	**0–23 months**
Current breastfeeding	IND	97.8	87.1	88.9	94.4	85.4	-
	SL	99.1	100.0	95.5	90.3	56.2	97.0
EBF	IND	49.0	—	—	—	—	—
	SL	88.2	—	—	—	—	—
Expressed breast milk	IND	—	—	—	—	—	—
	SL	0.9	8.2	9.1	0.0	0.0	2.1
Tried breast pump	IND	6.7	0	11.1	0	0	6.7
	SL	6.8	4.9	27.3	9.7	18.8	8.1
Formula milk feeding	IND	—	—	—	—	—	—
	SL	1.8	18.0	31.8	22.6	56.2	8.5

Table 24. Age of introduction of complementary feeding among those who commenced complementary feeding in Sri Lanka (n=452)

Age complementary feeding commenced (months)	**Report to work after the birth of the child**					
	Resumed work (n=334)		**Did not resume work (n=118)**		**All mothers (n=452)**	
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
2	2	0.6	0	0.0	2	0.4
3	11	3.3	0	0.0	11	2.4
4	40	12.0	5	4.2	45	10.0
5	123	36.8	34	28.8	157	34.7
6	151	45.2	75	63.6	226	50.0
7	3	0.9	3	2.5	6	1.3
8	3	0.9	0	0.0	3	0.7
9	1	0.3	1	0.8	2	0.4
Mean[a]	5.31	(SD=0.91)	5.68	(SD=0.68)		

Note: a. Comparison between 2 means, t = −4.059, df = 450, p < 0.001

Table 25. The types of food given according to the age of the child (based on 24-hour food frequency questionnaire) in India (n= 604) and in Sri Lanka (n=850)

Type of food	Percentage fed, by age (months)									
	<6		6–8		9–11		12–17		18–23	
	IND	SL	IND	SL	IND	SL	IND	SL	IND	SL
Grains, roots, and tubers	—	3.4	54.0	82.8	64.8	99.1	64.0	99.3	64.3	100.0
Legumes and nuts	—	1.0	29.0	44.8	29.6	67.5	32.3	73.9	33.9	66.0
Dairy food	—	5.9	45.0	37.1	59.3	73.7	50.6	84.1	52.6	89.4
Meat and fish	—	0.8	0.0	40.5	0.0	87.7	2.4	90.6	2.3	95.7
Eggs	—	0.3	9.0	5.2	7.4	50.9	9.1	64.5	11.1	68.1
Vitamin A and rich fruits	—	1.8	10.0	65.5	14.8	99.1	15.9	97.8	14.6	97.9
Other fruits and vegetable	—	1.3	19.0	40.5	16.7	57.9	25.6	55.8	24.6	62.8
Oils and fats	—	0.8	—	43.1	—	85.1	—	88.4	—	79.8

Note: IND= India; SL = Sri Lanka

Table 26. MDD for children ages 6–23 months according to maternal and child characteristics in India (n = 489) and Sri Lanka (n = 462)

Characteristic			MDD			
			India (n=489)		Sri Lanka (n= 462)	
			Number	Percentage	Number	Percentage
Gender of child		Female	63	25.3	209	87.8
		Male	47	19.6	192	85.7
Age of child (months)		6–8	17	17.0	61	52.6
		9–11	10	18.5	112	98.2
		12–17	41	25.0	134	97.1
		18–23	42	24.6	94	100.0
Age of mother (years)		<25	34	19.1	24	72.7
		25–29	44	24.4	160	86.5
		30–34	20	21.7	135	88.2
		35 and above	10	34.5	82	90.1
		Not reported	2	20.0	—	—
Maternal education level	India	Illiterate	65	24.1	—	—
		Lower primary	7	16.7	—	—
		Upper primary	9	19.2	—	—
		Secondary	2	11.1	—	—
		Senior Secondary	5	23.8	—	—
		Graduation	16	26.7	—	—
		Post-Graduation	6	25.0	—	—
	Sri Lanka	Below GCE O/L	—	—	12	70.6
		Passed GCE O/L	—	—	69	78.4
		Passed GCE A/L	—	—	205	88.4
		Degree and above	—	—	115	92.0
Socio economic class	India	Class I	15	22.7	—	—
		Class II	27	19.7	—	—
		Class III	36	25.7	—	—
		Class IV	14	20.0	—	—

Characteristic			MDD			
			India (n=489)		Sri Lanka (n= 462)	
			Number	Percentage	Number	Percentage
		Class V	4	25.0	—	—
		Not reported	14	23.3	—	—
	Sri Lanka	Upper	—	—	121	91.0
		Middle	—	—	203	88.3
		Lower	—	—	77	77.8
Religion	India	Hindu	95	22.6	—	—
		Muslim	12	21.8	—	—
		Sikh	3	21.4	—	—
	Sri Lanka	Buddhist	—	—	203	87.9
		Catholic	—	—	77	88.5
		Hindu	—	—	73	82.0
		Islam	—	—	47	87.0
		Other	—	—	1	100.0
Report to work after the birth of the child		Yes	—	—	—	92.8
		No			93	71.5
Employment sector		Formal public	14	28.0	129	89.0
		Formal private	11	42.3	210	87.5
		Informal	74	20.2	62	80.5
		Not Working	11	24.0	—	—
Family type		Extended	31	24.8	229	88.1
		Nuclear	79	21.7	172	85.1
Mother suffers from any medical condition		Yes	1	9.1	41	89.1
		No	109	22.8	360	86.5
Overall			**110**	**22.5**	**401**	**86.8**

Table 27. MDD of children ages 6–23 months according to the mother's return to work and age of the child in Sri Lanka (n = 462)

Age Categories from 6-23 Months	Percentage with MDD	
	Mothers who Resumed Work (n=332)	Mothers who did not Resume Work (n=130)
6-8 months	65.5	41.0
9-11 months	97.8	100.0
12-17 months	97.2	96.8
18-23 months	100.0	100.0

Table 28. Giving commercially prepared baby food by maternal and child characteristics in Sri Lanka (n=850)

Characteristic		Giving commercial baby food			
		Number	Percentage	95% CI	
Gender of Child	Female	122	26.3	22.5	30.6
	Male	109	28.2	23.9	32.9
Age of child (months)	<6	5	1.3	0.5	3.1
	6–8	53	45.7	36.8	54.8
	9–11	78	68.4	59.3	76.3

	12–17	70	50.7	42.4	59.0
	18–23	25	26.6	18.6	36.4
Maternal age (years)	< 25	20	22.7	15.1	32.6
	25–29	101	27.0	22.7	31.7
	30–34	74	28.7	23.5	34.5
	35 and above	36	27.7	20.7	36.0
Maternal education	Below GCE O/L[1]	3	7.9	2.6	21.8
	Passed GCE O/L[1]	40	22.6	17.0	29.4
	Passed GCE A/L[2]	118	28.0	23.9	32.4
	Degree and above	70	32.9	26.9	39.5
Socio-economic class	Upper	76	33.3	27.5	39.7
	Middle	109	25.8	21.9	30.2
	Lower	46	23.0	17.7	29.4
Religion	Buddhist	118	28.0	23.9	32.5
	Catholic	39	26.0	19.6	33.6
	Hindu	44	24.2	18.5	30.9
	Islam	30	31.2	22.8	41.2
	Other	0	0.0	—	—
Resumed work after the birth of the child	Yes	174	45.8	40.8	50.8
	No	57	12.1	9.5	15.4
Employment sector	Formal public	74	31.6	26.0	37.9
	Formal private	124	27.5	23.6	31.8
	Informal	33	20.0	14.6	26.8
Family type	Extended	141	27.9	24.2	32.0
	Nuclear	90	26.1	21.7	31.0
Any medical condition	Yes	16	22.9	14.5	34.1
	No	215	27.6	24.5	30.8
Total		**231**	**27.2**	**24.3**	**30.3**

Table 29. Giving commercially prepared baby food by age category, between those who resumed work and those who did not in Sri Lanka (n=850)

		Mothers who resumed to work	Mothers who did not resume to work
Age category	<6 months	10.4	0.0
	6–8 months	54.5	37.7
	9–11 months	64.1	86.4
	12–17 months	55.1	35.5
	18–23 months	26.9	25.0
All ages	0–23 months	45.8	12.1

Table 30. Persons who look after the child while the mother is at work, by employment sector in India (n = 515) and Sri Lanka (n = 370)

Type of support available[a]	India - Employment sector (%)				Sri Lanka - Employment sector (%)			
	Formal public	Formal private	Informal	Total	Formal public	Formal private	Informal	Total
Mother takes the baby to work	3.4	22.4	51.1	43.6	1.7	2.8	48.6	11.1
Husband	10.3	17.2	6.5	8.0	16.8	13.3	12.9	14.3

Type of support available[a]	India - Employment sector (%)				Sri Lanka - Employment sector (%)			
	Formal public	Formal private	Informal	Total	Formal public	Formal private	Informal	Total
Mother/Mother-in-law	67.2	36.2	14.2	21.6	63.9	71.3	45.7	64.1
Father/Father-in-law	5.1	1.7	0.6	0.1	10.9	5.5	0.0	6.2
Elder or younger brother/sister	0.0	1.7	7.2	5.9	0.0	1.1	1.4	0.8
Relatives	6.8	1.7	6.5	6.1	16.0	11.0	12.9	13.0
Neighbors	1.7	1.7	1.6	1.7	6.7	5.0	4.3	5.4
Paid caregiver	—	—	—	3.2	6.7	8.3	2.9	6.8
Domestic helper	—	—	—	—	4.2	3.9	4.3	4.1
Leave baby at a day care center	1.7	12.0	0.4	1.7	11.8	8.8	0.0	8.1

Note: a. Multiple entries allowed.

Table 31. Main health care provider of the infant/young child according to the employment sector of the mother, India (n = 587)

Main health care provider/s available[a]	Employment sector Number (%)			
	Formal public (n = 58)	Formal private (n = 58)	Informal (n = 471)	Total (n = 587)
None	7 (12)	5 (8.6)	70 (14.9)	82 (14.0)
ASHA worker	7 (12)	3 (5.2)	137 (29.1)	147 (25.0)
Anganwadi worker	7 (12)	22 (37.9)	231 (49.0)	260 (44.3)
Medical officer	8 (13.8)	6 (10.3)	31 (6.5)	45 (7.7)
Pediatrician/specialist	29 (50.0)	24 (41.4)	15 (3.2)	68 (11.6)
Any other	3	0	0	3

Note: a. Multiple responses allowed;
Figures in parentheses denote percentages.

Table 32. Source of advice on breastfeeding received by working mothers during pregnancy in India (n = 677) and Sri Lanka (n = 850)

India - Source of advice[a]	Number	%
Mother	158	23.30
Mother-in-law	246	36.30
Doctor/health worker	244	36.00
Friends	55	8.12
Media	30	4.40
Neighbors	5	0.70
Sri Lanka - Source of advice	**Number**	**%**
From government hospitals	559	65.80
Antenatal clinic of MOH	815	95.90
Antenatal classes of MOH	226	26.60
During a visit to consult with an obstetrician	10	1.20
During a visit to a general practitioner	118	13.90
Antenatal home visits by PHM	37	4.40
Relatives and neighbors	4	0.50
Peers at the workplace	6	0.70

Note: a. Multiple responses allowed.

Table 33. Postnatal support given to working mothers with children less than 2 years, the PHM visits, and support for expressing breast milk, in Sri Lanka (n = 850)

Visit/support by PHM[a]	Percentage
PHM[a] visit after delivery (at least once)	98.4
PHM[a] supported for expressed breast milk	85.9
PHM[a] visited home:	
1–5 days after birth	92.8
6–10 days after birth	74.5
14–21 days after birth	66.7
Around 42 days after birth	53.1
Note: a. Multiple entries allowed.	

Table 34. Supportive workplace environment for breastfeeding and childcare according to the employment sector in India (n = 687) and Sri Lanka (n = 850)

	Mothers by employment sector (%)							
	Formal public		Formal private		Informal		Total	
	India	Sri Lanka	India	Sri Lanka	India	Sri Lanka	India	Sri Lanka
Takes child to workplace	3.4	2.6	22.4	2.2	51.1	26.1	43.6	6.9
Work place is breastfeeding friendly[a]	0.0	16.6	27.6	70.0	32.0	97.7	28.5	84.7
Programs in workplace supporting breastfeeding	—	12.0	—	2.0	—	1.8	—	4.7

Note: a. Percentage was out of those who took the baby to the workplace.

Annex 5: Dissemination Workshop

New Delhi, May 7, 2019

The Objective of the Workshop

The objective of the workshop was to share the preliminary results of the study on addressing critical failures in IYCN among working women in urban areas of Delhi and to open a discussion forum to address the issues related to IYCN in working mothers in India.

Participants

Participants in the workshop included senior officials from the MoHFW and MoWCD, National Institute of Public Cooperation and Child Development (NIPCCD), international organizations like the World Bank, Food and Agricultural Organization, PATH, Alive, and Thrive. Representatives of organizations working in the area including mobile crèches; hospitals such as Apollo Hospital, Fortis Hospital, and AIIMS; professional associations like the Indian Dietetic Association, Nutrition Society of India, Breastfeeding Promotion Network of India, Association of Lactation Professionals of India, and Coalition for Food and Nutrition Security; and academicians working in field of IYCN also participated in the workshop (Annex 6).

Highlights of the Event

In line with the objective of the workshop, the participants deliberated on the present standing and barriers to IYCN in India, especially in the context of working women, and challenges and failures faced by them in achieving optimal IYCN for their child. The quantitative and qualitative preliminary results of the study were shared with the stakeholders and efforts were made to understand the underlying challenges and barriers responsible for critical failures in IYCN practices of working mothers in India so that a proactive and unanimous approach could be identified to alleviate these barriers.

Welcome and Introduction to the Conference

Dr. Seema Puri, Associate Professor, Institute of Home Economics and the Principal Investigator of the present study at Delhi Site, India, initiated the proceedings of the day by welcoming all the dignitaries and participants. She set the context of the study and gave a brief background of the project.

Inaugural Session

Dr. Geeta Trilok Kumar, the Director, Institute of Home Economics, while addressing the gathering, stated that strengthening IYCF is important as in India and most of the indicators are performing poorly. She added that there is a need to put efforts into improving IYCF as early deficits can have long- and short-term implications for the child and on the economy. The children who are not fed breast milk do not grow well as compared to the ones who are adequately breastfed. Substantial work has been done in the field of IYCF postindependence and it is known that 0–6 months of age is the golden window of opportunity. So it is necessary that the nutrition community join hands and work rigorously together to promote and improve IYCF in the country.

Address by Chief Guest

Dr. Ajay Khera, Deputy Commissioner (IC), MoHFW, addressed the gathering on the importance of IYCF. He stated that IYCF is an important contributor in Poshan Abhiyaan initiated by the GoI. Independent surveys indicated that early initiation of breastfeeding is 30–40 percent in India against a backdrop of 80 percent of institutional deliveries. He stressed that besides the early initiation of breastfeeding, complementary feeding is also a concern as the rate of complementary feeding has declined over the last decade from 55 percent to 42 percent. Somewhere the focus on complementary feeding has been lost, and there lies a problem which needs to be addressed. This problem becomes more significant, particularly in urban settings as in the rural areas, there is a system in the form of Anganwadis, ASHA workers, and public health care system. Dr. Ajay Khera emphasized that as a major chunk of working women are in urban areas, so IYCF in the context of working women becomes important because if a mother has to breastfeed her child, it is not only her knowledge or support or counseling, it is also the enabling environment which is essential. For working women, this enabling environment could be in the form of paid maternity leave.

He mentioned that the GoI took a bold initiative of increasing the paid maternity leave from 12 weeks to 26 weeks, which is being practised in the formal or government sector. However, there are so many defaulters in the private sector though they are also formal sectors. It is required that the same facility needs to be implemented in the private and informal sectors as well. While there are plenty of mechanisms which are in place such as labor laws and factory laws, the implementation is not effective. Hence, close monitoring is essential; someone needs to keep a close watch on the defaulters and inform the concerned authorities. There are many challenges in the implementation of the labor laws, so that is one area which needs to be acted upon, to find out means and ways of getting the existing laws implemented even in the private sector. He specifically mentioned about the challenges faced by domestic servants who do not come under the ambit of the factory laws and that in this case, much awareness might be required.

Referring to the results of the study, he stated that this information would be really helpful in making plans for action, particularly for working women.

He also pointed out the need for breastfeeding rooms at the workplace and that there is no dedicated agency which takes care of this. Again he stressed that a close watch needs to be kept and concerned authorities need to be informed. If all these systems and enabling environments have been put in place effectively, continuous monitoring needs to be there.

He then pointed out the increase in the C-section deliveries in the last decade, which is also because of the changing cultural settings. Nowadays women at times prefer to have a C-section, especially those who wish to have a small family. However, C-section becomes a barrier as it presumed by both the mother and the health practitioner that a C-section mother could not do early initiation of breastfeeding and exclusive breastfeeding, which is a myth. So there needs to be communication with health practitioners, particularly obstetricians that C-section mothers can successfully breastfeed the infant.

Another area of concern in India he highlighted was that 15–20 percent mothers are giving birth to low birth weight (LBW) or preterm babies, which is again associated with another myth that the LBW

babies cannot be breastfed as the baby is small and does not have enough energy. So milk expression becomes crucial here. However, the findings of the study reveal that most of the mothers, especially from low socio-income strata are not aware of milk expression. Only some mothers belonging to high socio-income strata had some idea about it, but still, the concept is not very clear. Also, there is limited education material available on this as it is a silent area. Information, education, and communication material needs to be developed for working women so that when the situation arises either because of an LBW baby or because a mother has to rejoin work, she needs a clear concept of milk expression and can very well practise it. Standard material regarding this could be designed on the basis of the qualitative findings of the study.

Sharing of the Results

Dr. Seema Puri presented the quantitative findings of the study to identify the challenges, barriers, and facilitating factors for appropriate IYCN behaviors, programs, and policies related to working women engaged in both formal and informal sectors in urban settings in Delhi. The preliminary results highlighted that out of a total of 559 mothers, 53.3 percent received breastfeeding counseling during antenatal visits. At the time of data collection, 89 percent of the mothers were employed, of which 81.3 percent were in the informal sector. The majority (84.8 percent) of the mothers did not receive any maternity leave. Also, 34.7 percent of the mothers resumed work when the baby was only 0 to 3 months of age, mostly because of job insecurity. In the formal sector, 67.8 percent of mothers got maternity leave for less than six months while none of the mothers in the informal sector got it. Only 3 percent of the workplaces had a crèche facility, and 20.9 percent of mothers found their work environment breastfeeding friendly. These were identified as the major barriers in achieving optimal IYCN for working mothers. Regarding the support provided by the family members to working mothers for child feeding, mainly husbands (45.4 percent), followed by grandmothers (22.5 percent), were helping. Also, 40.6 percent of the mothers were taking their child to work with them. Doctors/health workers (32.7 percent), followed by paternal grandmother (31.4 percent), were the major source of information on child feeding for the mothers. In the present study, 90.6 percent of the children were breastfed; 50.2 percent were given breast milk within one hour of birth; 81.7 percent received colostrum; and 34.3 percent were given prelacteals like honey, ghutti, and jaggery mainly as a traditional practice in the family. After the delivery, 40.8 percent of the mothers received help from hospital staff for breastfeeding. Only 5.4 percent of the mothers tried using a breast pump as most of them were not aware of it or how to use it. Complementary foods were given to 67.7 percent of the infants, of which 44.3 percent received at the age of 6 months.

Ms. Urvashi Mehlawat, PhD Scholar, Institute of Home Economics, presented the qualitative findings of the study. For the qualitative part of the study, FGDs among mothers and IDIs were conducted among mothers, family members, employers (formal, informal, government sector), and HCPs. The results highlighted that colostrum was fed by most mothers (94 percent). Similarly, irrespective of the socioeconomic status, prelacteals were given by most mothers across SES. Formula feeds were mostly given in the initial 1–2 days after C-section delivery. Other factors associated with feeding formula milk later were rejoining work, lack of breast milk at the time of birth, and certain emergencies The consumption was more prevalent in the HSES where it was offered as early as one month due to the mother's work commitments and peer and family advice. Exclusive breastfeeding was followed by the majority of the LSES mothers; however, the practice decreased as SES increased. Complementary

feeding was initiated at six months in most cases. However, among the HSES, only 40 percent started it at six months; most started earlier. The practice of using a breast pump or other means to express the milk and then feeding it to the child was not common in LIG mothers. The awareness was also found to be very low regarding such methods. The awareness about breast pumps was there among the MSES and HSES both, but the practice was found among the HSES only (40 percent).

In the LSES, husbands, mothers-in-law, and AWWs were influencing the mother regarding the child's nutritional practices. In the HSES, doctors and maternal relatives were major influencers. Social media also played a significant role in affecting their decisions. Among the LSES, paid maternity leave for six months is not common as they work in the informal sector. As leave is unpaid, mothers either have to leave the job or rejoin work as early as 15 days after childbirth. In a few cases, the job was retained only if the mother provided a substitute for that particular period. Among the mothers belonging to the MSES, almost 66 percent rejoined after 3–4 months due to unpaid leave. In the HSES, mothers working in the government sector as a permanent employee got six months paid leave and additional two years CCL. However, temporary employees did not get any such leave. Such mothers had to join back as early as 20 days after childbirth. As most were employed in the informal sector or private industry, mothers were not given leave but could rejoin when they wanted to after delivery.

Panel Discussion: Improving IYCN in working women: Opportunities and Challenges

This session was chaired by Dr. Pradeep Saxena, Additional Deputy Director-General, DGHS, and the panelists were as follows:

- Dr. Deepika Chaudhary, Nutrition Specialist, World Bank
- Ms. Anuja Agarwala, Pediatric Dietician, AIIMS and Vice President Indian Dietetic Association
- Dr. Sebanti Ghosh, Programme Director, Alive and Thrive India
- Ms. Mridula Bajaj, Director, Mobile Creches

This session provided an opportunity to the participating stakeholders to address the challenges faced by the working women leading to IYCN failures and in identifying the opportunities to combat these failures by presenting their strategies.

Dr. Pradeep Saxena, Additional Deputy Director General, DGHS, suggested that the present study is significant for both urban and rural areas. Highlighting the IYCN statistics in India, that is, colostrum feeding 41 percent, exclusive breastfeeding 45 percent, children receiving adequate diet 8.7 percent, non-breastfed children 14 percent, stunting 42 percent, wasting 21 percent, and underweight 35 percent, he stressed on the critical situation and the need to improve it. Dr. Saxena talked about the MAA Programme launched by the Ministry of Health in August 2016 to promote breastfeeding, which is an irony as breastfeeding is a natural process. However, because of the poor status of IYCF in the country, it becomes a requirement. With these comments, Dr. Saxena initiated the panel discussion.

Dr. Deepika Chaudhary, Nutrition Specialist, World Bank, opened the house for a panel discussion by mentioning that the key cause of serious issues like stunting and wasting is the failure of IYCF practices. She highlighted that 30 percent children in Delhi are stunted primarily in urban and rural Delhi; nearly

60 percent children ages 6–9 are suffering from anemia, which makes it critical to focus on IYCF systematically. Children are not getting the food that is necessary for their optimal growth. Only 50 percent and 11 percent of children consume vitamin-rich and iron-rich food daily, respectively. These barriers of IYCN need to be addressed by increasing knowledge and skill through a targeted content-specific behavior change communication in the community. There should be a focus on problem solving, which forms the basic foundation to improve IYCN among urban mothers.

Ms. Anuja Agarwala Dietitian, AIIMS, Vice President, Indian Dietetic Association, while emphasizing the need for strong IYCF counseling for mothers stated that at times mothers are apprehensive about the amount of milk they are producing as they feel it might not be enough for the child. So, convincing mothers is a big issue, which needs trained and integrated counseling. She also insisted that the mother should be projected as a very important person by the counselor as she is the central figure and is always with the child. Where working mothers are concerned, big companies do not want to employ women once she has a baby because she has a child to take care of, and this may affect her work performance. These multinational corporations and large corporations have the financial resources to provide facilities such as availability of breast pumps; private feeding rooms; and breaks in between work to pump, refrigerate, and store milk. Such supportive measures for IYCF should be made mandatory by the government.

She also highlighted that on the one hand, in the government sector, at times the mothers are misusing CCL for other purposes rather than taking care of their child, while on the other hand, the private sector is not giving maternity leave. Mothers have to join back very early, which maybe three days or three months, and that is inadequate. She emphasized that one-year leave is at least required to ensure a smooth transition so that the baby reaches a level of eating foods from the family pot. Also, the knowledge base of mothers about the right feeding practices is very poor. So, to conclude, two things are important for the mother—knowledge and support.

Dr Sebanti Ghosh, Programme Director, Alive and Thrive India, suggested that it is not about how the system delivers the messages but more about how you negotiate to problem solve, and in that process, you need to involve key family members—husband, mothers, mothers-in-law, and other influencers from the community. Moreover, from this point, the health and the ICDS system, the two main systems which reach out to mothers in the rural sector, despite not being optimal, are more structured. But the private sector is heterogeneous and not uniform.

Social behavior change also needs to address the service providers, whether it is the front-line workers or the facility-based providers, whatever the level of facility is—primary, secondary, tertiary including medical colleges and the private sector—as the doctors also have a great influence. The right interventions at the right time give the right start to our future generations. So, any system changing the behavior or perceptions of mothers is not only about building knowledge and changing the self-efficacy of the mother or her family members. It is also the health care providers' knowledge, skills, and self-efficacy. Even when there is knowledge in the system, it does not always translate into practice as high as 98 percent or 99 percent. Hence, a strong strategy is required, and in the urban context, it becomes more critical.

Talking about MAA, she said, "I saw people were asked to deliver the message to urban women. Have we been able to make breastfeeding aspirational for working women? We all have experiences, where

the message is always being delivered to the rural or poor women and not the urban. That is one area we need to think about how to reach the High-income Group (HIG) women." In informal sectors, people do not get maternity leave. Moreover, we know that paid maternity leave is responsible for a 13 percent reduction in the IMR. That is, there is a need to create a mother- and baby-friendly system in both the private and public sector. We need to work toward this and join hands together. The MoHFW is also working on revised maternal nutrition guidelines where we mention up front about breastfeeding counseling during antenatal care (ANC).

Secondly, a baby-friendly hospital framework could be used to certify and award facilities. System skills capacity building happens but without supportive supervision. Without ongoing monitoring, changes cannot be done. There is a need for institutional links and pulling in expertise and resource across academia because to improve IYCN or mother's nutrition, the dots need to be connected. The entire society needs to come together to support this for human capital development that is so essential for us if we need to reap the benefits of the democratic dividend that we have right now. To improve the focus on working women issue in the informal economy, there is a need to see the encouraging results attained by involving the husband. Many research studies argue that if there is paid paternal leave, the involvement of the father, and joint parenting and feeding support environment in homes, exclusive breastfeeding improves. In the informal sector, large numbers of women are working, and it needs to be highlighted that for such women, maternity leave should be mandated and so also paternal paid leave.

Ms. Mridula Bajaj emphasized that we need to develop and adopt a holistic approach and not talk about nutrition intervention and cognitive intervention and think that they are on central plates. As we are talking about an individual, we need to take into account the ecosystem around the child and the woman such as hygiene, sanitation practices, and so on. A single bout of diarrhea, (you can keep on pumping the best strategy and the best knowledge you have) can break the level down immediately. The question is what are we doing about clean drinking water and hygiene, and what are the practices a mother is adopting? At the micro as well as macro level, what are the policies we have? When we talk about nutritional status and children's well-being, we need to consider all these issues. Ms. Bajaj also urged to bring on board all people together, such as medical experts, immunization experts, public health experts, and child development experts. Also, as every woman working—be it going out to fetch water, preparing the food, or walking miles to fetch firewood—is an unpaid family worker, when a woman is working, the child is being neglected. The mother then finds constraints in preparing the kind of foods which are good for the child. So a practical approach needs to be adopted about this. She also suggested that the expression of breast milk should be promoted and emphasized so that bottle feeding could be eliminated.

Key Recommendations

Based on the deliberations at the Dissemination Workshop on 'Addressing Critical Failures in IYCN among Working Women in Urban Delhi', some salient recommendations to promote IYCN among urban women emerged.

1. Make breastfeeding aspirational. Breastfeeding as a practice should be promoted through various media as an aspirational activity so that more mothers adopt the practice.

2. Support the family as the primary caregiver/influencer on IYCF and childcare practices. The participants unanimously agreed that childcare is the collective responsibility of the family and the community. As one panelist said, “Bringing up a child takes a village.” Hence, greater focus should be on the husbands’ role in childcare and IYCN. Community leaders also need to be oriented and involved in any such initiatives being undertaken in the area.

3. Building knowledge and self-efficacy of mothers in IYCN. Creating awareness not only among the mothers but also among husbands and other family members is therefore crucial.

- Awareness creation among mothers regarding IYCN should begin during the pre-pregnancy period and continue throughout pregnancy so that the mother is prepared to breastfeed immediately after delivery.

- Given the high LBW rates, focus on the feeding of LBW babies needs to be increased.

- The ANC contacts can be used to build on breastfeeding awareness. Presently, this is a missed opportunity which can be targeted.

- Awareness about expressed breast milk was very low, and hence, efforts to build knowledge and skills in this area have to be strengthened.

4. Adopt a holistic approach. For IYCN to be successful in ensuring optimal growth of infants, it is crucial to have a holistic approach and include all dimensions like hygiene, sanitation, immunization, and child development. Hence, experts in these domains need to be actively engaged in promoting IYCN.

5. Strengthen the provision of maternity benefits. Lack of maternity benefits, especially in the informal and the private sector, was a serious concern that emerged from the study findings as well as was expressed by many participants. However, panelists expressed that there are various challenges in terms of implementation of factory laws and maternity benefits, both in government and private offices. Some of the recommendations were the following:

- Provision of paid maternity leave for six months needs to be implemented across all employment. While it is being given in the government sector, it is not so in the private sector.

- A monitoring system by external agencies to check malpractices by organizations in relation to grant of maternity leave was a recommendation given by the panelists.

- Provision of crèches at/near workplaces are needed.

- Provision of lactation rooms at workplace and grant of feeding breaks during working hours were also suggested as strategies for mothers to continue to breastfeed.

- Flexible working hours for mothers with small infants was another recommendation.

- Provision of paternity leave of at least 15 days to provide support to the mother was considered important.

6. Capacity building in IYCN. All participants expressed the need to build capacity in the area of IYCF.

- While there was a recommendation to focus on pediatricians and nutritionists, additionally it was felt that other medical specialists like gynecologists should also be included in lactation counseling orientations.

- At the community level, the MAA Programme is the first to focus on urban women. ASHAs, AWWs, and other ground-level functionaries should also undergo training in lactation counseling. They can also act as problem solvers to mothers at the community level.

- There was a strong recommendation to develop a cadre of lactation counsellors.

- There is a need to develop context-specific targeted behavior change communication material, particularly on breastfeeding. Age-specific and practice-based information should be imparted to mothers.

- Setting up of tele-counseling facilities which reach out to mothers and encourage problem-solving for mothers while breastfeeding or introducing complementary feeding was another suggestion.

7. New focus areas. Because of increasing practices of surrogacy and adoption, feeding recommendations for these children should also be developed and disseminated.

8. Mentoring, monitoring, and supervision. An important recommendation to make the IYCN initiative successful was to provide strong mechanisms for mentoring, monitoring, and supervision.

- The participants suggested that institutions, for example, the Indian Academy of Pediatrics, are very important. Hence, professional associations and academic institutions should be roped in.

- Compliance to the Baby-Friendly Hospital Initiative (BFHI) norms should be strengthened and monitoring of such hospitals should be undertaken on a regular basis. There was a suggestion to link BFHI certification with National Accreditation Board for Hospitals accreditation so that hospitals would be pressurized to be BFHI compliant.

<u>SAIFRN regional dissemination seminar on infant and young child feeding among working women in two countries in South Asia, New Delhi, June 25, 2019</u>

A one-day seminar was conducted to disseminate preliminary findings of the present study The agenda of the seminar is attached herewith.

Objective of the Seminar

The objective of the seminar was to share the results of the study on addressing critical failures in IYCN among working women in two countries India and Sri Lanka and to open a discussion forum to address the issues related to IYCN in working mothers in the South Asia region.

Participants

Over 40 delegates attended the seminar including senior officials from Ministry of Health and Family Welfare, NITI AAYOG, International Organizations like UNICEF, WHO, PATH, GAIN, Alive and Thrive. Representatives of organizations working in the area including hospitals such as All India Institute of Medical Sciences (AIIMS) and Professional Associations like Indian Dietetic Association, Nutrition Society of India, Indian Academy of Paediatrics, Coalition for Food and Nutrition Security in India and academicians and researchers working in the field of Infant and Young Child Nutrition also participated in the workshop. International delegates from SAIFRN member countries of Nepal, Bangladesh, Sri Lanka and University of Sydney, Australia also attended the meeting.

Highlights of the event

In line with the objective of the seminar, the participants deliberated on the present standing and barriers to IYCN in India especially in context of working women and challenges and failures faced by them in achieving optimal IYCN for their child. The quantitative and qualitative preliminary results of the study were shared with the stakeholders and efforts were made to understand the underlying challenges and barriers responsible for critical failures in IYCN practices of working mothers so that a proactive and a unanimous approach could be identified to alleviate these barriers.

1.1 Inaugural session

Dr. Seema Puri initiated the proceedings of the day by welcoming all the dignitaries and participants and introduced the objectives of the seminar to the audience.

Dr Neeloy Alam and Prof Upul Senarath further elaborated on the South Asian Infant Feeding Research Network (SAIFRN), its objectives and activities till date. They also highlighted the role of SAIFRN in the conduct of the present study which has been supported by the World Bank through the SAFANSI grant.

Address by Chief Guest Dr. Pradeep Saxena, Additional Director General, Ministry of Health and Family Welfare

Dr. Pradeep Saxena addressed the gathering on importance of IYCF. He stressed that besides early initiation of breastfeeding, complementary feeding is also a concern. Hence a greater focus on complementary feeding has been lost and therein lies a problem which needs to be addressed. This problem becomes more significant particularly in urban settings. IYCF in context of working women needs to be supported more by providing an enabling environment which could be in the form of paid maternity leave.

He congratulated the study team on the efforts put in for this research. Referring to the results of the study, he stated that this information will be really helpful in making future plans for action particularly for working women.

Address by Dr Supreet Kaur, Sr Consultant, NITI Aayog

Dr Supreet Kaur made a presentation on the "Government initiatives to Strengthen IYCN". She highlighted the various government programmes which encompass the area of infant and young child

nutrition. She also reiterated on the newer initiatives being spearheaded by the NITI AAYOG including the POSHAN ABHIYAAN, POSHAN MAH and the MAA programme.

Vote of Thanks was given by Dr Seema Puri

1.2 Plenary Session 1: Addressing critical failures in IYCN among working women

Dr Raj Kumar Pokharel chaired the session. In his introductory comments, Dr Pokharel complimented SAIFRN for the study and looked forward to the results. He also said it would be worthwhile to also share the experiences of other countries in the region pertaining to the issue of IYCN among working women in urban areas as there maybe lessons one can learn from each other's experiences.

Dr Upul Senarath set the context of the study by sharing data on the women work force in India and Sri Lanka. He also touched upon the health programmes in both the countries which encompassed IYCN.

Dr Neeloy Alam presented on behalf of Dr Michael Dibley, who could not attend the meeting. He gave an overview of the status of IYCN in working women, the need to focus on this area and the concerns of working women regarding child care.

1.3. Plenary Session 2: Barriers and facilitators for appropriate IYCN in urban working women

Dr Neeloy Alam chaired the session.

Dr Seema Puri presented the findings of the study with the objective to identify the challenges, barriers to and facilitating factors for appropriate IYCN behaviours, programs and policies, related to working women engaged in both formal and informal sectors in urban settings in the Delhi. The major barriers in achieving optimum IYCN for working mothers included lack of maternity leave, poor child care facilities at workplace etc. There was a need to also strengthen family support by focusing on counseling of husbands and other family members in child care. Complementary feeding was another area which needed strengthening.

Prof Upul Senarath and Dr Manuj Weerasinghe presented the findings of the study from Sri Lanka. Based on the study findings, they concluded that despite all the policies, programmes and other initiatives to improve infant and young child feeding during the last four to five decades in Sri Lanka, still major gaps are observed in relation to the actual practice of IYCF among working mothers. Moreover, gaps in the policy and implementation in the formal private and informal sector on maternity benefits tend to deviate working mothers from optimum IYCF.

An interactive discussion followed the presentations with several members in the audience requesting for further details. Ms Ruchika Sachdev, PATH noted that expression of breast milk was very low and suggested that this is an area which needs strengthening. Dr Sheila Vir, Consultant in Public Health Nutrition reiterated that malnutrition sets in after 6 months generally in children and therefore the focus on complementary feeding needs to be strengthened. She also mentioned that it is important to link counselling opportunities with activities like immunization at the appropriate ages so that the

mother can be counselled regarding IYCN accordingly. Dr Sebanti Ghosh, Alive and Thrive emphasized that we need to make breast feeding aspirational so that women want to voluntarily breast feed.

1.4. Key recommendations

Some of the recommendations which emerged after the deliberations include:

1. **Develop and strengthen polices and legislation to ensure maternity benefits** for informal sector and a supportive environment at workplace

2. **Make breast feeding aspirational.** Breast feeding should be promoted through various media as an aspirational activity so that more mothers adopt the practice.
3. **Support the family as the primary caregiver/ influencer on IYCF and child care practices.** The participants unanimously agreed that child care is the collective responsibility of the family and the community. Hence, greater focus should be on the husbands' role in child care and IYCN.
4. **Building knowledge and self-efficacy of mothers in IYCN**. Creating awareness not only among the mothers but also among husbands and other family members is therefore crucial.

- Awareness creation among mothers regarding IYCN should begin during pre-pregnancy period and continue throughout pregnancy so that the mother is prepared to breastfeed immediately after delivery.
- Awareness about expressed breast milk was very low and hence, efforts to build knowledge and skills in this area have to be strengthened.

5. **Strengthen provision of maternity benefits.** Lack of maternity benefits, especially in the informal and the private sector was a serious concern which emerged from the study findings as well as was expressed by many participants.

- Provision of maternity leave was imperative and needs to be reinforced.
- Provision of crèches at/ near workplaces are needed.
- Provision of lactation rooms at workplace and grant of feeding breaks during working hours were also suggested as strategies for mothers to continue to breastfeed.
- Flexible working hours for mothers with small infants was another recommendation.
- Provision of paternity leave of at least 15 days to provide support to the mother was considered important.

6. **Capacity building in IYCN.** All participants expressed the need to build capacity in the area of IYCF.

- While there was a recommendation to focus on paediatricians and nutritionists, additionally it was felt that other medical specialists like gynaecologists should also be included in lactation counselling orientations.
- There is a need to develop context specific targeted behaviour change communication material, particularly breast feeding. Age specific and practice-based information should be imparted to mothers.

7. **Mentoring, monitoring and supervision.** An important recommendation to make the IYCN initiative successful was to provide strong mechanisms for mentoring, monitoring and supervision.

- Give a certification such as baby friendly workplace so that employers would be interested to get the certification.