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School of Public Health
Center for Health Services Research and Development

Formative Research on Infant and Young Child Health and Nutrition in Armenia

Study Team:
Anahit Demirchyan, MD, MPH
Dzovinar Melkom Melkomian, DVM, MPH, MBA
Kristina Mnatsakanyan, MD, MPH
Varduhi Petrosyan, MS, PhD

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Table of Content

ACKNOWLEDGEMENTS v
ABBREVAITONS vi
EXECUTIVE SUMMARY vii
INTRODUCTION 2
1.1 Burden of child malnutrition 2
1.2 Breastfeeding and child's health 2
1.3 Obstacles to optimal breastfeeding 3
1.4 Complementary feeding 4
1.5 Strategies to prevent iron deficiency in infancy 5
1.6 Infant and young child growth monitoring 7
1.7 Prevalence of undernutrition among young children in Armenia 7
1.8 Infant feeding practices in Armenia 10
1.9 Existing strategies to improve young child nutrition in Armenia 11
1.10 Study objectives 17
2. METHODS 18
2.1 Study design 18
2.2 Study setting 18
2.3 Study participants 18
2.4 Research instruments 19
2.5 Data collection and analysis 19
2.6 Categorization of study participants 21
2.7 Ethical considerations 22
3. RESULTS 23
3.1 Nutrition and care during pregnancy 23
3.1.1 Eating habits of pregnant women 23
3.1.2 Supplements during pregnancy 24
3.1.3 Nutritional counseling during pregnancy 26
3.1.4 Preparing mothers for breastfeeding during pregnancy 29
3.2 Newborn care and breastfeeding initiation 30
3.2.1 First feedings in maternity hospitals 30

3.2.2 Breastfeeding support in maternity hospitals 34
3.2.3 Feeding of low-birth-weight babies 37
3.3 Breastfeeding and supplementary feeding 39
3.3.1 Post-natal check-ups and early support to breastfeeding at home 39
3.3.2 Problems with breastfeeding 41
3.3.3 Exclusive breastfeeding and supplementary feeding 44
3.3.4 Use of cow's milk 47
3.4 Complementary feeding 49
3.4.1 Age of introduction of complementary food 49
3.4.2 Complementary food introduction manner and sequence 52
3.4.3 Recommended food types for complementary feeding 54
3.4.4 Preparation of complementary food 57
3.4.5 Foods to avoid during infancy 59
3.5 Feeding toddlers and preschool children 61
3.5.1 Feeding toddlers and preschool children at home 61
3.5.2 Feeding toddlers and preschool children in kindergarten 64
3.6 Child growth monitoring 65
3.6.1 Growth monitoring during infancy 65
3.6.2 Growth monitoring of 1-5 years old children 67
3.7 Anemia screening and attitudes to flour fortification 70
3.7.1 Anemia screening and prevention practices 70
3.7.2 Treatment of anemia 72
3.7.3 Attitudes to flour fortification 74
3.8 Counseling practices and information sources 77
3.8.1 Providers' counseling practices 77
3.8.2 Compliance with medical advice 79
3.8.3 Information sources for parents 81
3.8.4 Information sources for providers 84
3.9 Perceived reasons and suggestions 86
3.9.1 Perceived reasons for suboptimal nutrition of women and children 86
3.9.2 Suggestions for improving the situation 88
4. MAIN FINDINGS 91

Practices during pregnancy 91
Newborn feeding practices in maternity hospitals 92
Early infant feeding practices at home 92
Complementary feeding and feeding of 1-5 years old children 94
Growth monitoring of under-five children 95
Anemia screening, prevention, and treatment 96
Providers' counseling practices and information sources 97
5. CONCLUSIONS AND RECOMMENDATIONS 98
REFERENCES 101
APPENDICES 106
Instruments for FGDs with mothers of under-five children 106
Instruments for FGDs with healthcare providers 116
Instruments for IDIs with policy makers/experts 134

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ABBREVAITONS

ADHS	- Armenian Demographic and Health Survey
AUA	- American University of Armenia
BFHI	- Baby Friendly Hospital Initiative
CHSR	- Center for Health Services Research and Development
FGD	- Focus group discussion
IBFAN	- International Baby Food Action Network
IDI	- In-depth interview
IMCI	- Integrated Management of Childhood Diseases
MoH	- Ministry of Health
NCHS	- National Center for Health Statistics (U.S.)
NGO	- Non-governmental organization
PHC	- Primary health care
RA	- Republic of Armenia
UN	- United Nations
UNICEF	- United Nations Children's Fund
USAID	- United States Agency for International Development
WHO	- World Health Organization

EXECUTIVE SUMMARY

Suboptimal nutrition during pregnancy and the first years of life is closely related to increased mortality and morbidity, especially in low-/middle-income countries. Considerable burden of disease among children and mothers is associated with deficiencies of some micronutrients including iron, iodine, and zinc. Suboptimal breastfeeding is one of the major risk factors for childhood mortality estimated to cause 1.4 million deaths among children annually. Fetal and child growth failures and micronutrient deficiencies together are responsible for 45% of all child deaths globally.

Data on prevalence of malnutrition and micronutrient deficiencies among pregnant women, infants and young children is scarce in Armenia. There is no surveillance system of child growth and micronutrient deficiencies including iron-deficient anemia. Women consultations are responsible for anemia screening and nutritional counseling of pregnant women, while polyclinics/ ambulatories for child growth monitoring during healthy child visits and anemia screening, but the results of these measurements are not summarized, analyzed or used for decision making.

Currently, Armenia Demographic and Health Surveys (ADHS) are the main sources of data on young child nutrition. During 2000-2010, three consequent ADHS were conducted in the country with 5-year intervals. According to these surveys, the rates of stunting and wasting among under-five children remained relatively stable over ten years (14.6% and 3.0%, respectively, in 2010, using NCHS/WHO reference population standards), while underweight increased from 2.6% in 2000 to 4.8% in 2010. Although the 2010 ADHS rates of underweight and wasting in Armenia exceed the rates (2.3%) normally expected in a well-nourished population, the rate of stunting is much higher than the normally expected range and, thus, indicate the existence of serious problem with chronic malnutrition among under-five children in Armenia.

According to the official statistics, during the last 15 years, the rates of small-for-gestational age and preterm births that are closely related to nutritional status of pregnant women, varied in the range of 7.3-8.5% and 5.8-7.2%, respectively, with no trend for improvement.

The latest data on anemia prevalence available from ADHS showed a 36.5% prevalence of anemia among children aged 6-59 months, which exceeded the ADHS 2000 rate (23.9%) over 1.5 times, pointing out the possibility of growing public health problem with childhood anemia in Armenia.

The ADHS 2010 results indicated that exclusive breastfeeding was given to 34.6% of 0-6 month old children and only 16.0% of children were exclusively breastfed at 4-5 months of age. The median duration of any breastfeeding was 10.9 months, while the median duration of exclusive breastfeeding was 1.8 months. The feeding practices of only 34.4% of breastfeeding children and 30.0% of non-breastfed children between the ages of 6-23 months met the internationally

accepted minimum standards of food diversity and feeding frequency. These trends show a persistent issue in Armenia related to provider and parental knowledge and practice on young child nutrition and growth.

The American University of Armenia (AUA) Center for Health Services Research and Development (CHSR) conducted this study with support from UNICEF to identify the perceived main nutritional problems and concerns related to the nutrition of children and pregnant women in Armenia, as well as to reveal the main issues with child growth measurement and surveillance system in healthcare facilities. The research utilized a qualitative research methods through focus group discussions (FGD) and in-depth interviews (IDI). The study took place in Yerevan, the capital city, and in two marzes – Shirak and Lori. Within Shirak marz, the data collection took place in one city and one village, and within Lori marz, in one city and one village. Six groups of participants took part in the study: 1) PHC pediatricians, 2) PHC obstetricians/gynecologists, 3) maternity hospital obstetricians/gynecologists and neonatologists, 4) policymakers/experts dealing with pregnant woman/young child nutrition in Armenia, 5) rural ambulatory nurses, and 6) mothers of children under five. Overall, 99 study participants (92 female and 7 male) were recruited from Yerevan (33), Shirak marz (22), and Lori marz (44). Eight IDIs and 13 FGDs were conducted (involving mothers (4 FGDs), pediatricians (3 FGDs), ob/gyns from women consultations (2 FGDs), ob/gyns and neonatologists from maternity hospitals (2 FGDs), and rural nurses (2 FGDs).

According to the study findings, the situation in Armenia regarding pregnant women and under-five children nutrition was perceived as diverse, often suboptimal, and depending on many different factors. Major factors perceived as obstacles for adequate nutrition of children and pregnant women included financial difficulties experienced by the population, lack of knowledge and lack of motivation among healthcare providers to provide adequate nutrition counseling and growth monitoring, lack of uniform guidelines concerning nutritional requirements, feeding, and prevention/treatment of micronutrient deficiencies during pregnancy and early childhood, lack of adequate support for initiating breastfeeding in maternity hospitals and overcoming breastfeeding problems thereafter, commercial pressure from pharmaceutical companies influencing providers' decisions and actions, negative social pressure experienced by mothers from older generation, and lack of Armenian-language public education materials in PHC settings on correct nutrition of pregnant women and children. Adverse practices of giving breast milk substitutes to newborns in maternity hospitals were more widespread in Yerevan, while anemia screening and growth monitoring of children were more inappropriately performed in rural settings. Social pressure on mothers was also stronger in rural areas, while following misleading information from the internet was more common in Yerevan.

Based on the study findings and suggestions provided by the study participants, the research team developed a set of recommendations: providing either financial or nutritional aid to pregnant women and children from vulnerable families, discouraging adverse practices and

promoting breastfeeding support practices in maternity hospitals, developing and implementing uniform guidelines on child and pregnant women nutrition and micronutrient deficiencies, increasing both knowledge and motivation of healthcare providers to provide appropriate nutrition counseling, empowering PHC settings to conduct appropriate anemia screening and growth monitoring for children, implementing postponed umbilical cord clumping approach in maternity hospitals, establishing a network of lactation consultants, developing and disseminating up-to-date public education materials on pregnant women and child nutrition, and applying supportive supervision at the PHC level.

INTRODUCTION

1.1 Burden of child malnutrition

Inadequate nutrition during pregnancy and early childhood is closely related to increased mortality and overall burden of disease, especially in low-/middle-income countries.[1-3] Undernutrition and intrauterine growth restriction were estimated to cause 2.2 million annual deaths worldwide.[1] Considerable burden of disease among children and mothers is associated with deficiencies of vitamin A, zinc, iron, and iodine, together responsible for over 1.0 million annual deaths.[1] Suboptimal breastfeeding is one of the major risk factors for childhood mortality being estimated to cause 1.4 million child deaths annually.[1] Fetal growth restriction, stunting, wasting, vitamin A and zinc deficiencies, and inadequate breastfeeding were estimated to be responsible for 45% of all child deaths globally in 2011.[4] Poor cognitive, motor, and socio-emotional development, reduced immunity, higher morbidity, and diminished work capacity are among other adverse health consequences of childhood undernutrition and micronutrient deficiencies.[5-7] The growing burden of overweight and obesity among children and women since 1980s is also a matter of concern, as these conditions are closely related to increased maternal morbidity and infant mortality, as well as to increased risk of obesity, diabetes and other non-communicable diseases in adulthood.[4]

Inadequate food, suboptimal care, and unhealthy environment are considered to be the main determinants of childhood undernutrition and undernutrition-related conditions.[1] Poverty, maternal undernutrition and anemia, shorter inter-birth intervals, low level of mother's education, larger family size, and rural residence are among other known predictors of undernutrition in children.[8,9] Higher levels of per capita public spending on healthcare are associated with dramatically reduced undernutrition and mortality among children from poor families.[10]

1.2 Breastfeeding and child's health

The protective effect of breastfeeding against child malnutrition is well established.[11,12] Besides being an irreplaceable source of nutrients for an infant, breastfeeding protects the child against infections.[13] Human milk provides a growing infant with the best balance of nutrients, enzymes,

hormones, growth factors, and anti-infective substances.[14] Breastfeeding is associated with reduced risk of acute otitis media, severe lower respiratory tract infections, non-specific gastroenteritis, atopic dermatitis, obesity, diabetes, childhood leukemia, and sudden infant death syndrome.[15] The beneficial effect of lactation on mother's health is also well-established, particularly, in reducing the risk of type 2 diabetes, breast, and ovarian cancer.[15,16]

Breast milk is important for normal development of intestinal mucosa, which is crucial for effective absorption of macro- and micronutrients. Cristofalo et al. (2013) have found that the rate of neonatal necrotizing enterocolitis is lower and the duration of parenteral nutrition shorter among premature infants fed exclusively with breast milk.[17] Several studies have demonstrated that the intellectual development of breast-fed children is slightly but significantly better than that of children fed artificially.[18,19] It is noteworthy that the difference in morbidity rates between breast-fed and bottle-fed infants is higher among high-risk groups and the protective effect of breastfeeding is most evident against severe and complicated, rather than uncomplicated conditions.[18,20]

1.3 Obstacles to optimal breastfeeding

Compelling evidence suggests that infants who are exclusively breastfed for six months show no deficits in growth indicators and are at significantly lower risk for gastrointestinal and respiratory infections.[21] For mothers, exclusive breastfeeding for six months is associated with later resumption of menses and better temps of weight loss during postpartum period.[21] Considering this, as well as the available information on the development of infant's oral motor, immunologic, and gastrointestinal functions, a consensus is reached among international experts that six months is the best age for discontinuing exclusive breastfeeding and beginning complementary foods.[22] Based on this, for both developing and developed countries, the current recommendation of World Health Organization (WHO) for optimal infant feeding is exclusive breastfeeding for six months of age and introduction of adequate complimentary foods at six months while continuing breastfeeding up to two years.[23]

It has been shown that inappropriate breastfeeding practices in maternities (late initiation of breastfeeding, prelacteal feedings, separation of infant and mother, breastfeeding according to a

rigid schedule, etc.) and early introduction of other foods/liquids are the main factors resulting in reduction of breastfeeding duration. Deficits in maternal knowledge on lactation mechanism and proper breastfeeding technique, inadequate support to lactating mothers, unfavorable social environment, and aggressive marketing of breast milk substitutes significantly contribute to this reduction.[24,25]

According to mothers, the most frequent reason for early weaning is insufficient production of milk.[25] This phenomenon is called "perceived breast milk insufficiency" and is caused by mothers' misbelieves concerning their breast size, milk production, milk appearance, or baby's behavior at the breast. Other common problems with breastfeeding include "sore nipples" and child's refusal/inability to take breast.[25]. It was shown, however, that when mothers understand let down, nipple care and milk supply, know how to position the infant at the breast and how to express milk manually, they have the basic skills needed for successful breastfeeding.[26] Hence, providing mothers with adequate knowledge on optimal infant feeding/breastfeeding during pregnancy and giving them practical support with breastfeeding in the postpartum period are the main interventions to assure successful breastfeeding.

1.4 Complementary feeding

As discussed above, breast milk is an ideal source of both macro and micronutrients during the first six months of a child's life. If low intake of some vitamins (A, B_{12}, B_6, D, riboflavin) are suspected in an exclusively breastfed infant before six month of age, as a rule, mother's diet should be improved or supplemented with these vitamins (except vitamin D, to be given directly to the infant in drops).[27] After six months of age, however, human milk alone cannot satisfy a child's nutritional needs. First of all, the reserves of iron become insufficient in an exclusively breastfed child. If the child's iron reserves at birth are suboptimal, this might happen even before six months as breast milk is low in iron.[28] Some infants with low hepatic stores of zinc might be predisposed to zinc deficiency. However, this is usually not an issue before six months of age.[27]

After six months, along with iron and zinc, breastfed infants also need considerable amounts of other micronutrients (e.g. phosphorus, magnesium, calcium, vitamin B6, A, etc.) from

complementary food. Usually, typical complementary foods combined with breastfeeding meet the requirements in these micronutrients. According to the existing evidence, there is no issue of vitamin A deficiency in Armenia.(29) Although Armenia is an endemic area for iodine deficiency, after implementation of universal salt fortification with iodine since 1997, the deficiency in this micronutrient is virtually eliminated among population of Armenia.(30) The only problematic micronutrients could be iron and zinc, as the typical complementary foods given to breastfed infants at 6 to 12 months do not contain sufficient amount of these minerals.(27) Therefore, it is very important to adjust the composition of complimentary foods so that they contain adequate amount of bioavailable iron and zinc. This could be reached via adding meat into a child's daily diet starting from the first month of introduction of complementary foods.(27) Complimentary foods should be diverse and contain fruits (except sugar-added juices), vegetables, and dairy products (except fresh bovine milk) as important sources of vitamins and calcium. Germination or roasting of cereals are advised to improve nutritional qualities and reduce bulkiness of cereal-based porridges.(31) Breastfeeding should be continued after introduction of complementary feeding as breast milk provides substantial amounts of key nutrients (especially protein, fat, and most vitamins) well beyond the first year of life.(27)

1.5 Strategies to prevent iron deficiency in infancy

To prevent iron deficiency during infancy, researchers have reached a consensus in recommending a number of strategies with known effectiveness: prescribing iron supplements to pregnant women, delaying cord clamping time, initiating breastfeeding within the first hour of birth, continuing exclusive breastfeeding for six months, and ensuring adequate complementary feeding thereafter.(32) It is very important that child receives adequate amount of bioavailable iron with complimentary feeding. This requirement could be met via using iron-fortified infant cereals or adding meat into a child's daily diet. It is shown that iron absorption from a gruel drastically increases (to a level of daily iron requirement of a 12 month-old infant) after adding a powdered meat to it.(33)

Staple food fortification strategies and prescription of iron supplements during infancy are also widely practiced measures to reduce iron deficiency in children. However, anemia-reduction interventions should be carefully designed and well-targeted. It is known that iron is not easily

eliminated from the body, therefore, there are mechanisms that down-regulate iron absorption in iron replete adults.[34] These mechanisms are not fully established in infants and in people genetically susceptible to iron accumulation. If absorbed in excess amounts, iron could cause harm to the body through several pathways, including oxidative damage to tissues (in particular, liver) because of generation of free radicals, possible interference of absorption of other essential nutrients (zinc, copper), and increased risk for infections because of serving as a nutrient for many pathogens and suppressing enzyme activity in host immune response.[34,35] Iron supplementation, while beneficial for iron-deficient children, may cause harm to iron-replete children interfering with their optimal growth and increasing their susceptibility to infections, particularly malaria, tuberculosis, and intestinal infections[35,36] Research illustrates that iron deficiency and iron overload both increase the susceptibility of the host to intracellular pathogens, and the window of iron availability for efficient control of infections is narrow.[36] Thus, iron supplementation should selectively target iron-deficient groups of population and any strategy of iron fortification or supplementation should be based on rigorous research to better determine iron requirements of those targeted.[32,34,35]

In the meantime, universal iron fortification strategies, like wheat flour fortification, might be inefficient for different reasons, including low bioavailability of fortified iron, inadequate coverage of vulnerable population groups (e.g. young children) with fortified flour-made products, or high prevalence of non iron-deficient anemia.[37,38] A recent evaluation of 78 national wheat flour fortification programs found that only nine of them were likely to be effective in improving population's iron status.[39] Another strategy of prevention/treatment of iron deficiency is the use of Micronutrient Powders that are added to the child's home-made complementary food. This approach has been shown to be effective in a number of studies.[40,41] However, the success of this approach heavily depends on mothers' compliance.

Regardless of the iron deficiency prevention strategy selected, researchers are uniform in recommending that any anemia prevention program should go beyond iron supplementation or fortification, and include initiatives to improve access of vulnerable population groups to adequate diet and healthy environment.[38,39] Implementation of appropriate anemia surveillance system for vulnerable population groups including young children and pregnant women is a

prerequisite for developing timely and well-targeted interventions to control the situation with anemia in the country.[42]

1.6 Infant and young child growth monitoring

Multi-country studies of infant growth rates demonstrated that the growth patterns of breast-fed infants who receive timely and adequate complementary feeding are similar across different populations.[43] Hence, WHO developed new uniform Child Growth Standards in 2006[44] based on the growth rate of infants receiving optimal feeding. These standards replaced the older standards recommended by WHO that used 1977 International Reference Population defined by the U.S. National Center for Health Statistics (NCHS).[45] Based on these standards, new growth charts were developed for a number of growth indicators (weight-for-age, height-for-age, weight-for height, body mass index-for-age, head circumference-for-age) and recommended as applicable to all countries regardless of their per-capita income level. Growth charts provide reference curves either at different percentile or z-score levels. The growth measures of a child are compared with these curves in terms of both being within the upper and lower limits of the reference curves at the given point of time and changing in parallel to the reference curves in a given period of time. This approach allows comparing the nutritional status of a child with that of the international reference population and assessing both the degree of under- or over-nutrition and whether the growth dynamics of the child follows that of the reference population.[46] Thus, screening and recording child growth measurements in growth charts are important for early detection and prevention of growth disorders.

An observational study conducted in Yerevan polyclinics in 2011 demonstrated that the growth screening results for 5-17 month old children were properly recorded in 60.7% of weight-for-age charts, 60.0% of height-for-age charts, and 26.8% of weight-for-height charts.[47]

1.7 Prevalence of undernutrition among young children in Armenia

Data on prevalence of undernutrition and micronutrient deficiencies among infants and young children is scarce in Armenia, as there is no continuous surveillance system of child growth and micronutrient deficiencies including iron-deficient anemia. Primary healthcare (PHC) services

are responsible for child growth monitoring during healthy child visits (six times in the first year of life, three times in the second year and yearly thereafter) and anemia screening (via a single test of blood hemoglobin level at nine months), but the results of these measurements are not summarized on country level, analyzed or used for decision making. Therefore, population-based studies are the only sources of data on children's nutritional status in Armenia.

The earliest available estimates for undernutrition among 0.5-5 years old children in Armenia indicate 6.2% stunting, 4.7% underweight, and 1.0% wasting in 1993[(48)] (all rates defined based on NCHS/WHO reference population[(49)]). A large-scale nationwide study on nutritional status of children and women conducted in 1998 revealed 12.2% stunting, 3.9% underweight, and 4.1% wasting among under-five children in Armenia.[(29)]

Currently, Armenia Demographic and Health Surveys (ADHS) are the main sources for data on young child nutrition. During 2000-2010, three consequent ADHS were conducted in the country with 5-year intervals. According to these surveys, the rates of stunting and wasting among under-five children remained relatively stable over ten years (14.6% and 3.0%, respectively, in 2010, using NCHS/WHO reference population standards), while underweight somewhat increased – from 2.6% in 2000 to 4.8% in 2010.[(50-52)]

Overall, the provided data show that the rates of stunting (indicating chronic deficiency in macro-/micronutrients) and wasting (indicating acute deficiency in nutrients) have increased more than twice since 1993 (from 6.2% to 14.6% for stunting and from 1.0% to 3.0% for wasting). Although the 2010 ADHS rates of underweight and wasting in Armenia exceed the rates (2.3%) normally expected in a well-nourished population, the rate of stunting is much higher of the normally expected range and, thus, indicate the existence of serious problem with chronic malnutrition among under-five children in Armenia. The 2010 ADHS data illustrates that stunting starts increasing at 6 months of age, reaches its first peak (16.0%) at 12-17 months and the second peak (19.4%) at 36-47 months. Higher prevalence of stunting was recorded among those considered smaller than average at birth by their mothers (19.8%). Stunting was also more commonly recorded among children from the lowest wealth quantile category (20.5%), and those with less educated mothers (16.5%). The prevalence of stunting varied by geographical region of

the country, with the highest rate recorded in Syunik marz (30.7%) and the lowest in Yerevan (8.7%).[(52)]

The prevalence of wasting also varied by region and was the highest in Ararat marz (8.8%). Also, over 13% of children of mothers with only basic education were wasted. The rate of underweight (indicating combination of chronic and acute deficiency in nutrients) was higher in Ararat (12.4%) and Syunik (9.1%) marzes and among children of mothers with basic education (10.4%). In addition, the ADHS 2010 results showed a 10.3% prevalence of overweight among under-five children in Armenia, with the highest rate in Lori marz (26.2%).[(52)]

Two recent studies investigated the predictors and rates of childhood undernutrition in Yerevan (2011) and Talin region, Aragatsotn marz (2013). The rates of stunting, underweight, and wasting were, respectively, 17.9%; 7.3%, and 3.1% among 5-17 month old children in Yerevan, and 12.7%; 1.5%, and 0.7% among under-five children in Talin region (both studies used 2006 WHO Child Growth Standards). In the Yerevan study, the predictors of undernutrition (single presence or any combination of stunting, underweight or wasting) among 5-17 month old children included family's socio-economic status score, child's birth length, duration of predominant breastfeeding, and score of food diversity, all of which had strong independent protective effect against undernutrition.[(53)]

In the mainly rural Talin region, the factors protecting under-five children against undernutrition were mother's height, child's birth length, number of child's hand washings per day, and whether the full set of World Vision nutrition interventions was carried out in the community, while the risk factors were never/rarely using soap during handwashing, being the fourth or later child in the family, and family size. Child's food diversity score was marginally significantly related to undernutrition status. Additionally, the duration of any breastfeeding was an independent predictor of child's undernutrition status among children under age two.[(54)]

According to the official statistics, during the last 15 years, the rates of small-for-gestational age and preterm births that are closely related to nutritional status of pregnant women, varied in the range of 7.3-8.5% and 5.8-7.2%, respectively, with no trend for improvement. It is noteworthy that these rates were the highest among post-soviet and Baltic countries.[(55)]

The latest data on anemia prevalence from ADHS is available for 2005. It found a 36.5% prevalence of anemia among children aged 6-59 months countrywide.[50] This rate exceeded the ADHS 2000 rate (23.9%)[51] over 1.5 times, pointing out the possibility of growing public health problem with childhood anemia in Armenia.

According to the recent study in Talin region that measured blood hemoglobin level among a large sample of under-five children using HemoCue Hb 201+ portable analyzer, the prevalence of anemia was 32.3% with 17.7% having mild and 14.6% moderate/severe anemia. This study found high prevalence of early-onset anemia (51.1% among 0-6 month old children) with the peak of anemia in late infancy (67.9% among 6-12 month old children).[54] This pattern is consistent with the 2010 ADHS data indicating that 69.2% of women do not take any iron supplements during pregnancy and only 1.5% of women take iron supplements during pregnancy for the recommended minimum of 90 days.[52]

The determinants of anemia in the Talin study included child's age, gender, birth length, mother's self-reported anemia during pregnancy, number of child's feedings per day, and having the complete set of World Vision nutrition interventions carried out in the community. Child's food diversity score and inclusion of any meat into child's last 24-hour diet were marginally significantly related to child's anemia, and the duration of exclusive breastfeeding was an independent predictor of child's anemia status among children under age two. Also, the use of cow milk in the group of children under age two was significantly associated with both adverse health outcomes – anemia and undernutrition.

1.8 Infant feeding practices in Armenia

The ADHS 2010 results indicated that though the majority (89%) of children under 6 months of age were breastfed, exclusive breastfeeding was given to 34.6% of 0-6 month old children (33% in 2005). Moreover, only 16% of children were exclusively breastfed at 4-5 months of age. In addition to breast milk, 15% of children in the age group of 0-6 months were given plain water, 12% liquids other than milk, 10% other milk, and 17% were given solid or mushy food. The median duration of any breastfeeding was 10.9 months (10.5 months in 2005), while the median

duration of exclusive breastfeeding was 1.8 months and predominant breastfeeding (breastfeeding plus plain water, water-based liquids, or juice) 4.2 months.[52]

The feeding practices of only 34.4% of breastfeeding children between the ages of 6-23 months met the internationally accepted minimum standards with respect to food diversity and feeding frequency. The situation was even worse for non-breastfeeding children from the same age-group, only 30.0% of whom were fed according to the minimum accepted standards. These rates were much lower than the rate of 6-23 month old children fed according to the minimum accepted standards in 2005 (55%), although methodological differences between the survey instruments could be responsible for this difference.[50,52]

A survey conducted in 2003 by the American University of Armenia (AUA) School of Public Health among mothers of under-two children and pediatric PHC providers identified that although almost all mothers (94.2%) received prenatal care, only one-third of them received any breastfeeding counseling during prenatal visits. The mothers demonstrated good knowledge on optimal breastfeeding practices, but many of them introduced other foods and drinks into children's diet earlier than recommended. Recommending early supplements was a widespread practice among PHC providers as well. The study found significant positive relation between providers training on breastfeeding and their breastfeeding knowledge score, underscoring the importance of extensive training of providers on correct infant feeding and breastfeeding practices.[56]

1.9 Existing strategies to improve young child nutrition in Armenia

After achieving independence in 1991, Armenia, as a United Nations (UN) member state, joined international declarations and conventions for children including the 1990 "Convention on Children's Rights" and the "International Declaration and Plan of Action on the Survival, Protection and Development of Children". Armenia was one of the first post-soviet countries that adopted the "National Program on Mother and Child Nutrition" in 1992 and the "National Program on Breastfeeding Promotion" in 1993. These programs were initiated in the period of rapid decline of breastfeeding rates in Armenia coinciding with a number of cataclysms experienced by the country, including the devastating earthquake in 1988, the war in Nagorno

Karabagh, the economic blockade and ensuing energy crisis. In response to these cataclysms, international community sent to Armenia large quantities of infant formula as humanitarian aid, which was distributed free of charge and resulted in increased use of these products to substitute breast milk, which in its turn resulted in reduction of breastfeeding duration.(57)

The Breastfeeding Promotion Program was a comprehensive program, which included development and distribution of a number of educational materials on breastfeeding for healthcare providers and mothers, trainings of health care providers countrywide using WHO/UNICEF 40-hour course on Breastfeeding Counselling and 18-hour course on Baby Friendly Hospital Initiative (BFHI) (480 providers completed the 40-hour course and 550 the 18-hour in the period of 1994-1999), and a comprehensive communication campaign (in 1994) promoting six messages for successful breastfeeding. Greater exposure to the campaign was significantly related to behavioral changes.(58)

In the meantime, several administrative and legislative measures were undertaken to support breastfeeding, including MoH decrees No. 1214 (09.11.93) on the implementation of BFHI steps in maternity hospitals, on Rooming-in in maternity hospitals (20.10.94), No. 260 (17.04.95) on changing infant feeding counseling practices in children polyclinics, and adoption of the amendment of the RA Law on Advertisement forbidding promotion and adverts of any food or drink intended for 0-6 month old infants and free distribution of infant formula (28.04.99). Since 1995, a countrywide surveillance system was introduced by the MoH to monitor infant feeding indicators. According to it, the Program made a drastic progress: the rate of predominant breastfeeding for four months increased three times – from 20% in 1994 to 60% in 2000.(55). Consistent with this, an external evaluation of the program with the baseline assessment conducted in 1993 and the follow-up in 1997 also indicated significant improvement in breastfeeding rates (predominant breastfeeding for four months increased from 30% to 62%, and any breastfeeding for 12 months – from 15% to 38%).(59)

The Breastfeeding Promotion Program was implemented with support from UNICEF, United States Agency for International Development (USAID), International Baby Food Action Network (IBFAN), Wellstart International, and a number of other international partners. After 2000, many of the program activities discontinued because of funding restrictions. In particular,

the highly effective WHO/UNICEF 40-hour training course on breastfeeding counseling was no longer taught. Curricula on infant nutrition were not updated in medical/nursing schools. Although mass-media campaigns and continued practical support to mothers after delivery have been shown to be most effective for large-scale change in breastfeeding behavior,[60] no more communication campaigns were conducted since the first campaign in 1994. The plans to establish a countrywide network of lactation consultants to support breastfeeding mothers were never realized.

After 2000, the breastfeeding promotion efforts were mainly focused on BFHI implementation. As a result, by 2014, twenty-two of the 50 maternity hospitals functioning in Armenia serving about 60% of all births in the country were designated the status of "Baby Friendly Hospital". In addition to this, Armenia has implemented a new initiative of "Baby Friendly PHC Clinics" and, currently, ten of the 88 PHC clinics in Armenia are designated the status of "Baby Friendly PHC Clinic".[55] Different organizations and NGOs were involved in educational activities to promote breastfeeding and children's healthy nutrition among mothers and healthcare providers, but these activities were often local and small-scale. The trainings of PHC providers on breastfeeding were largely limited to the child nutrition portion of WHO Integrated Management of Childhood Illnesses (IMCI) training course.

In 2003, The Government of RA adopted the "2003-2015 National Strategy of Mother and Child Health Protection", where the importance of measures to improve child nutrition for achieving optimal health of children was emphasized. In 2008, the MoH of the Republic of Armenia approved the "National Strategy to Improve Young Children's Nutrition and to Promote Breastfeeding". The main principles of this strategy were:

- Breastfeeding is the best and the only natural way of infant feeding, ensuring the optimal growth and development of a child.
- Breastfeeding is possible for the vast majority (~97%) of mother-infant pairs, with exclusion of those (<3%) having medical contraindications to it.
- Early initiation of breastfeeding (within 30-60 minutes after birth) is important for further successful breastfeeding.
- A child should receive exclusive breastfeeding during the first 6 months of life, and breastfeeding should be continued during the second year of life and thereafter.

- Breast feedings should be frequent and on-demand (including night-time feedings).
- Complementary feeding should start no later than at six months.
- Mothers should receive adequate practical and psychological help and professional counseling from healthcare providers as needed.
- During prenatal care, pregnant women should receive sufficient information on the benefits and possibility of breastfeeding.
- Favorable and supportive social environment should be created for pregnant women and lactating mothers in healthcare facilities, families, and workplaces.
- Mothers should receive adequate information on correct practices of infant feeding, preparation and provision of complementary food, food safety and hygiene.[61]

In 2011, the Government of RA approved the Proposed Strategy and Plan of Action for Wheat Flour Fortification developed by the MoH in collaboration with UNICEF. Based on this Strategy, a draft Low on Wheat Flour Fortification was developed and submitted to the National Assembly of RA for approval. The primary aim of this legal initiative was to reduce the rates of anemia and micronutrient deficiencies among vulnerable groups of population including children and reproductive-age women. This was the second initiative of staple food fortification after the successful experience of fortification of salt with iodine implemented in Armenia since 1997 with support from UNICEF.

The problems with child nutrition and the measures to overcome those problems were reflected in the "2010-2015 National Strategy on Child and Adolescent Health and Development and the Action Plan"[55] adopted by the Government of RA in 2009. On 20.11.2014, a Law on "Breastfeeding Promotion and Baby Food Circulation" was adopted by RA National Assembly to regulate the baby food market in RA and to forbid aggressive marketing of breast milk substitutes.

In the recently proposed strategic document on Child Nutrition and Action Plan for 2015-2020 (to be approved by the Government of RA),[30] the following main problems with nutrition of children under five were stressed:

- Inadequate breastfeeding practices (late initiation, suboptimal prevalence and duration of exclusive breastfeeding, early introduction of liquids and juices, widespread use of cow's milk, breast milk substitutes, bottles and nipples),
- Low level of family/community involvement in breastfeeding promotion activities, inadequate quantity of educational materials on child nutrition for parents, luck of knowledge of mothers on breastfeeding theory and practice, especially among rural mothers and those with lower educational level,
- Inadequate knowledge on optimal complimentary feeding practices (including the time of introduction, frequency, composition, etc.) among both parents and providers,
- Violations of the International Code on Marketing of Breast Milk Substitutes and the RA Law on Advertisements with no ensuing administrative measures,
- Insufficient knowledge of providers on nutrition of sick children and those with special needs,
- Lack of national surveillance system on child nutrition and growth monitoring,
- Lack of population-based valid data on micronutrient deficiencies among children,
- Lack of evidence-based undergraduate and graduate-level courses on child nutrition and ensuing lack of adequately prepared specialists.

The strategy set the following objectives to improve nutrition of under-five children:

- Increase the exclusive breastfeeding rate among 0-6 month old children by one-fourth (from 35% in 2010 to 45% in 2020),
- Increase the indicator of early initiation of breastfeeding by 30% (from 36% in 2010 to 47% in 2020),
- Increase the median duration of exclusive breastfeeding from 1.8 months in 2010 to three months in 2020,
- Increase the proportion of children receiving timely and adequate complementary feeding from 34% in 2010 to 40% in 2020,
- Reduce the proportion of 0-6 month old children who are given bottles and nipples from 51% in 2010 to 36% in 2020,
- Reduce the rate of stunting among under-five children by one-fourth (from 19% in 2010 to 15% in 2020). Investigate the reasons of stunting,

- Increase the number of "Baby friendly" healthcare facilities by one fourth (by 2020),
- Decrease the rate of anemia among under-five children by one-fourth (from 37% in 2010 to 25% in 2020),
- Reduce the proportion of low birth weight neonates by one-third (from 7.6% in 2010 to 6.0% in 2020),
- Increase the proportion of mothers practicing correct child feeding during child's illness by 15% (from 77% in 2010 to 90% in 2020).
- Maintain the current indicator of usage of iodinated salt – by 95% of the households.

Among the measures to reach these objectives, the following main activities were specified:

- Reestablishment of the National Breastfeeding Promotion and Protection Program,
- Increasing coverage of maternities and PHC facilities with Baby Friendly initiative,
- Implementation of legal acts to ensure the compliance with the law on "Breastfeeding Promotion and Baby Food Circulation",
- Implementation of the National Strategy of Wheat Flour Fortification,
- Empowerment of pediatric healthcare services through trainings of staff on child nutrition, introduction of child nutrition guidelines, creation of favorable atmosphere for breastfeeding in inpatient pediatric facilities, implementation of mechanisms to forbid collaboration between healthcare providers and baby food industry,
- Introducing a specialization course in the Yerevan State Medical University by M. Heratsi to prepare dietitians and nutritionists, increasing the number of academic hours allocated to nutrition in undergraduate and graduate training programs,
- Implementation of communication campaigns and social mobilization strategies on children's care and nutrition, growth and development, and feeding during illnesses, using modern communication technologies,
- Ensuring provision of adequate practical and psychological help and professional counseling to mothers experiencing problems with breastfeeding,
- Establishment of a countrywide child growth and development surveillance system,
- Developing a system to investigate/monitor micronutrient deficiencies among children.

Addressing the existing problems with child nutrition in Armenia is currently considered as a priority by USAID and UNICEF. Jointly, they conduct a project in this area focusing on the following major activities:

- Developing a multi-sectoral nutrition strategy in RA,
- Establishing child nutrition surveillance system in PHC facilities,
- Increasing MoH capacities in developing project passports to be reflected in Medium Term Expenditure Framework,
- Introducing guidelines and clinical protocols on child nutrition, growth and development,
- Training of health providers on young child feeding, IMCI and child growth monitoring,
- Introducing a sustainable parental education/counseling system at PHC level, including outreach.

The current formative research is one of the steps of the USAID-UNICEF project aimed to better understand the underlying factors of inappropriate child nutrition in Armenia.

1.10 Study objectives

The American University of Armenia (AUA) Center for Health Services Research and Development (CHSR) conducted this study with support from UNICEF to identify the perceived main nutritional problems and concerns related to the nutrition of children and pregnant women in Armenia, as well as to reveal the main issues with child growth measurement and surveillance system in healthcare facilities. Hence, the study objectives were:

- Identify perceptions, attitudes and practices among different stakeholders towards the existing practices of child and pregnant woman nutrition,
- Explore perceived underlying factors for inappropriate nutrition of children and pregnant women at personal/family level,
- Explore perceived obstacles to ensure adequate nutrition and nutritional status monitoring during pregnancy and childhood at the systemic level (nutrition policies, guidelines, practices, and institutional capacities), and
- Identify ways to overcome the existing barriers to healthy nutrition during pregnancy and childhood in a sustainable manner.

2. METHODS

2.1 Study design

Understanding the overall situation with young child and pregnant woman nutrition through a qualitative analysis including different stakeholders provides the opportunity to identify the reasons for inadequate nutrition during pregnancy and early childhood, subsequently allowing improving the existing strategies to ensure healthier nutrition practices among these groups. For this purpose, the study team developed and implemented a qualitative study through in-depth interviews and focus group discussions. Comprehensive and rigorous assessment methodologies were applied to explore the perspectives of policy makers/experts, health care providers (pediatricians and obstetricians/gynecologists providing outpatient and inpatient care, as well as ambulatory/community nurses), and parents (mothers) of children under five.

2.2 Study setting

The study took place in Yerevan, the capital city, and in two marzes – Shirak and Lori, to understand knowledge, attitudes and practices towards pregnant woman, infant, and young child nutrition at the national and regional levels. Within Shirak marz, the data collection took place in one city and one village, and within Lori marz, in one city and one village.

2.3 Study participants

The research team identified key informants for this study using purposive sampling methods, which included representativeness or comparability and sequential approaches[(62)], to provide pertinent information for the assessment, based on participants' experience and expertise in child/pregnant woman nutrition issues in Armenia.

Six groups of participants took part in the study: 1) PHC pediatricians, 2) PHC obstetricians/gynecologists, 3) maternity hospital obstetricians/gynecologists and neonatologists, 4) policymakers/experts dealing with pregnant woman/young child nutrition in Armenia, 5) rural ambulatory nurses, and 6) mothers of children under five.

2.4 Research instruments

The CHSR/AUA team developed in-depth interview and focus group discussion guides that were reviewed and approved by UNICEF and MoH. The guides were designed to optimize the value of the data collected to meet the objectives of the qualitative study. The questions in each guide were adapted to specific participants' roles, responsibilities and professional/individual experience in the areas related to pregnant woman/young child nutrition and nutritional status/growth monitoring. The guides were adapted as needed during the process of data collection. The research team developed a short demographic information form to be completed by participants after each interview/focus group discussion. All guides were developed in English and translated into Armenian. Appendix 1 provides the English and Armenian versions of the qualitative study instruments.

2.5 Data collection and analysis

The CHSR/AUA research team conducted all the in-depth interviews (IDI) and focus group discussions (FGD). The data collection took place from February to April 2015. Each focus group had a trained moderator and a note-taker. These roles were rotated among the CHSR/AUA research team members. With few exceptions, the interviews and FGDs were audio recorded with permission of all study participants. When the audio recording was not allowed, detailed notes were taken instead. All FGDs and in-depth interviews were transcribed. The qualitative study followed the research methods of heterogeneity and triangulation, and terminated when saturation was achieved.[62] After data collection, the research team used advanced analytical qualitative research methods to analyze in-depth interview and focus group discussion transcripts utilizing conventional content analysis techniques.[62,63] The main themes identified during the fieldwork (largely repeating the sequence of the themes included in the field guides) were used to organize the results section.

Overall, 99 study participants (92 female and 7 male participants) were recruited from Yerevan (33 participants), Shirak marz (including a city and a village, 22 participants), and Lori marz (including a city and a village, 44 participants). All the study participants (particularly, mothers) were enthusiastic to participate in the discussions. There were only few refusals to participate

(one key informant and five providers who gave preliminary consent to attend focus group discussions in Yerevan but did not).

Of the eight IDIs with key informants, seven were conducted in Yerevan and one in Shirak marz. The key informants were representatives/policy makers from MoH, WHO, National Assembly, and different healthcare organizations/ institutions. Six of them had pediatric background, one - obstetrician/gynecologist, and one – pharmacist. Five of them had extensive public health experience. The mean duration of key informants' education was 18.5 years and the mean professional work experience 25.8 years. The interviews with the key informants lasted 56 minutes in average (range 25-105 minutes).

Overall, 91 people participated in 13 focus group discussions in Yerevan, Shirak and Lori marzes. Four of the FGDs (in Yerevan, a city in Lori marz, a village in Lori marz and a village in Shirak marz) involved mothers of under-five children, three (in Yerevan, a city in Shirak marz, and a city in Lori marz) involved PHC pediatricians/family physicians, two (in Yerevan and a city in Lori marz) involved PHC Ob/Gyns, two (in Yerevan and a city in Lori marz) involved maternity hospital Ob/Gyns and neonatologists, and two (in a village in Shirak marz and in a village in Lori marz) involved rural PHC providers (nurses). The numbers of participants to each FGD are provided in Table 1.

Table 1. FGD types, sites, and number of participants from each site

	Yerevan	City in Lori	Village in Lori	City in Shirak	Village in Shirak	Total
Mothers	8	9	7	-	7	31
PHC pediatricians	5	9	-	8	-	22
PHC ob/gyns	4	5	-	-	-	9
Maternity hospital doctors	8	8	-	-	-	16
Ambulatory nurses	-	-	7	6	-	13

The mean duration of FGDs was 85 minutes (98 minutes with pediatricians, 97 with mothers, 76 with maternity hospital doctors, 64 with rural PHC providers, and 59 with PHC Ob/Gyns). The mean age of providers who participated in FGDs was 48 years (52 years for pediatricians, 42 years for Ob/Gyns and 47 years for nurses). The majority of them were women (56 women and four men). The mean duration of providers' education was 17 years (18 for pediatricians, 19 for

Ob/Gyns, and 12 for nurses), and the mean professional experience of providers was 23 years (26 for pediatricians, 16 for Ob/Gyns, and 26 for nurses).

The mean age of mothers who participated in FGDs was 28 years (26 years for rural mothers and 29 years for urban). The mean duration of education was 13 years (12 for rural mothers and 15 for urban). The mean family size of mothers was 5.2 (5.4 for rural mothers and 5.1 for urban), the mean number of children per mother – 1.6 (1.8 for rural mothers and 1.5 for urban), and the mean age of their youngest child – 25 months (23 and 26 months for rural and urban mothers, respectively).

Some policy makers/experts were more open and specific, and others (a few of them) brief and general in their answers during the IDIs. Both health care providers (especially, pediatricians) and mothers were active during the discussions and openly expressed their concerns and suggestions. Overall, the discussions were productive and helped to make a clear understanding on the situation of young child and pregnant women nutrition in Armenia.

2.6 Categorization of study participants

The direct quotes provided in the boxes in the Results section were abstracted from both in-depth interviews and focus group discussions. Study participants were categorized into six groups: 1) PHC pediatrician, 2) maternity hospital doctor, 3) PHC ob/gyn, 4) policymaker/expert, 5) ambulatory nurse, and 6) mother.

PHC pediatricians were pediatricians employed in primary health care facilities of Armenia, maternity hospital doctors were ob/gyns and neonatologists employed in maternity hospitals, PHC ob/gyns were ob/gyns employed in PHC facilities/women consultations, ambulatory nurses were PHC nurses working in rural ambulatories, and all the mothers had children under five. Policymakers/experts were professionals employed in the field of child care and involved in development and implementation of health policies, with extensive experience in child nutrition.

The individual informant identifiers (e.g., Policymaker/expert 3.1.1.1.) specify the category of participants who provided the quote (e.g., Policymaker/expert), the subhead of the report (e.g., 3.1.1.) and the sequential number of the given category of participant who provided the quote for the given box (e.g., 1.). If the same participant provided more than one quote within a single box,

these quotes are provided under the same identifier. A single informant who provided quotes in more than one box has different identifiers for each box. After each identifier, the type of qualitative study method applied (focus group discussion or in-depth interview) and the geographic area of the participant's practice or residency (Yerevan, Lori urban, Lori rural, Shirak urban, or Shirak rural) is provided. Here is an example of a complete identifier for a mother, FGD participant from Yerevan, who provided the first quote for the box under the Results section's subtitle 3.1.1 (*Eating habits of pregnant women*): (Mother 3.1.1.1, FGD, Yerevan).

2.7 Ethical considerations

The Institutional Review Board of the American University of Armenia approved the study for compliance with locally and internationally accepted ethical standards. All participants were informed about their rights (their participation was voluntary, they could discontinue their participation at any time and refuse to answer any question they chose, and their anonymity and confidentiality were fully respected). Audio-recording was possible only with permission of all participants; if a participant did not want to be audio-recorded, only written notes were taken. The final report does not contain respondents' names, positions, institutions, or any other details that could identify the participants.

3. RESULTS

3.1 Nutrition and care during pregnancy

3.1.1 Eating habits of pregnant women

Women from all groups reported switching to a healthier diet during pregnancy, and specifically concentrating on dairy products, which they explained as satisfying the need for more protein and calcium. They also noted consuming more fruits and vegetables as sources of vitamins. The terms “natural”, “organic” and “vitamins” were mentioned by many participants from various groups and met with confirmation by their discussion group participants. However, some women confessed that they did not know whether the diet should be changed and how. Some women were over-concerned with gaining additional weight during pregnancy and reported avoiding fatty and fried food, decreasing the amount of the consumed food, and using more water. Some participants mentioned avoiding meat. The majority knew that carbonated drinks, alcohol, and “artificial” food (e.g. crisps) should be avoided. Only two participants from Yerevan FGDs reported following a healthier diet before pregnancy, once decision to become pregnant was made.

Dairy products are very important to have healthy babies. I have eaten dairy as much as I have craved. (Mother 3.1.1.1, FGD, Lori rural)

Food rich in vitamins [must be eaten during pregnancy]. (Mother 3.1.1.2, FGD, Lori rural)

I used more vitamins, bananas, citrus, milk products, I can say everything, I used it without any recommendations, and found out that these kinds of foods are useful for me. (Mother 3.1.1.3, FGD, Shirak rural)

I started to use more healthy food, avoid from fried meal. Mainly I ate fruits and vegetables. (Mother 3.1.1.4, FGD, Lori urban)

I increased the amount of fruits and water. (Maternity hospital doctor 3.1.1.1, FGD, Yerevan)

During pregnancy, fried potatoes, meat, citrus containing food should be avoided. (Mother 3.1.1.5, FGD, Shirak rural)

During pregnancy I avoided to use fatty food and preferred to eat highly nutritious food. I

gained not so much in weight; all my nutrients went to my future child. (Mother 3.1.1.6, FGD, Shirak rural)

Of course we exclude from our diet those foods that contain more chemical substances and are not natural, coffee, tea. I tried to use natural and organic food as much as possible. (Mother 3.1.1.7, FGD, Lori urban)

I didn't know I was pregnant for the first 2 months, so I have eaten everything. Then I tried to avoid coke and eat less, but it didn't work out that easily. But I began having banana milkshakes, because I have trouble drinking milk, so it was a method of having it. I ate a lot of fruits and legumes. (Maternity hospital doctor 3.1.1.2, FGD, Yerevan)

I wouldn't say there is anything I have not eaten… small amounts of everything. (Mother 3.1.1.8, FGD, Lori rural)

I think that lack of knowledge is also an issue among pregnant women, sometimes they even do not know what kind of food they are required to eat and what kind of food they should avoid. (Mother 3.1.1.5, FGD, Shirak rural)

3.1.2 Supplements during pregnancy

A discrepancy was noted between the information provided by providers and mothers concerning the usage of nutritional supplements during pregnancy. The specialists reported prescribing folic acid during the first trimester of pregnancy. However the times and durations of using supplements reported by women varied widely from none being taken to taking folic acid for one month during the seventh month of pregnancy. Use of folic acid was especially lower in the rural areas with some women being unaware of it, while most women from urban areas reported being prescribed with it.

Only four participants from all groups had planned their pregnancy and reported taking folic acid three months prior to pregnancy and continuing throughout the first trimester. This triangulated with the same information provided by ob/gyns from women's consultations, who reported very few people approaching them for consultation before being pregnant, to whom they prescribe folic acid in this manner.

Ob/gyns from Yerevan women consultations reported routinely prescribing iodine supplements (Iodine Marine) to pregnant women indicating that this is the requirement of the MoH (even after

the universal implementation of salt fortification with iodine). Some mentioned prescribing calcium preparations as well. The opinions on the need of prescribing vitamins differed among providers with some being prone and some against it. However, the majority of mothers reported being prescribed vitamins during pregnancy and some had taken vitamins without prescription. Many participants from rural areas reported taking Calcium supplements also.

All providers confirmed that pregnant women are screened for blood hemoglobin and only those with low hemoglobin level are prescribed iron supplements.

If they come to us and they are planning on getting pregnant, then we definitely prescribe folic acid. We prescribe a dose of approximately 50% of the daily allowable dose, taking into account that they will receive the rest through their food. (PHC ob/gyn 3.1.2.1, FGD, Lori urban)

My pregnancy was planned and I took folic acid 3 months before pregnancy and 3 months during pregnancy. Before pregnancy we visited our HC provider, checked-up and then planed my pregnancy. (Mother 3.1.2.1, FGD, Lori urban)

During my second pregnancy I had more knowledge, and as my pregnancy was planned, I began using folic acid before becoming pregnant. (Mother 3.1.2.2, FGD, Yerevan)

Very often couples visit in case when they cannot have children, but not before pregnancy. (Maternity hospital doctor 3.1.2.1, FGD, Lori urban)

I used folic acid only for 20 days during the 3rd month of pregnancy. (Mother 3.1.2.3, FGD, Shirak rural)

I was prescribed folic acid for one month at the 7th month of pregnancy. I don't know why though. They also gave me "Silnaya mama", which I took twice. I was also prescribed calcium after pregnancy. (Mother 3.1.2.4, FGD, Lori rural)

Mothers who had problems with teeth, they were prescribed calcium. (Mother 3.1.2.5, FGD, Lori urban)

During my second pregnancy I was prescribed calcium, but I had nausea and vomiting during the first 4 months. So that is why I couldn't take the medicine even in shape of milk products. (Mother 3.1.2.6, FGD, Shirak rural)

I went to Yerevan and they did some tests and prescribed calcium. They said it is mainly for the bones, etc. (Mother 3.1.2.7, FGD, Lori rural)

These are requirements of MoH to prescribe folic acid, Iodine Marin and calcium to all women. We prescribe calcium preparations starting from 20-22 weeks of gestation. For Ferritin prescription we need indications [low hemoglobin level in blood]. (PHC ob/gyn 3.1.2.2, FGD, Yerevan)

We prescribe iodine [to pregnant women] *regardless of using iodized salt. Iodized salt does not meet the requirements in iodine during pregnancy.* (PHC ob/gyn 3.1.2.3, FGD, Yerevan)

We prescribe calcium preparation when there is a need, usually we don't give women vitamins. Folic acid they should take 4-5mg a day during the first trimester [of pregnancy]. (Maternity hospital doctor 3.1.2.1, FGD, Lori urban)

I also took Prenatal Forte [multivitamin] *for one month during pregnancy from the 2nd to the 3rd months.* (Mother 3.1.2.8, FGD, Lori urban)

I used Magne B6 [combination of Magnesium and Vit B6] *and dufaston during my two pregnancies for revealing tonus of the uterus, also folic acid and "Silnaya Mama".* (Mother 3.1.2.9, FGD, Lori urban)

Usually MagneB6 is widely prescribed [by the local health specialists]*; it is given to relieve the tonus of the uterus. I used it during my first pregnancy, but it was not necessary during my second pregnancy.* (Mother 3.1.2.10, FGD, Lori urban)

3.1.3 Nutritional counseling during pregnancy

One of the major issues reported by participants from mothers' and key informants' groups was lack of appropriate counseling of women on correct nutrition at women's consultations. On contrary, some ob/gyns stated that their colleagues provide all the needed information to pregnant women at women's consultation. However, ob/gyns also mentioned that there is inconsistency in the volume, content and quality of pregnant women's counseling in different settings. Lack of guidelines on correct nutrition practices of pregnant women was claimed to be one of the most important reasons for this. Due to this, the existing nutrition counseling practices vary across women consultations and individual providers, and largely depend from the sources of information they use, providers' motivation and personality. Even in the women's schools, the information provided to pregnant women is not the same. Therefore, the key informants

considered important to develop and disseminate uniform guidelines on nutritional requirements during pregnancy.

Both ob/gyns and mothers reported the need of high quality public educational materials on healthy nutrition during pregnancy and breastfeeding in Armenian language that pregnant women could receive from women's consultation. The participants acknowledged the need for running schools for women, where they can receive knowledge on appropriate nutrition during pregnancy, as well as information on delivery, child care and breastfeeding.

There was triangulation between the groups of providers and key informants, who suggested that healthy eating habits should be instilled in a woman before pregnancy, and that the whole society should be involved in making changes towards healthy lifestyle and nutrition. This change should be conducted through participation in healthy lifestyle classes in high schools. The participants mentioned the lack of culture of making preventive check-ups to healthcare providers as a barrier to receive the needed information from primary healthcare providers.

During pregnancy family doctor and ob/gyn from women's consultation should work together and give recommendations regarding optimal nutrition [of women] *for proper development of a fetus.* (Policymaker/expert 3.1.3.1, IDI, Yerevan)

We have prenatal PHC facility [in the city], *but healthcare providers never give any recommendations regarding nutrition. ...consultations are not provided properly. My healthcare provider recommended me to do some physical activities, but how to eat, when, she did not explain.* (Mother 3.1.3.1, FGD, Shirak rural)

In our polyclinic the mothers' school does not work very well but our ob/gyns are very active and every gynecologist individually explains, trains pregnant women how to eat, what to eat, what they need to know about pregnancy, delivery, and breastfeeding. Each of them tells everything to their pregnant women. In every polyclinic, there are mother and child health schools but I cannot say how they work and what information they provide to future mothers. I can say only that gynecologists work with pregnant women in our polyclinic. (PHC ob/gyn 3.1.3.1, FGD, Yerevan)

It seems that in these mothers' schools ob/gyns talk about it [nutrition during pregnancy] *but depending on their individuality and sense of responsibility the information they provide to mothers is very different and usually it depends on how much they are interested in this, are aware of and how much time they wish to spend on these talks.* (Policymaker/expert 3.1.3.2, IDI,

Yerevan)

…it [nutrition counseling] *depends on the prenatal PHC facility, different settings have very different practices, those prenatal PHC facilities that are more consistent follow to the guidelines and provide pregnant women with the required information.* (Policymaker/expert 3.1.3.3, IDI, Yerevan)

As I know, in each women's consultation the information is provided to women differently and the information that they provide is not always the same as we [MoH] require, maybe that information is also evidence-based but not that same that is included in our guidelines… (Policymaker/expert 3.1.3.2, IDI, Yerevan)

To assure optimal nutritional statues of pregnant women, first of all we need guidelines… The [current] *guidelines are for* [caring of] *pregnant women and in these guidelines the nutritional part is absent. In my opinion, we should add this part in the guidelines for ob/gyns from women consultations, now we have guidelines* [on healthy nutrition] *for mothers and pediatricians but not for ob/gyns.... so we should develop for them also.* (Policymaker/expert 3.1.3.2, IDI, Yerevan)

I am for so called schools for women, where healthcare providers will prepare women to pregnancy both physically and psychologically and where women can get support and knowledge about optimal nutrition, delivery, child's care, breastfeeding… (Policymaker/expert 3.1.3.4, IDI, Yerevan)

Maximum they [medical staff] just give you a piece of paper with a few things written on it [concerning correct nutrition]. (Mother 3.1.3.2, FGD, Yerevan)

Unfortunately …not everybody in Yerevan - in Armenia - check information they are provided with. Not everyone has the opportunity to use the internet. That is why it would really be helpful if there were small booklets or manuals on nutrition available. As far as I know these existed when our mothers were young…(Mother 3.1.3.3, FGD, Yerevan)

First of all, young ladies who are going to become mothers in future, they should have some idea about pregnancy. Considering this, we have already introduced healthy lifestyle program at schools and it is foreseen for higher-class students to cover the issues about pregnancy as well. (Policymaker/expert 3.1.3.1, IDI, Yerevan)

Women (the population in general) should be taught how to eat healthier regardless of pregnancy. This should be a way of life. (Maternity hospital doctor 3.1.3.1, FGD, Yerevan)

I would say that the information should be given before pregnancy, so they will start eating well from that time. So that they will also receive knowledge during pregnancy and keep receiving good quality nutrition and have sufficient amounts of milk after giving birth. (PHC pediatrician 3.1.3.1, FGD, Lori urban)

There are fewer women who come to a women consultation and want to get information regarding pregnancy during preventive check-ups. We do not have the culture to go to a doctor for check-ups only, without any symptoms. (PHC ob/gyn 3.1.3.2, FGD, Yerevan)

3.1.4 Preparing mothers for breastfeeding during pregnancy

According to women, inadequate preparation of pregnant women for breastfeeding was also a problematic area in women's consultations. Many of them reported that only standard procedures are usually performed during pregnancy check-ups and no time is left for counseling on breastfeeding and other issues. Still, some women stated that they received counseling on breastfeeding from their ob/gyn. The ob/gyns also mentioned that they provide counseling on breastfeeding sometimes, but mainly are relying on mother's schools to cover the issue.

From the words of some ob/gyns it became clear that they still follow the old "soviet" recommendations in preparing mothers to breastfeeding, e.g. advise them to rub their nipples with a coarse towel during pregnancy to avoid nipple cracks after birth or to use creams (Bepanthen) in case of nipple cracks (instead of correcting child's attachment to the breast), or to hold the breast far from child's nose during breastfeeding to not interfere with the child's breathing.

Both mothers and ob/gyns expressed a desire to have brochures on breastfeeding, nutrition and other important topics for women freely available from women's consultations.

None of us have received support on breastfeeding pre-birth. (Mother 3.1.4.1, FGD, Yerevan)

I didn't get any recommendation about breastfeeding from women's consultation or other specialists. (Mother 3.1.4.2, FGD, Lori urban)

Only standard procedures are conducted [at women's consultation] – *measuring weight, height, blood pressure. There is no counseling at all.* (Mother 3.1.4.3, FGD, Yerevan)

I got recommendations and information from my ob/gyn in women consultation, even she told me about the delivery process, breastfeeding, etc. (Mother 3.1.4.4, FGD, Lori urban)

In our polyclinic we have mothers' school where we teach them what should they do during pregnancy, and also we have brochures which we give them, where they can find all the needed information about pregnancy, nutrition, breastfeeding, etc. (PHC ob/gyn 3.1.4.1, FGD, Yerevan)

We have within the women consultancy mothers' schools where mothers get information about pregnancy, nutrition, childcare etc. We work with mothers both before delivery and after and provide recommendations. During 28-30 weeks of gestational we have patronage visits to pregnant women and there we talk to mother, make recommendations about childcare and breastfeeding. (Ambulatory nurse 3.1.4.1, FGD, Lori rural)

…we explain them how to take care of their breast, to treat them so that not to have nipple cracks later on. They should rub their nipples with a towel to escape cracks. They should start taking care of their nipples during pregnancy and with a hard towel engorge the nipples daily. (PHC ob/gyn 3.1.4.1, FGD, Yerevan)

We explain how to attach the newborn to their breast, follow him whether he is eating or not properly, if he falls asleep how to continue breastfeeding, in case of big breasts what to do not to disturb child's breathing and sucking process. Also I recommend future mothers to use Bepanthen in case of [nipple] *cracks.* (PHC ob/gyn 3.1.4.2, FGD, Yerevan)

You have to go find information on your own initiative. It isn't like the polyclinic says, "congratulations you are pregnant, take this book and go read". (Mother 3.1.4.1, FGD, Yerevan)

It will be very good to have brochures for mothers on breastfeeding and nutrition that we can give them during their pregnancy check-ups. (PHC ob/gyn 3.1.4.3, FGD, Yerevan)

3.2 Newborn care and breastfeeding initiation

3.2.1 First feedings in maternity hospitals

The key informants stressed the importance of early skin-to-skin contact and breastfeeding. However, both mothers' groups and pediatricians reported the maternity hospitals being a weak

link, which caused various issues for them. The major concern in both groups was the practice of pre-lacteal feedings in maternity hospitals. There were differences in this area between urban and rural parents, specifically, the group from Yerevan, where almost all participants reported having their child brought to them late and being fed milk replacement (in some cases against the mother's warning them in advance not to). This was completely different in the rural areas, where all participants stated that their children had been brought to them shortly after birth and not fed anything else. The time of bringing the child to the mothers in rural areas ranged from 30 minutes to 5 hours, with a majority of them being brought within a two hour period. Delays in first breastfeeding and pre-lacteal feedings were mainly reported by mothers who had undergone C-sections.

Pediatricians from all groups also reported concern over newborns being given formula immediately after birth, which was mostly attributed to making the work of the maternity hospital staff easier and cooperating with the pharmaceutical companies interested in promotion of formulas, pacifiers, etc. Yet, according to the key informants, the reason for the newborn to be restless during the first day of life is not the hunger but the need to be close to the mother. The neonatologists and women's consultation group participants, however, reported that all healthy children are fed with mother's breast milk immediately after birth, while this is postponed a little for traumatic births and C-sections until the mother recovers. Moreover, it was reported that in cases where mothers struggle with milk production during the first day, other mothers act as "donors" for the given baby until the woman's body catches up.

Mother and child connection after delivery is very important as the heart biting of the mother, her temperature, smell, breastfeeding are the origin of healthy start of child's life. (Policymaker/expert 3.2.1.1, IDI, Yerevan)

Usually in maternity hospitals the immediate skin-to-skin contact and attachment to the breast are violated. Sometimes I noticed that healthcare providers attach the child to the mother's breast for about 5-10 minutes, not more, then take the child to process eyes, umbilicus, etc., then after an hour give [the child] *to the mother, but it is very important to keep the child attached to the mother's breast for the first 30 minutes to an hour.* (Policymaker/expert 3.2.1.2, IDI, Yerevan)

Fortunately, in Armenia in every maternity facility it is the same practice. Immediately after birth we put a child to the mother's breast trying to breastfeed them... (Maternity hospital doctor

3.2.1.1, FGD, Yerevan)

All babies are placed on their mothers' abdomen immediately after birth. Before cutting the umbilical cord, we turn them towards their mother. This is done in 100% of cases. This only takes a few moments… then they treat the umbilical cord, wrap the baby up and immediately give it to the mother for breastfeeding… this part takes long. (PHC ob/gyn 3.2.1.1, FGD, Lori urban)

After delivery we put the child to the mother's breast for 15 minutes and ask them to breastfeed a child. We advise mothers how to breastfeed their babies, we have materials about that. In our facility the umbilical cord is cut immediately. Usually about 98-99% of our newborns are breastfed right after delivery and if the mother's health status doesn't allow breastfeeding, we take breast milk from her and feed the baby. The percentage of children who get breast milk substitutes is very small: approximately 0.1%. These substitutes may be glucose, Hipp, donor milk, etc. (Maternity hospital doctor 3.2.1.2, FGD, Lori urban)

During my delivery they put my child on my breast post-delivery then took her/him, cleaned up and after 2 hours they returned him/her to me. (Mother 3.2.1.1, FGD, Lori urban)

After C-section the children breastfeed as well, only if the mother's condition is not well enough to breastfeed we take their breast milk from them and feed the babies. (Maternity hospital doctor 3.2.1.3, FGD, Lori urban)

My baby was given to me immediately after birth to breastfeed, and was by my side the entire while at the hospital. (Mother 3.2.1.2, FGD, Yerevan)

I had a C-section in the evening and they brought me my baby the next day [more than 12 hours later] *for feeding. They had already fed him Similak. They took my baby for one more night, after which he stayed with me and I breastfed.* (Mother 3.2.1.3, FGD, Yerevan)
Before delivery, I went to the maternity hospital and asked them to not feed my child any milk replacements under any circumstance. I know what the situation is in Armenia concerning this issue, so I told them to bring my baby to me even if I have a C-section. But they just give so many babies milk replacements. (Mother 3.2.1.4, FGD, Yerevan)

…[during the first hours after delivery] *the* [mammary] *ducts have not yet opened properly so it takes hours and healthcare providers give the children breast milk substitutes to calm them down instead of helping mothers to breastfeed their children.* (Policymaker/expert 3.2.1.2, IDI, Yerevan)

I had a C-section and my baby was first brought to me about 4 hours after birth. They brought

the baby and told me that they had already fed him milk replacement without asking my permission. They said it was because I had been anesthetized and could not feed the baby. (Mother 3.2.1.5, FGD, Yerevan)

I have noticed a few times that my baby had cried and the staff hadn't bothered calling me but instead fed [the baby] *milk replacement with a syringe so that the child would sleep and they would relax.* (Mother 3.2.1.6, FGD, Yerevan)

In our facility we use artificial food in cases when mothers leave their children, or when after delivery or C-section they cannot breastfeed. What else can we do? Especially when the baby is crying. (Maternity hospital doctor 3.2.1.4, FGD, Yerevan)

I can say about my hospital where I work, it is set very strictly, even in some case a child can go through an entire day without feeding until her mother's milk sets in. (Policymaker/expert 3.2.1.3, IDI, Yerevan)

I should mention the usage of non-adapted breast milk substitutes in maternity hospitals, which is very commercialized in Armenia, their advertisement, promotion etc. The next important thing is the quality and safety of these substitutes. (Policymaker/expert 3.2.1.1, IDI, Yerevan)

…these problems [with breastfeeding initiation/support] *are more common in Yerevan's maternity hospitals as many of them are in close relationship with different pharmaceutical companies and they promote infant formulas there…* (Policymaker/expert 3.2.1.4, IDI, Yerevan)

In general after delivery the children are stressed and may cry all the time, 24 or 48 hours, and not because they are hungry, but they want to be close to their mothers…… (Policymaker/expert 3.2.1.2, IDI, Yerevan)

Neonatologists offer them [newborns] *infant formula because that's easier for them* [neonatologists]. *They* [neonatologists] *also advise breastfeeding, but only if the mother so wishes.* (PHC pediatrician 3.2.1.1, FGD, Yerevan)

My child was put on my breast right after delivery. (Mother 3.2.1.7, FGD, Shirak rural)

I know that my child was not given any other milk or liquid in maternity hospital. (Mother 3.2.1.8, FGD, Shirak rural))

During my first pregnancy I underwent Caesarian section and my child was brought to me after two days and that period of time they took from me my breast milk and fed my child two days and after two days I was able to go and see my child but he was kept in ICU one week as my child

was underweight. (Mother 3.2.1.9, FGD, Shirak rural)

3.2.2 Breastfeeding support in maternity hospitals

Inadequate support for breastfeeding in maternity hospitals was mentioned as the most problematic area by the participants. There was triangulation in this area between the mothers' groups and pediatricians. All agreed that adequate practices and support in the immediate post-delivery period are very important for successful initiation of breastfeeding and that mothers are vulnerable in this period and need skillful and patient assistance. The majority noted, however, that the breastfeeding support provided to mothers by maternity hospital staff is inadequate or even completely lacking. Some of them complained that they received conflicting recommendations from different providers, which left them in the situation of complete confusion. Unlike the groups of mothers and PHC pediatricians, doctors from maternity hospitals stated that in their facilities mothers receive adequate help for breastfeeding. One of them stated that in their facility newborns are fed during daytime each three hours, although the remaining participants disagreed with this.

Many of the participants from maternity hospitals thought that mothers should receive the needed information from mothers' schools prior to delivery and not while being in the maternity hospital. Also, they did not consider breastfeeding support to be their obligation and relied on hospital nurses to help mothers with breastfeeding. Mothers also noted a practice of using pacifiers in maternity hospitals without receiving any objections from doctors.

Some mothers stated that they had to give formula to their children as early as in the maternity hospital. According to mothers, insufficient milk supply was the reason they were told to start infant formula. However, some mothers had overcome this situation due to receiving the needed support to increase milk supply, while others were only prescribed medication (most probably, Apilac) with no effect. PHC pediatricians explained the phenomenon of advising to start infant formula in the period when mother's lactation is just getting established by the desire to make the things easier for the maternity hospital staff, as providing appropriate support to mothers is much more difficult.

The key informants stated that the recently adopted Law on "Breastfeeding Promotion and Baby Food Circulation" will hopefully help to overcome the issue of the use of breast milk substitutes and pacifiers in maternity hospitals.

Regardless of the awareness level of the mother [on breastfeeding], *the attention given during the first period is very important. …I am a pediatrician myself, but when I had my baby I was feeling very vulnerable and confused. And the information I had wasn't sufficient for that situation… It is necessary to have experienced medical personnel by your side to guide you through it. They should help with the first feedings… the first three days that mother and child spend at the hospital are considered the most important when it comes to breastfeeding. So there has to be correct guidance and practice in this first period, so that future issues with breastfeeding can be avoided.* (PHC pediatrician 3.2.2.1, FGD, Lori urban)

There is no one in maternity hospitals who care of you and your child, who is interested in breastfeeding, the breast status, child attachment, etc. It is very important that in maternity house healthcare providers pay more attention to the mothers. (Mother 3.2.2.1, FGD, Lori urban)

I wasn't even taught anything at the maternity hospital. (Mother 3.2.2.2, FGD, Lori rural)

They [maternity hospital staff] *just gave me my baby and told me to feed him.* (Mother 3.2.2.3, FGD, Lori rural)

I had attended some breastfeeding courses during pregnancy on my own initiative. However, after I gave birth I was confused at the maternity hospital, because everybody [medical staff] *was giving different advice. One would tell me to wake my baby and feed him, the other would say let him sleep, one would say change sides every 10 minutes, while the other would say stick to one breast and do not change too frequently because your milk will not have time to refill. There was so much contradicting information that for the first five days I had no idea what I was supposed to do.* (Mother 3.2.2.4, FGD, Yerevan)

In our facility it is accepted to feed newborns during daytime, once every three hours. (Maternity hospital doctor 3.2.2.1, FGD, Yerevan)

In our facility it is accepted to feed newborns during daytime, once every three hours. (Maternity hospital doctor 3.2.2.1, FGD, Yerevan)

I do not agree with timing. There is no restriction, the mother should feed whenever the baby wants… even if it is once every half hour. (Maternity hospital doctor 3.2.2.2, FGD, Yerevan)

Yes, it isn't all mothers who have the ability to grasp everything that we tell them… they need to be guided and assisted throughout. The staff must sit by their side and walk them through the first feeding, and the maternity hospital staff lacks in their part. (PHC pediatrician 3.2.2.1, FGD, Lori urban)

There are cases when they receive very good assistance at the maternity hospital. Then in some cases the mothers come to us in a completely unaware state, not knowing how to hold, latch the baby. ...If they [mothers] do not get the correct support from the maternity hospital during the first days, by the time they get to us – especially if they have any other issue and come a week late - their lactation has been affected. (PHC pediatrician 3.2.2.2, FGD, Lori urban)

We have mother's school which has more formal meaning, but however pregnant women get some information about pregnancy, nutrition and breastfeeding there. Here in maternity hospital we don't provide them with information. (Maternity hospital doctor 3.2.2.3, FGD, Lori urban)

In our facility nurses are well trained and very clearly explain mothers how to correctly breastfeed their children and in case of problems with this what to do. (Maternity hospital doctor 3.2.2.4, FGD, Yerevan)

The doctor at the maternity hospital saw [pacifier], but didn't say anything. (Mother 3.2.2.5, FGD, Lori rural)

I guess the violation is the use of pacifiers and bottles. There are places where they still use pacifiers and bottles, which as far as I know should not happen. (Policymaker/expert 3.2.2.1, IDI, Yerevan)

…exclusive breastfeeding is probably violated the most. …there is an issue with using pacifiers to immediately quiet the babies. They have to spend more time explaining why pacifiers must not be given… (Policymaker/expert 3.2.2.2, IDI, Shirak urban)

I was told to feed my baby Hipp at the maternity hospital, because I did not have enough milk. They gave me some medication to put under the tongue in order to increase my milk production, but nothing helped. (Mother 3.2.2.3, FGD, Lori rural)

I felt it [having insufficient milk] *at the maternity hospital. Then I called the doctor and she confirmed. So they said I should drink more fluids and teas, etc. and feed more often. I even went and asked other mothers to feed my baby a couple of times… until gradually my body caught up.* (Mother 3.2.2.2, FGD, Lori rural)

This of course [showing mothers correct breastfeeding technique and telling how to increase the

milk supply] *is particularly important in case of first-births. …They* [maternity hospital staff] *just tell them… you don't have milk, so feed the baby Hipp.* (PHC pediatrician 3.2.2.2, FGD, Lori urban)

Mothers are sometimes very egoistic, emotional and in case of very small difficulties they refuse breastfeeding, bringing pains, lack of milk or other issues as excuses. In these situation doctors [neonatal] *should explain the importance of breastfeeding.* (Maternity hospital doctor 3.2.2.5, FGD, Yerevan)

The law [on "Breastfeeding Promotion and Baby Food Circulation"] *verifies the situations when supplementary food can be given to a child instead of mother's milk, and it says that breast milk substitutes should be given in case that there is no other way of breastfeeding, in very crucial situations. The second idea is that the law does not allow advertising supplementary food.* (Policymaker/expert 3.2.3.3, IDI, Yerevan)

3.2.3 Feeding of low-birth-weight babies

According to the key informants, the rate of preterm and small-for-gestational-age births has been increasing in Armenia during the last years. They thought that this could be caused by suboptimal nutrition of women during pregnancy, by deterioration of social and psychological conditions of the population, or by increase of some health conditions during pregnancy. Another reason for this could be the change in the definition of live births, as before 1995 those infants weighing less than 1,000 gram at birth were not considered live birth unless surviving for at least 7 days. Since 1995, these infants are considered live birth if they have some signs of life evident at birth.

The respondents considered breast milk to be the best way of feeding low-birth-weight babies, and stated that the mother's expressed milk is used if the baby cannot be breastfed. They stated that the expressed milk is given using bottles. Sometimes they felt necessary to give the low-birth-weight children high-protein formulas to achieve higher growth rates. Also, they were concerned with the safety of keeping the mothers' expressed milk in refrigerator. Some providers noted that they advise mothers during the first days post-delivery to avoid using food that may cause gases.

…unfortunately, these rates [of those born low-birth-weight] *increase. …however, I think this*

increase is also due to using new technologies [in perinatal care settings] *as they can keep alive children weighting 500-1000 g at birth. In 1990s we considered these children as stillbirth, but now they are considered live birth.* (Policymaker/expert 3.2.3.1, IDI, Yerevan)

... the rate of preterm or small-for-gestational-age births increases, which is due to nutritional challenges as well, and lack of micronutrient usage. Today the rate of preterm or small-for-gestational-age births still remains worrying. (Policymaker/expert 3.2.3.2, IDI, Yerevan)

...based on my practice I can say that we have in Armenia this problem [low-birth-weight newborns] *and it is tend to increase.* (Policymaker/expert 3.2.3.3, IDI, Yerevan)

I think there has been some increase [in the rate of low-birth-weight babies]*... It has probably increased and stayed relatively stable during the last years. It has to do with the social conditions and stress levels. So these are issues connected to the social and mental condition of the population.* (Policymaker/expert 3.2.3.4, IDI, Shirak urban)

We always talk about inadequate nutrition but it is not the only reason of [intrauterine] *hypotrophy... there is an issue of woman's pregnancy pathologies, therefore we have improved the intrauterine diagnosis of fetal conditions since 2014. Also, early coverage* [of pregnant women] *plays important role, as it will allow to detect pathological processes early and treat them, which I think will improve the rates of low-birth-weight births.* (Policymaker/expert 3.2.3.1, IDI, Yerevan)

In any case there is a desire to breastfeed. Even if the baby is in a bad state and cannot be fed on its own, they express the milk of the mother and feed the child that milk. ...they [newborns] *have to be very small not to be able to be breastfed. ...if their weight is low, but they are able to be breastfed, then definitely breastfeeding.* (Policymaker/expert 3.2.3.4, IDI, Shirak urban)

There are high protein containing formulas for ill and small-for-gestational-age babies and we widely use them, of course we promote breastfeeding but in case when we have an ill child who cannot take the mothers breast and is losing weight, we give them supplementary food. (Maternity hospital doctor 3.2.3.1, FGD, Yerevan)

At the maternity hospital, they pump the breast, keep it in the fridge and feed with a bottle. (PHC ob/gyn 3.2.3.1, FGD, Lori urban)

Yes, but that is risky [keeping milk in fridge]... there is a limit of storing milk in the fridge, and even when adhering to all the conditions, it is still difficult. (PHC ob/gyn 3.2.3.2, FGD, Lori urban)

The diet [for mothers] is the same as during pregnancy. We just exclude things that create a lot of gas: peas, etc. They only stay at the maternity hospital for 3 days, so this question isn't that important. (PHC ob/gyn 3.2.3.2, FGD, Lori urban)

If they [mothers] ask me post-partum, I tell them that they can eat whatever they want. Even with gassy food they can try and see how their body and the baby react. It isn't like you have to completely refuse things because you are breastfeeding. (PHC ob/gyn 3.2.3.3, FGD, Lori urban)

3.3 Breastfeeding and supplementary feeding

3.3.1 Post-natal check-ups and early support to breastfeeding at home

All the groups (key informants, pediatricians, and mothers) stated the importance of early post-natal home visits for assuring both optimal care and nutrition of the newborn. According to the existing schedule, the PHC provider should conduct house visits there times during the first month – at 3rd-4th days, 15th day, and one month of the child's life. However, some pediatricians were not following the recommended schedule of making house visits because if low motivation or feasibility issues. As with other areas, there was significant difference between house visits conducted in rural areas, compared to urban areas. Mothers from villages reported having their babies checked at home only once between 7th and 21st days after birth, even though pediatricians reported that they were conducting three house visits, first one during the first 3-7 days, the second one on the 15th day and the third one at one month of age. Those mothers receiving fewer-than-recommended house visits suggested increasing the number of the visits during the first 1-3 months of a baby's life.

According to the PHC pediatricians, the main challenge they face with breastfeeding during the early post-natal check-ups is re-establishing the breast milk supply and persuading the mother to switch to exclusive breastfeeding, if the baby has already received formula in the maternity hospital. The majority of mothers were content with the breastfeeding support they received from their pediatrician and/or nurse during the early check-ups, saying that they PHC providers were the first who helped them to breastfeed correctly. Some mothers, however, stated the opposite – that their pediatrician was insisting them to give formula to the child from very beginning for some unclear/unconvincing reason.

There are three mandatory home visits after delivery: on the 3rd or 4th day, then when a child is 15 days old, then at one month and after that every 1.5 months mothers take their newborns to the PHC facilities for check-up and vaccination. (Policymaker/expert 3.3.1.1, IDI, Yerevan)

Home visits are also included in their [PHC providers'] *job responsibilities.* (Policymaker/expert 3.3.1.2, IDI, Yerevan)

House visits usually last 25-30 minutes, but the first one takes long; approximately one hour. Because you look at the feeding, etc. and that is time-consuming. (PHC pediatrician 3.3.1.1, FGD, Lori urban)

The second house visit is at 15 days old, when we can see whether what we have taught has been effective or not. Is the mother able to feed correctly? In approximately 95% of cases it turns out successful. (PHC pediatrician 3.3.1.2, FGD, Shirak urban)

We have a house-visit calendar where we record how many babies we have seen here [at PHC facility] *or at home every day. But we don't have work plan.* (PHC pediatrician 3.3.1.1, FGD, Lori urban)

The mothers are not worthy of my going to their home. If it is not a compulsory call why should I go for a one month old? (PHC pediatrician 3.3.1.3, FGD, Yerevan)

[House visits during the first month of a baby's life should be] *more frequent, so that if scary things happen, we won't have to bring them to hospital. Or if I bring the baby then the doctor isn't there…* (Mother 3.3.1.1, FGD, Lori rural)

This system [house visits] *has already collapsed due to the free enrolment system. This has made things very difficult for doctors… especially the absence of transportation. In the past we had our own territories and we would come out and do our work and return… now the patients are spread all over the town.* (PHC pediatrician 3.3.1.4, FGD, Lori urban)

We begin from where the previous level has failed. Starting with explaining to the mother, helping her correct the issue, helping the baby suck mother's milk and changing them back to breastfeeding. We sit by them and assist with positioning, correct latching. The main issue here is that when you get to the 4-5th day, returning the milk production becomes difficult. So the probability of fixing issues with milk flow, etc. decrease by approximately 50% by this time. (PHC pediatrician 3.3.1.5, FGD, Lori urban)

In cases when the child has already been given breast milk substitute, we try to convince the mother to breastfeed and explain the importance of breastfeeding.

At the maternity hospital I didn't get any recommendations regarding breastfeeding. My pediatrician told and taught me how to breastfeed my child. (Mother 3.3.1.2, FGD, Lori urban)

In maternity hospital, when I delivered first time, my child was crying all the time, was very restless, uncomfortable, didn't take breast but no one helped me. When I came home my pediatrician and nurse visited us and then they helped and taught me how to breastfeed correctly. (Mother 3.3.1.3, FGD, Lori urban)

I got information about breastfeeding during home visits and my pediatrician explained to me how to correctly breastfeed my child. (Mother 3.3.1.4, FGD, Lori urban)

Our pediatrician came to see my child on the 21st day after birth, and later we took a child for vaccinations and after every vaccination they called us to know how the child was. During home visits they explain in detail how a child should be breastfed, the attachment to the breast and care. (Mother 3.3.1.5, FGD, Shirak rural)

I avoid visiting the pediatrician, because since the first day that my baby was born (I had a C-section) they tried to force-feed [the child] *milk replacement at the hospital. Then the pediatrician tried doing the same when she came for the house visit.* (Mother 3.3.1.6, FGD, Yerevan)

3.3.2 Problems with breastfeeding

The main complications during breastfeeding were reported to be nipple cracks, insufficient milk production and, in some cases, breast hardenings. The issues were mainly explained as being due to incorrect positioning, incorrect postnatal practices and insufficient knowledge/help provided to mothers at the maternity hospitals. They told that pediatricians and nurses were the main sources of help to overcome these problems. Some women noted referring to a lactation specialist found by an internet search, and stated that this service was quite expensive.

Participants from mothers' groups reported the use of medication and oils for the cracks. A few mothers mentioned that they had not received advice on changing positions to fix the nipple cracks – only medication/nipple shields were prescribed and they were advised to keep longer breaks between feedings. On the other hand, pediatricians reported that the first step they take is correcting the breastfeeding position and latching, after which they may treat the complication with medications if necessary.

The key informants stated that insufficient milk production is usually the result of transitory lactation crisis or under-stimulation of lactation because of pre-lacteal/scheduled feedings. However, this is often perceived by mothers as inability to produce enough milk and they don't get timely/skillful support to overcome this situation. Some pediatricians stated that they treat insufficient milk supply with medication or diet changes, while others thought that these measures are only psychological and the main factor is increased stimulation of lactation through frequent feedings.

It was reported by both groups that mastitis happens rarely. Pediatricians considered this as the result of their immediate counseling and actions taken to fix the breastfeeding issue before mastitis is developed.

Incorrect positioning [of the baby during breastfeeding] *causes various problems, such as nipple cracks. ...it is inhumane to then expect mothers to tolerate the pain and feed the baby with cracked nipples. They* [maternity hospital staff] *do not explain in detail how to breastfeed. ...If the positioning is incorrect during the first feedings, the consequences are not visible yet* [while the mother is in the maternity]. *So it is important to pay specific attention to this…* (Policymaker/expert 3.3.2.1, IDI, Shirak urban)

Recently one woman was discharged from the maternity hospital with nipples' cracks and she couldn't correct it, and I am sure that the reason was that healthcare providers gave the child formula with bottle and nipple during the first hours after delivery, and no one explained [the mother] *the right technique of breastfeeding, positioning and attachment, and also her PHC pediatrician/nurse, they also didn't support her properly.* (Policymaker/expert 3.3.2.2, IDI, Yerevan)

They [mothers] *come to us* [pediatricians] *with nipple cracks and damaged breasts. ...We only recommend medication in severe cases, but that doesn't happen often. Usually as soon as the position is fixed, the teats heal themselves.* (PHC pediatrician 3.3.2.1, FGD, Lori urban)

…we do have cracks… fungal cracks also happen. In both cases we correct the position and then treat the fungal cases with antifungal medication. (PHC pediatrician 3.3.2.2, FGD, Shirak urban)

It is very important to breastfeed correctly to avoid nipples cracks. We explain and show the technique of breastfeeding to mothers during our first home visits. (Ambulatory nurse 3.3.2.1, FGD, Shirak urban)

It happened that we had some problems with breastfeeding but nurses, HC providers,

pediatricians in most cases helped us to breastfeed our children correctly. (Mother 3.3.2.1, FGD, Shirak rural)

[It is necessary to] *explain how to correctly position the baby from the beginning, so issues will not rise later on. We have found the necessary information from books… I had a book at home and read that. Then you just get the hang of it yourself while feeding the baby. You realize which position does not cause you pain, and begin feeding in that position.* (Mother 3.3.2.2, FGD, Lori rural)

I just told the doctor about my cracks and was prescribed the medication for it… they didn't even see the cracks. (Mother 3.3.2.3, FGD, Lori rural)

They prescribed me thousands of different medication and told me to feed once every 3 hours to help heal my cracked nipples, but it was impossible as my baby wanted to eat every hour. Eventually they healed after I used buckthorn oil. (Mother 3.3.2.4, FGD, Yerevan)

Supposedly it is given [silicone nipples] so they will not have nipple cracks…. This is how they explain it to the mothers. But if mothers feed correctly, then cracks will not form. (PHC pediatrician 3.3.2.3, FGD, Lori urban)

I was advised to feed the child once in three hours and to use ointments to treat my nipple cracks. (Mother 3.3.2.5, FGD, Yerevan)

I thought everything was ok, until I realized my baby was not gaining weight and, on my own initiative, I called Marina Kisina [lactation specialist] *through the "Shunch" yoga center to help me … however it was already too late and my breast milk supply could not be recovered.* (Mother 3.3.2.6, FGD, Yerevan)

My baby would not get full. I fed for 2 months, but my baby kept crying and when the doctor saw, she said that my baby is hungry and we will have to start feeding Hipp. I had this issue again and both my babies have grown up almost entirely on Hipp. (Mother 3.3.2.7, FGD, Lori rural)

The lactation specialist [from the "Shunch" yoga center] *is for pay, and the fee is rather high, not everybody could afford.* (Mother 3.3.2.6, FGD, Yerevan)

Mothers may have [periods of] *lactation crises, or during the first days their milk production is not stimulated enough* [because of giving the newborn supplemental feedings at the maternity hospital] *and inexperienced mothers may think that their milk is not enough for their children and start giving them formula...* (Policymaker/expert 3.3.2.3, IDI, Yerevan)

In case of insufficient milk, we recommend the mothers use Apilak, mint, etc. (PHC pediatrician 3.3.2.4, FGD, Yerevan)

The best way [to increase breast milk supply] *is increasing the water intake of the mother.* (PHC pediatrician 3.3.2.5, FGD, Yerevan)

We encourage mothers to breast feed. The rest [*use of Apilak, teas, herbs, etc.] are purely psychological.* (PHC pediatrician 3.3.2.6, FGD, Yerevan)

We address issues with breast engorgements and prevent the development of mastitis. So there is no mastitis. (PHC pediatrician 3.3.2.7, FGD, Lori urban)

3.3.3 Exclusive breastfeeding and supplementary feeding

The participants in all groups noted that six months of exclusive breastfeeding followed by gradual introduction of complementary food with continued breastfeeding up to 2 years of age is the recommended best practice. However, there was a big gap between the theory and actual practice in this area. Even though majority of parents reported having breastfed exclusively until six months of age, in reality exclusive breastfeeding was almost non-existent. Triangulation between all groups revealed that babies are given water during their first few months of age.

Water and herbal teas: In almost all cases, mothers had been advised by their health care providers to give the baby water, while in some cases when the health care provider had explained to them not to do this, pressure had been applied from the family and neighbors. The main explanation for this behavior in all groups was that water was necessary in any case, especially during hot weather. Some mothers reported giving the newborn water as early as from the first day after arriving home post-delivery, based on the recommendation from the healthcare provider.

Many healthcare providers from different FGDs also confirmed the importance of water, even though a few insisted that breast milk provides sufficient amount of water to babies and water is therefore not necessary. Other liquids given mainly consisted of herbal teas which were given to help with gasses, such as anise water and other such teas. Mothers in all groups reported using

these teas to relieve pain caused by intestinal gasses. Pediatricians also reported prescribing these teas, usually in the form of herbal suspensions, such as anis water, mint suspension, etc.
One participant reported boiling rice and feeding her 3-month-old infant the rice water, as a means to help with better digestion.

Exclusive breastfeeding should take 6 months and breastfeeding should be continued till two years of age. (Policymaker/expert 3.3.3.1, IDI, Yerevan)

Earlier it was accepted that exclusive breastfeeding should last four months, but now it is six. …it would be desirable to continue breastfeeding till two years of child age. Of course by that time the breast milk does not have the same nutritional value, but the longer the better. (Policymaker/expert 3.3.3.2, IDI, Yerevan)

After introduction of complementary food mothers should continue breastfeeding till two years of age, but sometimes it is difficult to cease breastfeeding at this age. (Ambulator nurses 3.3.3.1, FGD, Shirak urban)

I breastfeed my child exclusively for six months then added complementary food. (Mother 3.3.3.1, FGD, Shirak rural)

I gave my child a boiled water with breast milk, here again it depends on child, my first child didn't drink water during breastfeeding, but the second one took it as he sweat more and the organism dehydrated so why shouldn't I give a water. (Mother 3.3.3.2, FGD, Lori urban)

In all seasons, I suggest giving water, if the baby needs it, they will drink. If they don't drink, there is no need to worry. It may be winter outside, but 34°C inside the house… Of course water will be necessary. (PHC pediatrician 3.3.3.1, FGD, Yerevan)

In my opinion drinking water is very important as from the breast milk the child's mouth becomes white and the taste receptors get closed and the water washes it. (Mother 3.3.3.3, FGD, Lori urban)

I gave my child water as she cried when saw that I was drinking water and if I didn't give she would start to tremble and when I gave her water she felt very happy, although I know that water should be given to a child starting from six months of age. (Mother 3.3.3.4, FGD, Lori urban)

It isn't like there is strict monitoring for us not to give them [exclusively breastfed children] *water.* (Mother 3.3.3.5, FGD, Lori rural)

Mine won't drink regular water… I have to make it sweet to make her drink. (Mother 3.3.3.5,

FGD, Lori rural)

I gave my child water and anise tea because when the child cried my father insisted on giving water to the child. (Mother 3.3.3.6, FGD, Lori urban)

We all recommend mothers to give a child anise water or espumisan against intestinal gases. Or we recommend mothers to drink Hipp teas and then breastfeed the child. (Ambulator nurses 3.3.3.2, FGD, Lori rural)

There are teas for relieving intestinal gases. I used them for my two children and it helped a lot. I used anise's tea, which is more useful than other expensive ones. (Mother 3.3.3.7, FGD, Shirak rural)

Mixed/artificial feeding: A few participants reported having fed their infants with artificial milk replacers, such as Hipp. The majority had done so based on the belief that their milk was insufficient and their child was hungry. Healthcare providers also mentioned poor weight gain as the primary indication for introducing supplementary feeding, if the measures to increase mother's milk supply did not work. A few parents reported breastfeeding shorter than six months due to work.

My daughter has eaten Hipp in the maternity hospital and I have brought her home and fed her rice-water. My milk wasn't enough, so I was giving rice-water from three months old. She was eating Hipp along with my breast milk… then she just stopped eating breast milk. (Mother 3.3.3.5, FGD, Lori rural)

If you weight a child and see that the child is gaining only 100-200 grams a month, of course you need to start switching to something. The baby is weighed every month, and if we see an issue we try to convince the mother in any possible way to breastfeed better. If we see that nothing is working and weight gain is compromised, then we recommend something else. But everything together with breast milk. (PHC pediatrician 3.3.3.2, FGD, Lori urban)

If the child doesn't gain weight, supplementary food should also be given. However, the early introduction of fruit juices may disturb the child's swallowing process. We have had such cases. (Ambulator nurses 3.3.3.3, FGD, Shirak urban)

I breastfed my child from the beginning and I continued exclusive breastfeeding three months, then I gave in small portions other milk substitutes because I work and when I was in work my child during four hours was fed twice by the other milk substitutes. (Mother 3.3.3.8, FGD, Shirak rural)

I introduced complementary food to my child's diet from four months of age, when I already prepared porridges… but not much. I also prepared soups. Usually mothers refuse to breastfeed their child because of work. (Mother 3.3.3.9, FGD, Lori urban)

Frequency of breastfeeding: Almost all babies had been breastfed on demand, which was approximately once in every two hours during early months of the child's life. There was some difference among specialists in advising parents on how to feed their infants. This was noticed in all groups: some suggested feeding on demand, while others agreed on having at least a 1.5-2 hours gap between the feedings. One pediatrician argued that feeding on-demand interferes with the development of a conditioned reflex to feedings in a child.

Breastfeeding does not have any restrictions, a child should be fed whenever it wants to eat. Mothers should breastfeed even every half hour if necessary. (Maternity hospital doctor 3.3.3.1, FGD, Yerevan)

I breastfed my child very often when my child cried or had hunger cues. I didn't keep regimen for breastfeeding my child, when my child wanted to eat I breastfed him. (Mother 3.3.3.4, FGD, Lori urban)

Frequent breastfeeding is not right as it interferes with the development of the Pavlovian [conditioned] reflex in a child. (PHC pediatrician 3.3.3.3, FGD, Yerevan)

I had one infant who was fed every half hour and was 2 kg above average. I told [the mother] *that there must be at least an interval of 1.5 hours between the feeds.* (PHC pediatrician 3.3.3.4, FGD, Yerevan)

3.3.4 Use of cow's milk

Cow's milk had been given sometimes as a replacement of breast milk, especially in rural areas. The main reasoning behind giving cow's milk was financial constraints reported by participants from all groups. They explained that breastmilk substitudes are more expensive and people cannot afford it, therefore they may be forced to switch to cow's milk. One mother considered infant formula as "artificial" and thus preferred giving cow's milk to the child. A few mothers knew that cow's milk could harm the child. Some pediatricians stated that cow's milk should not be given during infancy. Some others, however, participated in trainings where they were told

that babies could be fed cow's milk from 8-9 months of age. While some mothers followed their provider's advice of avoiding cow's milk till late infancy, others were firm in their opinion that cow's milk could not harm the child.

For example they may have a cow and the mother-in-law says that, "your milk isn't good, so we should feed the baby milk from our cow". They do not think of coming over and showing us what they think the problem is. The mother-in-law will just put some of the milk in a cup and show the daughter-in-law how it is not fatty enough. And then she says, "how do you expect this child to grow? Our cow's milk is fattier, so we should use that instead". (PHC pediatrician 3.3.4.1, FGD, Lori urban)

Cow's milk is more often used because of financial reasons. In some cases when due to complications the baby needs to be fed replacements, parents begin with the recommended mixture, but switch to cow's milk due to financial issues. (PHC pediatrician 3.3.4.2, FGD, Lori urban)

Both from national and financial point of view, cow's milk is more acceptable among people. (PHC pediatrician 3.3.4.2, FGD, Lori urban)

Usually mothers are more interested in breastfeeding, rather than buying breast milk substitutes, as these are very expensive. (Ambulator nurses 3.3.4.1, FGD, Shirak urban)

Very often mothers ask whether they can give their children cow's milk or not, as buying breast milk substitutes is rather expensive. This is why we recommend them to give their children cow milk from 9 months of age. (Ambulator nurses 3.3.4.2, FGD, Shirak urban)

Cow's milk can be added to complementary food starting from 8-9 months of age. (PHC pediatrician 3.3.4.3, FGD, Yerevan)

When my baby was 7 months old and my milk wasn't sufficient, I told the doctor I was giving cow's milk and mine to my baby. The doctor said I shouldn't give cow's milk, as her organism would not be able to handle it. But I came home, gave my baby the milk anyway, because I do not agree with this Hipp… in my opinion, it is chemical and bloats the baby even more. So I fed the baby with my own milk and cow's milk and I felt that everything was very well. (Mother 3.3.4.1, FGD, Lori rural)

After 6 months I quit breastfeeding and gave my child complimentary food. I quit breastfeeding as my milk decreased and also I just did not want to continue. I started from banana puree - banana mixed with cow milk and a small amount of butter. I gave porridges also, after which my child started to drink 1-2 liters of cow milk. (Mother 3.3.4.2, FGD, Shirak rural)

My child is allergic for example and his body would not take cow's milk. I thought that if you give it early then the organism will begin to accept, but that is not how it is. (Mother 3.3.4.3, FGD, Lori rural)

We have been told during symposiums that cow's milk can be offered from the 8-9th months. (PHC pediatrician 3.3.4.3, FGD, Yerevan)

My baby wasn't gaining a lot of weight and was on the lower border of the normal range. So I consulted with the pediatrician wondering if my milk was sufficient or whether I should start giving replacements. But she said that it is not necessary if my child is comfortable and does not cry and sleeps well, especially since she was in the normal range. So I refrained from doing so and only gave it [cow's milk] *at 16 months of age* [again based on recommendations from the specialist]. (Mother 3.3.4.4, FGD, Yerevan)

3.4 Complementary feeding

3.4.1 Age of introduction of complementary food

According to the majority of participants from all groups, it is recommended to begin introducing solid food to a child's diet after six months of age, keeping breastfeeding until two years old. However, some pediatricians noted that anemia, rickets and hypotrophy are indications to start complementary feeding at 4.5 months of age. Two pediatricians stated that, in any case, 4.5 months is the correct age to start giving solids to the child, as they were told during a recent symposium with Russian specialists. One pediatrician noted that, according to the Canadian experience, earlier introduction of solid food is indicated if the child has constipation or diathesis, while another stated that complementary feeding should start at least at 5.5 months, as after that baby may refuse taking solids. As to the actual practice, it varied greatly from what the participants know as being correct. The majority of parents did not comply with the six months of exclusive breastfeeding. According to their recall, age of solids introduction for their children ranged from three to ten months, with an average of six months. Several mothers stated that healthcare providers recommended them to start complementary feeding earlier, as their children were not gaining enough weight. A number of pediatricians suggested beginning complementary feeding earlier than 6 months of age (at 5-5.5 months), so that the child would already be eating by the time they were 6 months old. On the contrary, a number of participants from Yerevan had

continued exclusive breastfeeding up until seven months of age, as they found this recommendation from the internet. Some ambulatory nurses also stated that they recommend starting complementary feeding from seven months of age.

The key informants were uniform in recommending six month as the appropriate age for starting complementary feeding. They and some pediatricians underscored the dangers of both early and late introduction of complementary feeding, starting from problems with digestion and ending with refusal to accept solid food.

There is a trend to decrease the duration of exclusive breastfeeding and usually mothers start to introduce complementary food from four months. (Policymaker/expert 3.4.1.1, IDI, Yerevan)

Usually we recommend mothers to introduce [complementary food] *into the child's diet after six months of age.* (Ambulator nurse 3.4.1.1, FGD, Lori rural)

The recommended age [for introduction of complementary feeding] *is individual – starting from 5-5.5 months, because if starting later, the baby takes solids with more difficulties.* (PHC pediatrician 3.4.1.1, FGD, Yerevan)

Some things [solids] *they even start earlier. From 5 months of age, the mothers may begin to give some food from the family table after consulting with us.* (PHC pediatrician 3.4.1.2, FGD, Shirak urban)

There are indications to start complementary feeding at 4.5 months of age – anemia, rickets, and hypotrophy in a child. (PHC pediatrician 3.4.1.1, FGD, Yerevan)

Recently we participated in a symposium with the colleagues from Russia and they told us that, despite everything, the correct practice is starting complementary feeding at 4.5 months of age. (PHC pediatrician 3.4.1.3, FGD, Yerevan)

In the case of diathesis and constipation, earlier [than 6 months] *introduction of complementary feeding is indicated (according to Canadian experience).* (PHC pediatrician 3.4.1.1, FGD, Yerevan)

The doctor told me not to give anything until 4-5 months, but I have, because my milk wasn't enough and my baby was hungry. (Mother 3.4.1.1, FGD, Lori rural)

I started to give my youngest child complementary food as my milk wasn't sufficient and also I gave other milk substitutes. I gave fruits and juices starting from 4 months of age. (Mother

3.4.1.2, FGD, Shirak rural)

My baby would not gain weight from 4-8 months of age. So from 4 months old they [healthcare workers] were telling me to add complementary food, but we didn't and then my baby just caught up. (Mother 3.4.1.3, FGD, Yerevan)

They [healthcare workers] were telling me to begin complementary feeding or using milk replacement at around 3,5-4 months old because of weight issues – my baby wasn't gaining a lot of weight, but was within the normal range - I refused and battled until my baby reached 7 months. (Mother 3.4.1.4, FGD, Yerevan)

I breastfeed my child till now, but I exclusively breastfed until three months of age, after which started introducing complementary food. (Mother 3.4.1.5, FGD, Shirak rural)

My first child was exclusively breastfed for seven months and I continued breastfeeding till one year and 10 months of age. …I found in the internet that child's intestine is ready for solids after seven months of age. (Mother 3.4.1.6, FGD, Yerevan)

I have started from 7 months with vegetables and I think that the organism just isn't capable of digesting if you start sooner than that. (Mother 3.4.1.6, FGD, Yerevan)

We recommend mothers to feed the baby [with solids] *from 7 months old.* (Ambulator nurses 3.4.1.2, FGD, Shirak urban)

This kind of feeding [complementary feeding before six months of age] *overloads the digestive system* [of the child]*, can be a source of infection, may lead to excessive weight gain, the baby feels unwell and becomes even more uncomfortable. All of this leads to discomfort within the family, as the child's condition affects everybody else.* (Policymaker/expert 3.4.1.2, IDI, Shirak urban)

…early introduction of complementary food, which brings to the development of hypotrophy and anemia. (Policymaker/expert 3.4.1.1, IDI, Yerevan)

Early introduction of complementary food into a child's diet may lead to refusal of breast milk and cause problems with digestion. (Ambulator nurses 3.4.1.1, FGD, Lori rural)

…the dangers of early and late introduction of complementary food; the first is anemia, the second – hypotrophy, swelled children because of overuse of inappropriate food, as when the complementary feeding is not appropriate and mainly children use carbohydrates, they can seem obese but they have malnutrition. There are dangers from late complementary food introduction

as well, which is refusal of eating solid food. (Policymaker/expert 3.4.1.3, IDI, Yerevan)

I exclusively breastfed my eldest child for 10 months and after that introduced porridges, puree and other complementary food into her diet. Now my daughter does not eat any kind of meat. But in case of my second and third children, I started complementary food from four months and now they eat all kinds of food, including meat. (Mother 3.4.1.2, FGD, Shirak rural)

3.4.2 Complementary food introduction manner and sequence

Introduction manner: Pediatricians stated that they recommend starting to introduce solids gradually in terms of the type, quantity and homogeneity. However, some of them still recommended starting the process of gradual weaning from the breast as soon as the first complementary feeding is introduced, so that solids are given not to complement the breastfeeding but to gradually replace it – an approach recommended during the "Soviet period".

… [Complementary feeding] *must be started with a few spoons only and then slowly move on to bigger quantities. Also, it must be one food only for a week, until they get used to it and then another one.* (PHC pediatrician 3.4.2.1, FGD, Lori urban)

These two principles must be followed… feeding them [infants] *gradually and consecutively.* (PHC pediatrician 3.4.2.2, FGD, Shirak urban)

It must be mashed in the beginning and then gradually prepared larger. (PHC pediatrician 3.4.2.3, FGD, Lori urban)

We start complementary feeding with one food item at a time and gradually increase that, while decreasing the amount of breast feeding. In the end the mothers give breast milk twice a day: morning and night. (PHC pediatrician 3.4.2.4, FGD, Yerevan)

Complementary feeding should start with one kind of vegetable, fed approximately 1-2 teaspoonfuls at first, and then slowly the amount added. (PHC pediatrician 3.4.2.5, FGD, Lori urban)

We start supplementary feeding mono (one kind at a time) with a gradually increase in quantity, with decreasing breast milk. Then breast milk is given twice a day: in the morning and at night. (PHC pediatrician 3.4.2.4, FGD, Yerevan)

We began one food at a time. (Mother 3.4.2.1, FGD, Yerevan)

I began with one vegetable at a time, steam-cooked, then mashed up and in small quantities. (Mother 3.4.2.2, FGD, Yerevan)

Solid food should be introduced to a child's diet gradually so they get used to it. (Mother 3.4.2.3, FGD, Lori urban)

[food must be introduced to infants] *Gradually. Every food must be given in small quantities.* (PHC pediatrician 3.4.2.6, FGD, Shirak urban)

I also slowly add things one-by one. Tell the mother what to add during a week and how they should carefully monitor the baby to make sure they feel well. At the end of the week it is counted as being one meal that was introduced and then another type of food the next week, etc. So that it can be done slowly and monitored well. (PHC pediatrician 3.4.2.2, FGD, Shirak urban)

First solids: Pediatricians mainly recommended starting complementary feeding from rice or buckwheat porridges. Some mentioned recommending fruit and vegetable purees as the first solid food. Parents, however, often started from graded apples or a mixture of banana with cottage cheese, or cookies diluted in tea. The sequence and manner of introduction mostly relied on the choice of the parent, based on their given sources of information. Those from rural areas relied heavily upon their mothers and mother-in-laws, while those from urban areas relied more on the internet and their physicians.

I advise beginning with rice and buckwheat. (PHC pediatrician 3.4.2.7, FGD, Shirak urban)

We recommend mothers to start from rice porridges, gradually increasing the amount. (Ambulator nurse 3.4.2.1, FGD, Shirak urban)

At the initial stages [of complementary feeding] *we recommend porridges and vegetable purees.* (PHC pediatrician 3.4.2.8, FGD, Yerevan)

They [mothers] *may start* [complementary feeding] *from puree, or porridges, fruit juices. We recommend them to introduce complementary food gradually, with small pieces.* (Ambulator nurse 3.4.2.2, FGD, Lori rural)

I started from rice porridges. (Mother 3.4.2.4, FGD, Lori urban)

We begin [complementary feeding] *with* [cereals rich in] *the B group of vitamins (rice,*

buckwheat). (PHC pediatrician 3.4.2.4, FGD, Yerevan)

My baby's first food has been fruits… apples… grated. After that it was buckwheat. (Mother 3.4.2.5, FGD, Yerevan)

First I gave grated apples, then bananas and also cottage cheese. I also gave my child tea after cession of breastfeeding, and now my child drinks tea very often. (Mother 3.4.2.6, FGD, Lori urban)

I gave my child banana with cottage cheese at first. (Mother 3.4.2.7, FGD, Lori urban)

I gave my child cookies diluted in teas. (Mother 3.4.2.8, FGD, Lori urban)

I gave my child cookies diluted in milk or water by bottle pacifiers. (Mother 3.4.2.9, FGD, Shirak rural)

I have given first the yolk of a hard-boiled egg. (Mother 3.4.2.10, FGD, Lori rural)

I started complementary food introduction to my child's diet with bananas, then vegetable puree, then an apple, carrot juice, pumpkin porridge, broccoli, etc. (Mother 3.4.2.11, FGD, Shirak rural)

The doctors …had advised my sister to mix apples and bananas and feed her baby with it after 6 months of age. (Mother 3.4.2.12, FGD, Lori rural)

I began with cereal (Mani kasha) because the elder in my house… my mother in-law told me it was easy digestible. (Mother 3.4.2.13, FGD, Lori rural)

My baby's first food has been fruits… apples… grated. After that it was buckwheat. (Mother 3.4.2.5, FGD, Yerevan)

My eldest ate only mashed food until 1.5 years old, after which I gradually introduced him to non-mashed food. (Mother 3.4.2.14, FGD, Lori urban)

3.4.3 Recommended food types for complementary feeding

Food types: A few mothers stressed the importance of giving a child diverse food, while others stated that they gave limited types of food to their infants (e.g., home-made porridges). The most frequently mentioned food types included curd, cereals, fruits (apple, banana, citruses), and

vegetables (carrot, cabbage, potato, pumpkin, etc). A few mothers mentioned apple as a good source of iron. One mother stated that carrot juice is good for child's growth. Pediatricians recommended introducing fruits into children's diet after six months of age – together with other solids. Some parents reported adding sugar to fruit juices they prepared for their infants. Some participants were against any restriction of food types for an infant. One participant even noted giving caviar to her infant.

When I make soups with carrots, zucchini or broccoli… I mix all those together, chop up onions, potatoes, add rice and then butter at the end. (Mother 3.4.3.1, FGD, Yerevan)

I started with vegetables, then porridges, then fruits in the end. Of course there was dairy in between. Now my child is 16 months old and still eats breast milk together with the solids. We try to balance the daily nutritional intake by including fruits, vegetables, grains, dairy… (Mother 3.4.3.2, FGD, Yerevan)

My youngest child is 10 months old now and I feed him porridges which I prepare myself. (Mother 3.4.3.3 FGD, Shirak rural)

I started from vegetables, fruits, and slowly moved on… meat. Now my child [10 month-old] *eats everything, but I still continue breast milk on the side which I will continue giving until one year of age.* (Mother 3.4.3.4, FGD, Yerevan)

No fruit must be given before six months of age. But then it can be given with porridges and mashes. (PHC pediatrician 3.4.3.1, FGD, Lori urban)

Especially during flu-season I gave my child a lot of citruses, bananas and apples to ensure iron level in blood. For good growth I give natural homemade carrot juice. (Mother 3.4.3.5, FGD, Shirak rural)

I have given a bit of grated apple, then a lot of bananas. I have decided that these were good sources of iron, etc. (Mother 3.4.3.6, FGD, Lori rural)

Pumpkin is very important for a child's growth. (Mother 3.4.3.7, FGD, Lori urban)

I also gave carrot juice from 8 months old. A lot of carrot also… with sugar on it. And grated apple with sugar on it. (Mother 3.4.3.6, FGD, Lori rural)

I have given everything, even borsch at nine months old. Why not? It has carrots, cabbages and other things. (Mother 3.4.3.6, FGD, Lori rural)

I even gave my baby caviar. (Mother 3.4.3.8, FGD, Lori urban)

Introduction of meat: Participants from various groups suggested feeding babies minced and, in some cases, crushed meat. Pediatricians were aware that meat is a good source of iron and recommended introducing it at 7-7.5 months of age, starting from beef first and only then introducing fish or poultry. One participant told that it is easier for families to afford chicken than beef, as chicken is less expensive. However, according to mothers, the actual time of introduction of meat varied from six to ten months of age, and the sequence of meat types introduced also varied. One mother even told that she started from rabbit meat. Opinions differed concerning pork, with some participants thinking that it is the most digestible meat, and some others – that it should be avoided during infancy. Some participants mentioned starting giving broth first, and only then - meat.

A key informant explained the existing diversity in complementary feeding practices by the absence of a guideline on this issue, stating that the newly developed guideline is not yet widely available to the practitioners.

I recommend introducing beef from seven months, fish at 9 months, and after nine months – chicken. (PHC pediatrician 3.4.3.2, FGD, Yerevan)

It [introduction of meat to the diet] *also depends on the financial status of the family, as beef is more expensive than poultry.* (PHC pediatrician 3.4.3.3, FGD, Shirak urban)

We recommend mothers to give a child minced beef mixed with porridges. (Ambulator nurse 3.4.3.1, FGD, Shirak urban)

Meat and eggs should be introduced from nine months old… (Mother 3.4.3.7, FGD, Lori urban)

Meat should be given a child since 6 months of age; I gave my child also broth… (Mother 3.4.3.5, FGD, Shirak rural)

My healthcare provider recommended me to give a beef meat form 6 months. I gave meat broth, then meat. (Mother 3.4.3.9, FGD, Lori urban)

I gave my child minced meat from six months old. I minced the meat twice and then fed it. (Mother 3.4.3.10, FGD, Lori urban)

I gave my child meat at 10 months old. (Mother 3.4.3.2, FGD, Yerevan)

I began at nine months old from rabbit meat, then pork, after which beef and finally fish. Pork is the easiest to digest. (Mother 3.4.3.11, FGD, Yerevan)

...mothers should avoid ...pork meat... (Mother 3.4.3.7, FGD, Lori urban)

Also, for example, beef is a better source of iron in case of hemoglobin deficiency, than poultry. But if the baby is having difficulty eating boiled meat, it should be minced to make eating easier. We conduct anemia monitoring at nine months of age and therefore, they should start feeding the child meat from 7-7,5 months of age, so that when we do the tests at nine months old, their hemoglobin levels will be sufficient – a minimum of 105 g/l, below which is considered to be anemic. (PHC pediatrician 3.4.3.4, FGD, Shirak urban)

Well, a 6-8 month old child can eat dolma also. Why is it wrong? That is what they like and that is what they eat. It is meat… completely packed with protein. (PHC pediatrician 3.4.3.1, FGD, Lori urban)

First of all, the concept of complementary feeding is incomplete. Before these new guidelines' development and some trainings conducted in Syunik and Tavush marzes, we didn't have any guidelines about complementary feeding. If you collect 10 different pediatricians from different districts and ask them about complementary food management, they all will respond differently. (Policymaker/expert 3.4.3.1, IDI, Yerevan)

….now these guidelines [on complementary feeding] *are less available but after publishing they will be more available for healthcare providers and also for mothers.* (Policymaker/expert 3.4.3.1, IDI, Yerevan)

3.4.4 Preparation of complementary food

Almost all the pediatricians and parents agreed that food should be prepared clean, boiled/steamed, and mashed/cut very fine. Many suggested adding vegetable oil or butter while cooking, while some were against. The participants stated that salt and sugar should be avoided when preparing meals for children. Some pediatricians recommended using only homemade food for children, while some mothers stated that they don't prepare porridges themselves but buy commercial complementary food for their children. One pediatrician told that she recommends using commercial porridges as the first complementary food, because mothers cannot prepare it

in a completely correct way. While some pediatricians and parents mentioned the need for blending complementary food to make easier for children to accept it, some others were against it – acknowledging the importance for an infant of developing chewing skills. One pediatrician argued that mashed food would interfere with the normal development of the teeth, therefore it was not recommended and should be chopped into small pieces instead.

In small pieces, clean and well cooked. It is also very important that in the beginning they should be cooked in water. (PHC pediatrician 3.4.4.1, FGD, Shirak urban)

In addition, food must be safe, stored in correct temperature, made out of ecologically clean raw material. (PHC pediatrician 3.4.4.2, FGD, Shirak urban)

Children's food should be prepared separately; they [her children] *have their own utensils.* (Mother 3.4.4.1, FGD, Lori urban)

Potatoes, carrots, etc. must be prepared on a water base. (PHC pediatrician 3.4.4.3, FGD, Lori urban)

Food must be steamed and prepared without salt. (PHC pediatrician 3.4.4.4, FGD, Lori urban)

Usually we recommend mothers to give babies homemade food prepared by themselves, and not buy it from supermarkets. (Ambulator nurse 3.4.4.1, FGD, Shirak urban)

We only recommend that mothers feed their children with homemade food, prepared by themselves. (Ambulator nurse 3.4.4.2, FGD, Lori rural)

We start from giving ready-to-use milk porridges, as mothers cannot prepare [the porridge] *in a completely accurate way.* (PHC pediatrician 3.4.4.5, FGD, Yerevan)

I don't cook any porridge or complementary food for my child, I buy them. (Mother 3.4.4.2, FGD, Shirak rural)

It [complementary food] *must be prepared without oil.* (PHC pediatrician 3.4.4.6, FGD, Lori urban)

No, we can use vegetable oil and butter, although I always suggest vegetable oil… Salt must be limited as much as possible. Sugar also. (PHC pediatrician 3.4.4.3, FGD, Lori urban)

After cooking it [food] *must be turned into a smooth paste; either with a strainer or something*

else. This should be fed very watery in the beginning and then thicker with time. (PHC pediatrician 3.4.4.7, FGD, Lori urban)

I disagree… Food must not be strained or run through a blender, as it will interfere with the formation of teeth. Therefore it just has to be cut as fine as possible. It is the same as how babies learn eating from the bottle… this way they just learn to automatically swallow. (PHC pediatrician 3.4.4.8, FGD, Lori urban)

3.4.5 Foods to avoid during infancy

Eggs and honey were mentioned by various participants in the parent's groups, both from rural and urban areas, as being food items, which were risky for the health of children under the age of one. It was clearly communicated by participants from different FGDs that eggs are considered worrisome due to bacterial infection issues, with some participants stating that for that reason they had fed their child with hard boiled eggs. However, the explanations to why they should be avoided in general varied both within and in between groups.

There was triangulation between groups of pediatricians and parents on the risks of giving babies honey during the first year. However, when responding to the reason behind this, ideas differed, ranging from allergic reactions to difficulty digesting and to being a cause of botulism. Three participants from the rural areas mentioned the dangers of feeding babies "Mani Kasha" cereal at an early age due to its effect on body calcium levels, with one of them reporting an ongoing issue with their child's calcium level after feeding them this cereal.

In addition, canned food, processed food, pork, chocolate, carbonated beverages, tea, spicy food and salt were also mentioned by pediatricians and nurses as types of food that should be avoided. They, however, stated that parents never comply with these recommendations and feed their children whatever they have at home.

I had heard that eggs were forbidden. I have given [eggs to the child] *after one year of age.* (Mother 3.4.5.1, FGD, Lori rural)

Especially if they [eggs] *are semi-cooked, as there could be bacteria in it. I have given eggs, but only hard-boiled whites.* (Mother 3.4.5.2, FGD, Lori rural)

The protein in eggs are difficult to digest, so we do not give it before nine months. (PHC

pediatrician 3.4.5.1, FGD, Lori urban)

I know that until 2-3 -years old honey must not be given. (Mother 3.4.5.3, FGD, Yerevan)

You try [giving honey]*… if the child is not allergic, then you can give honey to them.* (Mother 3.4.5.4, FGD, Yerevan)

They told me to give my baby honey for a sore throat before the age of one, but I decided against it and didn't. I gave it once and noticed that the baby's face broke out, so I decided not to anymore. (Mother 3.4.5.5, FGD, Lori rural)

They say honey is bad for growth. But we fed my brother's child honey as soon as the baby was discharged from hospital… and the child is very healthy now. (Mother 3.4.5.2, FGD, Lori rural)

We recommend mothers to avoid giving babies pork, lamb meat and honey.

Honey and canned food and pork must be avoided. (PHC pediatrician 3.4.5.2, FGD, Shirak urban)
Honey, chocolate and sausages must be avoided. (PHC pediatrician 3.4.5.3, FGD, Lori urban)

Honey can cause botulism, chocolate can cause allergies mainly. Canned food can firstly damage the kidneys and liver, or it can cause infections and interfere with normal digestion. (PHC pediatrician 3.4.5.4, FGD, Lori urban)

Mani kasha (porridge) is carbohydrate-rich and must not be offered in the first year. (PHC pediatrician 3.4.5.5, FGD, Yerevan)

I have heard cereal (Mani kasha) should not be given until 3 years old, because it removes Ca from the body. (Mother 3.4.5.6, FGD, Lori rural)

I gave it [Mani kasha] to my son from 2-3 years of age and his Ca level is very low now. No matter what we do, we can't seem to be able to increase it. (Mother 3.4.5.7, FGD, Lori rural)

I do not recommend giving juices… rather mashed or grated fruit. (PHC pediatrician 3.4.5.6, FGD, Lori urban)

I have heard that it is not allowed to give children more tea as it disturbs the iron absorption from intestine. (Mother 3.4.5.8, FGD, Lori urban)

Carbonated drinks and canned food must not be given… as well as salty cheese. (PHC

pediatrician 3.4.5.4, FGD, Lori urban)

Carbonated drinks are contra-indicated until the age of three. (PHC pediatrician 3.4.5.7, FGD, Yerevan)

…mothers should avoid spicy and acidic food, …sausages, salt, etc. (Mother 3.4.5.8, FGD, Lori urban)

I was advised by a doctor to mix bananas and curd, which made my baby sick. Then I spoke to another doctor who said do not do that again, as curd must only be given after 10 months of age. (Mother 3.4.5.7, FGD, Lori rural)

As a doctor that does a lot of house visits, I must admit that all of this [correct feeding] *is on paper, because people feed their babies everything.* (PHC pediatrician 3.4.5.8, FGD, Shirak urban)

Exactly [people feed their babies everything]. *They may even give canned food.* (PHC pediatrician 3.4.5.2, FGD, Shirak urban)

Parents give them [babies] *anything they want: cow's milk, canned food, pork, etc.* (PHC pediatrician 3.4.5.8, FGD, Shirak urban)

…every time that a mother visits, you have to inform her - what to add/remove from the diet of the child. But they [mothers] *do not listen at all… if they have sausages at home, they will feed the child, if they have something else they just feed that.* (PHC pediatrician 3.4.5.9, FGD, Lori urban)

3.5 Feeding toddlers and preschool children

3.5.1 Feeding toddlers and preschool children at home

The key informants stressed the importance of appropriate diversity and frequency of meals for 1-5 years old children. Both key informants and pediatricians stated that after two years of age children should gradually get used to the family food and eat with the family members. Providers recommended giving a child approximately 4-5 meals a day – not taking into account the snacks, which they did not consider as a meal. Parents, however, reported giving a child of this age group approximately 3-4 meals per day (sometimes – two). Additionally, they mentioned

providing small snacks in between. The rural providers stated, however, that as these children often eat from the family table (family plate), following their diet becomes more difficult. Moreover, the presence of a younger sibling in the family requires more attention, hence, less attention is usually paid to the older one's diet. Rural providers told that they advise mothers to serve meals to a 1-5 year old child in a separate plate to have better control of its quantity.

Some parents mentioned that their preschool-age children eat on their own. None of them stressed the importance of making child's food diverse. Some participants considered it important to give a breakfast to the child, but some parents confessed that their children go to kindergarten/school without having breakfast. Providers mainly mentioned that they don't provide specific advice to mothers concerning the feeding of young/preschool-age children, as these children already use the family table. Pediatricians stated advising mothers to add special food items into a child's diet only if the child has deficiency in specific nutrients (e.g., adding dairy products if the child suffers from calcium deficiency). Key informants perceived inadequate quality and frequency of meals, lack of diversity, and using food items inappropriate for children (e.g. sausages, bacon, chips, and cola) as the main problems concerning the feeding of children in this age group.

The issue of selective appetite - refusal to eat some food types, was also acknowledged by both mothers and providers. It was generally agreed not to force children to eat foods they do not want, but to try convincing or making them interested in it. Some parents find it better to wait until the child grows and is able to decide on his/her own. Parents raised the issue on the danger of overfeeding of a child that could lead to problems with obesity.

We have clear guidelines for young children's nutrition, usually it is important the diverse food introduction and using the same food as family members starting from two years. And it is very important the group eating, my grandchild doesn't eat very well at home but in kindergarten he eats very well with his friends. It is very important the diversity and frequency of food intake. And the child should have three times full and two times half meal. (Policymaker/expert 3.5.1.1, IDI, Yerevan)

I think that three times a day is mandatory, later the child can eat fruit, bread, vegetables, and greens… whatever they want. I usually convince my child to eat the food that he doesn't like. (Mother 3.5.1.1, FGD, Lori urban)

Yes, under-five children should be fed 3-4 times a day. (Mother 3.5.1.2, FGD, Shirak rural)

…they may all eat from a single plate, where the adults will eat more and not enough will be left for the children. That is why a child must have his own plate and the mother must help him to eat until the time that he becomes independent and manages on their own. (PHC pediatrician 3.5.1.1, FGD, Shirak urban)

However, when advice is provided for children between the ages of 1 and 5 parents are less attentive. They usually eat together with the grownups, so whatever is cooked is also fed to the children. (PHC pediatrician 3.5.1.2, FGD, Shirak urban)

You know how it works? They [parents] *are very attentive if it is the youngest child in the house, but if there is a younger one, then naturally more attention is paid to that one.* (PHC pediatrician 3.5.1.1, FGD, Shirak urban)

I manage two main feedings [of the child] *by playing and convincing… It is important to have breakfast.* (Mother 3.5.1.3, FGD, Lori rural)

I have two school-age kids, but none of them eat in the morning. (Mother 3.5.1.4, FGD, Lori rural)

After two years old, children should eat like adults. …There isn't any special food that we recommend mothers for their children. (Ambulator nurse 3.5.1.1, FGD, Lori rural)

We only recommend them [mothers] to feed their children homemade food prepared by themselves. (Ambulator nurse 3.5.1.2, FGD, Lori rural)

The correct amount of protein must be ensured for them [1-5 year old children]. (PHC pediatrician 3.5.1.3, FGD, Lori urban)

If they [children from 1-5 years of age] *have insufficient calcium or vitamins, we note the specific foods that have high levels of these.* (PHC pediatrician 3.5.1.4, FGD, Lori urban)

If the teeth come out late, we advise using more yogurt, sour cream. (PHC pediatrician 3.5.1.5, FGD, Lori urban)

Mostly it [the problem with feeding of a 1-5 years old child] *is inadequate quality and frequency of meals, lack of diversity, giving to children low quality sausages, bacon, chips, and cola.* (Policymaker/expert 3.5.1.2, IDI, Yerevan)

When my child refuses to eat a certain type of food I try to serve it with beautiful and interesting colored things. The same way I behave when he/she is sick. (Mother 3.5.1.5, FGD, Shirak rural)

I forced my kid to eat something, but that resulted in vomiting. (Mother 3.5.1.6, FGD, Lori rural)

I don't force or convince [my baby to eat]. (Mother 3.5.1.4, FGD, Lori rural)

It isn't good to feed too much either. There are mothers who like it that their baby is chubby, not knowing that this is also a bad thing. The food should be chosen correctly. (Mother 3.5.1.3, FGD, Lori rural)

The child should be fed a normal amount. In some cases it is better to fed less than more, as later overeating will lead to obesity and other health problems. (Mother 3.5.1.7, FGD, Lori urban)

3.5.2 Feeding toddlers and preschool children in kindergarten

One of the issues concerning this age groups was that the older children attend kindergarten and parents were not sure on the specifics of their food intake while not at home. Parents mainly reported giving a child only one meal at home, as they eat three times in kindergarten. Key informants stressed that more attention should be paid to the quality, nutrient content and safety of the food in preschool settings.

My daughter goes to kindergarten and there she eats three times and one time she eats at home. So she has four main meals. I give more soup to my child as I think it is very important for her. (Mother 3.5.2.1, FGD, Lori urban)

They should be fed three times a day; breakfast, lunch and dinner. If a child goes to kindergarten, they are fed thrice – in the morning they have breakfast, then at midday lunch and after sleep dinner at 3:30 pm. and then at home they eat one time. So under-five children should be fed 3-4 times. (Mother 3.5.2.2, FGD, Shirak rural)

The food quality, its nutrient content, safety, and the mode of preparation are very important in preschool facilities. The children [of this age] *are more active and they play with the ground, surrounding environment. Here we have problems with parasitizes and the spread of parasites diseases,* [thus] *the problems with hygiene of a child's mouth, nails etc. for young children are very important.* (Policymaker/expert 3.5.2.1, IDI, Yerevan)

3.6 Child growth monitoring

3.6.1 Growth monitoring during infancy

The key informants mentioned that there are well-developed standards for growth monitoring at PHC facilities and five types of growth charts are included in well-designed ambulatory cards for children. However, not in every PHC setting all these five growth charts are completed. Lack of time was mentioned as the first reason for this, as pediatricians in PHC settings have a lot of paper work to manage, and sometimes they don't have enough time to complete these charts. Lack of knowledge was the second reason they mentioned, saying that providers can complete all five charts but they cannot properly interpret them and make recommendations. Thus, according to key informants, healthcare providers need trainings and also motivation to complete these growth charts.

Unlike the key informants, pediatricians from all FGDs stated that every single one of the infants under their supervision is regularly monitored for weight, height, and head circumference (which is last monitored at 15 months of age). All pediatricians from all FGDs reported mandatory filling up the growth details in the growth curves for all children under the age of one. Providers considered that the current growth monitoring schedule is optimal and valued the opportunities it provides for timely detection and treatment of growth/health related issues in children. Parents also were interested in growth monitoring of their infants. However, some mothers noted that they need to pursue their child's growth monitoring themselves, as providers are not interested. One pediatrician from Yerevan expressed a concern about the growth standards' applicability to our population as, according to her, the current standards were developed based on Belgian and French population groups, while Armenians are shorter.

I think that current schedule [of growth monitoring] *is realistic and during the first year of child's life visits to the pediatrician are frequent, then become rare. However, anthropometric measurements aren't done properly as parents do not realize the importance of these measurements; the same do some healthcare practitioners.* (Policymaker/expert 3.6.1.1, IDI, Yerevan)

... they have objective and subjective reasons for not completing the growth charts.

…the objective reason is that during the last 10 years the paper work became more and healthcare providers do not have enough time to complete all required papers. The subjective reason is that they cannot understand the importance of these charts for child's growth. (Policymaker/expert 3.6.1.2, IDI, Yerevan)

They [providers] *don't complete the BMI-for-age chart; they don't have proper consulting skills.* (Policymaker/expert 3.6.1.3, IDI, Yerevan)

Sometimes healthcare providers complete the growth charts but cannot interpret properly and make right recommendations. (Policymaker/expert 3.6.1.4, IDI, Yerevan)

[The growth screenings are conducted] *Three times every 1.5 months, then definitely at 6 months old, then during the 9 month anemia testing we also check the head circumference, the weight and height.* (PHC pediatrician 3.6.1.1, FGD, Shirak urban)

We monitor the growth of all children, show it to the mothers and explain to them their children are growing. Moreover mothers also fill in the charts in their children's passports themselves. (Ambulator nurse 3.6.1.1, FGD, Lori rural)

For children under one year of age, we do mandatory anthropometric measurement during every visit. We measure their weigh, height and head circumference. Our patient cards have percentile growth curves at the end and based on these measurements we can assess their growth rate. (PHC pediatrician 3.6.1.2, FGD, Lori urban)

We complete all five growth charts for infants. (Ambulator nurse 3.6.1.2, FGD, Shirak urban)

The current growth curves are not appropriate for us – some of these are developed in Belgium, some in France. Our population is shorter and we make wrong conclusions using these curves as the standard. (PHC pediatrician 3.6.1.3, FGD, Yerevan)

We check during every visit. Naturally when they come from the maternity hospital, they have some numbers, which we constantly monitor. And usually during the first visit at 1 month of age, they exceed the initial weight. If we see that our expectations have not been met and the weight is not sufficient, we begin examining in detail and questioning the mother to identify the reason, so we can provide the necessary guidance. (PHC pediatrician 3.6.1.1, FGD, Shirak urban)

I think that the schedule of children's anthropometric measurements is optimal. (Ambulator nurse 3.6.1.3, FGD, Shirak urban)

We monitored our children's growth, and always filled in their passports. The healthcare providers also monitored the child's growth. They monitored it starting from the sign out [from

the maternity hospital], *and every month and half we visit our healthcare providers for vaccination where they check-up the growth parameters of our children. We fill in the children passport till one year, later HC providers start filling it.* (Mother 3.6.1.1, FGD, Lori urban)

Yes, when we visited polyclinic for vaccination or other reason pediatricians have always monitored the child's growth. Our pediatrician is very attentive. (Mother 3.6.1.2, FGD, Shirak rural)

I have made my healthcare provider to monitor my child's growth. It is in their function to contact us and call us in, but they do not. I take my child for a check-up myself. (Mother 3.6.1.3, FGD, Yerevan)

The pediatrician does not call me to take my child for growth monitoring and I do not take her. I weight my child at home. (Mother 3.6.1.4, FGD, Yerevan)

In Yerevan, they call the mothers and remind them to go over and then they conduct everything. They probably don't do it in these village conditions. I know that they call [in Yerevan] and check the eyesight, weight, height, cardiac activity, head size, etc. (Mother 3.6.1.5, FGD, Lori rural)

Thanks to these, we do not have any accidental cases when a child is left out. You can immediately see if there is an issue with height of weight. (PHC pediatrician 3.6.1.2, FGD, Lori urban)

We weight them [children] *at home. None of us have been called during the first year to come in specifically for measurements. These are done during vaccinations, or in case of health issues.* (Mother 3.6.1.5, FGD, Lori rural)

3.6.2 Growth monitoring of 1-5 years old children

Growth monitoring of older children was not done in the same intensity as for the infants and the reported coverage of 1-5 years old children with growth monitoring ranged widely from one pediatrician to the other. All the specialists in the focus groups agreed that the main reason that they do not manage full coverage of older children with growth monitoring was the shortage of pediatricians and, hence, their overload with too many patients. This leaves them in a situation when they have to see 25-30 children in a single day sometimes, which neither allows for proper consultation, nor for drawing the growth curves. Therefore, even though the dot is put on the

chart to show parents where their child is, the curves are sometimes drawn after the child has left the office.

Another issue that all pediatricians from various groups reported was having a shortage of necessary facilities and equipment for weight and height measurement of children from 1-5 years of age. This results in having to take children from one room to the other, which is inconvenient and causes unnecessary difficulties. There are not enough scales and tapes to measure height, especially for children over the age of one.

The same information provided by parents differed not only from that of the pediatricians, but also between parents from rural and urban areas. Parents from rural areas reported not having their children's growth measured after the age of one, which left them to weight and measure height at their own free will.

Although pediatricians realized the importance of timely detection of growth problems, they were not sure about the measures they undertake in the case of growth problems, as they did not have standard guidelines for treatment of growth problems in children.

Although it [growth monitoring] *is being conducted, but it is done in more detail for children until the age of one, because there are vaccinations until this age. After the first year, this procedure is no longer carried out this way… even thought there are all the schemes and necessities to monitor the physical growth, in my opinion it is not done well.* (Policymaker/expert 3.6.2.1, IDI, Shirak rural)

… it [growth monitoring] *is once a year after the first year. We also have the last head circumference measurement at 15 months of age.* (PHC pediatrician 3.6.2.1, FGD, Shirak urban)

We usually monitor the growth of all under-five children. (Ambulator nurse 3.6.2.1, FGD, Lori rural)

After the first year we check [growth] *every year, comparing the results of the previous year. And of course whenever there are issues.* (PHC pediatrician 3.6.2.2, FGD, Shirak urban)

I have to confess we don't do it [growth monitoring] *as detailed as we do with younger children. The reason is that we sometimes do not have enough time to do it.* (PHC pediatrician 3.6.2.3, FGD, Lori urban)

Yes, that is true. The paperwork is too much so we don't have time. It takes about 30 minutes per child for consultancy. This means we can only see a maximum of eight children during a work day, but we have about 25-30 children coming in per day. (PHC pediatrician 3.6.2.4, FGD, Lori urban)

If we have sufficient time, we do it [drawing the curve] *during that visit. Otherwise we take the measurements and show where the dot is located and then later on draw the lines accordingly.* (PHC pediatrician 3.6.2.3, FGD, Lori urban)

We don't have scale in every room. (Ambulator nurse 3.6.2.2, FGD, Shirak urban)

We have a scale, but it is foreseen for children under 10 kilograms. If a child is above that, we have to take him to another office for weighing. (PHC pediatrician 3.6.2.5, FGD, Lori urban)

We have scales for newborns in our cabinets, but we have trouble weighing the older children… The same applies for height measurers. They are for younger children, so we cannot use them for children over one year old. (PHC pediatrician 3.6.2.4, FGD, Lori urban)

For example I am a pediatrician, but I do not have scales in my office. So my nurse keeps running here and there to have the children weighed. (PHC pediatrician 3.6.2.6, FGD, Shirak urban)

Whenever they [children from 1-5 years of age] *have health issues we bring them* [to the doctor]. *But even in this case we have to request weighing. Otherwise, they* [medical staff] *don't weight them* [our children]. (Mother 3.6.2.1, FGD, Lori rural)

I don't weight [her child] *at all… the last time I brought my baby to the doctor at nine months for a vaccine, and now she is 1.5 years old and I have no idea how much she weighs.* (Mother 3.6.2.2, FGD, Lori rural)

We don't have any protocol for treatment of overweight or underweight children. (Ambulator nurse 3.6.2.3, FGD, Shirak urban)

We would like to have guidelines for the treatment of children's growth problems. (Ambulator nurse 3.6.2.4, FGD, Shirak urban)

3.7 Anemia screening and attitudes to flour fortification

3.7.1 Anemia screening and prevention practices

All the groups of providers and key informants stated that all pregnant women and infants are screened for blood hemoglobin level in PHC settings. Mothers' groups from urban areas also confirmed that their children had been tested for hemoglobin at 9 months of age. All participant parents from rural areas reported that their children had not been tested for blood hemoglobin levels at nine months of age, even though the pediatricians from these areas reported covering 100% of children. Most of these parents did not know of the mandatory anemia test and expressed gratitude for informing them, stating that they would require the test to be done in the future.

Both ob/gyns and pediatricians reported a decline in cases of anemia in the population they serve. However, they expressed a concern on the reliability of the hemoglobin tests conducted.

Although the FGD participants from maternity hospitals were aware that cutting umbilical cord 3-4 minutes after birth could prevent anemia in infants, the existing practice in the maternity hospitals, according to them, is immediate clumping of the umbilical cord which decreases the transfer of iron to the infant and contributes to quicker depletion of the iron reserves during infancy.

The monitoring is there though for pregnant women. All pregnant women have their blood analyzed a few times during their pregnancy… So if it is necessary then iron etc. are added in their food. (Policymaker/expert 3.7.1.1, IDI, Shirak rural)

…presently we don't have serious anemia. Anyway, we have a 100% registration of [pregnant] *women* [in Yerevan]*, and it* [anemia] *is very rare.* (Policymaker/expert 3.7.1.2, IDI, Yerevan)

The coverage of anemia screening is very high as it is also included in the bonus system. Children at the age of 9 months (there may be slight deviations [from this age] *in some cases – we have clear indicators in what cases) are undergone a test for blood hemoglobin level.* (Policymaker/expert 3.7.1.3, IDI, Yerevan)

Anemia screening is done and in the case when the results are positive, healthcare providers try to correct it by diet but also prescribe iron medication. (Policymaker/expert 3.7.1.4, IDI, Yerevan)

The screening is at 9 months and we do mandatory testing for all children. (PHC pediatrician 3.7.1.1, FGD, Shirak urban)

If necessary, haemoglobin level can be monitored earlier in life, but it is done at 9 months to one year of age for healthy babies. It is compulsory and done for 100% of our children. (PHC pediatrician 3.7.1.2, FGD, Yerevan)

100% of 9 month-old babies undergo this screening. There are no cases there this is not conducted. (PHC pediatrician 3.7.1.3, FGD, Lori urban)

None of our children were tested for blood haemoglobin levels. (Mother 3.7.1.1, FGD, Shirak rural)

I have had my child's blood tested due to bronchitis, otherwise none of us know what anemia testing is and have not had it done. (Mother 3.7.1.2, FGD, Lori rural)

I can say that we don't have many children with anemia, usually the anemia level isn't so severe and we correct it through better diet. For those children who have anemia, we recommend avoiding tea, as tea disturbs the iron absorption in the intestines. (Ambulator nurse 3.7.1.1, FGD, Shirak urban)

Tests for haemoglobin levels are done for 100% of children… It is a proper test and there is no human factor in it. The result are reliable. (PHC pediatrician 3.7.1.4, FGD, Yerevan)

The results [of the blood hemoglobin level test] *are about 90% reliable.* (PHC pediatrician 3.7.1.5, FGD, Yerevan)

[Anemia screening results] *are not valid, because the equipment is very old… There is a high human-factor included in this laboratory test; it is very subjective.* (PHC pediatrician 3.7.1.6, FGD, Lori urban)

A lot of questions exist [concerning the validity of the hemoglobin test]. *We sometimes need it to be retested.* (PHC pediatrician 3.7.1.7, FGD, Shirak urban)

It is possible that we do our screening and don't find anything extraordinary, but then the lab results return with very low hemoglobin levels. Or vice versa. In such cases we need retesting for confirmation. (PHC pediatrician 3.7.1.8, FGD, Shirak urban)

We know that the baby's placental cord should be cut after 3-4 minutes, but in Armenia we are

taught to cut it immediately after birth. In ideal case the child should be put on the abdomen of the mother and wait until the pulsation stops. Then the healthcare provider must put the baby on its mother's breast. The pulsation stops about 4-5 minutes later, during which the baby should be on the mother's abdomen. (PHC ob/gyn 3.7.1.1, FGD, Yerevan)

The idea is that if the placental cord is cut later than 3-4 minutes, the child will get more iron from mother and won't develop anemia. (PHC ob/gyn 3.7.1.2, FGD, Yerevan)

3.7.2 Treatment of anemia

The key informants stated that although the specific cause of anemia is not identified at the PHC level, but, generally, 50% of anemia cases are because of iron deficiency. Therefore, guidelines are developed for management of pregnant women and children with low blood hemoglobin levels. According to these guidelines, healthcare providers correct the diet of cases and also prescribe them iron supplements and after a month test them for blood hemoglobin level again. If there is improvement, they continue the treatment, but if there is no change, they refer the case to a specialist for further investigation. The FGD participants confirmed that this strategy is currently practiced in PHC settings. Healthcare providers underscored also the importance of correcting diet in cases of anemia, and mentioned meat as a good source of iron. Some stated trying to treat the mild cases of anemia only via changing the diet and prescribing iron supplements only when the diet change alone is not enough. They mentioned the importance of breastfeeding and correct feeding practices for anemia prevention and treatment and the danger of using cow's milk. Nurses and mothers were also aware of the importance of consuming more iron to prevent and treat anemia, but often demonstrated lack of knowledge about food rich in iron. One parent mentioned the danger of tea for appropriate absorption of iron.

Participants from the groups of ob/gyns expressed their concern over anemia treatment among pregnant women, as the causes can be many, which are not determined in Armenia and pregnant women are often prescribed iron without a definitive diagnosis of the cause. This same concern was reported by pediatricians and mothers, who stated that equipments and tests are not sufficient to identify the exact cause of anemia in children, therefore, the treatment becomes difficult. Some pediatricians noted that often helminthiasis are the cause of anemia among children.

Of course HC providers have guidelines where it is explained in detail what to do in case of anemia and during different types of anemia. (Ambulator nurse 3.7.2.1, FGD, Shirak urban)

It is foreseen by the guideline that after the child receives treatment for a month, we repeat the testing, and if the results have increased by 10 then our treatment has been successful, and then we may continue for another 2 months. (PHC pediatrician 3.7.2.1, FGD, Shirak urban)

Until their recovery [from anemia], *we prescribe blood hemoglobin level tests every two months. After recovery we continue the tests once every three months until we are sure that they are entirely well… There are very good guidelines in case of anemia.* (PHC pediatrician 3.7.2.2, FGD, Yerevan)

We also take urine and stool tests in case of anemia. But we don't test the prior reason of anemia, we know that mostly it is due to iron deficiency and when we give Ferum lek we test for blood hemoglobin level after one month and if we don't have any changes we refer to hematologist' consultation for more analyses. If we have positive results, we continue iron supplements and correct diet. (Ambulator nurse 3.7.2.2, FGD, Shirak urban)

Yes, in polyclinics they tested the hemoglobin level in blood, and if we had any problems they prescribed us Ferum lek. (Mother 3.7.2.1, FGD, Lori urban)

We have Iron supplements which we provide for free with Vit C. (PHC pediatrician 3.7.2.3, FGD, Shirak urban)

[If a child is diagnosed with anemia] *Firstly we work on the diet. In cases where the blood test result is less than 105, we prescribe medication.* (PHC pediatrician 3.7.2.4, FGD, Yerevan)

If the result shows anemia the pediatrician gives a treatment. In general they [doctors] *try to correct iron levels in the blood through diet if the anemia is not severe. In case of severe anemia they prescribe Ferum lek.* (Ambulator nurse 3.7.2.3, FGD, Shirak urban)

The first accent we put is on the food, which must be rich with proteins and vitamins. And when we say protein we mean fresh meat. The food must be complete and healthy. (PHC pediatrician 3.7.2.5, FGD, Shirak urban)

[If anemia is present,] *give* [children] *less cow's milk.* (PHC pediatrician 3.7.2.6, FGD, Lori urban)

[We advise] correct feeding with mother's milk, and correct feeding in general. Also balance the mother's diet. It is important to introduce complementary food correctly… specifically meat.

In case of necessity, provide supplements for anemia treatment, but never with grains. (PHC pediatrician 3.7.2.7, FGD, Lori urban)

It is very important to determine the cause of anemia. There are many ways to determine the cause of anemia, but unfortunately our doctors prescribe Fe to pregnant women without determining the origin of anemia. (Mother 3.7.2.2, FGD, Yerevan)

Not all anemias are due to Fe deficiencies and prescribing Fe can cause harm to the child. If the laboratory would be able to decide this issue with ferritin, it would be better as we would both save on medication costs and not harm the child. (PHC pediatrician 3.7.2.8, FGD, Lori urban)

Usually the reasons for anemia may be helminthiasis, so we should check children for that as well, especially children of two years and older. (Ambulator nurse 3.7.2.1, FGD, Shirak urban)

It is very important for anemia prevention to correct the diet. We recommend mothers to eat more food containing iron, such as: meat, apple etc. and to avoid tea. But you know that nowadays it is difficult for them to buy meat so here we have problems. (Ambulator nurse 3.7.2.3, FGD, Shirak urban)

There are lots of ways to correct anemia; one of the ways is porridge with a liver of cattle, carrot and beet, also Saperavi and Muscat grapes' juice etc. (Mother 3.7.2.3, FGD, Shirak rural)

I have heard that it is not allowed to give children more tea as it disturbs the iron absorption from intestine. (Mother 3.7.2.4, FGD, Lori urban)

3.7.3 Attitudes to flour fortification

The key informants were uniform in their positive attitude toward flour fortification with iron to prevent anemia among women and children. The majority of participants in all other groups were against this project listing various reasons, which were quite common between the groups. One of the major concerns listed specifically by specialists was that people who have sufficient amounts of these elements could possibly experience overdose. Another concern raised was that it couldn't be determined whether clean fortifiers to be used, or there would be some harmful side-products. Some participants expressed preference in addressing the issue of iron and folic acid deficiency through advocating healthy diet and helping the vulnerable population groups financially so that they can afford the needed diet. Only a few specialists had either a positive

stance or were neutral to the fortification program. They too, however, were unsure when it came to prognosis.

It is noteworthy that parents from rural areas lagged behind on their awareness level on flour fortification, when compared to parents from urban areas. Only a few participants from rural areas (from both groups) had heard about the program. However, some of them were still unable to state their opinion regarding this issue, as they noted that they did not have sufficient information.

I think that we need a surveillance system [for anemia], and I am not for screenings, I am for preventing mechanism. …We are fortifying flour to keep people healthy not to treat them from anemia… (Policymaker/expert 3.7.3.1, IDI, Yerevan)

There is a lot of discussion nowadays about the iron-fortification of flour and there are different opinions about this issue. I think that it is an optimal way of preventing anemia in children based on international experience. (Policymaker/expert 3.7.3.2, IDI, Yerevan)

Nowadays it is widely discussed in the MOH, parliament and other places whether we should fortified flour or not. We know well that among women and also among children we have high level of anemia, and we know as well that there are many congenital disorders that could be prevented if we add folic acid to mothers' diet on time... (Policymaker/expert 3.7.3.3, IDI, Yerevan)

…there was a lot of white noise from the side, but I think it [flour fortification with iron] is necessary, because we can see that there is a background for anemia in the country… (Policymaker/expert 3.7.3.4, IDI, Shirak urban)

I think that flour shouldn't be fortified by iron and folic acid; I think that it will be better to ensure intake through diet that contains iron and folic acid. (Mother 3.7.3.1, FGD, Lori urban)

I am against this program. I mean what does it mean… that if a person is socially vulnerable then we should provide all the vitamins added in some food? It is better to improve their financial standing, so they can get natural sources of folic acid. And then when you add folic acid, how do you monitor correct dosing and use? (PHC ob/gyn 3.7.3.1, FGD, Lori urban)

For example, they iodized the salt here because we are a mountainous country and have a shortage of iodine. But Iron and folic acid naturally exists in food… dark leafy greens, etc… why are they adding these? They should just ensure that the population can afford to eat better. (PHC pediatrician 3.7.3.1, FGD, Shirak urban)

I cannot say whether it is good or bad to fortify flour, but I can say that Armenians mainly use bread so there may be overdoses. Anemia is not the only reason of iron deficiency, there are many other diseases that cause anemia. (Maternity hospital doctor 3.7.3.1, FGD, Lori urban)

…I am against this new Law about flour fortification, as we now do not have so much natural food; potatoes and other vegetables are already genetically modified and are harmful for people health, so why do worse? (Mother 3.7.3.1, FGD, Lori urban)

I don't think that there is a need for flour fortification with iron and folic acid. I don't think that it will prevent anemia. Also… our Armenian families eat a lot of bread and in this case we can have overdoses. We have families that eat mainly bread so what then? (Ambulator nurse 3.7.3.1, FGD, Shirak urban)

We do not need that [enrichment of flour with folic acid and iron]. (PHC pediatrician 3.7.3.2, FGD, Yerevan)

If that [flour fortification] *is just for people who have the need for it, then just give it to them. It brings to blood thickening in normal individuals.* (PHC pediatrician 3.7.3.3, FGD, Lori urban)

People should have the ability to choose what supplements they are willing to take… This isn't just about Fe. Our organism needs various microelements. So it turns out that in this case we should also add Vit D, Ca, etc to the flour. (PHC pediatrician 3.7.3.4, FGD, Lori urban)

Regular flour in itself already has normal amounts of Fe in it. This is sufficient. (PHC pediatrician 3.7.3.5, FGD, Lori urban)

That is a very non-intellectual approach to solving an issue. (PHC pediatrician 3.7.3.3, FGD, Lori urban)

If I don't have anemia and iron deficiency why should I eat iron fortified bread. Excessive amount of iron is also bad. It depends on individual needs. I think that if someone has iron deficiency he/she should worry about how to correct it. They can use more meat if they have an iron deficiency. (Mother 3.7.3.2, FGD, Shirak rural)

Everyday usage of iron-fortified bread is not appropriate. (Mother 3.7.3.3, FGD, Shirak rural)

To be honest with you, I have heard from the television that it [fortification] *has negative side-effects.* (Mother 3.7.3.4, FGD, Lori rural)

If it is really going to reach its target and do the job, I think it is a good thing. After salt was iodized, hypothyroidism decreased in our country. The same could happen with this project… I personally have had anemia issues my entire life. (PHC pediatrician 3.7.3.6, FGD, Shirak urban)

I think that it is not a bad idea, and as for me it isn't necessary to have an iron deficiency then think how to correct it. Thus you can prevent it. (Mother 3.7.3.5, FGD, Shirak rural)

No, it is not a bad thing. It is just a new thing, and in case of all experiments, you only see the results in a while. So they must check the population and see how the overall situation is and then make a decision based on that. (PHC pediatrician 3.7.3.7, FGD, Shirak urban)

I agree with this project [flour fortification]*… I think it is a good thing… If what is going to be given does not include any chemicals and substances other than clean Folic acid - I am not sure how flour fortification is done.* (PHC ob/gyn 3.7.3.2, FGD, Lori urban)

I have heard that this [fortification] *is being discussed, but I am not sure what it is.* (Mother 3.7.3.6, FGD, Lori rural)

3.8 Counseling practices and information sources

3.8.1 Providers' counseling practices

According to the key informants, there are considerable between-provider and between-facility differences in the amount and quality of information provided to parents and pregnant women by healthcare providers in Armenia. Pediatricians from all groups stated that they provide counseling to parents on every given visit, regardless of the child's health status and whether the mother asked for it or not. On the other hand, some pediatricians acknowledged that truly there was a lack of performance in this respect from their side, and attributed it to being overloaded with patients and paperwork, which leaves insufficient time for each visit. Key informants also attributed insufficient counseling in PHC settings to the overload of pediatricians with the paperwork, because of which they lost their consulting skills. Another reason mentioned by key informants was low awareness of providers on the subject. However, they stated also that in Armenia pediatric care is organized much better than any other care, and pediatricians are more careful and attentive to their work.

The lack of sufficient counseling was one of the major issues raised throughout the FGDs with the mothers as well. They not only mentioned insufficient counseling, but also lack of explanation for the advice provided both in women consultations and in pediatric PHC settings. Mothers from various groups mentioned the insufficient salaries and bad socio-economic conditions of providers as being the main reason for this.

although we have very small country, the situation varies in different healthcare settings. There are many healthcare settings where highly qualified services are provided, and also preventive counseling is given, and in contrast with this there are many healthcare settings where the practice should be promoted and improved very much. (Policymaker/expert 3.8.1.1, IDI, Yerevan)

To my knowledge, in every women consultation the information is provided to a women differently and the information that they provide is not always the same as we require, maybe that information is also evidence-based but not that one that are included in our guidelines… (Policymaker/expert 3.8.1.2, IDI, Yerevan)

Information on nutrition [for children] *is provided both during prophylactic visits and when the child is unwell.* (PHC pediatrician 3.8.1.1, FGD, Lori urban)

I think the issue [lack of counseling] *has to do with timing somewhat. When I look at how everything is done… there are people queued outside and in 15 minutes they* [doctors] *scan, check and make sure things are ok, so there is no time left to talk.* (Mother 3.8.1.1, FGD, Yerevan)

We have problem with counseling process, healthcare providers are more involved in paper work instead of counseling patients, and therefore the communication with patients suffers a lot. Sometimes I noticed that our HC providers couldn't consult properly their patients. Sometimes they need to be short but informative but they couldn't as due to this routine paper work they lost their abilities and skills to consult. (Policymaker/expert 3.8.1.1, IDI, Yerevan)

I think that healthcare providers do not have basic knowledge to give sufficient recommendations. In my opinion it mainly depends on healthcare provider's activeness, responsibility, I mean that it is very subjective issue, we don't have objective criteria to assess prenatal primary healthcare providers' work. (Policymaker/expert 3.8.1.3, IDI, Yerevan)

The pediatric care in our country, especially in primary healthcare facilities is more satisfying, pediatricians are more responsible, it is my subjective opinion, but I was convinced in it during different observations. (Policymaker/expert 3.8.1.3, IDI, Yerevan)

If they prescribe something and you ask, then they tell you. But you have to ask them … they won't explain themselves. (Mother 3.8.1.2, FGD, Lori rural)

…some doctors may be good specialists, but they do not provide information unless you ask for it. I have felt this myself and checked with other women who see the same physician. (Mother 3.8.1.3, FGD, Yerevan)

In general there is no individual approach to every child or pregnant woman starting from pregnancy to breastfeeding to taking to kindergarten. The information is not provided as it should be… if you are pregnant then there is this attitude that if your mother or grandmother has had 1-2 children then they know everything and will provide you with information, so you will be alright. It is like all pregnant women are the same, all children are the same and nothing is individual. (Mother 3.8.1.4, FGD, Yerevan)

We have prenatal PHC facility but healthcare providers never give any recommendations regarding nutrition [during pregnancy]. (Mother 3.8.1.5, FGD, Shirak rural)

Nobody recommended [how to introduce complementary food], *I decided on my own.* (Mother 3.8.1.6, FGD, Shirak rural)

I have a problem with doctors… they will not speak. You take the child to the doctor, they check the weight, height, head, heart and that is it. There is no conversation, no explanation, nothing. (Mother 3.8.1.7, FGD, Yerevan)

In maternity hospitals consultations are not provided properly. My healthcare provider recommended me to do some physical activities, but how to eat and when, she did not explain. (Mother 3.8.1.5, FGD, Shirak rural)

Approximately 80% of pediatricians at our polyclinics provide services according to their salary. So if the parent shows an individual approach [out of pocket payment] *they begin explaining everything in all detail, beginning from feeding milk replacements, illnesses, breastfeeding, etc. This is an issue we have in Armenia, which comes from bad socio-economic conditions.* (Mother 3.8.1.8, FGD, Yerevan)

3.8.2 Compliance with medical advice

According to pediatricians, 80-90% of mothers follow their advice. They underscored the importance of mutual trust between doctors and mothers for appropriate compliance. Some

doctors noted that the main reason for non-compliance with the breastfeeding regimen among parents is their inability to do so due to various reasons, rather than being unwilling. In one group a provider stated that they have 100% trust among their population and their advice was followed. However, several specialists expressed their concern on not being treated with adequate respect by parents. A key informant viewed the issue of compliance as a two-sided issue that depends both from patients'/parents' attitude and physician's performance.

Participants from all groups reported various reasons for non-compliance with the advice given by medical specialists, including insufficient consultation and information provided by health providers, lack of trust in healthcare providers, social pressure, absence of an individual approach, parents making individual choices, etc. The influence of family and neighbors (especially mothers and mother-in-laws) were reported by a majority as being one of the main factors leading to non-compliance in the issues concerning breastfeeding and child nutrition. Forgetfulness was also mentioned as a reason for poor compliance to medical advice.

I can easily say that they [mothers] *trust us, pediatricians, by 100%. Nowadays we – pediatricians, family doctors and general practitioners, have complete trust among people. If the doctor has said so, then that's it!* (PHC pediatrician 3.8.2.1, FGD, Shirak urban)

Mutual trust between mothers and doctors is the most important issue. A doctor's work and correct guidance is of utmost importance. (PHC pediatrician 3.8.2.2, FGD, Yerevan)

Around 85% [of parents comply with the advice provided]. *But the issue isn't that they are unwilling to follow our advice rather that for some reason they aren't able to. Because otherwise all 100% of parents are willing to follow our advice.* (PHC pediatrician 3.8.2.3, FGD, Lori urban)

On the whole, parents listen to what we advise, however, usually their finances are not sufficient to follow such advice. (PHC pediatrician 3.8.2.4, FGD, Yerevan)

The salaries of doctors are very low and we are not respected. They [parents] *tell us that it is our duty, as we have taken an oath.* (PHC pediatrician 3.8.2.5, FGD, Yerevan)

Of course there is room for improvements. The issue [compliance with physician's advice] *that needs to be addressed is two sides... the attitude of parents and the healthcare providers. Firstly the mother must have a caring attitude towards her child and trust the physician. ...And then the specialists must be able to correctly diagnose what the disease is and prescribe correct*

treatment. (Policymaker/expert 3.8.2.1, IDI, Shirak urban)

I regularly followed all recommendations and prescriptions from my healthcare provider, as it was for the wellbeing of my child. (Mother 3.8.2.1, FGD, Lori urban)

Personally I do not blindly follow what the doctors' advice, because the experience has shown that not all doctors that we have [in Armenia] *are trustworthy. ...I felt much safer to check prescriptions – even if it is vitamins or something – by just calling up another doctor, an acquaintance or using some other source to double-check.* (Mother 3.8.2.2, FGD, Yerevan)

Everybody does how they feel comfortable, so basically it turns out that doctors' advice is useless. (Mother 3.8.2.3, FGD, Lori rural)

When my child was very young I asked the doctor if I could give her carrot juice and she said it wasn't allowed. I came home and gave her the juice anyway, because doctors don't allow anything. It's not like we don't trust the doctors… I just thought it good to make my baby get used to it, so she would be used to everything. (Mother 3.8.2.4, FGD, Lori rural)

They do not explain why, but just tell you to take it [prescriptions]. *If they DID explain, then we would probably follow the prescriptions better.* (Mother 3.8.2.5, FGD, Lori rural)

[An example of non-compliance] *A mother might say, "My mother in law says it* [the prescription] *isn't necessary. She says that she hasn't taken it and has been ok".* (PHC ob/gyn 3.8.2.1, FGD, Lori urban)

Non-compliance is due to the information they [parents] *receive from outside. Using the internet is one* [source]*, but not the only one.* (PHC ob/gyn 3.8.2.2, FGD, Lori urban)

I am not persistent with giving Vit D [to the baby]*… I skip it sometimes. It is my mistake, but I do it unwillingly. I just forget to do so.* (Mother 3.8.2.3, FGD, Lori rural)

3.8.3 Information sources for parents

The key informants were concerned with the diversity of conflicting and often misleading information that nowadays is available for women from different sources. The variety of practices both during breastfeeding and feeding children heavily depended on the given sources of information for parents. Those from rural areas relied mainly upon their mothers and mother-in-laws for information, although they also used sources such as television programs and in some

cases the internet, while those from urban areas mainly relied on the internet including groups on the social network “Facebook”, and then their pediatricians. There were also instances when mothers spoke of things they had heard from somewhere, or decided on their own. According to pediatricians, mothers nowadays search for information on the internet and then discuss it with them to be sure of the choice they make. However, pediatricians also agreed that this is not always a good thing, as the internet is filled with incorrect misleading information, which then requires a lot of effort from them to counter and forbid. This same issue was reported by various participants from the mother’s groups, who expressed concern on the accuracy of information retrieved from the internet.

One of the triangulations between groups of parents groups concerned the “Hay mayrik” (“Armenian mother”) television program. This was mentioned by various participants in all FGDs conducted with parents, both from the urban and rural areas as being an important source of information outside the healthcare providers. According to some participants, various “famous” and “intelligent” health providers are invited to this program to present topics, speak of the issues and provide recommendations concerning child and maternal health and nutrition.

However, the role of doctor as a major source of information was diminished in both rural and urban areas. Some mothers reported different publications (books and brochures) that they used to gain knowledge about correct feeding practices, while the doctors expressed willingness to have brochures on these topics that could be distributed to mothers during the check-ups.

In general, pregnant women get recommendations from their family members, neighbors and healthcare providers, meaning that all the time the poor pregnant women get flow of different information (one may say do not do this way, the other – do not eat this kind of food, the next one may say do this way and so on). All these recommendations are not evidence-based, not from guidelines… (Policymaker/expert 3.8.3.1, IDI, Yerevan)

To organize the optimal nutrition for pregnant women, first of all they [women] *need to be aware about the nutrition. As for me, one of the best ways that they can get information is mass media, and I want to emphasize also the importance of health care providers* [in informing women], *because pregnant women are under the control and in close relationship with their ob/gyn and family doctor, and can get appropriate information from them.* (Policymaker/expert 3.8.3.2, IDI, Yerevan)

Yes, we didn’t know this at first [correct attachment of babies], *but then we learned from our*

mothers and mother in-laws. (Mother 3.8.3.1, FGD, Lori rural)

The main source of counseling for us has been our mothers and mother in-laws, very little – medical personnel. (Mother 3.8.3.2, FGD, Lori rural)

Usually mothers get information from their neighbors, but we also support them and give them brochures that contain information about breastfeeding and nutrition, provided to us by UNICEF. (Ambulatory nurse 3.8.3.1, FGD, Lori rural)

[Sources of information that the women follow include] *the Internet and the older generation – grandmothers.* (PHC pediatrician 3.8.3.1, FGD, Lori urban)

Neighbors or other relatives are also sometimes consulted. (PHC pediatrician 3.8.3.2, FGD, Lori urban)

I have learned from my sister and from experience. I have given everything after six months, but have tried yogurt at an early age. (Mother 3.8.3.3, FGD, Lori rural)

I value very much "Hay mayrik" program on TV, which is the only program in Armenia that provides pregnant women with necessary and important information. Very famous and smart specialists, psychologists and other healthcare workers participate in this program, share their experiences and give very clear recommendations. And if pregnant women have difficulties to go to see their healthcare provider very often, they can watch this program on TV. (Mother 3.8.3.4, FGD, Lori urban)

For example I use my index and middle fingers to hold my breast and make it looser… so my baby can suck the milk easier. I have read about these things mainly from the internet. Of course I have also learned from the TV program "Hay mayrik", but mostly it has been the internet. (Mother 3.8.3.3, FGD, Lori rural)

There is information on TV all day long where it is constantly said how important breastfeeding is, how it boosts the immune system of the child, etc. (Mother 3.8.3.5, FGD, Yerevan)

… I got the information on feeding [the child with rabbit's meat] *from the internet, as I was searching all day long.* (Mother 3.8.3.6, FGD, Yerevan)

The "Armenian parent's corner" group on Facebook is very resourceful. (Mother 3.8.3.7, FGD, Yerevan)

The internet is always a source of information. The group that has gathered there today has done

everything consciously; however a majority of Armenian women have mother-in-laws at home, or neighbors or other relatives who serve as the main source of information for them. (Mother 3.8.3.6, FGD, Yerevan)

... well, I have a friend now who is pregnant and I always tell her... do not believe everything you find on the internet, because you may also find the extremities, many of which are better left unknown, than to learn and be worried. (Mother 3.8.3.5, FGD, Yerevan)

They [mothers] *discuss things with neighbors and read incorrect information on the internet.* (PHC pediatrician 3.8.3.3, FGD, Yerevan)

I used the Sears book [as a source of information]. *And then also Doctor Kamarovski provides very good information, so I was following him. There is a very good group on Facebook called the "breastfeeding room" where things are discussed and good advice provided... "Armenian parent's corner" is another group on Facebook from which this breastfeeding group originated. These groups have quite knowledgeable people, specialists also... and you learn whom you should listen to and who not to trust.* (Mother 3.8.3.8, FGD, Yerevan)

During our mothers' time there were books called "I am going to have a baby", which I would also give to our patients and ask them to read and return them. Our population is very unaware. (Mother 3.8.3.6, FGD, Yerevan)

We would like to have brochures about nutrition and breastfeeding which we can provide to mothers. (Maternity hospital doctor 3.8.3.1, FGD, Lori urban)

We give brochures to mothers that contain sufficient information on child nutrition. (Ambulatory nurse 3.8.3.2, FGD, Shirak urban)

3.8.4 Information sources for providers

Pediatricians mentioned seminars organized by UNICEF, training materials and guidelines as major sources of information for them on child nutrition. They stated also using the internet and reading some publications, including books, articles, and brochures provided by UNICEF. Ob/gyns mentioned using WHO guidelines on pregnant woman's nutrition available from the Internet, as well as different publications and guidelines. Although the ob/gyns from Yerevan mentioned the lack of local protocols and guidelines in women consultations on pregnant women's nutrition, they were not willing to participate in special trainings on this topic, thinking

that the needed information is available for them from other sources. Unlike them, rural providers, especially nurses were willing to participate in trainings on pregnant woman and child nutrition, anemia and other issues. They mentioned a TV programs and the Internet as sources of information they use. They also notified the lack of updated literature available for them.

Our licensing trainings, UNICEF has provided us with the information. And we also use the internet. (PHC pediatrician 3.8.4.1, FGD, Lori urban)

We have many different brochures that are provided by UNICEF. We also find information from the Internet, various journals etc. (Ambulatory nurse 3.8.4.1, FGD, Lori rural)

We get the information from guidelines. We are also continuously reading literature, using the computer and attending seminars. (PHC pediatrician 3.8.4.2, FGD, Yerevan)

There are a lot of sources [that specialist's use]: *the Internet, brochures, books, conferences etc.* (PHC ob/gyn 3.8.4.1, FGD, Yerevan)

[Women's consultation specialists use] *Information provided by WHO.* (PHC ob/gyn 3.8.4.2, FGD, Lori urban)

In the Internet there is a professional literature and we read this literature. There are not special protocols and guidelines in women consultation, but there are protocols developed by WHO and I use it in my practice. (PHC ob/gyn 3.8.4.3, FGD, Yerevan)

We have studied in clinical residency for four years and it is enough for us to know what kind of food the women need to eat during pregnancy. There are also conferences, brochures and the protocols developed by the Ministry of Health. (PHC ob/gyn 3.8.4.4, FGD, Yerevan)

We also learn from the internet. This is also very important, because the mothers go on the internet and ask us questions, so we also have to look and know what information is available there. (PHC pediatrician 3.8.4.3, FGD, Shirak urban)

The last literature we have is from 2010. We don't have anything new. (Ambulatory nurse 3.8.4.2, FGD, Shirak urban)

I watch the TV program "Mother's club" where I can learn a lot of updated information. (Ambulatory nurse 3.8.4.3, FGD, Shirak urban)

We have seminars and from these seminars we learn more about nutrition of children and other

important problems. (Ambulatory nurse 3.8.4.4, FGD, Shirak urban)

Of course we would like to participate in trainings regarding nutrition and other issues. (Ambulatory nurse 3.8.4.5, FGD, Shirak urban)

I would like to have trainings about anemia, the treatment and causes. (Ambulatory nurse 3.8.4.4, FGD, Shirak urban)

I think that there isn't need for any special training, but if they are organized, I will participate with pleasure. (Ambulatory nurse 3.8.4.6, FGD, Lori rural)

…we were just saying that we haven't had seminars on child nutrition and would be very grateful if we had them. (PHC pediatrician 3.8.4.4, FGD, Shirak urban)

3.9 Perceived reasons and suggestions

3.9.1 Perceived reasons for suboptimal nutrition of women and children

The situation in Armenia regarding pregnant women and under-five children nutrition was perceived by the participants as diverse and depending on many different factors. Lack of knowledge and lack of motivation from healthcare providers' side was mentioned by the key informants as one of the major factors. Another major factor noted by all the groups was financial, as good nutrition cannot be afforded by poor families. Parents from rural areas noted the impact of mother-in-laws, mothers and relatives on their decision and actions. There was triangulation of information in this case, as it was also reported by the healthcare providers as being an issue of non-compliance. One pediatrician thought that high rates of stunting in Armenia are because of using inadequate growth curves and suggested adapting growth curves based on the local standards, as according to her the current curves were based on European standards and do not correspond with our genetic specificities.

Lack of knowledge, lack of information about optimal nutrition, lack of interest of healthcare providers in monitoring the child's growth, nutritional status of pregnant women and children, commercial factors regarding supplementary food introduction in child's diet etc. are the common reasons… [for the existing situation with woman and child nutrition]. Policymaker/expert 3.9.1.1, IDI, Yerevan)

I can say that lack of knowledge; lack of awareness is one of the problems [with healthy nutrition in Armenia]. (Maternity hospital doctor 3.9.1.1, FGD, Yerevan)

The reasons [for poor nutrition] *are lack of knowledge of pregnant women about* [healthy] *nutrition and not being paid enough attention to pregnant women by HC providers.* Policymaker/expert 3.9.1.1, IDI, Yerevan)

You tell parents how to feed [children] *and what to do, but they come back again in a month and the situation is the same. Because people do not have the means* [financial] *to follow our advice.* (PHC pediatrician 3.9.1.1, FGD, Lori urban)

Summarizing I can say that the main problem is financial for optimal nutrition. Lack of financial resources leads our pregnant women to eat more potatoes or other carbohydrates that contain less calories and this leads to increased weight gain and even obesity. (Maternity hospital doctor 3.9.1.2, FGD, Yerevan)

Although pregnant women want to follow all the prescriptions of the healthcare providers, very often mother-in-laws don't allow them to take the medication arguing that when they were pregnant they did not drink these medications and delivered very healthy children, therefore we [daughter in laws] *don't need to take them either. However, if a woman is confident and aware, she will not allow anyone to interfere with her decisions.* (Mother 3.9.1.1, FGD, Lori urban)

I didn't have any problem with my mother-in-law. ...And I want to recommend that if someone from relatives does not agree with the healthcare providers, so take them with you to your provider and when the provider explains the need of those prescriptions they won't resist. (Mother 3.9.1.2, FGD, Lori urban)

I had big difficulties with my mother-in-law during my first pregnancy regarding taking medication prescribed by my healthcare provider, but during the second one [pregnancy] I did as my healthcare provider recommended me. She [mother-in-law] argued that I didn't need these prescriptions, as she during her pregnancy never drank these medications. (Mother 3.9.1.3, FGD, Lori urban)

I began [complementary feeding] *with cereal (mani kasha) because the elder in my house… my mother in-law told me it was easily digestible.* (Mother 3.9.1.4, FGD, Lori rural)

They'd say [surrounding people] *"Your milk is like dew", or other things like that, which would create hopelessness in women. But if you convince a mother that a mother's milk is irreplaceable for their baby, they find strength and carry on.* (PHC pediatrician 3.9.1.2, FGD, Shirak urban)

In rural areas the role of the mother-in-law in the decision making process is very high. This should be changed. (Ambulatory nurse 3.9.1.1, FGD, Lori rural)

The criteria [growth monitoring] *are European and are not adapted for Armenians. The centile system is French, Belgian and does not correspond to our children. The mothers have a health passport which includes all the child's criteria. The mothers compare these with our medical records, but since those criteria are not Armenian, problems can arise with the parents during visits.* (PHC pediatrician 3.9.1.3, FGD, Yerevan)

3.9.2 Suggestions for improving the situation

Participants from all groups made suggestions for the overall improvement of the situation regarding pregnant woman and young child nutrition in Armenia. There was triangulation between all the groups concerning the impact of socio-economic conditions on proper nutrition. All participants from all groups agreed that this was the main issue in Armenia and suggested providing either financial support or nutritional aid to pregnant women in the country. It was mentioned that in a majority of cases, noncompliance to the medical advice/prescription on pregnant woman/child nutrition is due to people being unable to afford what is necessary and thus settle for more affordable solutions. Another suggested solution to this issue was the provision of financial aid to families or food to children from socially vulnerable groups.

Another major suggestion given by parents and pediatricians was to improve services at the maternity hospitals and to ensure better quality services with regard to breastfeeding and nutrition counseling. The key informants considered important to increase the knowledge and skills of healthcare providers to enable them to provide appropriate nutritional counseling. Also, the need for eliminating commercial influences from the healthcare system and providing incentives to healthcare providers for better performance was acknowledged. One of the key informants suggested improving PHC services via implementing a supportive surveillance system that will assure daily control of the providers' work. Another important suggestion was increasing the knowledge of pregnant women and mothers/family members by making appropriate public education materials on pregnant woman and child nutrition in Armenian language available for them.

First of all the socioeconomic status of people should be improved. It happens that during

pregnancy women even cannot meet the minimal nutritional needs. If we list the required food during pregnancy, they cannot afford even 10% of that. (Mother 3.9.2.1, FGD, Shirak rural)

It is better if they give 10,000 AMD directly to the parents so they can buy the necessary food. (PHC pediatrician 3.9.2.1, FGD, Lori urban)

[To improve the nutritional status of women and children] *Improve the socioeconomic conditions* [of families], *specifically paying more attention to the remote villages.* (Mother 3.9.2.2, FGD, Lori rural)

The government should provide adapted milk mixture to families that cannot afford [child] *nutrition. It is better for me that my child eats that rather than cow's milk.* (PHC pediatrician 3.9.2.2, FGD, Lori urban)

To raise the benefits and the awareness of pregnant women. I always tell my patients that the feeling of a full stomach is not the only requirement for a healthy pregnancy and healthy baby. You have to eat well [quality food]. Policymaker/expert 3.9.2.1, IDI, Yerevan)

I do not think there is much to be done on a central level [to ensure adequate nutrition during pregnancy]. *Awareness must be raised, as everybody has to follow their own diet and well-being themselves.* (Mother 3.9.2.3, FGD, Lori rural)

Lack of knowledge, lack of information about optimal nutrition, lack of interest of healthcare providers in monitoring the child's growth, nutritional status of pregnant women and children, commercial factors regarding supplementary food introduction in child's diet etc. are ...rooms that should be improved [to improve the nutritional status of children and women]. Policymaker/expert 3.9.2.2, IDI, Yerevan)

[Doctors should have incentives for better performance] *Doctors are paid more even in the most backward of countries.* (PHC pediatrician 3.9.2.3, FGD, Yerevan)

...it is very important to have objective information, especially at the healthcare level, and we should think about the steps that will make healthcare providers to share their knowledge, update their knowledge and be more objective. Policymaker/expert 3.9.2.3, IDI, Yerevan)

As I have mentioned already, we should monitor and evaluate the situation in maternity hospitals. So, we should develop a follow-up system in maternity hospitals. Unfortunately, now our department [at the MOH] *doesn't have enough human and other resources to implement follow-ups, we have inspectorate that can monitor and evaluate the situation there* [in maternity hospitals] *if there are complaints, without complaints no one can conduct monitoring there.*

Policymaker/expert 3.9.2.4, IDI, Yerevan)

Back when they began conducting these breastfeeding trainings with us, there was very serious monitoring at the maternity hospitals. These sorts of issues [milk substitutes and silicone nipples] *were very limited back then, but now, as the monitoring gets weaker and weaker, the silicone nipples have come into the picture again… milk replacements as well. So the monitoring should be strengthened again. As soon as the baby has the slightest difficulty feeding, the mothers return home already feeding the child a substitute.* (PHC pediatrician 3.9.2.1, FGD, Lori urban)

I think the control should be improved in maternity hospitals. If you have problems with breastfeeding at a maternity hospital, nobody helps you, and usually they discharge you with these problems. After that if you call them for help, they visit you, help with breastfeeding and ask for money for their work. The healthcare providers at maternity hospitals and women consultation are very indifferent. ...You need to have some relatives or friends working there, in order for them to pay attention to you. (Mother 3.9.2.4, FGD, Lori urban)

There was a literature in English which I used [during pregnancy]. *I was interested and trying to find literature in Armenian at that time, but I simply didn't manage to do so. ...And to be honest with you, even though English language information is abundant on the internet, I am not sure whether this is true for Russian language or not. ...We are living in Armenia and the information must be available in the Armenian language.* (Mother 3.9.2.5, FGD, Yerevan)

I want to mention the importance of introduction of Supportive Surveillance System. This is a working system that developed countries already have and use. One of this system's main aims is that the heads of PHC settings should supervise the everyday work of their employees… Policymaker/expert 3.9.2.5, IDI, Yerevan)

4. MAIN FINDINGS

Practices during pregnancy

- The interpretation of “healthy diet” during pregnancy differs among women with some having no idea whether the diet should be changed during pregnancy and how. Only few women follow healthier diet before the planned pregnancy.
- There is lack of a consistent approach to prescribing nutritional supplements (e.g., vitamins, folic acid, calcium, iodine) to pregnant women, and the type and dosage/duration of these prescriptions vary between providers.
- The actual time and duration of using folic acid during pregnancy vary widely among women with especially low use in rural areas. Very few women take folic acid prior to the planned pregnancy.
- Ob/gyns from Yerevan women consultations routinely prescribe iodine supplements (Iodine Marine) to pregnant women indicating that this is the requirement of the MoH (even after the universal implementation of salt fortification with iodine).
- Pregnant women are routinely screened for blood hemoglobin level and only those with low hemoglobin level are prescribed iron supplements.
- There is inconsistency in the volume, content and quality of pregnant women’s counseling in women consultations, with substantial lack of appropriate counseling on correct nutrition and breastfeeding.
- There are no guidelines on correct nutrition practices of pregnant women, resulting in diversity of the information provided on this matter, even in the women’s schools.
- There is lack of high quality public educational materials on healthy nutrition during pregnancy and breastfeeding in Armenian language available in women’s consultations.
- The experience with the existing schools for women is encouraging and should be expanded.

- There is consensus in the belief that healthy eating habits should be instilled in women before pregnancy, and the whole society should be involved in making changes towards healthy lifestyle and nutrition.
- The culture of making preventive check-ups to healthcare providers is lacking in Armenian population, which is one of the barriers to timely receiving the needed information from PHC providers.

Newborn feeding practices in maternity hospitals

- The steps important for successful breastfeeding (early skin-to-skin contact and attachment to the breast, exclusion of pre-lacteal feedings and pacifiers) are often violated in maternity hospitals in Yerevan.
- Unlike rural maternity hospitals, there is a widespread practice in Yerevan maternity hospitals of bringing children late to the mothers (especially, after Cesarean section) and feeding them with breast milk substitutes, which is viewed as a result of commercial influences and making the work of the staff easier.
- The practical support for breastfeeding is inadequate or completely lacking in maternity hospitals, which is the biggest barrier for successful breastfeeding.
- Ob/gyns and neonatologists from maternity hospitals do not consider breastfeeding support to be their direct obligation, relying on mothers' schools as a source of information for mothers prior to delivery and hospital nurses to help mothers practically with breastfeeding.
- Sometimes neonatologists prefer to feed low-birth-weight children with high-protein formulas (instead of expressed mother's milk) to achieve higher growth rates and because of being concerned with the safety of keeping mothers' expressed milk in the refrigerator.

Early infant feeding practices at home

- The existing schedule for PHC providers to make house visits to newborns three times during the first month (at 3rd-4th days, 15th day, and one month of the child's life) is not

always completely followed, especially in rural areas, because of low motivation (lack of incentives) or feasibility issues (due to open-enrollment).

- The main challenge pediatricians face with breastfeeding during the early post-natal check-ups is re-establishing the breast milk supply and persuading the mother to switch to full breastfeeding, if the baby has already received formula in the maternity.
- The majority of mothers are content with the breastfeeding support they receive from their pediatrician and/or nurse during the early check-ups, although some mention being advised to switch to mixed/artificial feeding for some unclear/unconvincing reasons.
- Nipple cracks, insufficient milk and breast hardenings are the main complications during breastfeeding, mainly attributable to incorrect positioning, incorrect postnatal practices and insufficient knowledge/help provided to mothers at the maternity hospitals.
- The treatment of nipple cracks often includes use of different medications and oils and advising to feed less frequently instead of helping with correct positioning of the baby at the breast.
- There is a lack of lactation specialists to help mothers to overcome breastfeeding problems. A few lactation specialists available from the internet social network groups provide quite expensive services.
- Even though a majority of mothers report having breastfed exclusively until six months of age, in reality exclusive breastfeeding is almost non-existent: babies are given water from the first days of life.
- The main reasoning for giving water at early age is the belief (widespread among both mothers and providers) that water is always necessary, especially during hot weather. Herbal teas (anis water, mint suspension) are also widely prescribed to relieve pain caused by intestinal gasses.
- The main reason for switching to mixed/artificial feeding is the perceived (by mothers, family members, and/or healthcare providers) insufficiency of mother's milk production, which is sometimes "treated" with medication or mother's diet changes.

- According to providers, the primary indication for introducing supplementary feeding is poor weight gain of a child, followed by the need of a mother to return to work.
- Generally, on-demand breastfeeding regimen is practiced.
- Cow's milk is given sometimes as a replacement of breast milk, especially in rural areas. The main reasoning behind this is financial, as milk substitutes are not affordable for poor families, while cow's milk is readily available.

Complementary feeding and feeding of 1-5 years old children

- Some providers believe that 4.5 months is the correct age for starting solids (according to a recent communication with Russian specialists), while others think that rickets, low weight gain and some other conditions (e.g. constipation, diathesis) are the indications to start solids earlier (at 4.5 months).
- The actual age of solids' introduction does not coincide with the recommended age of six months and ranges from three to ten months.
- Pediatricians recommend starting solids gradually in terms of the type, quantity and homogeneity, but some of them still recommend starting the process of gradual weaning from the breast in parallel with the introduction of complementary feeding.
- Pediatricians mainly recommend starting complementary feeding from rice or buckwheat porridges, while parents often start from graded apples, a mixture of banana with cottage cheese, "Manni kasha" or cookies diluted in tea.
- Some mothers know the importance of giving a child diverse food, while others give limited types of food to their infants (e.g., home-made porridges). Some mothers are against any restriction of food types for a child.
- Pediatricians recommend introducing meat (beef) into infant's diet starting from 7-7.5 months of age, while the actual time of introduction of meat varies from six to ten months of age, and sometimes starts from giving broth and only then meat.

- The preferences in choosing home-made or commercial meals for complementary feeding of children vary with some mothers and providers being for home-made food and some for commercial complementary food.
- Eggs and honey are considered as risky food for infants. Also, providers advise to avoid canned food, processed food, pork, chocolate, carbonated beverages, tea, spicy food and salt during infancy, although parents usually do not comply with these recommendations and feed their children whatever they have at home.
- Toddlers and preschool children receive 3-4 meals per day (sometimes – two), from kindergarten and/or family table. Uncontrolled frequency, quantity, and quality of meals (especially, in kindergartens), lack of diversity, and using inappropriate food (e.g. chips, sausages, bacon, and cola) are the main problems with nutrition of 1-5 years old children.

Growth monitoring of under-five children

- There are well-developed standards for growth monitoring at PHC facilities and five types of growth charts are included in ambulatory cards of children.
- The growth charts are completed for almost all infants, but the coverage of toddlers and preschool-age children with growth monitoring is lower.
- The perceived reasons for failure of PHC providers to timely complete all five growth charts for each child are lack of time because of a big volume of paper work, shortage of pediatricians, their overload with patients and low motivation.
- Widespread shortage of necessary equipment in PHC facilities for weight and height measurement of children from 1-5 years of age is another reported reason for under-coverage of these children with growth monitoring.
- Pediatricians realize the importance of timely detection of growth problems but are not sure about the measures that need to be undertaken in the case of growth problems, as there are no standard guidelines for them on treatment of growth problems in children.

Anemia screening, prevention, and treatment

- Anemia screening at nine months of age is carried out adequately in the PHC facilities in urban areas but not in rural areas.
- According to both ob/gyns and pediatricians, there is a decreasing tendency of cases of anemia among the population they serve.
- Providers do not completely trust the results of hemoglobin testing conducted in PHC settings, as the equipment and/or methodology used for this test are outdated.
- The existing practice in maternity hospitals of immediate clumping of umbilical cord after delivery is a factor contributing to early depletion of iron reserves in infants.
- The existing guideline for anemia treatment recommends treating the newly identified cases of anemia as iron-deficient for a month, and referring the cases to a hematologist for further investigation if no results are achieved. However, both ob/gyns and pediatricians are not comfortable with beginning the treatment of cases without identifying the specific cause of anemia.
- Pediatricians recommend breastfeeding, avoiding cow's milk, and consumption of more meat to prevent/treat anemia. Nurses and mothers are aware of the importance of consuming more iron to prevent/treat anemia, but have inadequate knowledge of food types rich in iron.
- The key informants demonstrate positive attitude toward flour fortification, but all the remaining groups are against it because of two major concerns - possible overdose with iron/folic acid and the possibility of using unclean fortifiers containing harmful side-products.
- Some participants think that the issue of iron and folic acid deficiency can be better addressed through advocating healthy diet and helping the vulnerable population groups financially so that they can afford the needed food.
- Rural residents are under-informed about the project of flour fortification.

Providers' counseling practices and information sources

- Considerable between-provider and between-facility differences are observed in the amount and quality of information provided by healthcare providers to mothers.
- Lack of sufficient counseling on nutrition and breastfeeding is widespread in PHC settings, possible due to overload of providers, their low awareness of the subject, their inadequate counseling skills, and low motivation because of inadequate salaries.
- Although many providers believe that 80-90% of the population they serve comply with their advice, some doctors are concerned with not being treated respectfully by parents.
- The main reasons for non-compliance with medical advice are insufficient explanations of doctors, lack of trust in doctors, financial constrains, using alternative information sources (mainly, the internet) and social pressure (mainly, from the older generation).
- The various practices of child nutrition heavily depend on the given sources of information for parents – mainly mothers/mother-in-laws and television programs ("Hay mayrik") for rural parents and the internet (including groups on the social network "Facebook") and pediatricians for urban parents.
- The role of the doctor as a major source of information is diminished in both rural and urban areas.
- There is a lack of appropriate public education materials on pregnant woman and child nutrition available for mothers at PHC settings.
- Seminars (mainly, organized by UNICEF), training materials and guidelines (mainly, WHO), as well as the internet and some available publications are the main sources of information on pregnant woman and child nutrition for providers.

5. CONCLUSIONS AND RECOMMENDATIONS

Considering the study findings and the suggestions of the study participants, the following obstacles to adequate nutrition of pregnant women and under-five children could be specified:

- Financial constrains experienced by Armenian families, as adequate nutrition cannot be afforded by poor families
- Lack of appropriate knowledge/skills among healthcare providers to promote adequate nutrition for pregnant women and children
- Lack of uniform guidelines concerning nutritional requirements and feeding of pregnant women and young children, available for healthcare providers
- Lack of motivation of healthcare providers to perform better, because of being overloaded and receiving suboptimal remuneration
- Lack of adequate support for breastfeeding initiation in maternity hospitals
- Commercial pressure from pharmaceutical companies influencing providers' decisions and actions
- Lack of a network of lactation specialists available for mothers with breastfeeding problems
- Negative social pressure from mother-in-laws, mothers and relatives towards mothers of young children not to comply with medical advice
- Lack of weight and/or height measuring equipment for 1-5 years old children in PHC facilities
- Lack of state-of-the-art methods to test blood hemoglobin and ferritin (and/or transferrin) levels at PHC facilities
- Lack of Armenian-language public education materials in PHC settings on correct nutrition of pregnant women and children

- Shortage of mass-media programs to promote correct nutrition during pregnancy and childhood
- Shortage of mother's schools for pregnant women and mothers
- Lack of supportive supervision at the PHC level
- Lack of culture of making preventive check-ups to PHC settings.

Based on the main obstacles listed above, the following recommendations can be made for improving nutrition of pregnant women and under-five children in Armenia:

- Provide financial or nutritional support to pregnant women and young children from vulnerable population groups.
- Re-establish/strengthen the practices promoting breastfeeding in maternity hospitals (especially in Yerevan) and improve monitoring of their work.
- Undertake measures to diminish commercial influences on providers' medical decision making.
- Implement postponed umbilical cord clumping approach in the maternity hospitals to increase the iron reserves in infants.
- Conduct trainings for healthcare providers to enable them to provide appropriate nutritional counseling and support during pregnancy and early childhood.
- Increase the motivation of PHC providers to perform better through increasing their salaries or providing them financial incentives.
- Develop and disseminate uniform guidelines on nutritional requirements of pregnant women.
- Develop and widely distribute guidelines on feeding of infants and young children.
- Develop guidelines on child growth monitoring and treatment of growth problems at PHC level.

- Provide appropriate equipment for measuring weight and height of 1-5 years old children in PHC facilities.
- Provide equipment for accurate testing of blood hemoglobin and ferritin (and transferrin) levels at PHC facilities.
- Establish a network of lactation specialists to help mothers with breastfeeding problems.
- Increase the number of mother's schools and mass-media initiatives directed to promoting healthy nutrition of population in general and healthy nutrition during pregnancy and early childhood in particular.
- Make public education materials on pregnant woman and child nutrition in Armenian language widely available for them from PHC settings.
- Increase the control over the quantity and quality of food given to children in kindergartens.
- Motivate PHC providers to actively call the population they serve for preventive check-ups.
- Introduce supportive supervision at the PHC level that will assure monitoring of the providers' work.

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APPENDICES

Instruments for FGDs with mothers of under-five children

Consent form (FG participants - mothers)

Hello. My name is …………… . I am a researcher at the Center for Health Services Research and Development of the American University of Armenia. At the request of UN Children's Fund, our Center is conducting a Formative Research on Infant and Young Child Health and Nutrition in Armenia. The aim of this study is to investigate current practices and attitudes towards the nutrition of pregnant women and children, as well as to identify both the reasons for their inadequate nutrition and measures to eliminate those causes. This discussion is a part of this project. You have been invited to participate in it, as you are the mother or caretaker of a child under the age of five. Your experience, views and attitudes will help us to identify the current situation in the sphere of nutrition of pregnant women and children and find solutions to the existing problems.

The discussion will last about an hour and a half. After receiving your verbal consent for participation, we will provide you with some discussion themes and urge you to express your ideas concerning these matters. Your participation is voluntary. You can stop your participation at any time. Also, you may refuse to answer any question, if you so wish. There will be no any consequences for you if you decide to participate or decline to do so. Even though your active participation will not directly benefit you in any way, it will assist us in addressing the questions which concern all of us and will help to undertake effective measures in the healthcare system of Armenia for the improvement of the nutritional status of pregnant women and children.

During the discussion we will take notes and, if you have no objections, will audio-record the conversation to ensure that none of the ideas that you express escapes our attention. The discussion will be audio-recorded only if all participants agree to it. Participation carries no risks for you. The information you provide will be kept confidential. All the information received during the study will be summarized and presented as a report containing no any personal data or contact information.

If you have any questions regarding this study you can call the study coordinator Anahit Demirchyan (060 61 25 62). If you feel you have not been treated fairly during the study or think your participation in the study has damaged you in any way, you can contact the IRB Human participants Administrator of the American University of Armenia, Kristina Hakobyan (060 61 25 61).

Do you agree to participate? If yes shall we start?
Do you agree to audio-recording? Please say yes or no.
If you are ready now we will start.

Խմբային քննարկման մասնակցի իրազեկ համաձայնագիր (մայրեր)

Բարև Ձեզ, իմ անունը …………… է: Ես Հայաստանի ամերիկյան համալսարանի Առողջապահական ծառայությունների հետազոտման և զարգացման կենտրոնի գիտաշխատող եմ: ՄԱԿ-ի Մանկական հիմնադրամի պատվերով մեր կենտրոնը իրականացնում է Վաղ հասակի երեխաների առողջության և սնուցման հետազոտություն Հայաստանում, որի նպատակն է ուսումնասիրել հղի կանանց և երեխաների սնուցման ներկա գործելակերպը և մոտեցումները, ինչպես նաև պարզել նրանց ոչ լիարժեք սնուցման պատճառները և այդ պատճառների վերացման ուղիները: Այդ հետազոտության մաս է կազմում այս քննարկումը, որին Դուք հրավիրվել եք մասնակցելու, քանի որ մինչև 5 տարեկան երեխայի մայր եք կամ խնամակալ: Ձեր փորձը, կարծիքներն ու մոտեցումները կօգնեն մեզ պարզել հղի կանանց և մանուկների սնուցման ներկայի իրավիճակը և գտնել առկա խնդիրների լուծման ուղիներ:

Այս քննարկումը կտևի մոտ մեկ ու կես ժամ: Հետազոտությանը մասնակցելու Ձեր բանավոր համաձայնությունը ստանալուց հետո մենք կառաջարկենք Ձեզ քննարկման թեմաներ կամ հարցեր և կխնդրենք արտահայտվել այդ թեմաների շուրջ: Ձեր մասնակցությունն այս քննարկմանը կամավոր է: Դուք կարող եք ցանկացած պահի ընդհատել այն: Կարող եք նաև չարձագանքել որևէ հարցի, եթե չեք ցանկանում: Քննարկմանը մասնակցելը կամ դրանից հրաժարվելը Ձեզ համար որևէ հետևանք չի ունենա: Դուք որևէ ուղղակի օգուտ ևս չեք ստանա քննարկմանը մասնակցելուց, սակայն Ձեր ակտիվ մասնակցությունը կօգնի մեզ գտնել մեզ հուզող հարցերի պատասխանները և կնպաստի հղի կանանց և մանուկների սնուցման վիճակի բարելավմանն ուղղված միջոցառումների ձեռնարկմանը Հայաստանի առողջապահության համակարգում:

Քննարկման ընթացքում մենք գրի կառնենք և, եթե չեք առարկում, կձայնագրենք այստեղ ասվածը, որպեսզի Ձեր արտահայտած ոչ մի կարծիք չվրիպի մեր ուշադրությունից: Քննարկումը կձայնագրվի միայն Ձեր բոլորի համաձայնության դեպքում: Ձեր մասնակցությունը որևէ ռիսկ չի պարունակում: Ձեր տրամադրած տեղեկությունները կպահվեն գաղտնի: Հետազոտության ընթացքում ստացված բոլոր տեղեկությունները ի մի կբերվեն և կներկայացվեն միայն ընդհանրացված ձևով՝ չպարունակելով որևէ անուն կամ անձնական տվյալ:

Այս հետազոտության վերաբերյալ հարցեր ունենալու դեպքում կարող եք զանգահարել հետազոտության համակարգող Անահիտ Դեմիրճյանին՝ 060 61 25 62 հեռախոսահամարով: Եթե մտածեք, որ այս հետազոտությանը մասնակցելու ընթացքում Ձեզ լավ չեն վերաբերվել կամ որ մասնակցությունը Ձեզ վնաս է պատճառել, կարող եք զանգահարել Հայաստանի ամերիկյան համալսարանի Էթիկայի հանձնաժողովի քարտուղար Քրիստինա Հակոբյանին՝ 060 61 25 61 հեռախոսահամարով:

Դուք համաձա՞յն եք մասնակցել: Եթե այո, կարո՞ղ ենք սկսել:

Դուք համաձա՞յն եք, որ ես միացնեմ ձայնագրիչը: Խնդրում եմ ասել ԱՅՈ կամ ՈՉ:

Եթե Դուք պատրաստ եք, մենք կարող ենք սկսել:

Focus Group Field Guide for Mothers

Date: ____
Time: ____
Place: ____
Moderator: ____
Recorder: ____

Good afternoon, and first of all - thank you very much for coming. My name is _____________. I represent the School of Public Health of the American University of Armenia. As mentioned in the informed consent form you have read, with UNICEF's support, we conduct a study to explore the existing practices and attitudes towards young children's and pregnant women's nutrition and to identify the main problems and concerns related to their nutrition. We have invited you here to share with us your approaches towards these issues and your experience in this area. The information you will provide will help us to find ways to overcome the existing barriers to healthy nutrition during pregnancy and childhood.

I will suggest you the themes for discussion and ask all of you to express your opinion on those themes. It would be better if the discussion will pass as a free conversation, and everybody will participate in it without waiting to his turn. I ask you only do not speak simultaneously, to make it easier for us to listen carefully to all of you. If you don't mind, we will tape-record our conversation so that no any important piece of it is lost. Please, express your ideas freely, having in mind that there are no wrong or right answers here. We are interested in all opinions equally, and all opinions are equally valuable for us. Be informed also that the information you will give us will remain confidential, and your names will not appear with that information. Please, let us begin now.

1. NUTRITION DURING PREGNANCY

1.1 (***Introductory question)*** – Please, think of your most recent pregnancy. Did you make any changes in your diet/nutrition during that pregnancy? What changes did you make and why (*medical advice, own requirements/appetite, knowledge obtained from literature/ internet/other sources*)?

1.2 ***(Practice with nutrition during pregnancy)*** – Did you receive any nutritional recommendations from your ob/gyn? Were you prescribed with any nutritional supplements/vitamins? What supplements/vitamins? Did you receive explanations why these prescriptions were made? Did you follow the nutritional recommendations and prescriptions? If no, why?

1.3 ***(Knowledge/attitude toward nutritional requirements during pregnancy)*** – Based on your experience, what are the nutritional requirements of a woman during pregnancy (*iron, folic acid,*

iodine, zinc, calcium, proteins, vitamins)? What foods/drinks should be avoided/limited (*alcohol, coffee, tea, colas, chocolate*)? What could be the consequences of inadequate nutrition during pregnancy? In your opinion, what could be done in Armenia to ensure adequate nutrition during pregnancy?

2. ATTITUDES AND PRACTICES TOWARD BREASTFEEDING

2.1 ***(Introductory question)*** – In your opinion, what is the best practice to feed a child during the first year of his/her life (*duration of exclusive and any breastfeeding, time of introduction of solid food*)? Where did you learn from how to feed your child(ren)?

2.2. ***(Practices in maternity hospitals)*** – Please, remember the period when your first child was born. Were you informed on how to breastfeed before the child was born? When your child was breastfed after birth? Was the child in the same room with you during the whole period of your stay in the maternity hospital? If no, why? Was he/she given food/liquids other than your breast milk in the maternity hospital? If yes, what foods/liquids? What was the reason of giving those foods/liquids? What was your experience with your other children (if any)?

2.3 ***(Problems with breastfeeding)*** – Did you have problems with breastfeeding in the maternity hospital or later at home? What problems? How did you overcome those problems? Have you received help from a specialist/lactation nurse in maternity or at home? If yes, where from did you find/invite that specialist? Was that help useful, affordable? In your opinion, what could be done in the healthcare system to better support breastfeeding?

2.4 ***(Breastfeeding practices)*** – Please, describe how do you (did you) breastfeed your youngest child during the first months of his/her life (frequency, duration of feedings, hunger cues, night feedings)? What do you know about child's correct attachment to the breast? Who introduced you to this concept of attachment and in what manner? Do you think it is important? Why is it important or unimportant? When did you start to give water/herbal teas to your child(ren)? Why? What about pacifiers?

3. SUPPLEMENTAL FEEDING, COMPLIMENTARY FEEDING, TODDLER FEEDING

3.1 (***Introductory question)* –** How long did you feed your youngest child with breast milk only? What other food/drink did you give him/her first? What was the reason of starting to give the child this food/drink? Why did you started from this specific food/drink?

3.2 ***(Reasons for introduction of breast milk substitutes)*** – When do you think water or herbal teas should be given to a child? Are there situations when these should be given earlier (*in summer time, during diarrhea, other*)? Was there a period during your breastfeeding when you felt (or somebody else suggested to you) that you did not produce sufficient milk and had to use supplement also? If yes, how did this issue come around? In your opinion, is it possible to

increase the production of breast milk? How? Where from did you learn about it? What are the main reasons of discontinuing breastfeeding (starting mixed or artificial feeding) earlier than recommended? What milk could be given to an infant to replace breast milk (*infant formula, cow's milk, Narine, yogurt, watery porridges, other*)?

3.3 ***(Starting complimentary feeding)*** – When did you introduce solid foods into your child(ren)'s diet? In your opinion, what is the best age for the child to start eating solid food? What are the dangers of early or late introduction of solid foods? How solid foods should be prepared and given to the child? What types of foods should be given to the child first and how?

3.4 ***(Content/quality of complementary foods)*** – Could you list what types of food should be given to an infant as complimentary feeding? What food types should be avoided during the first year of child's life (*cow's milk, honey, sweet juices, tea, watery meals*)? Why? In your opinion, when can a child start eating meat? Why? Was such information provided to you by a health-care provider and were the reasons explained? If not, then how did you come about this information? How long should breastfeeding be continued?

3.5 ***(Monitoring weight gain and screening for anemia)*** – Have you or healthcare provider monitored the weight and height gain of your child(ren)? Where? How frequently? Was the growth pattern/trend fixed in the Health Passport of your child? Does the healthcare provider explain you the growth pattern of your child, even in case when the growth is normal? Have your child(ren) been tested for blood hemoglobin level? At what age? Where? Were any problems with growth or anemia identified in your child(ren)? If yes, what was done to address those problems?

3.6 ***(Preventing nutritional problems in children)*** – In your opinion, what could be done to prevent growth problems in children (undernutrition, overweight)? What could be done to prevent anemia in children? What do you think about the usage of iron- and folic acid-fortified flour to prevent anemia in children? What could be done to prevent anemia among pregnant women? Do you think the usage of iron- and folic acid-fortified flour could be helpful for pregnant women? How and why?

3.7 ***(Feeding of 1-5 year old children)*** – How frequently do you feed your 1-5 year old children? In your opinion, what is important to know about feeding of young/under school-age children (*frequency, diversity, energy-density, iron- and vit C-content, rich in vegetables/fruits/dark green leafs, free of artificial supplements, etc*.)? How do you address the issues of your child refusing to eat food from certain groups? Do you think they should be forced or convinced to try or left to understand and try with age? Do you monitor the growth of your older children? How frequently? Do you think it is important? Why?

4. **PARENTAL COUNSELLING AND HOME VISITING**

4.1 (***Parental counseling***) – Have you received consultations on health, care, and nutrition of your child(ren) from your healthcare provider (paediatrician, family doctor, nurse)? Where and how often did you receive consultations from them? What were the main topics? Was that information new to you? Was it useful and practical? What would you recommend to improve parental counselling practice?

4.2 (***Provider's home visits***) – How many home visits were made by your pediatrician/family doctor during the first two months after your youngest child was born? How frequently she/he visited the child at home thereafter on his/her own (without your call)? Were all your questions addressed during the home visits? Was the time allocated to home visits enough to respond to your needs/questions? What would you recommend to improve home visiting practice?

Summarizing question – Would you like to summarize your opinion on what could be done in Armenia to improve the situation with nutrition of pregnant women and young children?

Thank you very much for your time and contribution, which we highly appreciate!

Մայրերի հետ խմբային քննարկման ուղեցույց

Օր: ____

Ժամ: ____

Վայր: ____

Հարցազրուցավար: _______________________________________

Գրանցող: ____

Բարի օր և առաջին հերթին՝ շնորհակալություն մասնակցության համար: Իմ անունը _____________: Ես ներկայացնում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության ֆակուլտետը: Ինչպես նշված է Ձեր կողմից ընթերցված համաձայնության ձևում, ՅՈՒՆԻՍԵՖ-ի աջակցությամբ մենք իրականացնում ենք հետազոտություն՝ ուսումնասիրելու հղի կանանց և երեխաների սնուցման ներկա գործելակերպը և մոտեցումները, ինչպես նաև պարզելու նրանց սնուցման հետ կապված հիմնական խնդիրներն ու մտահոգությունները: Մենք հրավիրել ենք Ձեզ այստեղ, որպեսզի մեզ հետ կիսեք Ձեր մոտեցումներն ու փորձն այս հարցերում:

Ես կառաջարկեմ Ձեզ քննարկման թեմաներ և կխնդրեմ արտահայտել Ձեր կարծիքն այդ թեմաների վերաբերյալ: Ավելի հեշտ կլինի, եթե քննարկումն անցնի ազատ զրույցի ձևով և բոլորը մասնակցեն առանց իրենց հերթին սպասելու: Ես միայն կխնդրեմ Ձեզ՝ միաժամանակ չխոսել՝ իրար ավելի ուշադիր լսելու համար: Եթե չեք առարկում, մենք կձայնագրենք մեր զրույցը, որպեսզի բաց չթողնենք որևէ կարևոր միտք: Խնդրում եմ՝ արտահայտեք Ձեր մտքերն անկաշկանդ, նկատի ունենալով, որ չկան սխալ կամ ճիշտ կարծիքներ: Մենք հետաքրքրված ենք բոլոր կարծիքներով հավասարապես, և բոլոր կարծիքները հավասարապես արժեքավոր են մեզ համար: Խնդրում եմ, այժմ թույլ տվեք սկսել:

1. ՍՆՈՒՑՈՒՄԸ ՀՂԻՈՒԹՅԱՆ ԸՆԹԱՑՔՈՒՄ

1.1 (***Ներածական հարց)*** - Խնդրում եմ հիշեք Ձեր վերջին հղիությունը: Այդ հղիության ընթացքում Դուք փոփոխություններ արե՞լ եք Ձեր սննդակարգում կամ սննդի մեջ: Ի՞նչ փոփոխություններ եք արել և ի՞նչ պատճառով (*բժշկի խորհուրդ, սեփական ախորժակ, գիտելիքներ՝ ձեռք բերված գրքերից, ինտերնետից կամ այլ աղբյուրներից*):

1.2 ***(Հղիության ընթացքում սնուցման գործելակերպը)*** - Դուք ստացե՞լ եք որևէ խորհուրդ Ձեր մանկաբարձ-գինեկոլոգից, թե ինչպես փոխեք Ձեր սննդակարգը: Ձեզ նշանակվե՞լ են սննդային հավելումներ կամ վիտամիններ: Ի՞նչ հավելումներ կամ վիտամիններ են նշանակվել: Ձեզ բացատրե՞լ են, թե ինչու են արվել այդ նշանակումները: Դուք հետևե՞լ եք Ձեր ստացած նշանակումներին: Եթե ոչ, ինչո՞ւ:

1.3***(Հղիության ընթացքում սննդային պահանջների վերաբերյալ գիտելիքները և մոտեցումները)*** - Ելնելով Ձեր փորձից, որո՞նք են հղիության ընթացքում կնոջ սննդային

պահանջները (*երկաթ, ֆոլաթթու, յոդ, ցինկ, կալցիում, սպիտակուցներ, վիտամիններ*)։ Ո՞ր սննդամթերքներից կամ ըմպելիքներից պետք է խուսափել (*ոգելից խմիչք, սուրճ, թեյ, կոլաներ, շոկոլադ*)։ Ինչպիսի՞ հետևանքներ կարող է ունենալ ոչ ճիշտ սնուցումը հղիության ընթացքում։ Ձեր կարծիքով, ի՞նչ կարելի է անել Հայաստանում՝ հղի կանանց առողջ սնուցումը ապահովելու համար։

2. ԿՐԾՔՈՎ ԿԵՐԱԿՐՄԱՆ ՆԿԱՏՄԱՄԲ ՄՈՏԵՑՈՒՄՆԵՐԸ ԵՎ ԳՈՐԾԵԼԱԿԵՐՊԸ

2.1 ***(Ներածական հարց)*** – Ձեր կարծիքով, ո՞րն է կյանքի առաջին տարվա ընթացքում երեխային կերակրելու լավագույն գործելակերպը (*բացառապես (միմիայն) կրծքով սնուցման և կրծքով կերակրելու ընդհանուր տևողությունները, հավելյալ սննդատեսակներ ներմուծելու ժամանակը*)։ Որտեղի՞ց եք իմացել, թե ինչպես է կերակրեք Ձեր երեխաներին։

2.2. ***(Գործող պրակտիկան ծննդատներում)*** – Խնդրում եմ հիշել այն ժամանակահատվածը, երբ Ձեր առաջին երեխան ծնվեց։ Նախքան երեխայի ծնունդը Ձեզ տեղեկացրե՞լ էին, թե ինչպես պետք է երեխային կրծքով կերակրել։ Ծնվելուց որքա՞ն ժամանակ անց է Ձեր երեխան կերակրվել կրծքով։ Երեխան Ձեզ հե՞տ է եղել ծննդատանը գտնվելու ողջ ընթացքում։ Եթե ոչ՝ ինչու՞։ Ծննդատանը երեխային, Ձեր կրծքի կաթից բացի, այլ սնունդ կամ հեղուկ տվե՞լ են։ Եթե այո, ի՞նչ սնունդ կամ հեղուկ են տվել։ Ո՞րն է եղել այդ սնունդը կամ հեղուկը տալու պատճառը։ Ինչպիսի՞ն է եղել ծննդատան հետ կապված Ձեր փորձը նախորդ երեխաների հետ (եթե կան)։

2.3 ***(Կրծքով կերակրման դժվարությունները)*** – Ծննդատանը կամ հետո՝ տանը, Դուք ունեցե՞լ եք դժվարություններ կրծքով կերակրելու հետ կապված։ Ի՞նչ դժվարություններ եք ունեցել։ Կարողացե՞լ եք հաղթահարել այդ դժվարությունները և շարունակել կրծքով կերակրումը։ Այդ դժվարությունների ժամանակ Դուք օգնություն ստացե՞լ եք կրծքով կերակրման մասնագետից կամ մասնագետ-բուժքրոջից ծննդատանը կամ տանը։ Եթե այո, որտեղի՞ց եք հրավիրել այդ մասնագետին։ Այդ օգնությունը օգտակա՞ր է եղել։ Այդ օգնությունը մատչելի՞ է եղել Ձեզ համար։ Ըստ Ձեզ՝ ի՞նչ կարելի է անել առողջապահական համակարգում՝ կրծքով կերակրելուն ավելի լավ աջակցելու համար։

2.4 ***(Կրծքով կերակրման գործելակերպը)*** – Խնդրում եմ պատմեք, թե ինչպե՞ս եք (էիք) կրծքով կերակրում Ձեր կրտսեր երեխային հետծննդյան առաջին ամիսների ընթացքում (կերակրման հաճախականությունը, տևողությունը, քաղցի նշանները, գիշերային կերակրումները)։ Ի՞նչ գիտեք երեխայի՝ կուրծքը ճիշտ բռնելու մասին։ Ո՞վ է Ձեզ բացատրել, թե ինչ է դա, և ի՞նչ կերպ է բացատրել։ Կարծու՞մ եք, որ դա կարևոր է։ Ինչո՞ւ է կարևոր կամ ինչո՞ւ կարևոր չէ։ Ե՞րբ եք սկսել Ձեր երեխային(ներին) տալ ջուր, սամիթի ջուր կամ այլ խոտային թեյեր։ Ինչո՞ւ։ Ի՞նչ կասեք ծծակների մասին։

3. ԼՐԱՑՈՒՑԻՉ ՍՆՈՒՑՈՒՄ, ՀԱՎԵԼՅԱԼ ՍՆՈՒՑՈՒՄ, ՎԱՂ ՀԱՍԱԿԻ ԵՐԵԽԱՅԻ ՍՆՈՒՑՈՒՄ

3.1 (***Ներածական հարց)*** – Որքա՞ն ժամանակ եք կերակրել Ձեր կրտսեր երեխային միայն կրծքի կաթով: Առաջինը ի՞նչ ուրիշ սնունդ կամ ըմպելիք եք տվել նրան: Ի՞նչն էր պատճառը, որ սկսեցիք տալ այդ սնունդը կամ ըմպելիքը: Ինչո՞ւ եք սկսել հատկապես ա՛յդ սննդից կամ ըմպելիքից:

3.2 ***(Կրծքի կաթի փոխարինիչներ տալու պատճառները)*** – Ձեր կարծիքով, ե՞րբ է անհրաժեշտ երեխային տալ ջուր կամ խոտային թեյեր (օր.՝ սամիթի ջուր): Կա՞ն արդյոք իրավիճակներ, երբ ջուր պետք է տալ ավելի վաղ (*ամռանը, փորլուծության ժամանակ, այլ*): Կրծքով կերակրելու ընթացքում դուք երբևէ մտածե՞լ եք (կամ Ձեզ ասե՞լ են), որ Ձեր կաթնարտադրությունը անբավարար է և պետք է մանկանը տալ նաև լրացուցիչ սնունդ: Եթե այո, ինչի՞ց է ծագել այդ խնդիրը: Ըստ Ձեզ, կարելի՞ է ավելացնել մոր կաթնարտադրությունը: Ինչպե՞ս: Որտե՞ղից եք իմացել այդ մասին: Որո՞նք են կրծքով սնուցումը ժամանակից շուտ դադարեցնելու (խառը կամ արհեստական սնուցման անցնելու) հիմնական պատճառները: Ի՞նչ կաթ կարելի է տալ մինչև մեկ տարեկան երեխային՝ կրծքի կաթի փոխարեն (*մանկական կաթնախառնուրդ, կովի կաթ, Նարինե, մածուն, ջրիկ շիլաներ, այլ*):

3.3 ***(Հավելյալ սնուցման մեկնարկը)*** – Ե՞րբ եք Ձեր երեխայի(ների) սննդակարգ ներմուծել նոր սննդատեսակ (ոչ թե կրծքի կաթի փոխարեն, այլ որպես հավելյալ սնունդ): Ձեր կարծիքով, ո՞րն է երեխային այլ սննդատեսակ տալու լավագույն տարիքը: Որտեղի՞ց եք իմացել այդ մասին: Որո՞նք են այլ սննդատեսակները վաղ կամ ուշ տալու վտանգները: Ինչպե՞ս պետք է պատրաստել և տալ երեխային հավելյալ սննդատեսակները: Ո՞ր սննդատեսակը պետք է տալ երեխային առաջինը և ինչպես:

3.4 ***(Հավելյալ սննդի բաղադրությունը/որակը)*** – Կարո՞ղ եք թվել, թե ինչ սննդատեսակներ պետք է ստանա երեխան՝ որպես հավելյալ սնունդ: Ո՞ր սննդատեսակներից պետք է խուսափել երեխայի կյանքի առաջին տարվա ընթացքում (*կովի կաթ, մեղր, քաղցր հյութ, թեյ, ջրիկ կերակուր*): Ինչու՞: Ձեր կարծիքով, ո՞ր տարիքում կարելի է երեխային միս տալ: Ինչո՞ւ: Ձեր բուժաշխատողը տվե՞լ է Ձեզ այդպիսի տեղեկություններ և բացատրե՞լ է, թե ինչու է այդպես: Եթե ոչ, ապա Դուք որտեղի՞ց եք ստացել այդ տեղեկությունները: Որքա՞ն ժամանակ պետք է շարունակել երեխային կերակրել կրծքով:

3.5 ***(Քաշի ավելացման հսկումը և սակավարյունության սկրինինգը)*** – Դուք կամ Ձեր բուժաշխատողը հսկել ե՞ք Ձեր երեխայի(ների) քաշի և հասակի ավելացման տեմպերը: Որտե՞ղ: Որքա՞ն հաճախ եք հսկել: Ձեր երեխայի աճը գրանցվե՞լ է նրա Առողջության անձնագրում: Բուժաշխատողը բացատրե՞լ է Ձեզ, թե ինչպիսին է Ձեր երեխայի աճը, մինչև իսկ եթե այն նորմալ է եղել: Ձեր երեխայի(ների) մոտ կատարվե՞լ է արյան հեմոգլոբինի քանակի որոշում: Ո՞ր տարիքում: Որտե՞ղ: Ձեր երեխայի(ների) մոտ հայտնաբերվե՞լ է աճի խանգարում կամ սակավարյունություն (արյան պակաս): Եթե այո, ապա ի՞նչ է արվել այդ խնդիրները լուծելու նպատակով:

3.6 ***(Երեխաների աճի հետ կապված խնդիրների կանխարգելումը)*** – Ձեր կարծիքով ի՞նչ կարելի է անել երեխաների աճի հետ կապված խնդիրները (թերսնուցումը, գիրացումը) կանխելու համար: Ի՞նչ կարելի է անել երեխաների մոտ սակավարյունությունը (արյան պակասը) կանխելու համար: Ի՞նչ եք մտածում երկաթով և ֆոլաթթվով հարստացված ալյուրի օգտագործման միջոցով երեխաների մոտ սակավարյունությունը կանխելու հնարավորության մասին: Ի՞նչ պետք է անել՝ հղի կանանց մոտ սակավարյունությունը

կանխնելու համար: Ձեր կարծիքով, երկաթով և ֆոլաթթվով հարստացված ալյուրի օգտագործումը կարո՞ղ է հղի կանանց համար օգտակար լինել: Ինչպե՞ս և ինչու՞:

3.7 ***(1-5 տարեկան երեխաների կերակրումը)*** – Օրվա ընթացքում քանի՞ անգամ եք կերակրում Ձեր 1-5 տարեկան երեխաներին: Ձեր կարծիքով, ի՞նչ է անհրաժեշտ իմանալ նախադպրոցական հասակի երեխաների սնուցման վերաբերյալ (*հաճախականությունը, բազմազանությունը, էներգետիկ արժեքը, սննդում երկաթի և վիտամին C-ի պարունակությունը, բանջարեղենով/ մրգերով/ կանաչիներով հարուստ լինելը, արհեստական հավելումներից ազատ լինելը և այլն*): Ինչպե՞ս եք վարվում, երբ Ձեր երեխան հրաժարվում է ուտել որոշակի սննդատեսակներ: Ի՞նչ եք կարծում, նրանց պետք է ստիպե՞լ, համոզե՞լ, թե՞ թողնել, որ հասկանան և փորձեն այդ սննդատեսակը՝ ավելի մեծ տարիքում: Դուք հսկո՞ւմ եք Ձեր վաղ հասակի երեխաների աճը: Ի՞նչ հաճախականությամբ: Կարծու՞մ եք, որ դա կարևոր է: Ինչո՞ւ:

4. ԾՆՈՂՆԵՐԻ ԽՈՐՀՐԴԱՏՎՈՒԹՅՈՒՆ ԵՎ ԲՈՒԺԱՇԽԱՏՈՂԻ ՏՆԱՅԻՆ ԱՅՑԵՐ

4.1 (***Ծնողների խորհրդատվություն***) – Դուք բուժաշխատողից (մանկաբույժից, ընտանեկան բժշկից կամ բուժքրոջից) ստացե՞լ եք խորհրդատվություն երեխայի առողջության, խնամքի և սնուցման վերաբերյալ: Որտե՞ղ և որքա՞ն հաճախ եք նրանից ստացել այդպիսի խորհրդատվություն: Որո՞նք են եղել այդ խորհրդատվության հիմնական թեմաները: Այդ տեղեկությունները Ձեզ համար նորությո՞ւն են եղել: Այդ տեղեկությունները եղե՞լ են օգտակար և գործնական: Ինչպե՞ս կառաջարկեիք բարելավել բուժաշխատողների կողմից ծնողներին տրվող խորհրդատվությունը:

4.2 (***Բուժաշխատողի տնային այցեր***) – Ձեր կրտսեր երեխայի ծննդից հետո երկու ամսվա ընթացքում քանի՞ անգամ է երեխային տանը այցելել նրա բժիշկը: Դրանից հետո որքա՞ն հաճախ է նա այցելել Ձեր տուն (առանց Ձեր կանչի)? Այդ տնային այցելությունների ընթացքում Դուք ստացե՞լ եք Ձեզ հուզող բոլոր հարցերի պատասխանները: Տնային այցերին հատկացված ժամանակը բավարա՞ր է եղել, որպեսզի Դուք ստանայիք Ձեր բոլոր հարցերի պատասխանները: Ի՞նչ կառաջարկեիք տնային այցելությունների գործելակերպը բարելավելու համար:

Ամփոփող հարցը – Կամփոփե՞ք Ձեր կարծիքն այն մասին, թե Հայաստանում ի՞նչ կարելի է անել հղի կանանց և մինչև 5 տարեկան երեխաների սնուցման վիճակը բարելավելու համար:

Շնորհակալություն Ձեր մասնակցության և արդյունավետ քննարկման համար:

Instruments for FGDs with healthcare providers

Consent form (FG participants – providers)

Hello. My name is …………… . I am a researcher at the Center for Health Services Research and Development of the American University of Armenia. At the request of UN Children's Fund, our center is conducting a Formative Research on Infant and Young Child Health and Nutrition in Armenia. The aim of this study is to investigate current practices and attitudes towards the nutrition of pregnant women and children, as well as to identify both the reasons for their inadequate nutrition and measures to eliminate those causes.

This discussion, which you have been invited to participate in, is a part of this project. You have been selected to be a part of this study, as you are specialists working in an area related to the health and nutrition of pregnant women and/or children. Your experience, views and attitudes will help us to identify the current situation in the sphere of nutrition of pregnant women and children and find solutions to the existing problems.

The discussion will last about an hour and a half. After receiving your verbal consent for participation, we will provide you with some discussion themes and urge you to express your ideas concerning these matters. Your participation is voluntary. You can stop it at any time. Also, you may refuse to answer any question, if you so wish. There will be no any consequences for you if you decide to participate or decline to do so. Even though your active participation will not directly benefit you in any way, it will assist us in finding the answer to questions which concern all of us and will help implement effective measures in the healthcare system of Armenia for the improvement of the nutrition of pregnant women and children.

During the discussion we will take notes and, if you have no objections, we will also audio-record the conversation to ensure that none of the ideas that you express escapes our attention. The discussion will be audio-recorded only if all participants agree to it. Participation carries no risks for you. The information you provide will be kept confidential. All the information received during the study will be summarized and presented as a report containing no any personal data or contact information.

If you have any questions regarding this study you can call the study coordinator Anahit Demirchyan (060 61 25 62). If you feel you have not been treated fairly during the study or think your participation in the study has damaged you in any way, you can contact the IRB Human Participants Administrator of the American University of Armenia, Kristina Hakobyan (060 61 25 61).

Do you agree to participate? If yes shall we start?
Do you agree to audio-recording? Please say yes or no.
If you are ready now we will start.

Խմբային քննարկման մասնակցի իրազեկ համաձայնագիր (բուժաշխատողներ)

Բարև Ձեզ, իմ անունը …………… է: Ես Հայաստանի ամերիկյան համալսարանի Առողջապահական ծառայությունների հետազոտման և զարգացման կենտրոնի գիտաշխատող եմ: ՄԱԿ-ի Մանկական հիմնադրամի պատվերով մեր կենտրոնը իրականացնում է Վաղ հասակի երեխաների առողջության և սնուցման հետազոտություն Հայաստանում, որի նպատակն է ուսումնասիրել հղի կանանց և երեխաների սնուցման ներկա գործելակերպը և մոտեցումները, ինչպես նաև պարզել նրանց ոչ լիարժեք սնուցման պատճառները և այդ պատճառների վերացման ուղիները: Այդ հետազոտության մաս է կազմում այս քննարկումը, որին Դուք հրավիրվել եք մասնակցելու, քանի որ հղի կանանց կամ մանուկների առողջության և սնուցման հարցերի հետ առնչվող մասնագետներ եք: Ձեր փորձը, տեսակետներն ու մոտեցումները կօգնեն մեզ պարզել հղի կանանց և մանուկների սնուցման բնագավառում ներկայումս տիրող իրավիճակը և գտնել առկա խնդիրների լուծման ուղիներ:

Այս քննարկումը կտևի մոտ մեկ ու կես ժամ: Մասնակցելու Ձեր բանավոր համաձայնությունը ստանալուց հետո մենք կառաջարկենք Ձեզ քննարկման թեմաներ և կխնդրենք արտահայտվել այդ թեմաների շուրջ: Ձեր մասնակցությունն այս քննարկմանը կամավոր է: Դուք կարող եք ցանկացած պահի ընդհատել այն: Կարող եք նաև չարձագանքել որևէ հարցի, եթե չեք ցանկանում: Քննարկմանը մասնակցելը կամ դրանից հրաժարվելը Ձեզ համար որևէ հետևանք չի ունենա: Դուք որևէ ուղղակի օգուտ ևս չեք ստանա դրանից, սակայն Ձեր ակտիվ մասնակցությունը կօգնի մեզ գտնել մեզ հուզող հարցերի պատասխանները և կնպաստի հղի կանանց և մանուկների սնուցման վիճակի բարելավմանն ուղղված միջոցառումների ձեռնարկմանը Հայաստանի առողջապահության համակարգում:

Քննարկման ընթացքում մենք գրի կառնենք և, եթե չեք առարկում, կձայնագրենք այստեղ ասվածը, որպեսզի Ձեր արտահայտած ոչ մի կարծիք չվրիպի մեր ուշադրությունից: Քննարկումը կձայնագրվի միայն Ձեր բոլորի համաձայնության դեպքում: Ձեր մասնակցությունը որևէ ռիսկ չի պարունակում: Ձեր տրամադրած տեղեկությունները կպահվեն գաղտնի: Հետազոտության ընթացքում ստացված բոլոր տեղեկությունները ի մի կբերվեն և կներկայացվեն միայն ընդհանրացված ձևով՝ չպարունակելով որևէ անուն կամ անձնական տվյալ:

Այս հետազոտության վերաբերյալ հարցեր ունենալու դեպքում կարող եք զանգահարել հետազոտության համակարգող Անահիտ Դեմիրճյանին՝ 060 61 25 62 հեռախոսահամարով: Եթե մտածեք, որ այս հետազոտությանը մասնակցելու ընթացքում Ձեզ լավ չեն վերաբերվել կամ որ մասնակցությունը Ձեզ վնաս է պատճառել, կարող եք զանգահարել Հայաստանի ամերիկյան համալսարանի Էթիկայի հանձնաժողովի քարտուղար Քրիստինա Հակոբյանին՝ 060 61 25 61 հեռախոսահամարով:

Դուք համաձա՞յն եք մասնակցել: Եթե այո, կարո՞ղ ենք սկսել:
Դուք համաձա՞յն եք, որ ես միացնեմ ձայնագրիչը: Խնդրում եմ ասել ԱՅՈ կամ ՈՉ:
Եթե Դուք պատրաստ եք, մենք կարող ենք սկսել:

Focus Group Field Guide for Pediatricians and Nurses

Date: ____
Time: ____
Place: ____
Moderator: ____
Recorder: ____

Good afternoon, and first of all - thank you very much for coming. My name is _____________. I represent the School of Public Health of the American University of Armenia. As mentioned in the informed consent form you have read, with UNICEF's support, we conduct a study to explore the existing practices and attitudes towards infants' and young children's nutrition and growth monitoring and to identify the main problems and concerns in these areas. We have invited you here to share with us your approaches towards these issues and your experience in this area.

I will suggest you the themes for the discussion and ask all of you to express your opinion on those themes. It would be better if the discussion will pass as a free conversation, and everybody will participate in it without waiting to his turn. I ask you only do not speak simultaneously, to make it easier for us to listen carefully to all of you. If you don't mind, we will tape-record our conversation so that no any important piece of it is lost. Please, express your ideas freely having in mind that there could be no wrong or right responses here and all opinions are equally valuable for us. Please, let us begin now.

1. KNOWLEDGE, ATTITUDES AND PRACTICES TOWARD BREASTFEEDING

1.1 ***(Introductory question)*** – In your opinion, what is the best practice to feed a child during the first year of his/her life (*duration of exclusive and any breastfeeding, time of introduction of solid foods*)? What percentage of the mothers you serve follow this practice? What are the most common reasons for not following this practice? How would you recommend to feed a child in the periods of illness (respiratory infections, diarrhea) and recovery?

1.2 (***Support to breastfeeding***) – What knowledge and help should mothers receive to establish successful breastfeeding (*knowledge on milk production, correct positioning and attachment of baby to the breast, correct breast care – hygiene, milk expression, correct breastfeeding practices: frequency, duration, baby's hunger cues, dangers of giving the child other liquids, bottles with nipples, pacifiers*)? Do they currently receive the needed knowledge and support (in the women's consultation, in the maternity hospital, in the polyclinic/at home)? If no, why they do not? What do you do/recommend in case if a child is already given breast milk substitutes in maternity? What should be done to improve the situation?

1.3 ***(Problems with breastfeeding)*** – What problems with breastfeeding do you encounter more frequently in your practice (*lack of milk, baby's refusal to take breast, cracked nipple, breast engorgement, mastitis, etc.*)? In your opinion, what are the factors that lead to breastfeeding problems? Do you treat mothers with breastfeeding problems or refer them to other specialists? What specialists? What help is available to mothers with breastfeeding problems? To your knowledge, usually where from seek advice women with breastfeeding problems? What percentage of mothers with breastfeeding problems continue to breastfeed in your practice? How they make the decision to discontinue breastfeeding (someone's advice, own decision)?

1.4 ***(Reasons of non-exclusive breastfeeding)*** – In your opinion, what are the reasons for giving a breastfeeding child water and other non-nutritional liquids in the first months of life? Do you think there are situations when water/other non-nutritional liquids should be given to the exclusively breastfeeding child? What are these situations? Do you think giving water and herbal teas could cause harm to the child? What harm? Do you think this practice interferes with successful breastfeeding? Why yes? Why no?

2. SUPPLEMENTAL FEEDING, COMPLIMENTARY FEEDING, TODDLER FEEDING

2.1 ***(Early supplements)*** – When do you recommend introducing other nutritional liquids into child's diet (e.g. fruit juices, sweetened tea, etc.)? Are there any circumstances that indicate the need of introducing these liquids earlier? Are there any food items (e.g. egg yolk, cottage cheese, mashed apple, cookie in tea) that you recommend introducing into child's diet before six months of age? If yes, what food items? At what age? Why? Are there any other sources of information on these issues that women may follow? What sources?

2.2 ***(Mixed/artificial feeding)*** – When do you recommend introducing other milks (formula, Narine, matsun, cow's milk, etc.) into child's diet? Based on your experience, what are the most common reasons of early introduction of these milks (*infant formula, Narine, yogurt, cow's milk, etc.*)? In the families you serve, what liquids/milks are more frequently used to supplement child's diet in the first six months of his/her life? What are the reasons of using these liquids/milks more commonly?

2.3 ***(Complementary feeding)*** – When do you recommend introducing solid foods into child's diet? What are the dangers of early or late introduction of complementary feeding? How solid foods should be prepared and given to the child? What types of foods should be given to the child first? What do you think is important to know about complimentary food (*energy-dense, iron-rich, diverse, etc.*)? When do you recommend giving meat to a child? Why? What food types should be avoided during infancy (*cow's milk, honey, sweets, watery meals*)? Why? How do you recommend continuing breastfeeding after introduction of solid foods?

2.4 ***(Young child's feeding)*** – What do you think is important to know about feeding of 1-5 year old children (*frequency of meals, food diversity, micronutrient and vitamin content, free of artificial supplements, hygienic, etc.*)? Do you advise parents on how to feed their under-five

year old children? If yes, what do you recommend? Are there any specific food items or nutritional supplements that you recommend to give to young children? If yes, what food items/supplements and why? Do parents request information on a regular basis, or do you provide recommendations whenever there are health-related issues?

3. GROWTH AND ANEMIA STATUS MONITORING AND SURVEILLANCE

3.1 ***(Growth monitoring)*** – Please, describe how primary care providers monitor the growth of under-five children. For what proportion of children the growth monitoring is conducted exactly as recommended? What is the reason that the growth of some children is not monitored as recommended? Do you think the current schedule of children's anthropometric measurements is optimal, too frequent, or too rare? How parents comply with this schedule? What could be done to improve their compliance? Are there sufficient capacities (equipment, skilful staff) in your facility to adequately monitor children's growth? How do you use the information on a child's growth screenings?

3.2 ***(Growth curves)*** – For what proportion of the infants primary care providers complete child growth charts? For what proportion of 1-5 year old children they continue completing growth charts? Why? How convenient is it to complete these charts? How many of the growth charts (*weight-for-age, height-for-age, weight-for height, BMI-for-age, head circumference-for-age*) are normally completed per child? If not all five, why? Do you think that growth curves are useful? What information do you get from the growth curves? How do you use that information? Does your facility reports the growth indicators to higher instances? If yes, then at what frequency? And what feedback (if any) do they provide? In your opinion, how the process of children's growth screening could be improved?

3.3. ***(Prevention and treatment of growth problems)*** – What do you think could be done at primary care level to prevent growth problems in children? What is being done currently? How growth problems in children (undernutrition, obesity) are being treated at primary care level? Is there any treatment protocol to follow? Is there a need to develop/improve that protocol?

3.4 ***(Anemia screening)*** – What proportion of infants undergo the test for blood hemoglobin level? Why some children miss this procedure? At what age children should be taken for this test? Why? How valid do you think is the test result? What criteria are used to identify whether the hemoglobin test result is normal or not? Does your facility reports the anemia rates among children to higher instances? What feedback (if any) do they provide?

3.5 ***(Prevention and treatment of anemia)*** – How anemia in a child could be prevented? What is your opinion about the use of iron-fortified flour to prevent anemia in children? Why it could be effective or ineffective? Do you think it could cause benefit or harm? Why? What measures are usually undertaken by primary care providers if the hemoglobin test indicates the presence of anemia in a child? Is there any treatment protocol to follow? Is there a need to develop/improve that protocol?

3.6 ***(Educational needs)*** – What sources do you use to get information about child nutrition, micronutrient deficiencies, and growth monitoring (*literature, internet, training materials, protocols, etc*.)? How updated these sources are? Do you have access to the existing guidelines on these topics? What guidelines? How they could be improved? Would you like to receive additional training on child nutrition? Why? What topics would you like the training to address?

4. PARENTAL COUNSELLING AND HOME VISITING

4.1 (***Parental counseling***) – How parental counseling (individual or in groups) is organized in your facility? How often doctors/nurses conduct parental counseling? Do they have a job description in your facility? Is parental counseling incorporated there? Is there a system of check-up whether parental counseling is done or not? How long parental counseling usually lasts? What are the main topics of provider's consultations to parents? In your opinion, what are the obstacles for a healthcare provider to provide parents with comprehensive consultation? What would you recommend to improve parental counselling practice in your facility?

4.2 (***Home visits***) – Do doctors and nurses in your facility conduct active (well child) home visits? What is the current schedule of conducting active home visits for doctors and for nurses? Is it feasible to follow that schedule? Why? How long in average one visit lasts? What are the main topics covered during each visit? Is home visiting incorporated in your job description? What would you recommend to improve home visiting system in your facility?

(Summarizing question) – Would you like to summarize – what are the main problems with child nutrition in Armenia? What could be done to improve the situation?

Thank you very much for your time and contribution, which we highly appreciate!

Մանկաբույժների և բուժքույրերի հետ խմբային քննարկման ուղեցույց

Օր: ________________________

Ժամ: ______________________

Վայր: ____

Հարցազրուցավար: __________________________________

Գրանցող: ____

Բարի օր և առաջին հերթին՝ շնորհակալություն մասնակցության համար: Իմ անունը _____________: Ես ներկայացնում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության ֆակուլտետը: Ինչպես նշված է Ձեր կողմից ընթերցված համաձայնության ձևում, ՅՈՒՆԻՍԵՖ-ի աջակցությամբ մենք իրականացնում ենք հետազոտություն՝ ուսումնասիրելու մինչև 5 տարեկան երեխաների սնուցման և աճի հսկման ներկա գործելակերպը և մոտեցումները, ինչպես նաև պարզելու հիմնական խնդիրներն ու մտահոգություններն այս ասպարեզում: Մենք հրավիրել ենք Ձեզ այստեղ, որպեսզի մեզ հետ կիսեք Ձեր մոտեցումներն ու փորձն այս հարցերում:

Ես կառաջարկեմ Ձեզ քննարկման թեմաներ և կխնդրեմ արտահայտել Ձեր կարծիքն այդ թեմաների վերաբերյալ: Ավելի հեշտ կլինի, եթե քննարկումն անցնի ազատ զրույցի ձևով և բոլորը մասնակցեն առանց իրենց հերթին սպասելու: Ես կխնդրեմ միայն միաժամանակ չխոսել՝ իրար ավելի ուշադիր լսելու համար: Եթե չեք առարկում, մենք կձայնագրենք մեր քննարկումը, որպեսզի բաց չթողնենք որևէ կարևոր միտք: Խնդրում եմ՝ արտահայտեք Ձեր մտքերն անկաշկանդ, նկատի ունենալով, որ չկան սխալ կամ ճիշտ կարծիքներ: Մենք հետաքրքրված ենք բոլոր կարծիքներով հավասարապես, և բոլոր կարծիքները հավասարապես արժեքավոր են մեզ համար: Խնդրում եմ, այժմ թույլ տվեք սկսել:

1. ԿՐԾՔՈՎ ՄՆՈՒՑՄԱՆ ՎԵՐԱԲԵՐՅԱԼ ԳԻՏԵԼԻՔ, ՄՈՏԵՑՈՒՄ, ԳՈՐԾԵԼԱԿԵՐՊ

1.1 ***(Ներածական հարց)*** – Ձեր կարծիքով, ինչպե՞ս պետք է կերակրել երեխային կյանքի առաջին տարվա ընթացքում (*բացառապես կրծքով և կրծքով կերակրման ընդհանուր տևողությունները, հավելյալ սննդի ներմուծման ժամանակը*): Ձեր սպասարկած մայրերի ո՞ր տոկոսն է այդպես կերակրում իր մանկանը: Որո՞նք են մանկանն այդպես չկերակրելու հիմնական պատճառները: Ինչպե՞ս եք խորհուրդ տալիս կերակրել մանկանը հիվանդ ժամանակ (շնչառական վարակների, փորլուծության դեպքում) և ապաքինման ընթացքում:

1.2 ***(Աջակցություն կրծքով կերակրելուն)*** – Ի՞նչ գիտելիք և օգնություն պետք է ստանա մայրը, որպեսզի կարողանա հաջողությամբ կերակրել կրծքով (*գիտելիքներ կաթնարտադրության, երեխային ճիշտ դիրքով կրծքին մոտեցնելու և կուրծքը մատուցելու, կրծքի ճիշտ խնամքի, կաթի կթման, կրծքով կերակրելու ճիշտ վարվելակերպի մասին, ներառյալ կերակրումների հաճախականությունը, տևողությունը, երեխայի քաղցի նշանները, երեխային այլ հեղուկներ, ծծակով շշեր, ծծակներ տալու վտանգները*): Արդյո՞ք նրանք ստանում են անհրաժեշտ

գիտելիք և աջակցություն (կանանց կոնսուլտացիաներում, ծննդատներում, պոլիկլինիկաներում կամ տանը): Եթե ոչ, ինչո՞ւ չեն ստանում: Ինչպե՞ս եք վարվում կամ ի՞նչ խորհուրդ եք տալիս, երբ երեխան արդեն ստացած է լինում կաթնախառնուրդ ծննդատանը: Ըստ Ձեզ, ի՞նչ է պետք անել իրավիճակը բարելավելու համար:

1.3 ***(Կրծքով կերակրման դժվարությունները)*** – Ձեր պրակտիկայում կրծքով կերակրման հետ կապված ի՞նչ խնդիրների հետ եք ավելի հաճախ բախվում (*կաթի պակաս, նորածնի հրաժարում կրծքից, պտուկների ճաք, կրծքագեղձերի կոշտացում, մաստիտ և այլն*): Ձեր կարծիքով, ո՞ր գործոններն են հանգեցնում կրծքով կերակրման հետ կապված խնդիրների ի հայտ գալուն: Դո՞ւք եք բուժում այդպիսի խնդիրներով մայրերին, թե՞ ուղարկում եք նրանց այլ մասնագետի մոտ: Ի՞նչ մասնագետի մոտ եք ուղարկում: Ինչպիսի՞ օգնություն կարող են ստանալ կրծքով կերակրման խնդիրներ ունեցող մայրերը: Սովորաբար, ո՞ւմ են դիմում նրանք՝ կրծքով կերակրման խնդիրներ ունենալու դեպքում: Ձեր պրակտիկայում այդպիսի խնդիրներ ունեցող մայրերի ո՞ր տոկոսն է շարունակում կերակրել կրծքով: Ինչպե՞ս են մայրերը որոշում կայացնում կրծքով կերակրումը դադարեցնելու մասին (որևէ մեկի խորհրդով, իրենց սեփական որոշմամբ):

1.4 ***(Բացառապես կրծքով չկերակրելուպատճառները)*** – Ձեր կարծիքով, որո՞նք են միայն կրծքով կերակրվող երեխային կյանքի առաջին ամիսների ընթացքում ջուր կամ այլ ոչ-սննդային հեղուկներ տալու պատճառները: Կարծո՞ւմ եք արդյոք, որ կան իրավիճակներ, երբ անհրաժեշտ է բացառապես կրծքով կերակրվող երեխային տալ ջուր կամ այլ հեղուկներ: Որո՞նք են այդ իրավիճակները: Ձեր կարծիքով, կարո՞ղ է ջուր կամ խոտաբույսերով թեյ տալը վնաս հասցնել երեխային: Ի՞նչ վնաս: Ձեր կարծիքով, այդ գործելակերպը խոչընդոտո՞ւմ է հաջողությամբ կրծքով կերակրելուն: Ինչո՞ւ այո կամ ինչո՞ւ ոչ:

2. ԼՐԱՑՈՒՑԻՉ ԵՎ ՀԱՎԵԼՅԱԼ ՍՆՈՒՑՈՒՄ, 1-5 ՏԱՐԵԿԱՆ ԵՐԵԽԱՆԵՐԻ ՍՆՈՒՑՈՒՄ

2.1 ***(Լրացուցիչ սննդի վաղ ներմուծումը)*** – Ե՞րբ եք խորհուրդ տալիս երեխայի սննդակարգ ներմուծել այլ սննդային հեղուկներ (օրինակ՝ մրգահյութ, քաղցր թեյ և այլն): Կա՞ն այնպիսի իրավիճակներ, որոնք անհրաժեշտ են դարձնում այդ հեղուկների ավելի վաղ ներմուծումը: Կա՞ն այնպիսի սննդատեսակներ (օրինակ՝ ձվի դեղնուց, կաթնաշոռ, խնձորի պյուրե, թեյի կամ կաթի մեջ ճզմած թխվածքաբլիթ), որ Դուք խորհուրդ եք տալիս ներմուծել երեխայի սննդակարգ մինչև նրա վեց ամսական դառնալը: Եթե այո, ապա ո՞ր սննդատեսակները և ո՞ր տարիքում: Ինչո՞ւ: Բացի բուժաշխատողներից, ուրիշ ի՞նչ աղբյուրներից կանայք կարող են տեղեկություններ ստանալ այս հարցերի մասին:

2.2 ***(Խառը/արհեստական սնուցում)*** – Ե՞րբ եք խորհուրդ տալիս երեխայի սննդակարգ ներմուծել կաթի այլ տեսակներ (մանկական կաթնախառնուրդ, Նարինե, մածուն, կովի կաթ և այլն): Ելնելով Ձեր փորձից, որո՞նք են կաթի այլ տեսակները (*մանկական կաթնախառնուրդ, կովի կաթ, Նարինե, մածուն և այլն*) ցուցված ժամկետից ավելի վաղ երեխայի սննդակարգ ներմուծելու հիմնական պատճառները: Ձեր կողմից սպասարկվող ընտանիքներում ավելի հաճախ ի՞նչ կաթ են տալիս մինչև 6 ամսական երեխաներին՝ որպես լրացուցիչ սնունդ: Ի՞նչ պատճառով են տալիս հենց այդ կաթը:

2.3 ***(Հավելյալ սնուցում)*** – Ե՞րբ եք խորհուրդ տալիս երեխայի սննդակարգ ներմուծել այլ կերակրատեսակներ՝ որպես հավելյալ սնունդ: Որո՞նք են հավելյալ սննդի վաղ կամ ուշ ներմուծման վտանգները: Ինչպե՞ս է պետք պատրաստել և երեխային տալ մանկական կերակուրները: Ո՞ր տիպի կերակրատեսակներից պետք է սկսել: Ի՞նչ է հարկավոր իմանալ հավելյալ սննդի մասին (*սննդարար, բազմազան, երկաթով հարուստ և այլն*): Ե՞րբ եք խորհուրդ տալիս երեխային միս տալ: Ինչո՞ւ: Ո՞ր սննդատեսակներից պետք է խուսափել կյանքի առաջին տարում (*կովի կաթ, մեղր, քաղցրավենիք, ջրիկ սնունդ*): Ինչո՞ւ: Ինչպե՞ս եք խորհուրդ տալիս շարունակել կրծքով կերակրելը՝ հավելյալ սնունդ ներմուծելուց հետո:

2.4 ***(1-5 տարեկան երեխայի սնուցում)*** – Ձեր կարծիքով, ի՞նչ է անհրաժեշտ իմանալ 1-5 տարեկան երեխաների սնուցման մասին (*կերակրումների հաճախականությունը, սննդի բազմազանությունը, միկրոտարրերի և վիտամինների պարունակությունը սննդում, արհեստական հավելումներից ազատ լինելը, պատրաստման հիգիենան և այլն*): Դուք խորհուրդ տալի՞ս եք մայրերին, թե ինչպես կերակրեն իրենց 1-5 տարեկան երեխաներին: Եթե այո, ի՞նչ խորհուրդ եք տալիս: Կա՞ն որոշակի սննդատեսակներ կամ սննդային հավելումներ, որ Դուք առաջարկում եք տալ վաղ հասակի երեխաներին: Եթե այո, ապա ի՞նչ սննդատեսակներ կամ հավելումներ և ինչո՞ւ: Դուք սովորաբար տալի՞ս եք 1-5 տարեկան երեխայի սնուցման մասին խորհրդատվություն՝ երեխայի ակտիվ այցերի ժամանակ, թե՞ այն դեպքերում միայն, երբ երեխայի մոտ ի հայտ են գալիս առողջական խնդիրներ:

3. ԱՃԻ ԵՎ ՍԱԿԱՎԱՐՅՈՒՆՈՒԹՅԱՆ ՎԵՐԱՀՍԿՈՒՄ

3.1 ***(Աճի մշտադիտարկում)*** – Նկարագրեք, խնդրեմ, թե բուժաշխատողներն ինչպե՞ս են հետևում մինչև հինգ տարեկան երեխաների աճի տեմպերին: Երեխաների ո՞ր տոկոսի մոտ է աճի հսկողությունը կատարվում այնպես, ինչպես ցուցված է: Ի՞նչն է պատճառը, որ որոշ երեխաների աճի հսկողությունը չի իրականացվում այնպես, ինչպես ցուցված է: Ձեր կարծիքով, երեխաների քաշի, հասակի և գլխի շրջագծի չափումների սահմանված ժամանակացույցը ընդունելի՞ է, թե՞ չափազանց հաճախակի է կամ հազվադեպ: Ինչպե՞ս են ծնողները հետևում այդ ժամանակացույցին: Ի՞նչ կարելի է անել, որ նրանք ավելի լավ հետևեն դրան: Ձեր բուժհաստատությունում կա՞ն բավարար հնարավորություններ (սարքավորումներ, անհրաժեշտ հմտություններ ունեցող բուժանձնակազմ) երեխաների աճի ճիշտ հսկողություն իրականացնելու համար: Ինչպե՞ս են օգտագործվում երեխայի աճի հսկողությունից ստացված տվյալները:

3.2 ***(Աճի կորագծեր)*** – Մինչև մեկ տարեկան երեխաների ո՞ր տոկոսի համար են բուժաշխատողները կառուցում աճի կորագծեր: 1-5 տարեկան երեխաների ո՞ր տոկոսի համար են նրանք շարունակում կառուցել այդ կորագծերը: Ինչո՞ւ: Ձեզ համար որքանո՞վ է հարմար կառուցել այդ կորագծերը: Աճի հինգ քարտերից (*քաշ՝ ըստ տարիքի, հասակ՝ ըստ տարիքի, քաշ՝ ըստ հասակի, քաշ-հասակային գործակից՝ ըստ տարիքի, գլխի շրջագիծ՝ ըստ տարիքի*) քանի՞սն են սովորաբար լրացվում ամեն երեխայի համար: Եթե ոչ բոլոր հինգը, ապա ինչո՞ւ: Ձեր կարծիքով, աճի կորագծերն օգտակա՞ր են: Ի՞նչ տեղեկություններ եք Դուք ստանում աճի կորագծերից: Ինչպե՞ս եք օգտագործում այդ տեղեկությունները: Ձեր բուժհաստատությունը երեխաների աճի ցուցանիշների վերաբերյալ տեղեկություններ

հաղորդո՞ւմ է վերադաս մարմիններ: Եթե այո՝ ի՞նչ հաճախականությամբ: Ի՞նչ արձագանք եք Դուք ստանում նրանցից (եթե ստանում եք): Ձեր կարծիքով, ինչպե՞ս կարելի է բարելավել երեխաների աճի հսկողությունը:

3.3 ***(Աճի հետ կապված խնդիրների կանխարգելումը և բուժումը)*** – Ձեր կարծիքով, պոլիկլինիկաներում (ամբուլատորիաներում) ի՞նչ կարելի է անել՝ երեխաների աճի հետ կապված խնդիրները կանխարգելելու նպատակով: Ներկայում ի՞նչ է արվում: Երեխաների աճի հետ կապված խնդիրները՝ թերսնուցումը կամ գիրացումը, ինչպե՞ս են բուժվում պոլիկլինիկական մակարդակում: Գոյություն ունի՞ այդ վիճակների բուժման որևէ ուղեցույց, որին հետևում եք: Անհրաժեշտություն կա՞ այդպիսի ուղեցույց մշակելու կամ եղածը բարելավելու:

3.4 ***(Սակավարյունության սկրինինգ)*** - Երեխաների ո՞ր մասի մոտ է արվում արյան հեմոգլոբինի մակարդակի որոշման հետազոտություն: Ինչո՞ւ որոշ երեխաների մոտ այդ հետազոտությունը չի արվում: Ո՞ր տարիքում երեխաները պետք է անցնեն այդ հետազոտությունը: Ինչո՞ւ: Ըստ Ձեզ, որքանո՞վ են վստահելի այդ հետազոտության արդյունքները: Ի՞նչ նորմատիվներ են օգտագործվում՝ պարզելու համար, թե հեմոգլոբինի ստացված արդյունքը նորմա՞լ է, թե ոչ: Ձեր բուժհաստատությունը երեխաների սակավարյունության ցուցանիշների վերաբերյալ տեղեկություններ հաղորդո՞ւմ է վերադաս մարմիններ: Ի՞նչ արձագանք եք Դուք ստանում նրանցից (եթե ստանում եք):

3.5 ***(Սակավարյունության կանխարգելում և բուժում)*** – Ինչպե՞ս կարելի է կանխարգելել սակավարյունությունը երեխաների մոտ: Ի՞նչ կարծիքի եք այդ նպատակով երկաթով հարստացված ալյուրի օգտագործման մասին: Ի՞նչ պատճառներով այն կարող է լինել արդյունավետ կամ անարդյունավետ: Ձեր կարծիքով, այն օգու՞տ կհասցնի, թե՞ վնաս: Ինչո՞ւ: Ի՞նչ միջոցառումներ են ձեռնարկվում պոլիկլինիկայի (ամբուլատորիայի) բժշկի կողմից, երբ հեմոգլոբինի հետազոտության արդյունքը ցույց է տալիս, որ երեխան ունի սակավարյունություն: Գոյություն ունի՞ սակավարյունության բուժման որևէ ուղեցույց, որին հետևում եք: Անհրաժեշտություն կա՞ այդպիսի ուղեցույց մշակելու կամ եղածը բարելավելու:

3.6 ***(Կրթական կարիքներ)*** – Դուք որտեղի՞ց եք տեղեկություններ ստանում երեխայի սնուցման, միկրոտարրերի անբավարարության և աճի հսկողության մասին (*գրականություն, համացանց, դասընթացների նյութեր, ուղեցույցներ և այլ*): Որքանո՞վ ժամանակակից են այդ տեղեկությունների աղբյուրները: Դուք հնարավորություն ունե՞ք օգտվելու այդ թեմաների վերաբերյալ գոյություն ունեցող ուղեցույցներից: Ի՞նչ ուղեցույցներ են դրանք: Ինչպե՞ս կարելի է դրանք բարելավել: Դուք կցանկանայի՞ք անցնել լրացուցիչ դասընթաց՝ երեխայի սնուցման վերաբերյալ: Ինչո՞ւ: Ի՞նչ թեմաներ կցանկանայիք, որ ներառեր այդ դասընթացը:

4. ԾՆՈՂՆԵՐԻ ԽՈՐՀՐԴԱՏՎՈՒԹՅՈՒՆ, ՏՆԱՅԻՆ ԱՅՑԵՐ

4.1 (***Ծնողների խորհրդատվություն***) – Ձեր բուժհաստատությունում ինչպե՞ս է իրականացվում ծնողների խորհրդատվությունը (անհատական կամ խմբային): Որքա՞ն հաճախ են բժիշկները կամ բուժքույրերը խորհրդատվություն տրամադրում ծնողներին: Ձեր բուժհաստատությունում բուժաշխատողներն ունե՞ն աշխատանքի նկարագրություն: Այն

ներառու՞մ է խորհրդատվության տրամադրումը ծնողներին: Գոյություն ունի՞ վերահսկողության համակարգ՝ ստուգելու համար, թե ծնողների խորհրդատվությունն իրականացվա՞ծ է, թե ոչ: Որքա՞ն է սովորաբար տևում ծնողների խորհրդատվությունը: Որո՞նք են այդ խորհրդատվության ժամանակ շոշափվող հիմնական թեմաները: Ըստ Ձեզ, ի՞նչն է խանգարում բուժաշխատողներին՝ լիարժեք խորհրդատվություն տրամադրել ծնողներին: Ի՞նչ կառաջարկեիք անել՝ Ձեր բուժհաստատությունում ծնողների խորհրդատվությունը բարելավելու համար:

4.2 (***Տնային այցեր***) – Ձեր բուժհաստատության մանկաբույժներն ու բուժքույրերը կատարո՞ւմ են ակտիվ տնային այցեր (առանց կանչի): Ինչպիսի՞ն է ակտիվ տնային այցեր կատարելու ներկայիս ժամանակացույցը: Ինչքանո՞վ է իրատեսական այդ ժամանակացույցը: Ինչու՞: Միջինում որքա՞ն է տևում մեկ տնային այցը: Ի՞նչ հիմնական թեմաներ են շոշափվում յուրաքանչյուր այցի ժամանակ: Տնային այցերը ներառվա՞ծ են Ձեր աշխատանքի նկարագրության մեջ: Ի՞նչ կառաջարկեիք Ձեր բուժհաստատությունում տնային այցերի համակարգը բարելավելու համար:

(Ամփոփիչ հարց) – Կցանկանայի՞ք ամփոփել, թե որո՞նք են Հայաստանում երեխաների սնուցման հետ կապված հիմնական խնդիրները և ի՞նչ կարելի է անել իրավիճակը բարելավելու համար:

Շնորհակալություն Ձեր մասնակցության և արդյունավետ քննարկման համար:

Focus Group Field Guide for Ob/Gyns and Neonatologists

Date: ____
Time: ____
Place: ____
Moderator: _______________________________________
Recorder: ____

Good afternoon, and first of all - thank you very much for coming. My name is _____________. I represent the School of Public Health of the American University of Armenia. As mentioned in the informed consent form you have read, with UNICEF's support, we conduct a study to explore the existing practices and attitudes towards pregnant women's and neonates' nutrition and to identify the main problems and concerns in these areas. We have invited you here to share with us your approaches towards these issues and your experience in this area. The information you will provide will help us to find ways to improve pregnant women's and neonates' nutrition.

I will suggest you the themes for the discussion and ask all of you to express your opinion on those themes. It would be better if the discussion will pass as a free conversation, and everybody will participate in it without waiting to his turn. I ask you only do not speak simultaneously, to make it easier for us to listen carefully to all of you. If you don't mind, we will tape-record our conversation so that no any important piece of it is lost. As mentioned in the informed consent form, the information you will provide will be fully confidential, and your names will not appear with that information. So, please, express your ideas freely having in mind that there could be no wrong or right responses here and all opinions are equally valuable for us. Please, let us begin now.

1. NUTRITION AND COUNSELING DURING PREGNANCY

1.1 (***Introductory question)*** – What changes do you recommend pregnant women to make in their diet? Why do you think these changes are important?

1.2 ***(Nutritional requirements during pregnancy)*** – Based on your experience, what are the specific nutritional requirements of a woman during pregnancy (*iron, folic acid, iodine, zinc, calcium, proteins, vitamins*)? What foods/drinks should be avoided/limited (*alcohol, coffee, tea, colas, chocolate*)? Why? In your opinion, what could be the obstacles for pregnant women in Armenia to receive adequate nutrition? What can be done to improve the situation?

1.3 ***(Nutritional supplements)*** – What supplements/vitamins are usually prescribed to pregnant women in your facility? Why? Are iodine supplements prescribed to them even if they use iodine-fortified salt? Why? In general, are the needs in any micronutrient measured/tested before

they are prescribed? Do you think women follow the nutritional recommendations and prescriptions that providers make? In your opinion, what could be the reasons for not following?

1.4 ***(Pre-pregnancy monitoring)*** – Of those women who plan to get pregnant, what proportion makes a pre-pregnancy visit to the women's consultation? Do you think this visit is important? Why is it? Are folic acid supplements prescribed to women in your facility? Why? When and how long a pregnant woman needs to take folic acid supplements? What proportion of women take folic acid supplements as recommended? What is your opinion about the intent to fortify flour with folic acid? What could be done to promote pre-pregnancy visits?

1.5. ***(Anemia)*** – What proportion of the pregnant women you serve are anemic? Are iron supplements prescribed to them? What supplements? Are these supplements accessible/ affordable to them? How frequently these supplements have side effects? How effective they are? Are iron supplements prescribed to non-anemic pregnant women for preventive purposes? If yes, when and how long pregnant women need to take iron supplements? What proportion of women take iron supplements as recommended? What is your opinion about the intent to fortify flour with iron?

1.6 (***Monitoring of nutritional status during pregnancy)*** **–** How the nutritional requirements of a pregnant woman are usually monitored – what laboratory tests or objective examinations are performed? How the weight gain of a pregnant woman is monitored in your facility? How is the information this monitoring provides used? How often do pregnant women change their diets on their own initiative without consulting with you? Where/whom from do they receive information/advice for this? Has this trend changed over the years? How? What educational materials on healthy nutrition during pregnancy and on breastfeeding thereafter are available in your facility for pregnant women?

1.7 ***(Preparation for breastfeeding)*** – Do pregnant women receive counseling regarding breastfeeding during prenatal care? What information do they receive? What a pregnant woman should know about correct breastfeeding practices and technique? What she should know/do to avoid problems with breastfeeding in the postpartum period? How frequently women have concerns related to retaining their pre-pregnancy weight or breast shape after delivery? How important these concerns are in making a decision whether to breastfed or not? What do you know about Lactation Amenorrhea Method (*LAM: exclusive breastfeeding, lack of menses, and the first six months after delivery*) of contraception? Do you think LAM is effective? Do you inform women about this method? Why yes or why no?

1.8 ***(Educational needs)*** – What sources do you use to get information about pregnant women's nutrition and micronutrient needs (literature, internet, training materials, protocols, etc.)? How updated these sources are? Do you have access to the existing guidelines on these topics? What guidelines? How they could be improved? Would you like to receive additional training on pregnant women's nutritional needs? Why? What topics would you like the training to address?

2. POST-DELIVERY PRACTICES

2.1 ***(Introductory question)*** – What proportion of babies is born preterm or low birth weight for gestational age in your maternity hospital? Do you observe some increasing or decreasing dynamics in this respect? How do you explain this dynamics (if any)?

2.2 ***(Feeding of newborns and mothers)*** – In your opinion, what is the best way to feed a neonate in the post-delivery period? What about low-birth-weight or preterm babies – how they should be fed? How they are being fed in your maternity hospital? What do you advise breastfeeding mothers to eat/avoid eating while in maternity hospital or thereafter?

2.3 ***(Early attachment/breastfeeding)*** – In your maternity hospital, what proportion of newborns is put on mothers abdomen within the first half hour after delivery? For how long newborns are put on mothers abdomen? What proportion of newborns is breast fed within the first hour after delivery? What are the reasons for not following these practices? Why do you think these practices are important or unimportant?

2.4 ***(Pre-lacteal feedings)*** – What proportion of newborns receives food/liquids other than breast milk in your maternity hospital? What foods/liquids do they receive? When and why they are given these foods/liquids? What proportion of them receives these foods/liquids using bottles? What proportion of newborns is given pacifiers? In your opinion, can these practices interfere with successful breastfeeding? Why?

2.5 ***(Problems with breastfeeding)*** – Based on your experience, what are the most common problems with breastfeeding in the first several days after delivery *(breast engorgement, cracked nipples, refusal to take breast, etc.)*? Why these problems occur? What could be done to prevent or overcome these problems *(correct positioning and attachment to the breast, milk expression, feeding on demand, exclusion of other foods/liquids, bottles with nipples, pacifiers)*? What practical help with breastfeeding initiation is available for mothers at your maternity hospital? How sufficient is that help for initiating successful breastfeeding?

(Summarizing question) – Do you have something to add on what could be done better in Armenia to improve the nutritional status of pregnant women and neonates?

Thank you very much for your time and contribution, which we highly appreciate!

Մանկաբարձ-գինեկոլոգների, նեոնատոլոգների և մանկաբարձուհիների հետ խմբային քննարկման ուղեցույց

Օր: ________________________

Ժամ: _____________________

Վայր: ____

Հարցազրուցավար: __________________________________

Գրանցող: ____

Բարի օր և առաջին հերթին՝ շնորհակալություն մասնակցության համար: Իմ անունը _____________: Ես ներկայացնում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության ֆակուլտետը: Ինչպես նշված է Ձեր կողմից ընթերցված համաձայնության ձևում, ՅՈՒՆԻՍԵՖ-ի աջակցությամբ մենք իրականացնում ենք հետազոտություն՝ ուսումնասիրելու հղի կանանց և նորածինների սնուցման առկա գործելակերպերն ու մոտեցումները և պարզելու հիմնական խնդիրներն ու մտահոգություններն այս ասպարեզում: Մենք հրավիրել ենք Ձեզ այստեղ, որպեսզի մեզ հետ կիսեք Ձեր մոտեցումներն ու փորձն այս հարցերում:

Ես կառաջարկեմ Ձեզ քննարկման թեմաներ և կխնդրեմ արտահայտել Ձեր կարծիքն այդ թեմաների վերաբերյալ: Ավելի հեշտ կլինի, եթե քննարկումն անցնի ազատ զրույցի ձևով և բոլորը մասնակցեն առանց իրենց հերթին սպասելու: Ես կխնդրեմ միայն միաժամանակ չխոսել՝ իրար ավելի ուշադիր լսելու համար: Եթե չեք առարկում, մենք կձայնագրենք մեր քննարկումը, որպեսզի բաց չթողնենք որևէ կարևոր միտք: Խնդրում եմ՝ արտահայտեք Ձեր մտքերն անկաշկանդ, նկատի ունենալով, որ չկան սխալ կամ ճիշտ կարծիքներ: Մենք հետաքրքրված ենք բոլոր կարծիքներով հավասարապես, և բոլոր կարծիքները հավասարապես արժեքավոր են մեզ համար: Խնդրում եմ, այժմ թույլ տվեք սկսել:

1. ՍՆՈՒՑՈՒՄ ԵՎ ԽՈՐՀՐԴԱՏՎՈՒԹՅՈՒՆ ՀՂԻՈՒԹՅԱՆ ԸՆԹԱՑՔՈՒՄ

1.1 (***Ներածական հարց)*** Ի՞նչ փոփոխություններ եք խորհուրդ տալիս հղի կանանց կատարել իրենց սննդակարգում: Ինչո՞ւ են այդ փոփոխությունները կարևոր:

1.2 ***(Սննդային պահանջները հղիության ընթացքում)*** - Ելնելով Ձեր փորձից, որո՞նք են սննդային հատուկ կարիքները հղիության ժամանակ (*երկաթ, ֆոլաթթու, յոդ, ցինկ, կալցիում, սպիտակուցներ, վիտամիններ*): Ո՞ր սննդատեսակներից և ըմպելիքներից պետք է խուսափել հղիության ընթացքում (*ոգելից խմիչք, սուրճ, թեյ, կոլաներ, շոկոլադ*): Ինչո՞ւ: Ձեր կարծիքով, Հայաստանում ինչը՞ կարող է հղի կնոջ համար խոչընդոտ հանդիսանալ՝ բավարար սնուցում ստանալու: Ի՞նչ կարելի է անել առկա իրավիճակը բարելավելու համար:

1.3 ***(Սննդային հավելումները)*** – Սովորաբար հղի կանանց ի՞նչ սննդային հավելումներ և վիտամիններ են նշանակվում Ձեր բուժհաստատությունում: Ինչո՞ւ: Նրանց նշանակվո՞ւմ են

յողի պրեպարատներ աղի յոդացման պայմաններում: Ինչու՞: Ընդհանրապես, որևէ հավելում նշանակելուց առաջ կատարվու՞մ է լաբորատոր հետազոտություն՝ տվյալ կնոջ մոտ դրա կարիքը գնահատելու համար: Ձեր կարծիքով, կանայք հետևո՞ւմ են իրենց սննդի վերաբերյալ բժիշկների խորհուրդներին և նշանակումներին: Ըստ Ձեզ, որո՞նք կարող են լինել այդ խորհուրդներին չհետևելու պատճառները:

1.4 ***(Մինչ-հղիության հսկողություն)*** – Հղիանալու մտադրություն ունեցող կանանց ո՞ր տոկոսն է գալիս կոնսուլտացիա՝ մինչ-հղիության այցի: Ըստ Ձեզ, այդ այցելությունը կարևո՞ր է: Ինչու՞ է կարևոր: Ձեր բուժհաստատությունում կանանց նշանակվու՞մ են ֆոլաթթվի հավելումներ: Ինչի՞ համար: Կինը երբվանի՞ց և ի՞նչ տևողությամբ պետք է ընդունի ֆոլաթթվի հավելումները: Որքա՞ն հաճախ են կանայք ընդունում ֆոլաթթվի հավելումներն այնպես, ինչպես ցուցված է: Դուք ի՞նչ կարծիքի եք ալյուրը ֆոլաթթվով հարստացնելու ծրագրի մասին: Ի՞նչ կարելի է անել՝ մինչև հղիանալը կատարվող այցելությունները խրախուսելու համար:

1.5 ***(Անեմիան)*** – Ձեր սպասարկած հղի կանանց ո՞ր տոկոսն է անեմիկ: Նրանց նշանակվո՞ւմ են երկաթի հավելումներ: Ի՞նչ պրեպարատներ են նշանակվում: Դրանք մատչելի՞ են կանանց համար: Դրանք որքա՞ն հաճախ են ունենում կողմնակի ազդեցություններ: Որքա՞ն արդյունավետ են այդ հավելումները: Երկաթի հավելումներ նշանակվո՞ւմ են ոչ-անեմիկ հղի կանանց՝ կանխարգելիչ նպատակով: Եթե այո, հղության ո՞ր ժամկետից և ի՞նչ տևողությամբ կինը պետք է ընդունի այդ հավելումները: Կանանց ո՞ր տոկոսն է ստանում երկաթի հավելումներն այնպես, ինչպես ցուցված է: Դուք ի՞նչ կարծիքի եք ալյուրը երկաթով հարստացնելու ծրագրի մասին:

1.6 ***(Սնուցման վիճակի հսկողությունը հղիության ընթացքում)*** – Սովորաբար ինչպե՞ս են հսկվում հղի կնոջ սննդային կարիքները՝ ի՞նչ լաբորատոր և օբյեկտիվ հետազոտություններ են կատարվում: Ինչպե՞ս են հսկում հղի կնոջ քաշի ավելացումը Ձեր բուժհաստատությունում: Ինչպե՞ս են օգտագործվում այդ հսկման տվյալները: Որքա՞ն հաճախ են հղի կանայք փոխում իրենց սննդակարգն ինքնուրույն՝ առանց խորհրդակցելու Ձեզ հետ: Որտեղի՞ց կամ ումի՞ց են նրանք ստանում սննդակարգի փոփոխության վերաբերյալ տեղեկություն կամ խորհուրդ: Այդ վարքագիծը փոխվե՞լ է տարիների ընթացքում: Ինչպե՞ս: Ձեր բուժհաստատությունում ի՞նչ կրթական նյութեր կարող է ստանալ հղի կինը՝ հղիության շրջանում առողջ սնուցման և հետագայում կրծքով կերակրելու մասին:

1.7 ***(Հղի կնոջ նախապատրաստումը կրծքով կերակրելուն)*** – Նախածննդյան շրջանում կանայք ստանո՞ւմ են կրծքով կերակրման մասին խորհրդատվություն: Ի՞նչ տեղեկություններ են նրանք ստանում: Հղի կինը ի՞նչ պետք է իմանա կրծքով կերակրման ճիշտ գործելակերպի և տեխնիկայի մասին: Ի՞նչ պետք է իմանա կամ անի հղի կինը՝ հետագայում կրծքով կերակրելու հետ կապված խնդիրներից խուսափելու համար: Որքա՞ն հաճախ են կանայք մտահոգվում ծննդաբերությունից հետո նախկին քաշը կամ կրծքերի նախկին ձևը վերականգնելու հարցերի շուրջ: Որքա՞ն կարևոր են այդ հարցերը՝ կրծքով կերակելու մասին որոշում կայացնելու համար: Դուք ի՞նչ գիտեք հակաբեղմնավորման լակտացիոն ամենոռեայի մեթոդի մասին *(բացառապես կրծով կերակրում, դաշտանի բացակայություն, հետ-ծննդաբերական առաջին 6 ամիսներ)*: Ըստ Ձեզ՝ այն արդյունավե՞տ է: Դուք տեղեկացնո՞ւմ եք հղի կանանց այդ մեթոդի մասին: Ինչու՞ այո կամ ինչու՞ ոչ:

1.8 ***(Կրթական կարիքները)*** – Տեղեկատվության ի՞նչ աղբյուրներից եք Դուք օգտվում՝ հղի կանանց սննդային և միկրոտարրերի կարիքների մասին տեղեկություններ ստանալու համար (գրականություն, համացանց, վերապատրաստման նյութեր, տեղեկատուներ և այլն)։ Որքանո՞վ են ժամանակակից այդ աղբյուրները։ Ձեզ համար մատչելի՞ են այդ թեմաների վերաբերյալ գոյություն ունեցող ուղեցույցները։ Ի՞նչ ուղեցույցներ են դրանք։ Ինչպե՞ս կարելի դրանք բարելավել։ Դուք կցանկանայի՞ք անցնել լրացուցիչ դասընթաց հղի կանանց սննդային կարիքների վերաբերյալ։ Ինչո՞ւ։ Ի՞նչ թեմաներ կցանկանայիք, որ ներառվեին այդ դասընթացում։

2. ՀԵՏԾՆՆԴՅԱՆ ԳՈՐԾԵԼԱԿԵՐՊԸ

2.1 ***(Ներածական հարց)*** – Ձեր ծննդատանը նորածինների ո՞ր տոկոսն է ծնվում անհաս կամ ներարգանդային հիպոտրոֆիայով։ Դուք նկատո՞ւմ եք այդ տոկոսի բարձրացման կամ իջեցման միտում։ Ինչպե՞ս կբացատրեիք այդ միտումը (եթե կա)։

2.2 ***(Նորածինների և մայրերի սնուցումը)*** – Ձեր կարծիքով, ո՞րն է հետծննդաբերական շրջանում նորածնին կերակրելու լավագույն ձևը։ Ի՞նչ կասեք անհաս կամ ցածր քաշով ծնված նորածինների մասին՝ ինչպե՞ս պետք է նրանք կերակրվեն։ Ինչպե՞ս են նրանք կերակրվում Ձեր ծննդատանը։ Ի՞նչ եք խորհուրդ տալիս կրծքով կերակրող մայրերին ուտել կամ խուսափել ուտելուց, քանի դեռ նրանք գտնվում են ծննդատանը։ Իսկ դուրս գրվելուց հետո՞։

2.3 ***(Կրծքին վաղ մոտեցումը)*** – Ձեր ծննդատանը նորածինների ո՞ր տոկոսն է դրվում մոր որովայնին ծննդաբերությունից հետո առաջին կես ժամվա ընթացքում։ Ծնվելուց որքա՞ն ժամանակ անց է կտրվում երեխայի պորտալարը։ Ինչու՞։ Որքա՞ն ժամանակ է նորածինը թողնվում մոր որովայնի վրա։ Նորածինների ո՞ր տոկոսն է կրծքով կերակրվում ծննդաբերությունից հետո առաջին ժամվա ընթացքում։ Որո՞նք են այս գործելակերպերին չհետևելու պատճառները։ Ըստ Ձեզ, ինչո՞ւ են կարևոր կամ անկարևոր այս գործելակերպերը։

2.4 ***(Լրացուցիչ/պրե-լակտեալ կերակրումները)*** – Նորածինների ո՞ր տոկոսն է կրծքի կաթից բացի այլ սնունդ կամ հեղուկ ստանում Ձեր ծննդատանը։ Ի՞նչ սնունդ կամ հեղուկ են նրանք ստանում։ Ե՞րբ և ինչո՞ւ են նրանց տրվում այդ սնունդը կամ հեղուկները։ Նրանց ո՞ր տոկոսն է ստանում այդ սնունդը կամ հեղուկները շշով։ Նորածինների ո՞ր տոկոսին են տրվում ծծակներ։ Ձեր կարծիքով, կարո՞ղ են այս գործելակերպերը խանգարել հաջողությամբ կրծքով կերակրելուն։ Ինչո՞ւ։

2.5 ***(Կրծքով կերակրման դժվարությունները)*** – Ձեր փորձից ելնելով, որո՞նք են կրծքով կերակրելու հետ կապված հիմնական խնդիրները, որոնք ի հայտ են գալիս հետծննդաբերական առաջին օրերի ընթացքում (*կրծքագեղձերի կոշտացում, պտուկների ճաք, նորածնի հրաժարում կրծքից և այլն*)։ Ինչո՞ւ են այդ խնդիրներն առաջանում։ Ի՞նչ կարելի է անել դրանք կանխելու կամ հաղթահարելու համար (*կուրծքը ճիշտ մատուցել և կերակրել ճիշտ դիրքով, կթել կաթը, մանկանը կերակրել ըստ պահանջի, բացառել նրան այլ սնունդ կամ հեղուկ, շշեր կամ ծծակներ տալը*)։ Մայրերն ի՞նչ գործնական օգնություն են

ստանում Ձեր ծննդատանը՝ կրծքով կերակրումը ճիշտ սկսելու համար: Ինչքանո՞վ է բավարար այդ օգնությունը հետագայում հաջողությամբ կրծքով կերակրելու համար:

(Ամփոփող հարց) – Կցանկանայի՞ք ամփոփել կամ ասվածին ավելացնել, թե ի՞նչ կարելի է անել՝ Հայաստանում հղի կանանց և նորածինների սնուցման վիճակը բարելավելու համար:

Շնորհակալություն Ձեր մասնակցության և արդյունավետ քննարկման համար:

Instruments for IDIs with policy makers/experts

Consent form (IDI with policy makers)

Hello. My name is …………… . I am a researcher at the Center for Health Services Research and Development of the American University of Armenia. At the request of UN Children's Fund, our center is conducting a Formative Research on Infant and Young Child Health and Nutrition in Armenia. The aim of this study is to investigate current practices and attitudes towards the nutrition of pregnant women and children, as well as to identify both the reasons for their inadequate nutrition and measures to eliminate those causes.

This interview, which you have been invited to participate in, is a part of this project. You have been selected to be a part of this study, as you are involved in the development of projects in the health care sphere which are also related to the health and nutrition of pregnant women and/or children. Your experience, views and attitudes will help us to identify the current situation in the sphere of nutrition of pregnant women and children and find solutions to the existing problems.

The interview will last about an hour. After receiving your verbal consent for participation, we will ask some questions and urge you to express your ideas concerning these matters. Your participation in this interview is voluntary. You can stop the interview at any time. Also, you may refuse to answer any question, if you so wish. There will be no any consequences for you if you decide to participate or decline to do so. Even though your participation will not directly benefit you in any way, it will assist us in addressing the issues which concern all of us and will help to implement effective measures in the healthcare system of Armenia for the improvement of the nutrition of pregnant women and children

During the interview we will take notes and, if you have no objections, we would also like to audio-record the conversation to ensure that none of the ideas that you express escapes our attention. This interview carries no risks for you. The information you provide will be kept confidential. The information received during the study will be summarized and presented as a report containing no any personal data or contact information.

If you have any questions regarding this study you can call the study coordinator Anahit Demirchyan (060 61 25 62). If you feel you have not been treated fairly during the study or think your participation in the study has damaged you in any way, you can contact the IRB Human participants Administrator of the American University of Armenia, Kristina Hakobyan (060 61 25 61).

Do you agree to participate? If yes shall we start?
Do you agree to audio-recording? Please say yes or no.
If you are ready now we will start.

Առողջապահական քաղաքականություն մշակողների հետ խորացված հարցազրույցի իրազեկ համաձայնագիր

Բարև Ձեզ, իմ անունը …………… է: Ես Հայաստանի ամերիկյան համալսարանի Առողջապահական ծառայությունների հետազոտման և զարգացման կենտրոնի գիտաշխատող եմ: ՄԱԿ-ի Մանկական հիմնադրամի պատվերով մեր կենտրոնը իրականացնում է Վաղ հասակի երեխաների առողջության և սնուցման հետազոտություն Հայաստանում, որի նպատակն է ուսումնասիրել հղի կանանց և երեխաների սնուցման ներկա գործելակերպը և մոտեցումները, ինչպես նաև պարզել նրանց ոչ լիարժեք սնուցման պատճառները և այդ պատճառների վերացման ուղիները: Այդ հետազոտության մաս է կազմում այս հարցազրույցը, որին Դուք հրավիրվել եք մասնակցելու, քանի որ ներգրավված եք առողջապահության ոլորտում ծրագրերի մշակման մեջ, որոնք վերաբերում են նաև հղի կանանց և/կամ մանուկների առողջությանն ու սնուցմանը: Ձեր փորձը, տեսակետներն ու մոտեցումները կօգնեն մեզ պարզել հղի կանանց և մանուկների սնուցման բնագավառում ներկայումս տիրող իրավիճակը, և գտնել առկա խնդիրների լուծման ուղիներ:

Այս հարցազրույցը կտևի մոտ մեկ ժամ: Մասնակցելու Ձեր բանավոր համաձայնությունը ստանալուց հետո մենք կառաջարկենք Ձեզ հարցեր և կխնդրենք արտահայտվել այդ հարցերի շուրջ: Ձեր մասնակցությունը կամավոր է: Դուք կարող եք ցանկացած պահի ընդհատել այն: Կարող եք նաև չպատասխանել որևէ հարցի, եթե չեք ցանկանում: Հարցազրույցին մասնակցելը կամ դրանից հրաժարվելը Ձեզ համար որևէ հետևանք չի ունենա: Դուք որևէ ուղղակի օգուտ ևս չեք ստանա դրանից, սակայն Ձեր ակտիվ մասնակցությունը կօգնի մեզ գտնել բոլորիս հուզող հարցերի պատասխանները և կնպաստի հղի կանանց և մանուկների սնուցման վիճակի բարելավմանն ուղղված արդյունավետ միջոցառումների ձեռնարկմանը Հայաստանի առողջապահության համակարգում:

Հարցազրույցի ընթացքում մենք գրի կառնենք և, եթե չեք առարկում, կձայնագրենք այստեղ ասվածը, որպեսզի Ձեր արտահայտած ոչ մի գաղափար չվրիպի մեր ուշադրությունից: Այս հարցազրույցը որևէ ռիսկ չի պարունակում Ձեզ համար: Ձեր տրամադրած տեղեկությունները կպահվեն գաղտնի: Հետազոտության ընթացքում ստացված բոլոր տեղեկությունները ի մի կբերվեն և կներկայացվեն միայն ընդհանրացված ձևով՝ չպարունակելով որևէ անուն կամ անձնական տվյալ:

Այս հետազոտության վերաբերյալ հարցեր ունենալու դեպքում Դուք կարող եք զանգահարել հետազոտության համակարգող Անահիտ Դեմիրճյանին՝ 060 61 25 62 հեռախոսահամարով: Եթե մտածեք, որ այս հետազոտությանը մասնակցելու ընթացքում Ձեզ լավ չեն վերաբերվել կամ որ մասնակցությունը Ձեզ վնաս է պատճառել, կարող եք զանգահարել Հայաստանի ամերիկյան համալսարանի Էթիկայի հանձնաժողովի քարտուղար Քրիստինա Հակոբյանին՝ 060 61 25 61 հեռախոսահամարով:

Դուք համաձա՞յն եք մասնակցել: Եթե այո, կարո՞ղ ենք սկսել:

Դուք համաձա՞յն եք, որ ես միացնեմ ձայնագրիչը: Խնդրում եմ ասել ԱՅՈ կամ ՈՉ:

Եթե Դուք պատրաստ եք, մենք կարող ենք սկսել:

In-depth Interview Guide

Date: ____
Time: ____
Place: ____
Moderator: ____
Recorder: ____

Good afternoon and thank you very much for the opportunity to talk to you. My name is _____________. I represent the School of Public Health of the American University of Armenia. As mentioned in the informed consent form you have read, with UNICEF's support, we conduct a study to explore the main obstacles to ensure adequate nutrition and nutritional status monitoring during pregnancy and childhood in Armenia. We would like to ask you to share your expertise in this area, which is very valuable for us. If you don't mind, we will tape-record our conversation so that no any important piece of it is lost. As mentioned in the informed consent form, the information you will provide will be fully confidential, and your name will not appear with that information. So, please, express your ideas freely. Please, let us begin now.

1. NUTRITIONAL AND COUNSELLING NEEDS DURING PREGNANCY

1.1 Would you, please, describe what measures should be undertaken to assure optimal nutritional status of a pregnant woman?

1.2 What are the current practices in prenatal PHC facilities in Armenia to address nutritional requirements of pregnant women (counseling, prescriptions, monitoring)? How would you evaluate the existing practices (content, coverage, compliance)?

1.3 In your opinion, what are the main obstacles to ensure adequate nutrition during pregnancy at the systemic level (*e.g. availability of supplies, trained healthcare providers, regulations*)? What could be done to improve the situation at the systemic level (*e.g., provider trainings, food fortification and supplementation strategies, access to micronutrient testing at prenatal care facilities, etc.*)?

1.4 In our reality, what are the most common reasons for inappropriate nutrition during pregnancy at a personal/family level (*lack of knowledge, resources, trust to healthcare providers, other*)? How these reasons could be overcome?

1.5 How well the existing guidelines for healthcare providers address the issue on how to meet the nutritional requirements during pregnancy and to monitor the nutritional status of pregnant women? How these guidelines can be improved?

1.6 What are the current practices in prenatal care facilities to prepare women to breastfeeding (content, coverage)? What could be done better in this respect in prenatal care facilities? In general, what else could be done to prepare women for successful breastfeeding?

2. SUPPORT TO BREASTFEEDING

2.1 What do you think is the rate of preterm or small-for-gestational-age births in Armenia? Is there any dynamic (increasing, decreasing, the same)? If you think, there is a trend, what could be the reasons for that trend? What could be done to improve the situation?

2.2 In reality, what has been the usual way of feeding low-birth-weight neonates in the maternity hospital and thereafter in Armenia? Do you think something could be done to improve the situation with feeding of low-birth-weight neonates in maternity hospitals or thereafter?

2.3 To your knowledge, how well the steps to assure successful initiation of breastfeeding after delivery have been followed in the maternity hospitals? Which steps are more often violated:

- immediate skin contact and attachment to the breast within the half hour after birth;
- 24-hour rooming-in;
- exclusive breastfeeding on demand;
- excluding the use of pre-lacteal or supplementary feedings, water/other liquids, pacifiers;
- supporting mothers in correct positioning and attachment of the baby to the breast;
- helping them in milk expression?

2.4 What are the reasons for not completely following these practices in maternity hospitals? In your opinion, what could be done to improve the situation with breastfeeding initiation in maternity hospitals?

2.5 What are the most common problems with breastfeeding in the first days/months after delivery *(breast engorgement, mastitis, breast abscess, cracked nipples, refusal to take breast, hypogalactia, etc.)*? Why these problems usually occur? What practical help with breastfeeding has been available for mothers in maternity hospitals and thereafter? How sufficient and how affordable has been that help? What could be done to provide breastfeeding mothers the qualified help they need for successful breastfeeding?

3. INFANT AND YOUNG CHILD NUTRITION

3.1 What are the existing adverse practices with infant and young child nutrition in Armenia that lead to undesirable health consequences (e.g. *undernutrition, obesity, anemia, developmental delay, etc.*)? What is being done to improve the situation? What else could be done to assure optimal nutrition of a child during infancy and early childhood?

3.2 What is the average duration of exclusive breastfeeding in Armenia? What is the average duration of any breastfeeding? Is there any increasing or decreasing trend in these indicators? What are the reasons for those trends? What could be done to improve the situation?

3.3 What are the recommended practices of feeding infants during common acute illnesses (diarrhea, respiratory infections) and in the period of recovery? Are these practices followed in reality during an infant's illness or hospitalization? What are the reasons for not following these practices? What could be done to reinforce correct infant feeding practices in hospitals, at home?

3.4 What adverse practices of infant nutrition are still common in Armenia (*early supplements, use of cow's milk and other non-adapted breast milk substitutes, early or late introduction of solid food, use of inappropriate solid food, etc*.)? What are the dangers of these practices? What are the reasons for continuing these adverse practices? What could be done to improve the situation?

3.5 In your opinion, what adverse practices of young child nutrition are common in Armenia *(inadequate quality and frequency of meals, over-use of sweets, under-use of fruits and vegetables, low food diversity, use of food containing artificial additives,inadequate hygiene during meal preparation, other*)? What are the reasons for these adverse practices? What could be done to improve the situation?

4. GROWTH SURVEILLANCE AND SCREENING FOR ANEMIA

4.1 How the growth of under-five children is currently monitored in Armenia? Do you think the current schedule of children's anthropometric measurements in primary healthcare facilities is optimal/realistic, too frequent, or too rare? How sufficient are the capacities of primary health care facilities (equipment, skilful staff) in Armenia to adequately monitor children's growth? What is the coverage of children with growth monitoring in cities, in rural areas? How the results of children's growth monitoring are used on an individual level? How they are used on a systemic level (*e.g. reporting regularly to higher instances, summarizing, analyzing, using for policy changes, etc.*)?

4.2 Do you think growth curves are useful to monitor children's nutritional status? Why? Do providers use all the advantages that growth curves could provide? If no, why (*too many growth charts, inadequate size/printing quality of growth charts, lack of time to complete, lack of adequate knowledge/training among healthcare providers, lack of appropriate equipment for anthropometric measurements, parents' reluctance to take children to primary healthcare facilities for growth monitoring, etc.*). Do you think all five types of child growth charts (weight-for-age, height-for-age, weight-for height, BMI-for-age, head circumference-for-age) are equally used by providers? If no, why? In your opinion, what could be done to improve the use of child growth charts in primary healthcare facilities?

4.3 Are there any guidelines/protocols in Armenia on prevention and treatment of growth problems in children? Is there any mechanism to update these guidelines/protocols regularly? How accessible are these guidelines/protocols for providers? What are the current practices at primary care level to prevent and treat growth problems (undernutrition, obesity) in children? What could be done to improve the existing practices?

4.4 How the anemia status of under-five children is currently monitored in Armenia? How sufficient are the capacities of primary health care facilities (equipment, skilful staff, availability of modern tests to measure hemoglobin level) to conduct anemia screening? How sufficient are their capacities to identify the reasons of anemia (iron-deficient or other, reasons for iron-deficiency – low consumption, low absorption, high losses, etc.)? What is the coverage of children with anemia screening in cities, in rural areas? How the results of children's anemia screening are used on an individual level? How they are used on a systemic level (*e.g. reporting regularly to higher instances, summarizing, analyzing, using for policy changes, etc.*)?

4.5 What are the current practices in Armenia to prevent anemia in children? Is there any guideline on prevention of anemia in children? If yes, is there a mechanism to update it regularly, to make it accessible for providers? What is the most vulnerable age for anemia in children? Why? What is your opinion about the use of iron-fortified flour to prevent anemia in infants, in 1-5 year old children? Why it could be effective or ineffective? What measures are usually undertaken by primary care providers if the hemoglobin test indicates the presence of anemia in a child? Is there any treatment protocol to follow? If yes, how updated and accessible is it? How well it is followed by providers? Why?

4.6 In your opinion, is there any child growth or anemia surveillance system in Armenia? Is there a need for such surveillance systems? Why yes or no? What should be the main components of a surveillance system? What components of child growth or anemia surveillance system (*e.g. taking measurements/tests according to a predetermined schedule, reporting the results regularly to higher instances, summarizing, analyzing, providing feedback, using for policy changes*) are lacking in Armenia? How the situation can be improved?

4.7 Do primary healthcare providers have job descriptions? How parental counselling and home visiting is reflected there? What should be done to improve the system of parental counselling? What should be done to improve the system of home visiting? How to ensure the quality and sustainability of both?

4.8. What public health interventions would you recommend to improve child nutrition and to prevent micronutrient deficiency?

Would you like to summarize – what are the main problems with pregnant woman and child nutrition in Armenia? What could be done to improve the situation?

Thank you very much for your time and contribution, which we highly appreciate!

Խորացված հարցազրույցի ուղեցույց

Օր: ____

Ժամ: ____

Վայր: ____

Հարցազրուցավար: ____

Գրանցող: ____

Բարի օր և շնորհակալություն, որ համաձայնեցիք զրուցել մեզ հետ: Իմ անունը _____________: Ես ներկայացնում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության ֆակուլտետը: Ինչպես նշված է Ձեր կողմից ընթերցված համաձայնության ձևում, ՅՈՒՆԻՍԵՖ-ի աջակցությամբ մենք իրականացնում ենք հետազոտություն՝ ուսումնասիրելու այն գործոնները, որոնք խոչընդոտում են հղի կանանց և երեխաների առողջ սնուցումը Հայաստանում: Մենք կցանկանայինք, որ Դուք ներկայացնեիք այս հարցերի վերաբերյալ Ձեր կարծիքը, որը մեզ համար շատ գնահատելի է: Եթե չեք առարկում, ես կձայնագրեմ մեր զրույցը, որպեսզի Ձեր արտահայտած ոչ մի կարևոր միտք չվրիպի մեր ուշադրությունից: Խնդրում եմ արտահայտվեք ազատորեն, նկատի ունենալով, որ Ձեր տրամադրած ողջ տեղեկատվությունը մնալու է գաղտնի և Ձեր անունը ոչ մի տեղ չի հրապարակվելու: Խնդրում եմ, թույլ տվեք այժմ սկսել:

1. ՍՆՆԴԱՅԻՆ ԵՎ ԽՈՐՀՐԴԱՏՎԱԿԱՆ ԿԱՐԻՔՆԵՐԸ ՀՂԻՈՒԹՅԱՆ ԸՆԹԱՑՔՈՒՄ

1.1 Նկարագրեք, խնդրեմ, ի՞նչ միջոցառումներ պետք է ձեռնարկվեն, որպեսզի ապահովվի հղի կանանց օպտիմալ սնուցումը:

1.2 Ինչպիսի՞ն է հղի կանանց սննդային պահանջների բավարարմանն ուղղված գործելակերպը նախածննդյան խնամք իրականացնող բուժհաստատություններում ներկայումս (*խորհրդատվություն, նշանակումներ, մշտադիտարկում*): Ինչպե՞ս կգնահատեիք այդ գործելակերպը՝ բովանդակության, ընդգրկման և իրականացման առումով:

1.3 Ձեր կարծիքով, որո՞նք են հղի կանանց օպտիմալ սնուցումը խոչընդոտող հիմնական համակարգային գործոնները (*օր.՝ անհրաժեշտ մատակարարումների, պատրաստված բուժաշխատողների կամ ուղեցույցների պակասը*): Ի՞նչ կարելի է անել համակարգային մակարդակում՝ իրավիճակը բարելավելու համար (*օր.՝ բուժաշխատողների ուսուցում, սննդի հարստացման կամ սննդային հավելումների օգտագործման ռազմավարությունների ներդրում, միկրոտարրերի լաբորատոր քննության հնարավորության ընձեռում կանանց կոնսուլտացիաներին և այլն*):

1.4 Մեր իրականության մեջ որո՞նք են հղիության ընթացքում կանանց ոչ ադեկվատ սնուցման ամենատարածված անձնական (կամ ընտանեկան) պատճառները (*գիտելիքների, միջոցների, բուժաշխատողների հանդեպ վստահության պակաս և այլն*): Ինչպե՞ս կարելի է հաղթահարել այդ պատճառները:

1.5 Բուժաշխատողների համար գոյություն ունեցող ուղեցույցները որքանո՞վ են անդրադառնում այն հարցերին, թե ինչպես բավարարել սննդային պահանջները հղիության ընթացքում և ինչպես հետևել հղի կնոջ սնուցման վիճակին: Ինչպե՞ս կարելի է բարելավել այդ ուղեցույցները:

1.6 Նախածննդյան խնամք իրականացնող բուժհաստատություններում ինչպե՞ս են նախապատրաստում հղի կնոջը՝ կրծքով կերակրելուն (բովանդակությունը, ընդգրկումը): Այս ուղղությամբ ի՞նչը կարելի է ավելի լավ անել այդ բուժհաստատություններում: Ընդհանրապես, ինչպե՞ս կարել է բարելավել կանանց նախապատրաստումը հաջողությամբ կրծքով կերակրելուն:

2. ԱՋԱԿՑՈՒԹՅՈՒՆ ԿՐԾՔՈՎ ԿԵՐԱԿՐՄԱՆԸ

2.1 Ձեր կարծիքով, ինչպիսի՞ն է անհաս կամ ներարգանդային հիպոտրոֆիայով ծնվածների ցուցանիշը Հայաստանում: Այդ ցուցանիշի ինչպիսի՞ փոփոխություն է նկատվում (բարձրանու՞մ է, իջնո՞ւմ, թե՞ մնում հաստատուն): Եթե կարծում եք, որ կա միտում, որո՞նք կարող են լինել այդ միտման պատճառները: Ինչպե՞ս կարել է բարելավել իրավիճակը:

2.2 Հայաստանում սովորաբար ինչպե՞ս են կերակրվում ցածր քաշով ծնված նորածինները ծննդատանը և դուրս գրվելուց հետո: Ձեր կարծիքով, ինչպես կարելի՞ է բարելավել ցածր քաշով ծնված նորածինների կերակրումը ծննդատանը և այնուհետև:

2.3 Ձեր կարծիքով, Հայաստանի ծննդատներում որքանո՞վ են հետևում կրծքով կերակրման հաջող սկզբնավորման քայլերին (մանկանը բարեկամ ծննդատներ նախաձեռնությանը): Ո՞ր քայլերն են ավելի հաճախ խախտվում.

- ծնվելուց անմիջապես հետո մոր և մանկան միջև մաշկային շփման ապահովումը և առաջին կես ժամվա ընթացքում կրծքով կերակրումը,
- մոր և մանկան համատեղ կեցությունը,
- ըստ պահանջի, բացառապես կրծքով կերակրումը,
- լրացուցիչ սննդի, ջրի, այլ հեղուկների և ծծակների օգտագործման բացառումը,
- մայրերին օգնելը՝ նորածնին ճիշտ դիրքով կրծքին մոտեցնելու և կուրծքը ճիշտ մատուցելու հարցում,
- մայրերին օգնելը՝ կաթը կթելու հարցում:

2.4 Որո՞նք են ծննդատներում այս քայլերին լիարժեք չհետևելու պատճառները: Ձեր կարծիքով, ի՞նչ կարելի է անել, որ ծննդատներում բարելավվի իրավիճակը՝ կրծքով կերակրելուն ցուցաբերվող աջակցության առումով:

2.5 Որո՞նք են կրծքով կերակրման ամենատարածված դժվարությունները հետծննդաբերական առաջին օրերի կամ ամիսների ընթացքում (*կրծքագեղձերի կոշտացում, մաստիտ, աբսցես, պտուկների ճաք, մանկան հրաժարում կրծքից, անբավարար կաթնարտադրություն և այլն*): Սովորաբար ինչո՞ւ են այս խնդիրներն առաջանում: Կրծքով կերակրման հարցում ի՞նչ գործնական օգնություն են ստանում մայրերը ծննդատներում և դրանից հետո: Այդ օգնությունը որքանո՞վ է բավարար և մատչելի: Ի՞նչ կարելի է անել, որ

կերակրող մայրերը ստանան այն որակյալ օգնությունը, որն անհրաժեշտ է նրանց՝ հաջողությամբ կրծքով կերակրելու համար:

3. ՄԻՆՉԵՎ ՄԵԿ ՏԱՐԵԿԱՆ ԵՎ ՎԱՂ ՀԱՍԱԿԻ ԵՐԵԽԱՅԻ ՍՆՈՒՑՈՒՄԸ

3.1 Որո՞նք են մինչև մեկ տարեկան և վաղ հասակի երեխաների սնուցման անցանկալի գործելակերպերը Հայաստանում, որոնք կարող են հանգեցնել առողջական խնդիրների (*օր.՝ թերսնուցման, ճարպակալման, սակավարյունության, զարգացման հապաղումների և այլն*): Ի՞նչ է արվում իրավիճակը բարելավելու համար: Ուրիշ ի՞նչ կարելի է անել մինչև մեկ տարեկան և վաղ հասակի երեխաների օպտիմալ սնուցումն ապահովելու համար:

3.2 Որքա՞ն է բացառապես կրծքով սնուցման միջին տևողությունը Հայաստանում: Որքա՞ն է կրծքով սնուցման միջին տևողությունը: Նկատվո՞ւմ է այս ցուցանիշների բարձրացման կամ իջեցման որևէ միտում: Որո՞նք են այդ միտման պատճառները: Ինչպե՞ս կարելի է բարելավել իրավիճակը:

3.3 Ինչպե՞ս է խորհուրդ տրվում կերակրել մինչև մեկ տարեկան երեխային՝ սուր հիվանդությունների (փորլուծության, շնչական վարակների) ժամանակ և ապաքինման շրջանում: Ինչքանո՞վ են այդ խորհուրդներին հետևում գործնականում՝ երեխայի հիվանդության և հոսպիտալացման ժամանակ: Որո՞նք են այդ խորհուրդներին չհետևելու պատճառները: Ի՞նչ կարելի է անել հիվանդանոցներում և տանը՝ մանկան սնուցման ճիշտ գործելակերպերը խրախուսելու համար:

3.4 Որո՞նք են մինչև մեկ տարեկան երեխաների կերակրման՝ Հայաստանում դեռևս տարածված անցանկալի գործելակերպերը *(լրացուցիչ սննդի վաղ ներմուծում, կովի կաթի և կրծքի կաթի ոչ-ադապտացված այլ փոխարինիչների օգտագործում, հավելյալ սննդի վաղ կամ ուշ ներմուծում, անհամապատասխան սննդատեսակների օգտագործում և այլն)*: Որո՞նք են այդ գործելակերպերի վտանգները: Որո՞նք են այդ անցանկալի գործելակերպերը շարունակելու պատճառները: Ի՞նչ կարելի է անել՝ իրավիճակը բարելավելու համար:

3.5 Ձեր կարծիքով, որո՞նք են 1-5 տարեկան երեխաների կերակրման՝ Հայաստանում տարածված անցանկալի գործելակերպերը *(կերակրի անհամապատասխան որակը և կերակրումների անբավարար հաճախականությունը, քաղցրավենիքի չարաշահումը, մրգերի և բանջարեղենի անբավարար օգտագործումը, սննդի բազմազանության պակասը, արհեստական հավելումներ պարունակող սննդամթերքի օգտագործումը, սննդի պատրաստման անբավարար հիգիենան և այլն)*: Որո՞նք են այդ բացասական գործելակերպերի պատճառները: Ի՞նչ կարելի է անել՝ իրավիճակը բարելավելու համար:

4. ԱՃԻ ՎԵՐԱՀՍԿՈՂՈՒԹՅՈՒՆ ԵՎ ՍԱԿԱՎԱՐՅՈՒՆՈՒԹՅԱՆ ՍԿՐԻՆԻՆԳ

4.1 Ինչպե՞ս է հսկվում մինչև հինգ տարեկան երեխաների աճը Հայաստանում: Ձեր կարծիքով, երեխաների անթրոպոմետրիկ չափումների կիրառվող ժամանակացույցը ընդունելի՞ է, թե՞ չափազանց հաճախակի է կամ հազվադեպ: Առաջնային օղակի բուժհաստատություններն

ունե՞ն բավարար հնարավորություններ (սարքեր, անհրաժեշտ հմտություններ ունեցող բուժանձնակազմ) երեխաների աճի ճիշտ հսկողություն իրականացնելու համար: Որքա՞ն է երեխաների ընդգրկվածությունը աճի հսկողության մեջ քաղաքներում և գյուղական վայրերում: Ինչպե՞ս են օգտագործվում երեխայի աճի հսկողությունից ստացված տվյալները անհատական մակարդակում (*կոնկրետ երեխայի խորհրդատվության և բուժման համար*): Ինչպե՞ս են դրանք օգտագործվում համակարգային մակարդակում (*օր.՝ պարբերաբար զեկուցվում վերադաս մարմիններին, ամփոփվում, վերլուծվում, օգտագործվում որոշումների կայացման համար*):

4.2 Ձեր կարծիքով, աճի կորագծերն օգտակա՞ր են երեխաների սնուցման վիճակի հսկողության համար: Ինչո՞ւ: Բուժաշխատողներն օգտագործո՞ւմ են այն բոլոր առավելությունները, որ կարող են տալ աճի կորագծերը: Եթե ոչ, ինչո՞ւ *(չափից շատ աճի քարտեր, աճի քարտերի անբավարար չափսեր կամ տպագրական որակ, քարտերը լրացնելու ժամանակի պակաս, բուժաշխատողների համապատասխան գիտելիքի կամ ուսուցման պակաս, անթրոպոմետրիկ չափումների համար անհրաժեշտ սարքավորումների պակաս, ծնողների դժկամություն՝ աճի հսկողության համար երեխաներին բուժհաստատություն բերելու, և այլն*): Ձեր կարծիքով, բոլոր հինգ աճի քարտերը *(քաշ՝ ըստ տարիքի, հասակ՝ ըստ տարիքի, քաշ՝ ըստ հասակի, քաշ-հասակային գործակից՝ ըստ տարիքի, գլխի շրջագիծ՝ ըստ տարիքի)* հավասարապես լրացվո՞ւմ են բուժաշխատողների կողմից: Եթե ոչ, ինչո՞ւ: Ի՞նչ կարելի է անել առաջնային օղակի բուժաստատություններում երեխայի աճի քարտերի օգտագործումը բարելավելու համար:

4.3 Հայաստանում գոյություն ունե՞ն ուղեցույցներ՝ երեխաների աճի խանգարումների կանխարգելման և բուժման վերաբերյալ: Գոյություն ունի՞ այդ ուղեցույցները պարբերաբար նորացնելու որևէ կարգ: Որքանո՞վ են հասանելի այդ ուղեցույցները բուժաշխատողների համար: Ներկայումս ինչպե՞ս են կանխարգելվում և բուժվում երեխաների աճի խանգարումները *(թերսնուցում, ճարպակալում)* առաջնային օղակի բուժհաստատություններում: Ի՞նչ կարելի է անել ներկայիս գործելակերպը բարելավելու համար:

4.4 Հայաստանում ներկայումս ինչպե՞ս է հսկվում մինչև 5 տարեկան երեխաների մոտ սակավարյունության առկայությունը: Առաջնային օղակի բուժհաստատություններն ունե՞ն բավարար հնարավորություններ (*անհրաժեշտ հմտություններ ունեցող բուժանձնակազմ, սարքավորումներ, հեմոգլոբինի մակարդակի որոշման ժամանակակից թեստեր*) երեխաների մոտ սակավարյունության հսկողություն իրականացնելու համար: Որքանո՞վ են բավարար նրանց հնարավորությունները՝ երեխայի մոտ հայտնաբերված սակավարյունության պատճառները պարզելու համար *(երկաթ-դեֆիցիտային կամ այլ, երկաթի դեֆիցիտի պատճառները՝ անբավարար ստացում սննդով, անբավարար ներծծում, կամ մեծ կորուստները, և այլն)*: Որքա՞ն է երեխաների ընդգրկվածությունը սակավարյունության սկրինինգում քաղաքային և գյուղական բնակավայրերում: Ինչպե՞ս են երեխաների սակավարյունության սկրինինգի արդյունքներն օգտագործվում անհատական մակարդակում (*կոնկրետ երեխայի խորհրդատվության և բուժման համար*): Ինչպե՞ս են դրանք օգտագործվում համակարգային մակարդակում (*պարբերաբար զեկուցվում վերադաս մարմիններին, ամփոփվում, վերլուծվում, օգտագործվում որոշումների կայացման համար և այլն*):

4.5 Ներկայումս Հայաստանում ի՞նչ միջոցներ են ձեռնարկվում՝ երեխաների մոտ սակավարյունության կանխարգելման համար: Գոյություն ունի՞ երեխաների մոտ սակավարյունության կանխարգելման որևէ ուղեցույց: Եթե այո, կա՞ այդ ուղեցույցը պարբերաբար նորացնելու և այն բուժաշխատողներին մատչելի դարձնելու որևէ կարգ: Ո՞ր տարիքում է երեխան առավել խոցելի սակավարյունության համար: Ինչու՞: Ի՞նչ կարծիքի եք երկաթով հարստացված ալյուրի օգտագործման միջոցով մինչև մեկ տարեկան երեխաների մոտ սակավարյունության կանխարգելման հնարավորության մասին: Իսկ 1-5 տարեկանների մո՞տ: Ըստ Ձեզ, ի՞նչ պատճառներով հարստացված ալյուրի օգտագործումը կարող է լինել արդյունավետ կամ անարդյունավետ: Սովորաբար ի՞նչ միջոցներ են ձեռնարկվում մանկաբույժի կողմից, եթե հեմոգլոբինի հետազոտության արդյունքում երեխայի մոտ հայտնաբերվում է սակավարյունություն: Գոյություն ունի՞ բուժման որևէ սխեմա, որին պետք է հետևել: Եթե այո, որքանո՞վ է այդ սխեման նորացված և մատչելի: Որքանո՞վ են բուժաշխատողները հետևում այդ սխեմային: Ինչո՞ւ:

4.6 Ձեր կարծիքով, Հայաստանում գոյություն ունի՞ երեխաների աճի և սակավարյունության վերահսկման համակարգ: Ըստ Ձեզ, կարիք կա՞ այդպիսի վերահսկման համակարգի: Ինչո՞ւ այո կամ ինչո՞ւ ոչ: Որո՞նք պետք է լինեն վերահսկման համակարգի հիմնական բաղադրիչները: Երեխայի աճի և սակավարյունության վերահսկման համակարգի ո՞ր բաղադրիչներն են բացակայում Հայաստանում (*օր.՝ նախասահմանված ժամանակացույցի համաձայն չափումներ կամ հետազոտություններ կատարելը, ստացված տվյալները պարբերաբար վերադաս մարմիններին զեկուցելը, ամփոփելը, վերլուծելը, արդյունքների մասին առաջնային օղակին տեղեկացնելը, դրանք որոշումների կայացման համար օգտագործելը և այլն*): Ինչպե՞ս կարելի է բարելավել իրավիճակը:

4.7 Առաջնային օղակի բուժաշխատողներն ունե՞ն աշխատանքի նկարագրություն: Ծնողներին խորհրդատվություն տրամադրելը և տնային այցեր իրականացնելը ներառվա՞ծ են այնտեղ: Ի՞նչ կարելի է անել ծնողներին տրամադրվող խորհրդատվությունը բարելավելու համար: Ի՞նչ կարելի է անել տնային այցելությունների համակարգը բարելավելու համար: Ինչպե՞ս ապահովել այս երկուսի որակը և կայունությունը:

4.8 Ինչպիսի՞ առողջապահական միջոցառումներ կառաջարկեիք ձեռնարկել՝ երեխաների սնուցումը բարելավելու և միկրոտարրերի անբավարարությունը կանխարգելեու համար:

(Ամփոփիչ հարց) – Կցանկանայի՞ք ամփոփել, թե որո՞նք են Հայաստանում հղի կանանց և երեխաների սնուցման հետ կապված հիմնական խնդիրները և ի՞նչ կարելի է անել իրավիճակը բարելավելու համար:

Շնորհակալություն Ձեր ժամանակի և արդյունավետ զրույցի համար:

Questionnaire for Focus Group Participant

Please answer to the following questions:

1. Your age (completed years): ________
2. Your gender: □ Male □ Female
3. Your residency: □ Urban □ Rural
4. In total, how many years have you studied (starting from the first class)? _______
5. Your specialization: _______________________________
6. In total, how many years have you worked with your specialization: _______
7. How many family members do you have? ________
8. How many children do you have? ________
9. What is the age of your youngest child (in months)? ________

Հարցաթերթիկ հետազոտության մասնակցի համար

Խնդրում ենք պատասխանել հետևյալ հարցերին՝

1. Ձեր տարիքը (լրացրած տարիների թիվը). _________

2. Ձեր սեռը.

   □ Արական

   □ Իգական

3. Ձեր բնակավայրը.

   □ Քաղաք

   □ Գյուղ

4. Ընդհանուր առմամբ, քանի՞ տարի եք Դուք սովորել (սկսած առաջին դասարանից):

   __________ *տարի*

5. Ձեր մասնագիտությունը. ___________________________________

6. Ընդհանուր առմամբ, քանի՞ տարի եք Դուք աշխատել Ձեր մասնագիտությամբ:

   _________ *տարի*

7. Քանի՞ հոգուց է բաղկացած Ձեր ընտանիքը: _________

8. Դուք քանի՞ երեխա ունեք: ________

9. Նշեք Ձեր ամենակրտսեր երեխայի տարիքը (ամիսներով). _________ *ամիս*