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ORIGINAL ARTICLE

Prevalence of breastfeeding and factors associated with the start and duration of exclusive breastfeeding in the Community of Madrid among participants in the ELOIN☆

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KEYWORDS
Breastfeeding;
Exclusive breastfeeding;
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Abstract
Introduction: Breastfeeding has important benefits for population health. The aims of this study are: (i) to determine the prevalence and duration of breastfeeding and exclusive breastfeeding; (ii) analyse the reasons for not starting or abandoning of breastfeeding, and (iii) describe the factors associated with the initiation and duration of exclusive breastfeeding.
Material and methods: Cross sectional study using the baseline data of the ELOIN cohort, obtained using an epidemiological questionnaire. A sample of 2627 children born in 2008–2009 from the Community of Madrid was studied. Logistic regression models were used.
Results: Prevalence of exclusive breastfeeding and breastfeeding was 77.6% and 88% respectively; prevalence of exclusive breastfeeding at 6 months 25.4%, and prevalence of breastfeeding at 2 years was 7.7%. The most common reasons for abandoning breastfeeding were insufficient milk (36%), and incorporation to work (25.9%). The variables associated with starting or maintaining of exclusive breastfeeding were: mother older than 35 years, medium-high economic status, foreigner residing in Spain less than 10 years, and having participated in a breastfeeding workshop.

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Conclusions: Breastfeeding prevalence in the Community of Madrid did not reach the international recommendations in 2008–2009. It is necessary to intensify strategies for breastfeeding promotion, protection, and support, including their periodic monitoring.

PALABRAS CLAVE
Lactancia materna;
Lactancia materna exclusiva;
Prevalencia;
Abandono de la lactancia materna

Prevalencia de la lactancia materna y factores asociados con el inicio y la duración de la lactancia materna exclusiva en la Comunidad de Madrid entre los participantes en el estudio ELOIN

Resumen
Introducción: La lactancia materna tiene importantes beneficios para la salud poblacional. Los objetivos de este estudio son: a) conocer la prevalencia y duración de la lactancia materna y lactancia materna exclusiva; b) analizar las razones de no inicio y de abandono de la lactancia materna, y c) describir los factores asociados a la lactancia materna exclusiva y con su mantenimiento durante 6 meses.
Material y métodos: Estudio transversal a partir de datos basales de la cohorte ELOIN, obtenidos por cuestionario epidemiológico. Se estudió una muestra de 2.627 niños de 4 años nacidos en 2008-2009 de la Comunidad de Madrid. Se utilizaron modelos de regresión logística.
Resultados: La prevalencia de lactancia materna exclusiva y lactancia materna fue del 77,6 y del 88%, respectivamente; la lactancia materna exclusiva a los 6 meses fue del 25,4%, y la lactancia materna a los 2 años, del 7,7%. Las razones principales de finalización de la lactancia fueron la producción insuficiente de leche (36%) y la incorporación al trabajo (25,9%). Las variables asociadas con el inicio o mantenimiento de la lactancia materna exclusiva fueron: madre de más de 35 años, estatus económico medio-alto, extranjera con menos de 10 años de residencia en España y haber participado en taller de lactancia tras el parto.
Conclusiones: La prevalencia de lactancia materna en la Comunidad de Madrid no alcanzó en 2008-2009 las recomendaciones internacionales. Es necesario intensificar estrategias de promoción, protección y apoyo a la lactancia materna, incluyendo su monitorización periódica.

Introduction

Human milk is the natural and optimal food for infants in the first 6 months of life, as it provides all the necessary nutrients for their growth and development. In addition, breastfeeding (BF) promotes mother–child bonding, is associated with a decreased risk of infection and disease during childhood (asthma, dermatitis, obesity or diabetes) and with higher IQ scores, and, in the mother, with a reduced risk of breast and ovary cancer and of type 2 diabetes.[1–3] The WHO, health care authorities and scientific societies in Spain and abroad recommend exclusive breastfeeding (EBF) in the first 6 months of life and continued breastfeeding combined with complementary foods until at least age 2 years.[4–6]

The literature describes numerous factors associated with not initiating EBF or with discontinuing it before age 6 months: lower maternal age, low socioeconomic status and educational attainment, unsupportive work environment, inadequate care during birth and in the postnatal period, low birth weight, perceived insufficient milk supply, previous negative experiences with BF or attitudes regarding EBF before birth, among others.[7–9]

Despite the risks associated with artificial formula feeding or early discontinuation of EBF and the decades-long efforts made by several countries to protect, promote and support EBF, its prevalence remains low worldwide. In 2010, the prevalence of EBF in the first 6 months of life was 39% in developing countries.[10] In Spain, based on the 2006 Encuesta Nacional de Salud de España (National Health Survey of Spain [ENSE]), the percentage of infants that were exclusively or partially breastfed at 6 months was 38.8%, a proportion that had increased to 46.9% in 2011.[11] The global target for year 2025 is to increase the rate of EBF in the first 6 months of life to at least 50%.[12] To this end, in 2009 the Consejería de Sanidad (Department of Health) of the Community of Madrid, through the Madrid Public Health System, signed a collaboration agreement with UNICEF to improve health care practices and promote satisfactory BF in the region.[13] Since then, the prevalence of BF and associated factors have been analysed in non-representative samples of the population of the Community of Madrid.[14]

The goals of this study were: (a) to determine the prevalence and duration of BF and EBF; (b) to analyse the reasons for not initiating and for discontinuing BF, and (c) to describe the factors associated to EBF and its maintenance for 6

months, with all of the above applying to the population of the Community of Madrid.

Materials and methods

Design

We conducted a cross-sectional study by reviewing the baseline data of the Estudio Longitudinal de Obesidad Infantil (Longitudinal Study of Childhood Obesity [ELOIN]).[15] The ELOIN is a population-based cohort study whose objectives are to describe variations in childhood overweight and obesity, establish their association with sociodemographic factors and estimate their impact on health. An email was sent to the parents of the selected children informing them of the study and requesting their participation, and participants whose parents agreed to it were enrolled with the signing of an informed consent form. The baseline data were collected between January 2012 and December 2013 by means of a physical examination conducted by paediatricians employed in primary care centres and an *ad hoc* epidemiological questionnaire on diet and lifestyle habits that was administered by phone to the adults in charge of the participants (mothers and/or fathers).

Study sample

The ELOIN cohort comprises a representative sample ($n = 4571$) of the population born in 2008–2009 residing in the Community of Madrid included in the caseloads of the 31 paediatricians of the Primary Care Sentinel Physician Network[16] and selected though multistage sampling. For our study, we selected the ELOIN participants that had completed the epidemiological questionnaire ($n = 2627$).

Variables

Sociodemographic: sex of participant; maternal age at birth (<20 years/20–35 years/>35 years); duration in years of mother's residence in Spain (Spanish mother/≥10 years/<10 years); maternal educational attainment (elementary education or less/secondary education/university); social class of family (I/II/III/IV/V/never employed); socioeconomic status of family (low/middle/high).

The variable ''duration in years of mother's residence in Spain'' included every mother; the ≥10 years and <10 years categories applied to mothers that were not born in Spain. Maternal educational attainment was defined as the highest education level achieved by the mother at the time of administration of the epidemiological questionnaire. The social class of the family was determined based on the highest-level occupation in the household, as proposed by the Sociedad Española de Epidemiología (Spanish Society of Epidemiology), and comprised 5 categories, of which social class I was the most privileged.[17] We defined family socioeconomic status (SES) based on the Family Affluence Scale (FAS),[18] with a score of 0–2 points corresponding to low SES, a score of 3–5 to middle SES and a score of 6 points 9 to high SES.

Breastfeeding: BF (yes/no), duration of BF (months), EBF (yes/no), duration of EBF (months), participation in BF workshop after delivery (yes/no), main reason for not initiating BF, main reason for discontinuing BF.

We used the definitions of the WHO: BF refers to the infant receiving breast milk, possibly combined with artificial formula or other foods; EBF refers to the infant being fed breast milk only, allowing for administration of vitamin or mineral supplements or medicines.[19] Participation in the BF workshop was voluntary and limited to mothers that intended to breastfeed. The variable ''main reason for not initiating BF'' comprised 7 categories: (1) mother's choice; (2) difficulty establishing BF; (3) maternal health problems; (4) infant health problems; (5) infant was adopted; (6) return to work and (7) recommendation of health professional. The variable ''main reason for discontinuing BF'' comprised 9 categories: (1) insufficient milk supply; (2) return to work; (3) mother's choice; (4) child self-weaning; (5) breast problems; (6) maternal health problems; (7) child health problems; (8) new pregnancy and (9) advice/recommendation of health professional (Appendix A).

Data collection

We obtained all the data for this study from one section of the epidemiological questionnaire used in the ELOIN study (Appendix A). When it came to BF, this questionnaire used an adaptation of items 64–69 in the Questionnaire on Minors of the 2011–2012 ENSE health survey[20] in addition to items of our own making with multiple-choice answers regarding the reasons to not initiate or to discontinue BF that we developed after consulting with paediatricians expert in the subject.

The study protocol was approved by the Clinical Research Ethics Committee of the Hospital Universitario Ramón y Cajal of Madrid.

Statistical analysis

We performed a descriptive analysis of the variables. We have expressed qualitative variables as frequency distributions. We calculated the prevalence of BF and EBF and their duration through age 12 months and performed an inferential analysis with calculation of 95% confident intervals (CIs). We analysed variables associated with EBF and its maintenance for 6 months using the chi square test and included associations with p-values of 0.10 or less in the multivariate logistic regression analysis. In fitting the final regression model, we considered variables with p-values of 0.05 or less statistically significant. We performed the analyses with the statistical packages SPSS version 15.0 (SPSS Inc; Chicago, IL, United States) and STATA version 13.0 (StataCorp; College Station, TX, United States).

Results

Of the 2627 completed epidemiological questionnaire, 87% had been administered to mothers. The mean maternal age at birth was 32.5 years (SD, 5.1). Table 1 summarises the rest of the sample characteristics.

The number of mothers that established BF or EBF at some point were 2313 and 2039, respectively, corresponding to an 88% prevalence of BF (95% CI, 86.4–89.2%) and a 77.6%

Table 1 Sample characteristics (sample of the population born in 2008–2009 in the Community of Madrid, ELOIN 2012–2013 study).

	n	%
Sex of participant		
Male	1334	50.8
Female	1293	49.2
Maternal age at birth		
<20 years	51	1.9
20–35 years	1825	69.5
>35 years	718	27.3
Not documented	33	1.3
Maternal country of birth		
Spain	1940	73.9
Other than Spain	628	23.9
Not documented	59	2.2
Duration of mother's residence in Spain, years		
Spanish mother	1940	73.9
Foreign-born mother, residence ≥10 years	358	13.6
Foreign-born mother, residence <10 years	263	10.0
Not documented	66	2.5
Maternal educational attainment		
Elementary education or less	93	3.5
High school	1431	54.5
University	1099	41.8
Unknown/Not answered	4	0.2
Social class of family		
I	503	19.1
II	481	18.3
III	510	19.4
IV	866	33.0
V	234	8.9
Never employed	19	0.7
Not documented	14	0.5
Family socioeconomic status		
Low	488	18.6
Middle	803	30.6
High	1333	50.7
Not documented	3	0.1
Participation in breastfeeding workshop after delivery (n = 2313)		
Yes	251	10.9
No	1987	85.9
Not documented	75	3.2

prevalence of EBF (95% CI, 76.0–79.2%). Both percentages decreased with duration of BF, and by 6 months of age were down to 49.4% (95% CI, 47.7–51.1%) for BF and 25.4% (95% CI, 23.7–27.1%) for EBF. Fig. 1 shows the prevalence of BF and of EBF by months of BF duration.

The 12% of mothers that did not initiate BF reported the reasons for this outcome (Table 2). The 3 most frequent reasons were maternal choice (29% of cases), difficulties establishing BF (28.6%) and maternal health problems (27.3%).

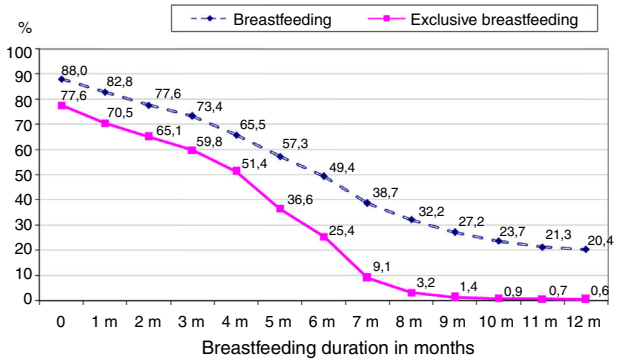

Figure 1 Prevalence of breastfeeding and exclusive breastfeeding until age 12 months (sample of the population born in 2008–2009 in the Community of Madrid, ELOIN 2012–2013 study).

Table 2 Main reasons to not initiate breastfeeding (mothers in the sample of the 2012–2013 ELOIN study).

Reported reasons	*n*	%
Mother's choice		
''I did not want to breastfeed'' or ''The idea of breastfeeding was unpleasant''	73	23.5
''Bottle feeding was easier/more convenient''	8	2.6
''I consider artificial formula as healthy/adequate as breast milk''	2	0.6
''Personal reasons''	7	2.3
Difficulties establishing breastfeeding		
''I had no milk letdown''	74	23.8
''my baby would not latch on''	15	4.8
Maternal health problems	85	27.3
Infant health problems	21	6.8
Infant was adopted	11	3.5
Maternal employment	9	2.9
Advice from a health professional	6	1.9
Total	311	100

Table 3 summarises the main reasons for BF cessation. The 2 most frequent reasons were insufficient milk supply/I produced no milk/I stopped producing milk (32.3%) and returning to work (25.9%).

Logistic regression showed that mothers in families of middle to high socioeconomic status were 1.49 times more likely to practice EBF compared to mothers of low socioeconomic status, and that the probability of EBF was nearly double in mothers that attended a BF workshop after delivery compared to mothers that did not (Table 4).

Maintenance of EBF for 6 months was associated with greater maternal age, maternal residence in Spain of less than 10 years, participation in BF after delivery and not belonging to the middle class (Table 5).

Discussion

In children born between 2008 and 2009 in the Community of Madrid, the prevalence of EBF at 6 months was 25.4%,

Table 3 Main reasons for BF cessation reported by mothers (mothers in the sample of the 2012–2013 ELOIN study).

Main reasons reported	*n*	%
Insufficient milk supply		
''insufficient milk supply/I had no milk/I stopped producing milk''	716	32.3
''low weight gain in infant''	74	3.3
''infant was still hungry after BF''	8	0.4
Return to work	575	25.9
Mother's choice		
''I wanted to/I felt it was time to stop''	351	14.2
''I did not like BF/found it uncomfortable. Bottle feeding was easier/more convenient''	20	0.9
''Personal reasons''	7	0.3
Infant self-weaned	276	12.4
Problems with breasts (pain, cracked nipples, mastitis)	76	3.4
Maternal health problem	64	2.9
Infant health problem	34	1.5
New pregnancy	29	1.3
Advice of health professional	23	1
Total	2217	100

Table 4 Variables associated to the practice of exclusive breastfeeding based on the multivariate logistic regression model (sample of the 2012–2013 ELOIN study).

	OR	95% CI	*p*-value
Family socioeconomic status			
Low	1	(ref.)	
Middle	1.49	1.00–2.22	.052
High	1.49	1.04–2.15	.031
Participation in breastfeeding workshop after delivery			
No	1	(ref.)	
Yes	1.99	1.09–3.63	.025

CI, confidence interval; OR, odds ratio.

and the prevalence of BF at 2 years was 7.7%. The most frequent reasons for not initiating BF were personal choice of the mother, difficulties establishing BF and maternal health problems. The main reasons for BF cessation were insufficient milk supply and returning to work. Middle-to-high socioeconomic status and participation in a BF workshop were associated with an increased prevalence of EBF. Maintenance of EBF for 6 months was associated with greater maternal age, lower duration of residence in Spain and participation in BF workshops.

The prevalence of EBF at 6 months was similar to that reported for Spain in 2006[21] and for Castilla y León in 2009,[9] slightly greater than that reported the same year for Gipuzkoa[8] or Aragon[22] and lower than the prevalence reported for Spain in the 2011–2012 period.[20] The prevalence of BF at 6 months was similar to the prevalence reported for Spain in 2011–2012[20] and for Aragon,[22] and greater than the prevalence reported for Castilla y León.[9] These differences may be due to differences in the methodology used for data collection or in the characteristics or BF habits of the populations under study.

When it comes to the Community of Madrid, our study found a prevalence of EBF at 6 months similar to the one reported by the 2006 ENSE health survey for the Community of Madrid[21] and higher than the prevalence calculated based on the electronic health records of the primary care system for 2011.[23] These differences may be due to the latter defining BF at 6 months as excluding formula feeding, which may not have corresponded exactly with the definition of EBF used in this study. In any case, the population born in 2008 and 2009 residing in the Community of Madrid has not met the global target of a 50% prevalence of EBF at 6 months,[12] and the recommendation of continuing BF until age 2 years was also not met.[6]

As for the reasons to not initiate BF, several studies have suggested that many women do not pursue BF because they are not aware of how important it is for health.[24] Difficulties in establishing BF usually involve problems with BF technique that could be minimised with correct health care and adequate training of the mother.[25] With a few exceptions, health problems are not a contraindication for BF.[26] These data suggest that there is a significant opportunity for intervention in BF promotion through improving the information and training provided to mothers. We would propose following the recommendations of the Estrategia de Atención al Parto Normal (Care Strategy for Normal Deliveries)[27] and the Iniciativa para la Humanización de la Asistencia al Nacimiento y la Lactancia (Initiative for the Humanization of Care in Childbirth and Lactation [IHAN]).[28]

There were also 2.9% of mothers that reported they did not initiate BF due to work-related reasons, and another 1.9% on the advice of a health professional. These data diverge from the findings of other studies in which the main reason for not initiating BF were immediate return to work in 33.8% of mothers and lack of support from health professionals in 32.4%.[29]

One third of mothers reported a perceived insufficient milk supply as the reason that led to BF cessation. One of the most frequent causes of insufficient milk production is poor BF technique, which can be resolved by providing adequate support to the mother.[4,30] In addition, insufficient milk production may be associated with infant self-weaning, which is another of the reasons given for BF cessation. If the two were truly associated, training the mother on adequate technique could both improve milk production and motivate the infant to continue nursing.

More than 25% of the mothers reported returning to work as the main reason for discontinuing BF. There are studies that show that the prolongation of maternity leave and a supportive work environment after the return to work protect and help maintain BF.[30,31] Businesses and governmental institutions should study this factor in order to guarantee a duration of maternity leave that would facilitate maintenance of EBF for at least 6 months.

Only 3.4% of mothers reported discontinuing BF due to breast problems (pain, cracked nipples, mastitis). This percentage was low, which could be due to recall bias; as years go by, mothers tend to have better recall of child health problems or external pressures as reasons for BF cessation. At any rate, some of the problems involving the breasts can be resolved with adequate BF support services.[24,29]

Table 5 Variables associated with maintenance of exclusive breastfeeding for 6 months based on the multivariate logistic regression model (sample of the 2012–2013 ELOIN study).

	OR	95% CI	*p*-value
Infant sex			
Male	1	(ref)	
Female	1.18	0.98–1.43	.087
Maternal age at birth			
<20 years	1	(ref)	
20–35 years	2.45	1.05–5.72	.039
>35 years	2.76	1.16–6.53	.021
Duration of mother's residence in Spain, years			
Spanish mother	1	(ref)	
≥10 years	1.10	0.83–1.47	.512
<10 years	1.55	1.13–2.12	.007
Family social class			
Classes I and II (managers, university graduates, artists, athletes)	1	(ref)	
Class III (administrative, security and services)	0.65	0.48–0.87	.004
Classes IV and V (skilled and non-skilled manual labour)	1.07	0.82–1.40	.622
Never employed	1.77	0.58–5.41	.316
Participation in breastfeeding workshop after delivery			
No	1	(ref)	
Yes	1.49	1.12–1.99	.007

CI, confidence interval; OR, odds ratio; ref, reference.

The proportion of mothers from families of middle-to-high socioeconomic status that initiated BF was 1.5 times that of mothers of low socioeconomic status. The association of EBF with high socioeconomic status has been described previously,[29] and mothers with a privileged economic situation may be more aware of the importance of BF and probably have better access to help and resources to address any difficulties that arise.[32–34] Ensuring universal access to BF support programmes would help narrow this social inequality gap.

Nearly 3 times as many mothers aged more than 35 years maintained EBF for 6 months compared to mothers aged less than 20 years. This association between age and EBF has already been described in other studies.[7] Maintenance of EBF for 6 months was also more frequent in mothers that had been residing in Spain for less than 10 years. It is possible that this association is due to mothers that have been in Spain for few years maintaining the BF culture of their country of origin.

Participation in a BF workshop after delivery was associated with the establishment of EBF and its maintenance for 6 months. It is possible that mothers that attended the workshops did it because they were more motivated to breastfeed so that workshop attendance was an effect of this motivation rather than a factor that promoted BF, or that, on the contrary, they were mothers experiencing BF difficulties that were resolved by attending the workshop, so that attendance did facilitate the establishment and continuation of BF. There is sufficient scientific evidence suggesting that workshops help overcome difficulties associated with BF and raise awareness in mothers of the importance of BF and its impact on health.[30] In this regard, we ought to highlight that fewer than 10% of mothers in the ELOIN study reported having participated in BF workshops after delivery. The development and implementation of strategies for promoting maternal participation in BF workshops in primary care centres may be beneficial in this regard.[33]

Limitations of the study

We obtained the data from the ELOIN study, whose main focus was not BF, so that data on some significant determinants of BF were not recorded and, therefore, could not be analysed. For instance, the ELOIN study did not assess factors that may facilitate BF, such as the type of pregnancy, the information on BF received during pregnancy, perinatal care, physical contact of mother and newborn, early initiation of BF[7,35] or previous experiences with BF that may influence its current establishment and duration. The cross-sectional design of the study also precluded followup of BF. The information was collected retrospectively, 4 years after delivery, so we cannot rule out recall bias in the responses given in the questionnaires. In this sense, it is possible that the reported BF rates overestimated the actual rates. The proportion of mothers that had a high school or a university education and of middle or high socioeconomic status was slightly above the average of the Community of Madrid, a finding that was consistent with those of previous studies, which have reported a greater participation of university-educated individuals in health surveys.[30] These two characteristics may have led to an overestimation of the prevalence of BF in our study, as both high maternal educational attainment and high household income facilitate BF.

In the Community of Madrid, in the 2008–2009 period, the recommendation of the WHO of maintaining EBF through age 6 months was not met in 3 out of 4 infants, and continued BF through age 2 years only occurred in 20%. Breastfeeding

rates were higher in mothers of greater age, higher socioeconomic status, who had resided in Spain for less than 10 years and who attended BF workshops. The practice of BF is associated with social inequalities, does not depend exclusively on the personal decisions of mothers, and depends on factors that can be remedied with public health measures: adequate support of mothers during gestation, delivery and the postpartum period, and interventions to promote, protect and support BF in multiple sectors of society.[24,36] Studies on the prevalence of BF are absolutely necessary to monitor the status quo and temporal trends in its practice.

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Conflicts of interest

The authors have no conflicts of interest to declare.

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Appendix A. Epidemiological questionnaire of the ELOIN study (section devoted to breastfeeding).

Before finishing this section, I would like you to try to recall what your baby was fed after birth.

Q. 9
Did the infant breastfeed, even if only for a short period of time? Interviewer: we refer to whether the mother breastfed or attempted to breastfeed the infant, even if it was for a very brief period of time, of at least 1 day.
YES 1
NO → go to P. 10 2

64-Did _____ (Name of selected child) breastfeed in the early months of life?
Yes——————————1
No ——————————6→Go to Q.68
Does not know——————————8→Go to Q.68
Does not answer——————————9→Go to Q.68

Q.9a. How long was your child breastfed? Interviewer: We refer to the entire time that the child breastfed, even if also receiving artificial formula or other foods.
1. Months (____)
2. Weeks (_____)
3. Days (_____)
4. Still breastfeeding
9. DK/DA

65-How long was _____(name of selected child) breastfed?
Note Q.65: Interviewer, if child is currently being breastfed, record the child's current age in months and days.
Months——————————⌊_⊥_⌋
Days——————————⌊_⊥_⌋
Does not know————98
Does not answer————99

Q.9.b
At what age did the child start to receive other foods or drinks (including water or artificial formula/ "bottles")?
Interviewer:

- Include any type of solid food (cereal fruit, etc) or drink (water, juice, artificial milk/"bottle," infusions, or any other fluid). Exclude vitamins, minerals or medicines.
- We refer to the age that the child started taking any other food or drink (other than or in addition to breast milk), not to the age that breastfeeding was discontinued. That is, the fact that the child started consuming other foods or drinks does not imply that the child stopped breastfeeding.

1. Months (____)
2. Weeks (_____)
3. Days(____)

Q.9.c Did the child receive breastmilk as the sole food and drink for some time (exclusive breastfeeding)?
(Interviewer: that is, during that period, the child only breastfed. This excludes water, juice, artificial formula and any other food)
YES → go to Q.9.d 1
NO → go to Q 11 2

66- Has ————————(name of selected child) received breast milk as the only food and drink for a period of time? (Excludes water, juice, artificial formula and any solid foods, and only includes vitamins, minerals and medicines)
Yes————————————1
No ————————————6→Go to Q.68
Does not know————————8→Go to Q.68
Does not answer————————9→Go to Q.68

Q.9.d How long did the child receive breast milk as the only food and drink (exclusive breastfeeding)? Interviewer: The child started consuming other foods at the age of X (answer of q.9b)
1. Months (____)
2. Weeks (_____)
3. Days (_____)
9. DK/DA

67-How long was the child exclusively breastfed?
Note Q.67: Interviewer, in cases of infants that have yet only been breastfed, record the infant's age in months and days.
Months————————⌊_⊥⌋
Days————————⌊_⊥⌋
Does not know————98
Does not answer————99

Q.9.e Which is/are the main reason(s) for discontinuing breastfeeding? Interviewer: multiple answer question. Check all that apply. Filter: this question should not be asked if mothers have reported that they are still breastfeeding, Q.9a = 4.
Return to work 1
Mother's choice/I felt it was time to stop breastfeeding 2
I found breastfeeding unpleasant or uncomfortable/giving bottles was easier/more convenient 3
Insufficient milk supply/I had no milk/I stopped producing milk 4
Low infant weight gain 5
Breast problems, such as pain, cracked nipples or mastitis 6
The child stopped breastfeeding (breast refusal, lost interest in nursing, self-weaned spontaneously, etc) 7
Advised/directed by a health professional: specify reason and professional that made recommendation 8
Advised by mother's partner: specify reason 9

Advised by relative 10
Advised by friends 11
Maternal health problems 12
Child health problems 13
Other reason (specify) 98
DNK/NA 99

If q.9e(8)
q.9e1-Which health professional?
Paediatrician 1
Gynaecologist 2
Family physician 3
Midwife 4
Nurse 5
Other professional (specify) 98
q.9e2- for what reason?
If q.9e(12/13)
q.9e2-Which disease or health problem?

Q.9.f. Would you have liked to continue breastfeeding longer?
Yes 1
No 2

Q.9.g After giving birth, did the mother participate in a breastfeeding workshop or some type of breastfeeding support group?
(Interviewer: this does not refer to childbirth preparation classes, but to workshops on breastfeeding or breastfeeding support groups that the mother attends with the baby after the baby is born)
Yes, at the primary care centre 1
Yes, in some other setting (specify) 2
No 3

(For Q.9=2)
Q.10 Which is/are the main reason(s) why the child was not breastfed? Interviewer: multiple answer question. Check all that apply.
Return to work 1
Mother's choice not to breastfeed/I found the idea of breastfeeding displeasing 2
Bottle feeding was easlier/more convenient 3
Artificial formula is as healthy/adequate for the development of the child as breast milk 4
Advised/directed by health professional: specify reason and professional that made the recommendation 5
Advised by partner: specify reason 6
Advised by relative 7
Advised by friends 8
Maternal health problems (including breast problems) 9

Child health problems 10
Other reason (specify) 98
DNK/NA 99

If Q.10(5)
q.10a1-Which health professional?
Paediatrician 1
Gynaecologist 2
Family physician 3
Midwife 4
Nurse 5
Other professional (specify) 98
p.10a2- for what reason?
If q.10(9/10)
q.10a2-Which disease or health problem?

(EVERYONE)
Q.11. Has the child been formula-fed for any period of time?
Interviewer: formula-fed refers to not breastfeeding. For instance, routine bottle feeding.
Yes 1
No 2

Q.12. At what age did the child start receiving artificial formula? Interviewer: The child has been exclusively breastfed for X time(answer to q.9d) (if it is from birth, enter 1 day)
1 Years (_____)
2 Months (_____)
3 Weeks (_____)
4 Days (_____)
9 DNK/NA

69- At what age did the child start receiving artificial formula?
Months——————⌊_⊥_⌋
Days——————⌊_⊥_⌋
Does not know————98
Does not answer————99

The reasons for not initiating BF were later regrouped into 7 categories based on the most frequent answers

1) Mother's choice,
2) Difficulties establishing BF,
3) Maternal health problems,
4) Participant health problems,
5) Participant was adopted,
6) Return to work, and
7) Advice of health professional

The reasons for discontinuing BF were later regrouped into 9 categories based on the most frequent answers

1) Insufficient milk supply,
2) Return to work,
3) Mother's choice,
4) Child self-weaned,
5) Breast problems,
6) Maternal health problems,
7) Child health problems,
8) New pregnancy, and
9) Recommended/directed by health professional

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