

**Promoting
the Lactational Amenorrhea Method (LAM) in Jordan
Increases Modern Contraception Use in the
Extended Postpartum Period**

LINKAGES' final report of its LAM research in Jordan

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Executive Summary

The Ministry of Health in the Hashemite Kingdom of Jordan includes the Lactational Amenorrhea Method (LAM) in its contraceptive method mix offered to postpartum women. Efforts to promote LAM began in 1996 with a pilot project in 45 MOH maternal child health (MCH) centers, conducted in collaboration with Georgetown University's Institute for Reproductive Health. Initial activities included policy promotion and training in LAM and breastfeeding support.

From late 1998 through 2003, the MOH collaborated with The LINKAGES Project to expand the pilot program and provide LAM services in all Ministry of Health MCH centers. LINKAGES is USAID's Breastfeeding, LAM, Related Complementary Feeding, and Maternal Nutrition Program managed by the Academy for Educational Development (AED). Training was conducted to strengthen the capacity of MOH primary health care staff to integrate breastfeeding counseling, lactation management and LAM into the service delivery system. By September 2003, the Ministry of Health and LINKAGES had trained at least 2 health care providers from each of the 351 MCH centers in the 12 governorates of Jordan. In addition to service provider training, educational materials and media messages were developed. The Ministry of Health, LINKAGES, and UNICEF promoted breastfeeding and LAM through television and radio spots, posters, clinic-based brochures and desk flipcharts.

In order to assess the impact of LAM on continued modern method use, a survey was conducted among 3,183 women in 11 child health centers in and around Amman, Jordan from mid-March to early September, 2004. Women who had a child 13-24 months of age who was brought for health care were asked about their contraceptive practices during the year following the birth of this child.

One-third of respondents relied on breastfeeding as their first method of family planning in the six months following the birth of their child. Of these women, those who spontaneously mentioned all 3 LAM criteria were defined as LAM users. The other women are referred to as breastfeeding for family planning users (BFFP). Seven percent (7.0%) of all respondents used LAM. Other short term modern methods used were oral contraceptives (11.0%), condoms (6.3%), and injection or foam (1%). LAM use represented 37% of short term highly effective modern methods. Long term modern method use included IUDs (16.1%) and sterilization (1%). Traditional method use included breastfeeding for family planning (BFFP) (26.0%), withdrawal (13.6%) and periodic abstinence (3.1%). Fifteen percent (15.3%) of women did not use any method in the first six months postpartum.

Of the one-third of respondents who relied on breastfeeding in the first six months to prevent pregnancy, 20% of those used LAM and 80% used BFFP. The main distinguishing factor between LAM users and BFFP users was knowledge of the six month criterion. ***Increasing the proportion of BFFP users who know and act upon the six month criterion would result in a substantial increase in effective LAM use and therefore effective modern method use in Jordan during the first six months postpartum.***

LAM was as effective in preventing unintended pregnancies as other short term modern methods, with 12% of LAM users and 9% of other short term method users experiencing an unintended pregnancy by 12 months postpartum ($p>.05$).

Modern method use at 12 months was higher among LAM users (40.5%) compared to BFFP users (23.3%, $p\leq.001$), to non-family planning users (13.7%), and to users of traditional methods (12.7%). LAM users began using a modern method earlier in the postpartum period than BFFP users, with a higher proportion of LAM users starting at six months postpartum. Having learned the six month criterion appears to have led many LAM users to switch to another modern method while BFFP users were more likely to continue using breastfeeding in the second six months postpartum. ***Increasing the proportion of women who know and act upon the six month criterion would result in higher rates of transition to modern methods among women using breastfeeding to prevent pregnancy at 12 months postpartum.***

Among those who *did not* use a modern method in the 24 months preceding the index pregnancy, LAM users were more likely than BFFP users (38.2% vs. 20.0%) and non-family planning users (15.7%) to be using a modern method at 12 months. ***This suggests that LAM may increase use of modern methods among women who did not use them in the 24 months prior to the index pregnancy.***

In addition to benefits for family planning use, another important issue is whether promotion of LAM improves breastfeeding practices or whether good breastfeeders choose LAM or BFFP. The results suggest that both are true.

LAM users avoided introducing other milks and semi-solid foods too early to their infants. Only 8.6% of LAM users introduced milks other than breastmilk in the first six months compared to 15.7% of BFFP user. Both groups however were even less likely to introduce milks this early compared to the other groups in the study, with 31.0% to 45.3% of other breastfeeding women introducing other milks before six months. LAM users also were less likely to introduce semi-solids in the first six months (45.9% vs. 58.4% for BFFP users).

These results are in line with the findings showing that LAM users were more likely to have been counseled on LAM, and to have been counseled to exclusively breastfeed and to delay introduction of semi-solids.

While there are differences between LAM and BFFP users, generally their patterns were more similar to each other than to other postpartum women. The differences in breastfeeding practices were more striking comparing LAM and BFFP users to other women in the study. LAM and BFFP users were less likely to have stopped breastfeeding in the first six months, more likely to have continued breastfeeding beyond 12 months, and less likely to have introduced other milks and semi-solids in the first six months compared to other women. ***Promotion of LAM seems to result in better breastfeeding practices, but it also appears that good breastfeeders are more likely to choose LAM or BFFP than women with less optimal breastfeeding. Promotion of LAM is likely to eventually lead to improved breastfeeding practices among women with benefits for child health as well as lengthened durations of amenorrhea.***

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Acronyms

BFFP	Breastfeeding for family planning
CPR	Contraceptive prevalence rate
DHS	Demographic and Health Surveys
LAM	Lactational Amenorrhea Method
IRB	Institutional Review Board
IUD	Intra-uterine device
MCH	Maternal and Child Health
MOH	Ministry of Health
NGO	Non-governmental organization

I. Introduction

Unmet need for contraception among women in the first year postpartum can lead to unintended pregnancies and short birth intervals. Analyses of the Demographic and Health Surveys (DHS) have shown the proportion of women 0-12 months postpartum with unmet need for family planning¹ ranging from 54% in Latin America, 62% in Asia, 74% in Sub-Sahara Africa, and about 50% of women in the two Middle East countries for which data are available (Egypt and Turkey) (Ross and Winfrey, 2001). Not surprisingly, in many countries the proportion of births reported as mistimed or unwanted is also high. For example, the 2002 Jordan Demographic and Health Survey (DHS) data found that 33% of children were “not wanted” when they were conceived.

Finding ways to reduce such unintended pregnancies and increase birth intervals has important implications for maternal and neonatal mortality. Postpartum women are often difficult to reach with family planning due to the lack of use and/or availability of postpartum care, women’s beliefs that they are protected against pregnancy due to breastfeeding and/or their beliefs that they can not become pregnant while amenorrheic (Salway and Nurani, 1998.) Only 38% of women in the first 12 months postpartum intend to use contraception (Ross and Winfrey, 2001).

A woman’s choice of an ideal post-partum contraceptive method depends on many factors, including the need for a temporary versus a permanent method, the infant feeding choice and the extent to which informed choice is offered prior to delivery (Kennedy, 1996). Family planning programs that provide an array of contraceptive methods and services may be better able to meet the unique needs of these women and enable them to space or limit births.

The Lactational Amenorrhea Method (LAM) has been promoted as a contraceptive method available to postpartum women. LAM is a form of contraception based on the natural infertility resulting from certain patterns of breastfeeding. The risk of pregnancy for women who fully or nearly fully breastfeed for up to six months postpartum and who are amenorrheic is less than 2% (Perez et al, 1992; Labbok and Laukaran, 1994; Kennedy and Rivera, McNeilly, 1989). LAM gives a woman three questions with which to monitor her fertility risk (Labbok, Cooney, Coly, 1994):

- 1) Is the infant less than six months of age?
- 2) Is she is fully or nearly fully breastfeeding?
- 3) Is she is still amenorrheic?

Proponents of LAM characterize it as a postpartum family planning method with the potential to create a new pool of contraceptive users (Kennedy and Kotelchuck 1998; Wade et al, 1994). LAM can attract previous non-family planning users who are reached through prenatal and postpartum clinics but who may not attend family planning clinics. LAM’s advantages – that it promotes good infant health through breastfeeding, requires no commodity, causes no side effects, and does not interfere with sexual practices –

¹ Defined as not wanting another child within the next 24 months, not using contraception, not being infecund but if pregnant, having not wanted the current pregnancy

may appeal to women who had not before considered using other family planning methods.

Another advantage of LAM is that it may increase subsequent use of other modern methods. Since counseling on LAM includes information on transition to other modern methods once LAM criteria are no longer met, LAM has the potential to increase use of contraception after LAM is no longer effective. A few studies have suggested that LAM is associated with increased rates of subsequent contraceptive use (Hight-Laukaran, 1997; Cooney, 1996; Hardy et al, 1998; Peterson et al, 2000).

Some women may take a hiatus from modern methods during the postpartum period because they feel that the hormones and/or IUD are too strong in their vulnerable state. As well, women may worry about the passage of hormones through the breastmilk. LAM is one answer to bridge women who previously used a modern method but take a break while postpartum.

However, some are concerned that promotion of LAM is not an effective use of family planning service provider's time. Since opportunities to counsel women on postpartum family planning use may be few, programmers may believe that they miss opportunities to provide women with longer-term protection. Thus, some suggest that LAM may have more importance as a means to improve breastfeeding practices rather than as a means to significantly lower fertility rates (Van der Vijden et al, 2003).

Additionally, many breastfeeding women are amenorrheic during the early postpartum period even when not consciously practicing LAM, and thus they are already protected from pregnancy to a great extent. Studies of LAM users have not conclusively shown that understanding of LAM is related to the occurrence of pregnancy in the first year (Kennedy et al, 1998). It is not clear that understanding LAM's criteria makes it more effective among women who are fully breastfeeding. Few fully breastfeeding women will resume menses during the first six months postpartum.

Some questions about LAM can be answered by reviewing program evaluation data. Large scale programs to promote LAM have been successfully carried out in conjunction with Ministries of Health and non-governmental organizations (NGOs) in Jordan, Kazakhstan, Bolivia, Madagascar, Peru, Nicaragua and other countries in Africa and Asia. Some assessed knowledge of LAM criteria and pregnancy rates. In the Republic of Kazakhstan, 35% of women knew all three criteria of LAM use. The rate of new pregnancies in the first year among reported LAM users was low (8 out of 3,422 reported LAM users). None of the LAM users who became pregnant knew all three criteria of successful LAM use (Tazhibayev et al, 2004).

In Madagascar, an evaluation conducted in 2004 found that among mothers of children 0-5 months in the intervention districts, 33% reported using LAM and 18% knew the three criteria (LINKAGES Madagascar Report, 2005). In Bolivia, a monitoring system used two terms to capture LAM users, since many women did not recognize the term LAM (MELA in Spanish). The system also asked about the "breastfeeding as a contraceptive method" in addition to MELA. Use of LAM increased from 3% at baseline in 2000 to 7% three years later after the program was expanded (LINKAGES Bolivia Report, 2004).

While these programs illustrate that LAM can be promoted successfully, they were not able to assess whether LAM use was associated with transition to other modern methods once LAM criteria were no longer met. Despite a substantial body of evidence for efficacy of LAM and women's successful adoption of this method, there has been little effort to determine the proportion of LAM users who use other modern methods in addition to LAM or who subsequently use other modern methods once the LAM criteria are no longer met. If LAM use is followed by use of another modern contraceptive, LAM can extend the total duration of modern method use. A particular focus of this study is to assess modern method use at 12 months by the type of contraception practiced during the first six months postpartum.

II. Purpose of Study

Two objectives of the study were to assess the relationship of LAM with 12 month pregnancy rates and transition to other modern methods by 12 months. A third objective of the study was to describe the characteristics of a LAM user and draw comparisons to traditional breastfeeders, non-users of family planning, and other modern method users.

There are two hypotheses that prompted the initiation of this study:

1) Twelve month pregnancy rate

Women *who used LAM* in the first six months postpartum have a *similar rate* of unintended pregnancies at 12 months postpartum compared to the group of women *who used other short term modern methods* in the first six months postpartum

2) Rate of modern method use at 12 months

Women *who used LAM* in the first six months postpartum use modern contraception at a *higher rate* at 12 months postpartum than women who *did not use any modern method* during the first six months postpartum

III. LAM Promotion in Jordan

The Ministry of Health in the Hashemite Kingdom of Jordan includes LAM in its contraceptive method mix offered to postpartum women. Efforts to promote LAM began in 1996 with a pilot project in 45 MOH maternal child health (MCH) centers, conducted in collaboration with Georgetown University's Institute for Reproductive Health. Initial activities in 1996 included a LAM policy seminar for 75 senior level staff from the MOH, private health sector, and from NGOs involved with MCH and family planning. In 1997, 21 health professionals from the Ministry of Health (Wadi Srou, Salt, and Ain-Al-Basha clinics), NGOs, and the private sector were trained in LAM and breastfeeding support (Cooney et al, 1997). Training was then expanded to the other 42 clinics, with over 600 health professionals trained in LAM.

From late 1998 through 2003, the MOH collaborated with the Academy for Educational Development's LINKAGES Project to expand the pilot program and provide LAM services in all Ministry of Health MCH centers. Training was conducted to strengthen the capacity of MOH primary health care staff to integrate breastfeeding counseling, lactation management and LAM into the service delivery system. Between January 2000 and September 2003, trainers trained MCH health providers in 5-day LAM courses which included role-play, trainee presentations, and a practical hands-on component of breastfeeding and LAM counseling. By September 2003, the Ministry of Health and LINKAGES had conducted 54 courses and trained 861 primary health care providers (at least 2 from each of the 351 MCH centers in the 12 governorates of Jordan).

In addition to service provider training, educational materials and media messages were developed. The media campaign included two television spots (on exclusive breastfeeding and the benefits of breastfeeding) and two radio spots (on exclusive breastfeeding and LAM) which were broadcast for one month in 1999. The Ministry of Health, LINKAGES, and UNICEF designed four separate breastfeeding messages that were displayed on approximately 240 posters throughout Amman to increase public awareness of the benefits of breastfeeding. A LAM brochure was produced and distributed to MCH centers in 2000 (number produced not reported); 200,000 newly developed LAM brochures were produced and distributed in 2003. A desk flipchart was produced to guide MCH health providers in LAM counseling, and was distributed to MCH centers in 2002 and 2003. One thousand newly designed LAM posters were distributed for display in MCH clinics in 2003.

Management information systems were revised in order to ensure detection of new LAM users. The program's success is illustrated by reports from the MOH management information system, with rates of LAM usage increasing from a baseline of 0.1% in 1999 to over 13% in 2003 in government maternal and child health centers. Noteworthy is that the MOH delivers family planning services through its network of MCH centers rather than facilities dedicated solely to family planning. Through this network of centers, 22% of Jordanian women receive antenatal care. In 2001, 23% of all contraceptive users in Jordan reported obtaining their family planning method at government health facilities (Jordan Annual Fertility Survey, 2001).

IV. Methods

In order to assess the effect of LAM on later postpartum modern method use in Jordan, a survey was conducted in 11 child health centers in and around Amman, Jordan. Women who had a child 13-24 months of age for whom they sought health care (n=3183) were asked about their postpartum contraceptive practices following the birth of this child.

Prior to data collection, an *ad hoc* institutional review board (IRB) of researchers from AED, USAID/Washington, and family planning research organizations was convened. The IRB reviewed the protocol and affirmed that the study addressed important research questions in a scientifically and ethically responsible manner. It also reviewed the informed consent document to ensure that it provided clear and complete information for those who might wish to take part in the study. The informed consent was prepared following the guidance of the Federal regulations Title 45 part 46 (Code of Federal Regulations, Title 45, Public Welfare, Department of Health and Human Services,

National Institutes of Health, Office for Protection from Research Risks, Part 46, Protection of Human Subjects), In addition, the principal investigator completed a course on the Human Participants Protections Education for Research Teams offered by the National Institutes for Health.

The survey instrument was a structured questionnaire, including a reproductive calendar, based on the 2002 Jordan DHS questionnaire (Appendix B). DHS questions about socio-economic status, previous fertility, family planning, breastfeeding, and complementary feeding practices were included. The questionnaire also included additional questions about knowledge and use of LAM as well as open-ended questions to elicit information on predisposing, reinforcing and enabling factors for breastfeeding and LAM. The reproductive calendar was used in conjunction with the questionnaire to record information about the timing of events in the respondent's life from the time of interview dating back to January 1999. The respondent was asked to report retrospectively, month by month, on events related to pregnancy, childbearing, and contraceptive use in the 24 months prior to the index pregnancy and for the 12 full months following the index child's birth.

This questionnaire was pre-tested in January 2004 and revised substantially because of lack of recognition of the term LAM. The revised questionnaire, pre-tested again in early March 2004, included questions to identify LAM users who spoke of the method in other terms. After the questionnaire was finalized, a cadre of 26 female interviewers, 8 supervisors, and 8 field editors were recruited and trained for 2 weeks in March 2004 and their work was monitored by the principal investigator for the following four weeks. The research team in each clinic included one supervisor, one field editor, and approximately 4-6 interviewers.

Study sites were selected in order to capture large numbers of recent LAM users. Ministry of Health (MOH) clinics were selected where there were providers trained by the LINKAGES/MOH team prior to 2002 when women with children 13-24 months of age would have had a chance to receive antenatal care counseling on LAM. Eleven clinics that offered child health services in Amman and surrounding areas and that showed high numbers of LAM users in their clinic records were selected as the study sites. At least one or more Maternal and Child Health (MCH) providers in the selected clinics had attended a 5-day LAM training offered by the MOH and LINKAGES Project before March 2002.

A provider survey was carried out in the 11 clinics among 32 doctors and nurses to obtain information on training received on LAM. This revealed that approximately 66% of those providers interviewed had received LAM training prior to March 2002 (*before* the time period when study children were born). Nineteen percent received training between March 2002 and August 2003 (*during* the time period when study children were born). Sixteen percent of the providers surveyed had not received any LAM training.

A. Selection of Study Participants

All women who attended the selected government MCH clinics for child-health services were screened from March 17, 2004 through September 2, 2004. A screening tool was used to identify women bringing children 13-24 months old (with births occurring

between March 2002 and August 2003) for care (sick visits, immunizations or well child visits).

Currently married women 15-49 years old who had been married only once prior to 2002 and had a non-twin index child were referred for interview. Women who had been married more than once since 1999 were excluded because this would mean periods of time not in a marriage, which would likely influence family planning use. The screening tool eliminated mothers of twins because their breastfeeding experience could have biased the choice of using or not using LAM. Women who were previously interviewed in either of the pilot surveys were also not re-interviewed.

Women were asked to provide informed consent for the screening and again for the full interview. Measures were taken to provide privacy during the interview, including dissuading friends and family members from attending and participating in the interview. In order not to delay or disrupt the care of sick children, study "continuation cards" signed by a nurse or doctor were required to interview women presenting with any sick child (not just the index child). These cards were given to mothers of children brought for curative care to ensure that the interviews would not adversely affect a sick child's treatment.

Of the more than 52,371 women who were screened (48 women refused to be screened), 3,193 had an eligible child (13-24 month old non-twin who was brought for health care); of those, 3,183 were interviewed.²

B. Data Collection and Management

During data collection, a field editor reviewed all questionnaires for completeness and to ensure that all answers were in allowable ranges. Problems were immediately referred back to the interviewers so they could clarify with the respondent, who often was still present in the health center. On a few occasions, women were followed up by telephone for clarifications. To ensure data quality, supervisors conducted random repeat interviews for selected questions (or the entire questionnaire) on a sample of respondents on site at clinics. At a bare minimum, 20% of all respondents were re-interviewed daily and the findings recorded. There were only nominal inconsistencies revealed by these supervisors' quality control checks.

Data entry was conducted in Jordan using SPSS Data Entry version 4.0 programmed to accept only those responses that were within the valid range and with consistency checks. Data were double entered to ensure minimal data entry errors and then cleaned to check for additional consistency errors. A supervisor monitored 100% of the data entry. SPSS version 13.0 was used for data analysis. Chi-squared analyses using Pearson Chi-Square tests were conducted to compare results between LAM users and other groups.

To develop a measure of socio-economic status, a composite variable was developed through principal components factor analyses (DHS, 2004). The variables included in the composite score were ownership of goods, e.g., radio/tape recorder, television, satellite,

² Five women refused to be interviewed, and 5 did not complete the interview.

telephone/cellular, refrigerator, washing machine, solar hot water heater, computer, internet access, and central heating. The factor score produced was divided into terciles, and respondents were categorized according to the tercile in which their score fell.

The 24 months preceding the index pregnancy was selected as the time period to detect previous use of family planning. Since ever use of modern methods is high in Jordan (73% in the 2002 DHS for all currently married women), an alternative to ever use was needed that would provide more variation between study groups.

C. Definition of a LAM user

Pilot testing revealed that many women were unfamiliar with the term LAM and the questionnaire was redesigned to include terminology to adequately capture LAM use. In addition to being asked about the Lactational Amenorrhea Method, they were asked about “a method of using breastfeeding to delay menstruation in order to plan the family.” In Arabic the terms for LAM and breastfeeding are quite similar. Many women in Jordan have traditionally used breastfeeding as a means of delaying pregnancy before LAM promotion was introduced (Department of Statistics and Macro, 1997).

It is unlikely that all women who report using “LAM” or a “method of using breastfeeding to delay menstruation to plan the family” are actually LAM users. Thus a means to differentiate LAM users from women who use traditional breastfeeding as a means of family planning was needed. To do this, a LAM user was defined as a woman who reported using “LAM” or the “breastfeeding amenorrhea method” **and** who could recall all three LAM criteria without prompting from the interviewer. Among those who reported using “LAM”, 53% knew the 3 criteria, but only 15% of women who reported using “breastfeeding amenorrhea method” knew all three criteria.³ Women who reported using LAM or the breastfeeding and amenorrhea method and who did not know all three criteria were referred to as BFFP users (breastfeeding for family planning users).

V. Results

The results presented below compare women who used LAM in the first six months postpartum to other users of modern methods, users of traditional methods and non-family planning users during the first six months postpartum.

A. Use of Family Planning in the First Six Months Postpartum

Most (93.3%) women had resumed sexual relations by the second postpartum month and thus were exposed to the risk of pregnancy by this time. The first family planning method used in the first six months postpartum was selected to delineate comparison groups. The majority of women (84.7%) used family planning during this period and

³ Herein, the term ‘LAM’ is used to collectively describe all women who referred to the method directly as LAM or indirectly as the “method of using breastfeeding to delay menstruation in order to plan the family,” also referred to as the “breastfeeding amenorrhea method.”

41.2% started it by the second postpartum month, and nearly all started the method by the end of the third (89.3%) or fourth (97.2%) month.

The first method used is indicative of the type of use for the whole six months for family planning users (other than LAM or BFFP users, many of whom switched to another method during this time), since most (83.5%) women continued to use the same method during the first six months postpartum. One hundred percent of non-family planning users did not use any method during this period.

Table 1 shows the first method used during the first six months postpartum. One-fourth (25.3%) of women used short term modern methods including LAM, 16.7% use long term methods (primarily IUDs), and 42.7% used traditional methods including BFFP. One-third of respondents relied on breastfeeding as their first method of family planning in the six months following the birth of their child. Of these women, those who spontaneously mentioned all 3 LAM criteria were defined as LAM users. Seven percent (7%) of all respondents used LAM. Other short term methods used were oral contraceptives (11%), condoms (6%), and injection or foam (1%). Long term method use included IUDs (16%) and sterilization (1%). Traditional method use included breastfeeding as a family planning method (BFFP) (26%), withdrawal use (14%) and periodic abstinence use (3%).

During the first six months, LAM use represented 37% of short term highly effective methods — those with an efficacy of 98% or greater — (LAM, pill, injections (n=595), and 20% of all highly effective methods (both long and short term methods combined).

Table 1. Percent of women using family planning in the first six months postpartum

Family planning use in first six months	Type of family planning use in the first six months			
	%	N	Group	Category
LAM	7.0%	222	Short term (25.3%)	Total Modern (42. 0%)
Condoms	6.3%	199		
Pills	11.0%	350		
Injectable	.7%	23		
Foam	.3%	9		
IUD	16.1%	511	Long term (16.7%)	
Female Sterilization	.6%	18		
BFFP	26.0%	829		Traditional (42.7%)
Periodic Abstinence	3.1%	100		
Withdrawal	13.6%	434		
No use	15.3%	488	No Use 15.3%	
Total	100.0%	3183		

Note: There were 42 women who reported using LAM in addition to another method (28 women used LAM in addition to the pill, 3 used LAM in addition to condoms, and 11 used LAM in addition to withdrawal. LAM users who also used another method in addition to LAM are classified in the category of the other method.

B. Socio-demographic Characteristics of Postpartum Women

An analysis of socio-economic and demographic factors found few striking differences between LAM users and other women in the study. The mean age of respondents was 28.9 years, with little variation among groups, except a slightly higher percentage of older periodic abstinence users, (Appendix Table A-1). LAM and BFFP users had slightly higher numbers of living children than women not using any family planning method ($p \leq .001$) (Appendix Table A-2). Only 13-17% of LAM and BFFP users were parity one; only IUD users had a lower percent (5.3%) than LAM users ($p < .001$).

Respondents were generally highly educated, with more than two-thirds having secondary education or above. LAM users were among the most highly educated with 79% having secondary education or above compared to only 55% for non-family planning users ($p \leq .01$) (Appendix Table A-3) but they were similar to most groups on the wealth score (Appendix Table A-4).

Non-family planning users, however, are especially different from other women, in that they were less well educated ($p < .001$) and lower in wealth ($p < .01$).

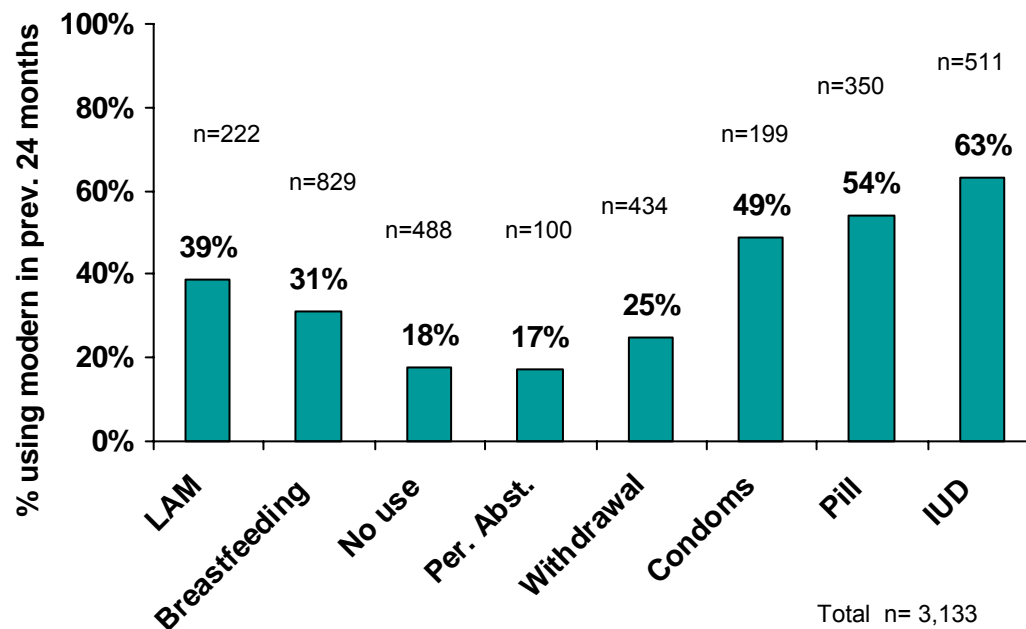
Desire for additional children did not vary greatly except for IUD users; about two-thirds of non-IUD users wanted an additional child, compared with only about one-half of IUD users (Appendix Table A-5).

About one-third (37.4%) of respondents had used a modern family planning method (other than LAM⁴) in the 24 months prior to conceiving the index child (Appendix Table A-6). The number of living children was related to previous modern method use, with those with lower numbers of living children less likely to have used a modern method. Only 3% of women whose index child was their first child had previously used a modern method and only 25% of women who had two living children had used a modern method, compared to 51.5% for parity three women and 56.8% for those with four or more living children.

Figure 1 shows that such previous use is related to the method used in the first six months after the birth of the index child. Less than one-fourth of non-family planning users, periodic abstinence users, and withdrawal users had used modern methods in the preceding 24 months, compared to about one-third of LAM and BFFP users and one-half to two-thirds of modern method users (other than LAM).

⁴ Ten percent of women reported having used LAM in the 24 months preceding the pregnancy. These women are not included in the modern method category, but are included in the traditional category because of the difficulty in defining whether they were LAM or BFFP users at that time (since knowledge of criteria at that time is not known).

Figure 1. Percent of women who used a modern method in the 24 months preceding the index pregnancy by type of family planning method used in the first six months postpartum



Implications of findings on socio-demographic factors

1) There were few striking differences between LAM users and other women in the study, except that non family planning users were less well educated and lower in wealth and numbers of living children than LAM users. Also noteworthy is that periodic abstinence users were older, more educated and richer than all other groups.

2) Higher rates of previous modern method use for LAM and BFFP users than for non-family planning users would be expected due to their higher numbers of living children. Modern method use in the preceding 24 months was correlated with numbers of living children.

C. LAM Promotion Activities

How and when women learned the LAM criteria are important indicators of program reach. Also relevant is the degree of intervention exposure women received (e.g., frequency and number of sources of information on LAM). Nearly all women in the study had heard of LAM. All LAM users had of course heard of LAM; 98.8%⁵ of BFFP users

⁵ Ten women who reported using "breastfeeding" had not heard of LAM.

had heard of it compared to 90.5% of other groups combined ($p \leq .001$ for LAM or BFFP compared to others groups).

LAM users by definition reported knowing all three LAM criteria. Table 2 shows that most women in other groups could recall the first two LAM criteria but few also knew the six month criterion. Fewer BFFP users reported this criterion than other groups because if they had known the criterion, they would have been classified as LAM users. *The major factor differentiating LAM and BFFP users is knowledge of the six month criterion.*

Table 2. Percent of women who knew of LAM who could mention each criterion by family planning use in the first six months

Family planning use in first six months	% of women who mentioned a criterion			
	Mentions LAM criterion-amenorrhea	Mentions LAM criterion- full breastfeeding	Mentions LAM criterion-baby less than six months	
	%	%	%	N
LAM	100.0%	100.0%	100.0%	222
BFFP	82.2%	87.6%	3.3%	816
No use	66.0%	71.3%	6.3%	429
Periodic Abstinence	73.4%	73.4%	10.6%	94
Withdrawal	71.4%	70.9%	6.5%	398
Condoms	72.3%	74.6%	13.0%	177
Pills	76.0%	76.6%	14.7%	313
IUD	71.4%	71.6%	10.2%	472
Total	76.4%	78.9%	14.7%	2921

Women were asked if they had ever been counseled by a health professional on the lactational amenorrhea method. Counseling was defined as “having been given detailed information on or had detailed discussion of a method of using breastfeeding to plan the family.” LAM users were more likely to report having been counseled on LAM than other groups (63.5% vs. 23.8% for BFFP ($p \leq .001$), and ranging from 8.4% to 17.6% among other groups ($p \leq .001$) (Figure 2).

Table 3 illustrates that having been counseled on LAM is related to whether BFFP users reported the LAM criteria (all LAM users knew all three criteria). While significantly different, the variation between those counseled or not counseled is not large, suggesting that counseling is helpful, but that BFFP users learned the first two criteria in other ways as well. For other groups, counseling on LAM was only significantly associated with whether they knew the six month criterion; women who were counseled on LAM were 2-5 times as likely to know this criterion (Appendix-Table A-7).

LAM users were more likely to report having been counseled to exclusively breastfeed (40.0%) compared to 14.2% for BFFP ($p \leq .001$), and ranging from 6.9% to 17.9% for

other groups ($P \leq .001$). More LAM users reported having been counseled to delay the introduction of complementary foods until six months of age (26.1% vs. 7.3% for BFFP ($p \leq .001$)) and ranging from 2.1% to 7.0% for other groups (Appendix Table A-8).

Figure 2. Percent of women who had been counseled on LAM by type of family planning method used in the first 6 months postpartum

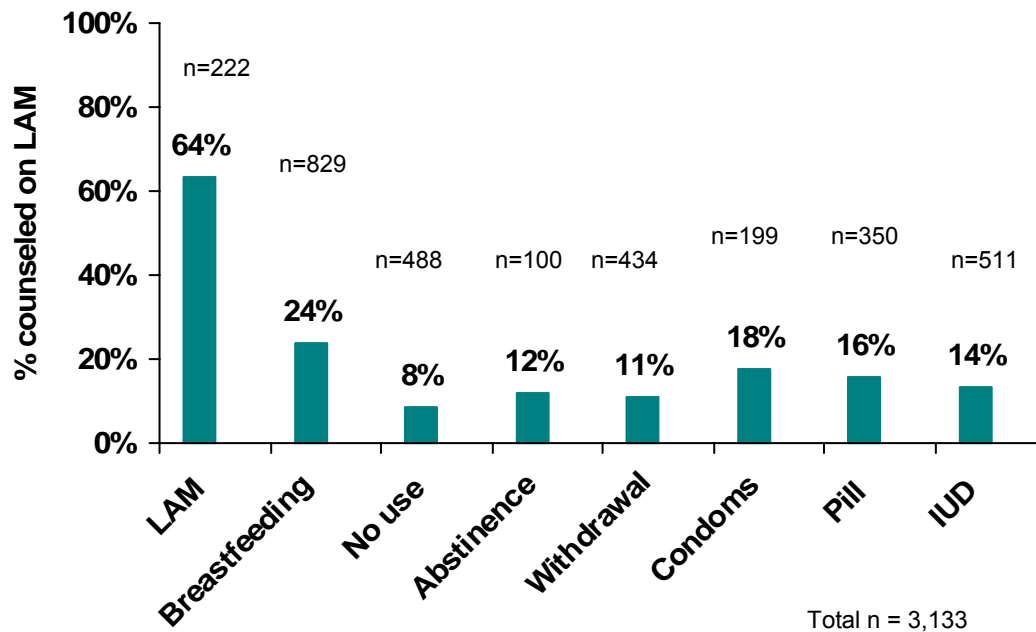


Table 3. Percent of BFFP users who reported LAM criteria by whether they received counseling on LAM

Criterion reported	% reporting criteria		
	Counseled on LAM	Not Counseled	P
Amenorrhea	89.8%	79.8%	<.001
Full breastfeeding	93.4 %	85.8%	<.005
Six months	7.1%	2.1%	<.001
Total	197	619	

When all women were asked if they had been told about the need to transition, more LAM users (80.2%) than BFFP users (48.0%, $p < .001$) and other groups (28.5% to 44.3%) said they had been counseled to use another method after LAM was no longer effective (Appendix Table A-9). Of those told to transition, 92.9% were told to transition to modern methods and 13.6% were told to transition to withdrawal (sometimes in addition to also being told about modern methods or periodic abstinence). Only 3% were

told only to transition to withdrawal and 1.5% were told only to transition to withdrawal and periodic abstinence.

Women who were able to name at least one LAM criterion were asked where they obtained information on LAM's criteria. Half (49.5%) of LAM users had learned a LAM criterion from a nurse compared to 19.0% for BFFP ($p \leq .001$), and ranging from 10.1% to 18.1% for other groups. Thirty-six percent (36.9%) had learned a LAM criterion from a doctor compared to 22.2% for BFFP ($p \leq .001$) and ranging from 9.8% to 18.2% for other groups. LAM users were also more likely to have learned from educational print material (posters, counseling cards or brochures) than other women (55.4% vs. 35.4% for BFFP, $p \leq .001$ and ranging from 21.0% to 29.7% for other groups).

In order to assess whether there is a dose-response effect of number of sources from which women learned LAM criteria, a score (from 0-3) was devised to include the number of sources women learned LAM criteria from, including 1) print materials, 2) doctor, and/or 3) nurse. LAM users had heard of LAM criteria from a greater number of sources than other groups. Among LAM users, those who had been counseled learned the criteria from more sources than those who were not counseled (Appendix Table A-10). About three-fourths of women who had not been counseled learned LAM's criteria from print materials, compared to about one-half of those who had been counseled (Appendix Table A-11).

When asked when they learned the criteria, LAM users were more likely to have learned the criteria during pregnancy (20.7%) compared to other women (12.2%, $p \leq .01$) and in the first six months postpartum (41.0% vs. 17.3%, $p < .001$, Appendix-Table A-12). Similarly, a dose-response effect was tested for the frequency of hearing the LAM criteria. Table A-13 shows that women who were counseled were more likely to have learned LAM criterion during more time periods than those not counseled.

Implications for program interventions

- 1) All LAM users (by definition) recalled the “six month” criterion while few other women could**
- 2) LAM users were more likely to report having been:**
 - a) Counseled on LAM**
 - b) Told about the need for transition**
 - c) Told to exclusively breastfeed**
 - d) Told to delay introduction of complementary foods until six months of age**
 - e) Taught the LAM criteria from a nurse, doctor, and/or print materials**
- 3) Counseling on LAM had a large impact on whether women learned the LAM six month criterion and were thus classified as LAM users. Among other women, those who were counseled were more likely to report knowing the six month criterion.**
- 4) Print materials seem to have been helpful especially to teach women the six month criterion among those who had not been counseled. Thus distribution of brochures and posters is an important means of reaching women who do not receive or remember counseling on LAM.**
- 5) The number of sources and times women learn the LAM criteria are related to more women using LAM. However many (over half of) LAM users only learned about it through one source.**

D. Breastfeeding Practices

While LAM and BFFP users of course breastfed, so did nearly all other women (94.5%) in the study.⁶

Many fewer LAM and BFFP users (3.6% and 3.7% respectively) stopped breastfeeding in the first six months compared to the other family planning groups; 24.5% of non-family planning users and 29.5% of periodic abstinence users stopped breastfeeding in the first six months ($p \leq .001$ compared to LAM users), and 16.3%-21.0% of withdrawal and modern method users stopped in the first six months (Table 4). The proportion of women breastfeeding for more than 12 months was greatest among LAM and BFFP users (about 80%) compared to other groups with about 50% for non-family planning users and those using periodic abstinence ($p < .001$) and 60-69% for other groups ($p < .05$).

⁶ The range of percent not breastfeeding was 3.9% - 6.3% with no statistical difference between the other family planning status groups in the first six months ($p > .05$).

Table 4. Breastfeeding duration among women who breastfed the index child by type of family planning use in the first six months

Family planning use in first six months	Duration of breastfeeding of index child in months				
	< 6 mo.	6-11 mo	12+ mo.	Total	N
LAM	3.6%	18.0%	78.4%	100.0%	222
BFFP	3.7%	15.9%	80.3%	100.0%	829
No use	24.5%	26.2%	49.2%	100.0%	465
Periodic Abstinence	29.5%	21.1%	49.5%	100.0%	95
Withdrawal	18.2%	18.2%	63.6%	100.0%	407
Condoms	17.6%	21.4%	61.0%	100.0%	187
Pills	21.0%	19.5%	59.6%	100.0%	329
IUD	16.3%	15.1%	68.6%	100.0%	491
Total	14.4%	18.7%	66.8%	100.0%	3025

About thirty percent (29.9%) of women who stopped breastfeeding in the first six months postpartum stopped due to insufficient milk, and this ranged from 0% for LAM users, 12.9% for BFFP users, and from 23.9% to 42.6% for other groups. The difference between LAM users and other groups was not significant ($p>.05$) but the sample sizes are small.

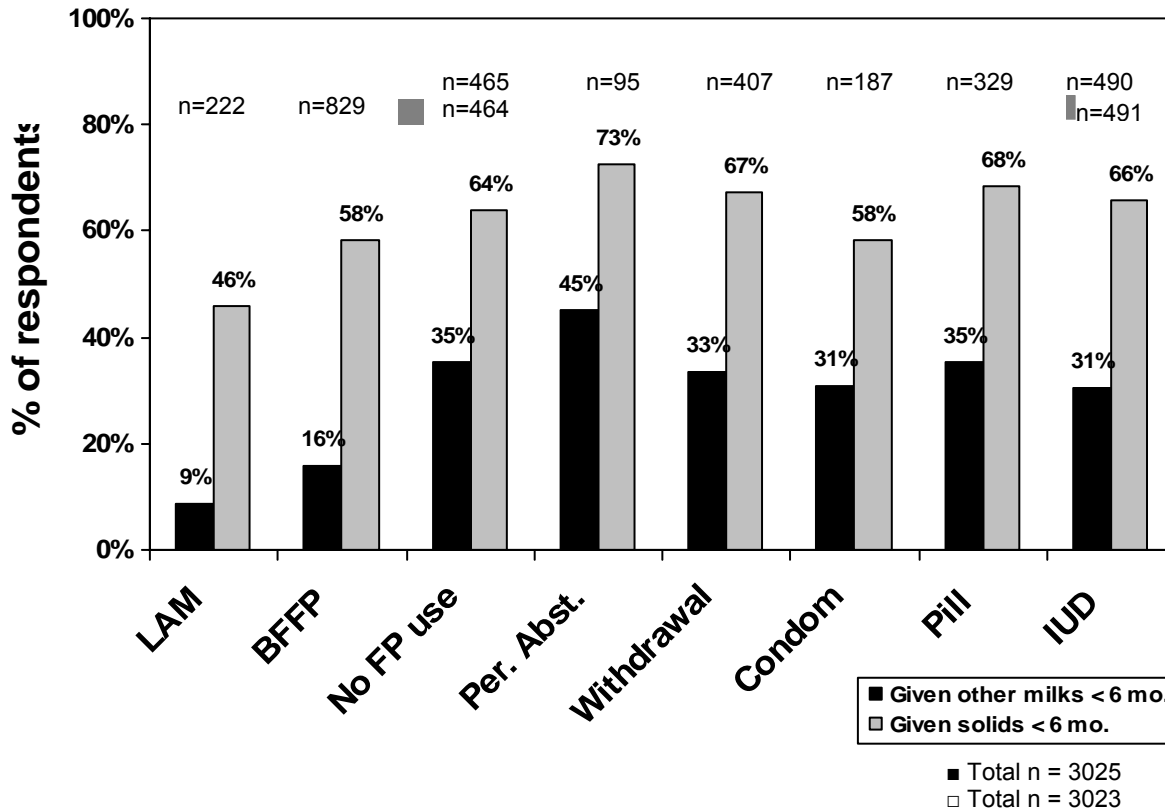
Among all women, other reasons given for stopping breastfeeding at this time were “child refusal” (24.5%), “pregnancy” (15.0%), “ill or weak mother” (11.7%), “ill or weak child” (7.9%), and “other” (11.0%).

A high proportion of LAM and BFFP users also were amenorrheic for the full six months, and thus well protected against pregnancy. Only 15.4% of LAM users and 19.2% of BFFP users ($p>.05$) had durations of amenorrhea less than six months and the median durations respectively were 8 months and 9 months. This compares to a median duration of 3.5 months for urban women in Jordan (Department of Statistics and MACRO, 2002).

LAM users were less likely to introduce other milks before six months than BFFP users (8.6% vs. 15.7%, $p\leq.05$). Both groups however were even less likely to introduce milks this early compared to the other groups in the study, with 30-45% of other breastfeeding women introducing other milks before six months (Figure 3, Table A-14; Appendix).

LAM users had a lower percentage of women who introduced semi-solids in the first six months after delivery (45.9%) compared to 58.4% for BFFP users ($p\leq.001$), and other groups (range from 58.3% to 72.6) (Appendix-Table A-15). LAM and BFFP users still had relatively high rates of early introduction of semi-solid foods (primarily occurring in the fourth month, Figure 3). The fertility reducing effect of breastfeeding could have been compromised for such women since they would not have been fully breastfeeding.

Figure 3. Percent of women introducing other milks and semi-solids/solid foods in the first six months by type of family planning method used in the first six months



Since breastfeeding practices are often related to socio-economic status (with more highly educated women the most likely to introduce milks other than breastmilk early), the relationship of timing of introduction of milks other than breastmilk was examined in relation to the mothers' educational level. Women with some higher education were slightly more likely to have introduced other milks in the first six months (32.4%) than those with less education (25.1%, $p < .01$). However, there was no difference in proportion introducing milks between higher and lower educated LAM users or withdrawal users. When education was controlled, LAM and BFFP users were still less likely to introduce other milks than other women (Table Appendix A-16).

The proportion giving liquids was also related to a wealth score for most groups, but not for LAM or BFFP users. When wealth was controlled for, LAM and BFFP users were still less likely than other women to introduce other milks in the first six months (Table Appendix A-17).

Implications of results on breastfeeding practices

1) Promotion of LAM seems to result in better breastfeeding practices:

- LAM users had been counseled to delay introduction of milks and solids, and their practices showed that they did more than *all* other groups

2) LAM users and BFFP users, aside from some differences in breastfeeding practices, are closer to each other in breastfeeding patterns than to all other groups:

- Both had lower rates of stopping breastfeeding in the first six months,
- Both were more likely to continue breastfeeding after 12 months, and
- Both had later introduction of other milks and solids than other groups

3) These differences in breastfeeding practices between LAM/BFFP users and other groups are not caused by differences in socio-economic factors.

E. Pregnancy rates by 12 months

The first hypothesis to be tested is whether women who use LAM during the first six months have similar pregnancy rates by 12 months as other short term modern method users. The percent of women who became pregnant by the end of the 12th month postpartum ranged from 3% for IUD users to 34% for non-family planning users (Figure 4).

While the rate of pregnancies for non-family planning users is higher than other groups, it is less than would have occurred in the absence of breastfeeding. Nearly half of non-family planning users were still breastfeeding at 12 months. They were thus partially protected from pregnancy during the first 12 months because of the fertility reducing effect of breastfeeding, especially when women are amenorrheic (Bongaarts and Potter, 1983). In the 2002 Jordan DHS, among all women with children less than three years of age, 12.7% were still amenorrheic at 10-11 months postpartum after the birth of the youngest child (Department of Statistics and Macro, 2002). The rate of amenorrhea among breastfeeding women would be even higher because this is an average for those breastfeeding and those not breastfeeding.

Since many pregnancies occurring by twelve months postpartum were intended and thus not the result of unmet need for family planning, intention of the pregnancy is important to assess. The percent of *all pregnancies* that were intended (wanted at conception) ranged from 20% for periodic abstinence users to 46% for non-family planning users (Appendix Table A-18).

The percent of women who became pregnant with an unintended pregnancy ranged from 2% for IUD users to 17% for non-family planning users and are also shown in Figure 4. Unintended pregnancy rates did not differ between LAM users and other short term modern methods combined: BFFP, withdrawal, periodic abstinence users and non-family planning users ($p>.05$). LAM users were significantly more likely than long term

users ($p \leq .001$) to have an unintended pregnancy.⁷ LAM users' rates of unintended pregnancies (12%) did not differ from other short term modern method users combined (9%). LAM users' unintended pregnancy rates did not differ from condom users (13%) ($p > .05$) but were slightly higher than pill rates (7%), $p < .05$. The difference from pill users remained when parity was controlled.

Life table analyses illustrated that the probability of stopping LAM or BFFP due to pregnancy during the first six months postpartum was 3%-4%. There were eight LAM users and 19 BFFP users who became pregnant while using LAM/BFFP in the first 5.9 months after birth.⁸ Of the eight LAM users who became pregnant, only four women were still following all three LAM criteria (were still amenorrheic, fully or nearly fully breastfeeding, and less than six months postpartum) when they became pregnant.⁹ Thus the rate of 4% is a use-effectiveness rate in contrast to the 2% failure rate shown with LAM in efficacy studies. However because of small sample sizes and retrospective data collection on duration of menses and onset of pregnancy, this use-effectiveness rate has a wide margin of error. The lack of a difference between LAM and BFFP supports the conclusion of Cochran reviews that there were no differences in life table pregnancy rates between women using LAM and those fully breastfeeding and amenorrheic (Van der Vijden et al, 2003).

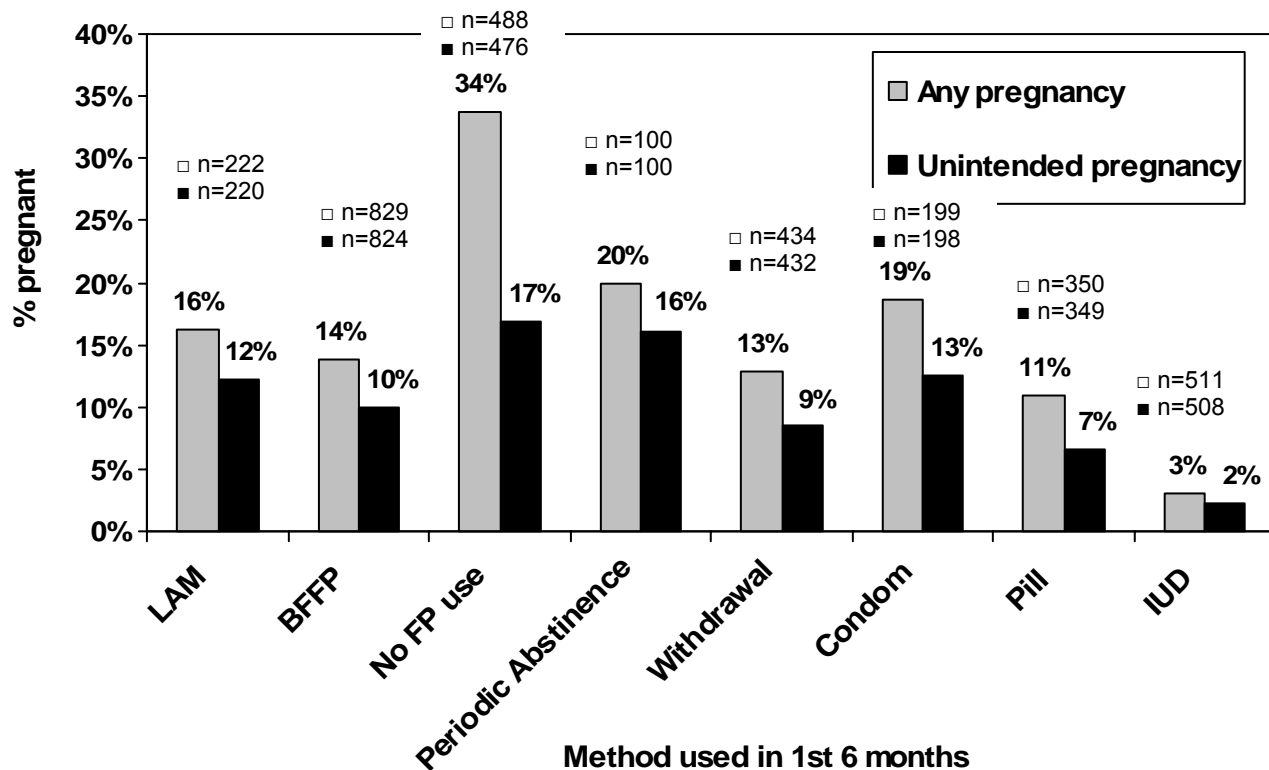
Another five women who had used LAM and 33 who had used BFFP in the first six months, continued to use breastfeeding for family planning during the second six months postpartum, but then stopped due to pregnancy.

⁷ There were a total of 457 pregnancies for which we knew intendedness (154 were "wanted" at conception, 258 were "wanted later" and 45 were "not wanted").

⁸ There were 55 (25%) women who stopped using LAM and 190 (23%) women who stopped using BFFP in the first six months. Life table analyses found rates of pregnancies by the beginning of the 6th postpartum month of 4% for LAM users and 3% for BFFP users compared to rates of 1% for pill users, 3% for condom users, 3% for withdrawal users and 5% for periodic abstinence users.

⁹ Two women had resumed menses and two others had introduced others milk prior to the pregnancy.

Figure 4. Percent of women who became pregnant and percent who became pregnant with an unintended pregnancy by 12 months postpartum by family planning method used in the first six months



Implications of results on pregnancy rates by 12 months postpartum

1) The hypothesis that there is no difference in unintended pregnancy rates by 12 months postpartum between women who used LAM and the group of women who used all other short term modern method users was confirmed. However LAM users were more likely to have an unintended pregnancy than pill users.

2) The good breastfeeding practices of BFFP users increase birth intervals (as shown by lower proportions pregnant at 12 months). Pregnancy rates among non-users were twice those seen among BFFP users. Just by improving breastfeeding practices, increased birth intervals can result.

3) The similarities of pregnancy rates for BFFP (a traditional method) and condoms (a modern method) shows that without knowing LAM's six month criterion, women who have good breastfeeding practices can delay pregnancies beyond 12 months postpartum as effectively as if they used condoms.

F. Use of family planning at 12 months postpartum and patterns of transition to another modern method

Table 5 shows the types of methods used by respondents at 12 months postpartum and the proportion who were not using a method (including those who had been pregnant or who were currently pregnant).

Table 5. Percent of women using family planning at 12 months postpartum

Family planning use at 12 months postpartum	Percent of Respondents			
	%	N	Group	Category
			Short term 18.0%	Total Modern 41.3%
Pills	11.0%	350		
Condoms	5.9%	189		
Injectable	.7%	23		
Foam	.4%	12		
			Long term 23.3%	Traditional 31.4%
IUD	22.7%	724		
Female Sterilization	.6%	18		
				Traditional 31.4%
BFFP	11.6%	369		
Periodic Abstinence	4.6%	146		
Withdrawal	15.2%	483		
No use	12.2	869		No Use 12.2%
Pregnant	15.1%			Pregnant 15.1%
Total	100.0%	3183		

On page 28, Figure 5 compares rates of use of family planning during the first six months (also shown in Table 1) to that at 12 months. The main difference is a decrease in the proportion of women using a traditional method (from 42.7% to 31.4%) and an increase in the proportion of non-family planning users due to pregnancies (27.3%). The rates of modern method use at 12 months (41.3%) are similar to those at less than six months (42.0%). However as Table 6 shows, some of this use is related to increases in modern method use among women who were not using a modern method in the first six months (Previous BFFP users represent 15% of modern method use at 12 months; previous withdrawal and previous non-family planning users represent 5% each).

Figure 6 shows the relationship of use of family planning in the first six months to use status at 12 months. Non-users were most likely to be pregnant or not using a method at 12 months compared to all other groups. Modern method users were the most likely to be still using a modern method at 12 months.

Table 7 (which does not include pregnant women) shows that LAM users had higher rates of modern method use at 12 months compared with BFFP users (48% compared to 27%, $p \leq .001$), non-family planning users (21%), periodic abstinence users (5%) and withdrawal users (17%) $p \leq .001$). They were less likely than women who used a modern method in the first six months (condoms, 77%; pill users, 82%; and IUD users, 96%) to be using a modern method at 12 months.

The striking difference between LAM and BFFP users is that fewer LAM users still relied on breastfeeding at 12 months compared to BFFP users (24.2% versus 44.6%, $p \leq .001$) and were more likely to rely on IUDs (20.4% vs. 11.7%, $p \leq .01$) and condoms (13.4% vs. 5.0%, $p \leq .001$) (Table 7).

Figure 5. Percent of women using family planning methods in the first six months compared to use at 12 months

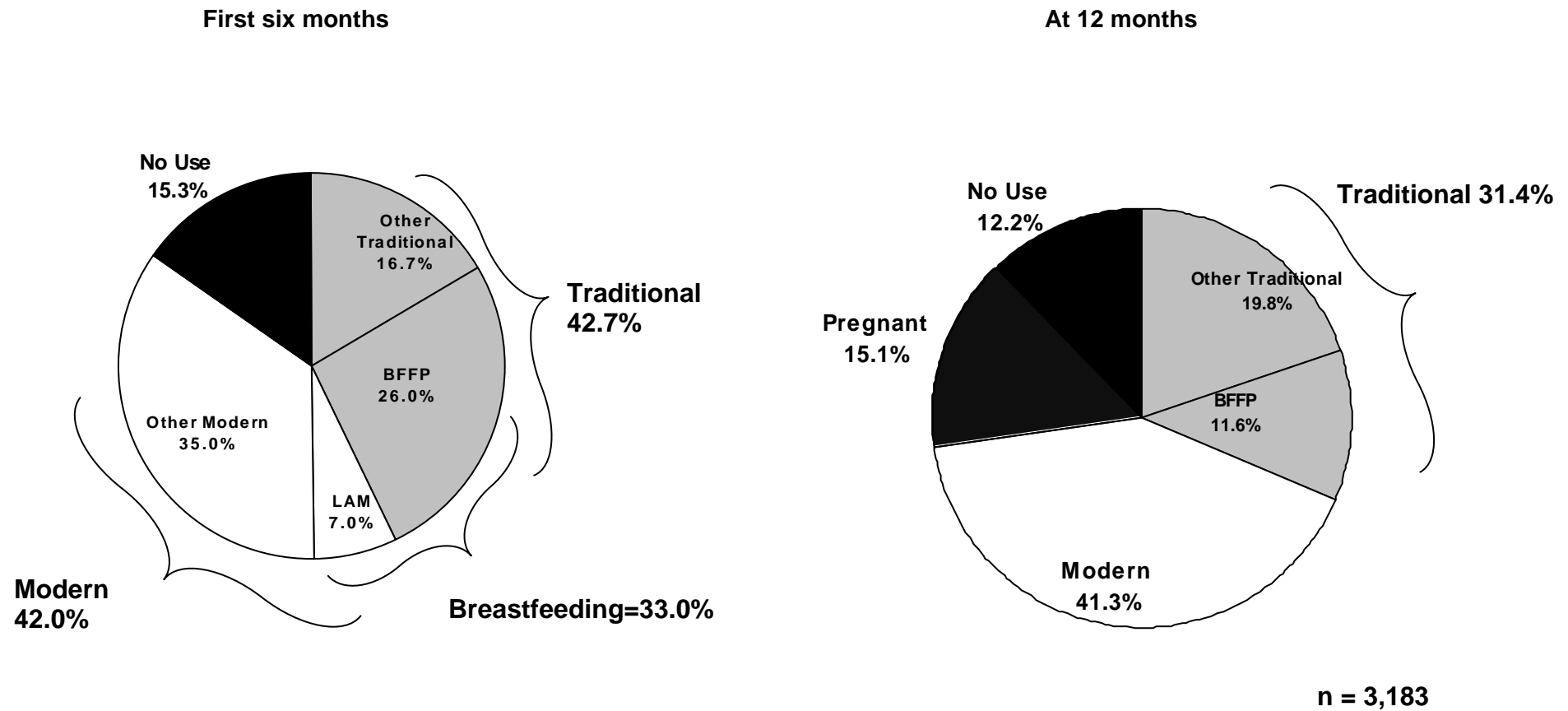


Table 6. Percent of modern method users at < six months and percent of modern method users at 12 months by type of family planning in the first six months

Family planning use in first six months	% of modern method users			
	Percent of all modern method users at < 6 mo. (42.0% of women)		Percent of all modern method users at 12 months (41.3% of women)	
	%	N	%	N
LAM	17.3%	222	7.1%	90
BFFP		0	15.2%	193
No use		0	5.3%	67
Periodic Abstinence		0	0.3%	4
Withdrawal		0	5.0%	64
Condoms	15.5%	199	9.8%	125
Pills	27.3%	350	20.1%	256
IUD	39.9%	511	37.2%	474
Total	100.0%	1282	100.0%	1273

Figure 6. Percent of women who were pregnant, using or not using a family planning method at 12 months postpartum by type of family planning use in the first six months

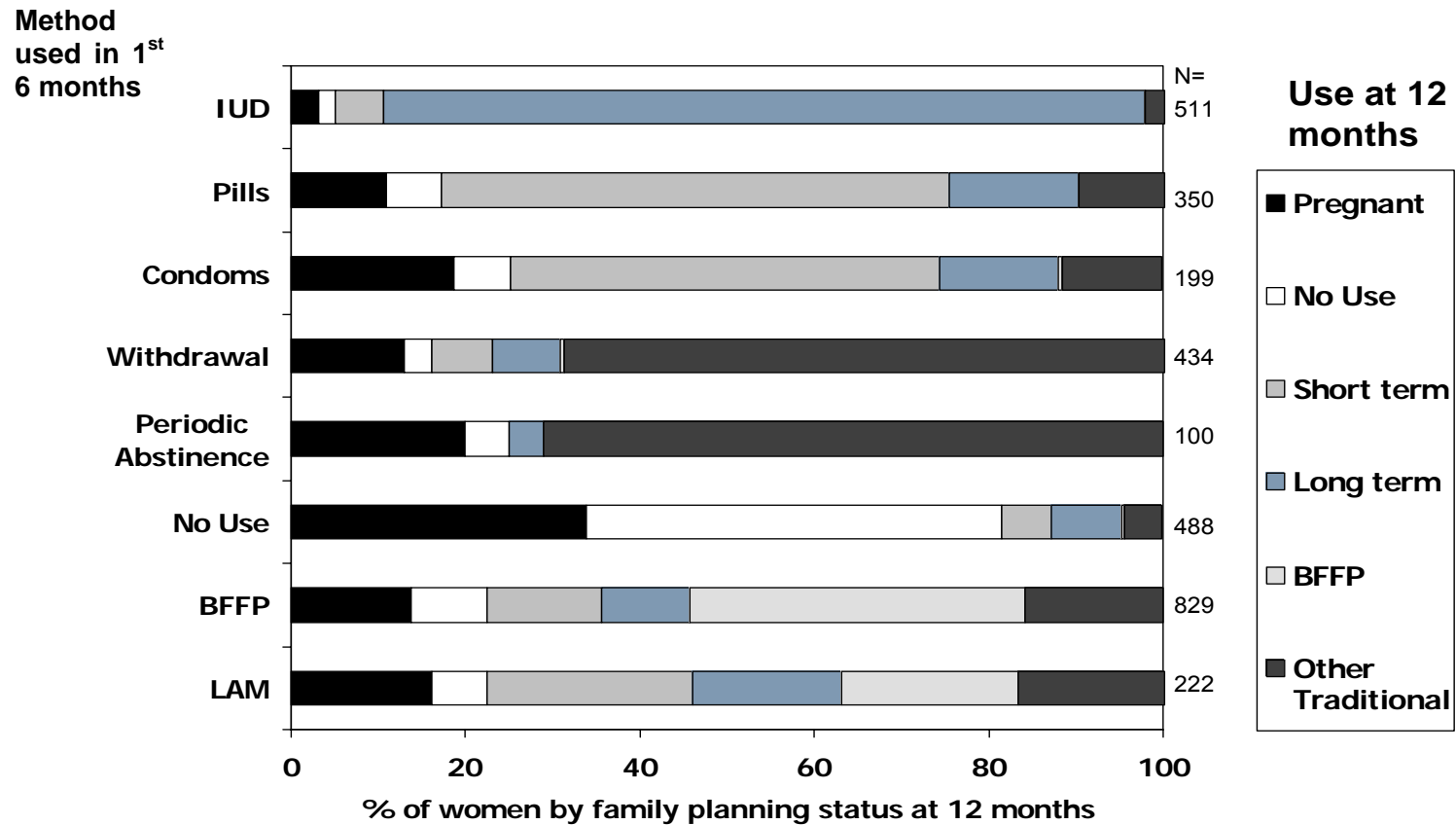


Table 7. Percent of women using different family planning methods at 12 months by type of family planning used in the first six months

Family planning use in first six months	Percent of women using methods at 12 months								
	IUD	Pill	Condom/ Foam/Inject	Withdrawal	BFFP	Periodic Abstinence	Non-use	%	Total N
LAM	20.4%	14.5%	13.4%	14.5%	24.2%	5.4%	7.5%	100.0%	186
BFFP	11.7%	10.2%	5.0%	13.0%	44.6%	5.3%	10.1%	100.0%	715
No use	12.1%	6.2%	2.5%	5.0%	.6%	1.5%	72.1%	100.0%	323
Periodic Abstinence	5.0%	.0%	.0%	5.0%	.0%	83.8%	6.3%	100.0%	80
Withdrawal	9.0%	4.0%	4.0%	77.0%	.5%	1.9%	3.7%	100.0%	378
Condoms	16.7%	4.3%	56.2%	10.5%	.6%	3.7%	8.0%	100.0%	162
Pills	16.7%	58.0%	7.4%	7.4%	.0%	3.5%	7.1%	100.0%	312
IUD	90.1%	4.2%	1.4%	1.8%	.0%	.4%	2.0%	100.0%	495
Total	27.3%	13.0%	7.7%	18.1%	13.9%	5.5%	14.4%	100.0%	2651

Not only were LAM users more likely to be using a modern method at 12 months than BFFP users, they were also more likely to have transitioned to this method earlier in the postpartum period than BFFP users. Figure 7 shows that nearly twice as many LAM users discontinued at six months compared to BFFP users.

Figure 8 gives the reasons women report for stopping use of LAM or BFFP. Among all LAM users, 40% stopped using LAM because they resumed menses, compared to only 31% of BFFP users. LAM users were also more likely to stop because they wanted a more effective method compared to BFFP users (28% vs. 18%).

Figure 7. Percent of LAM and BFFP discontinuers by month postpartum they discontinued

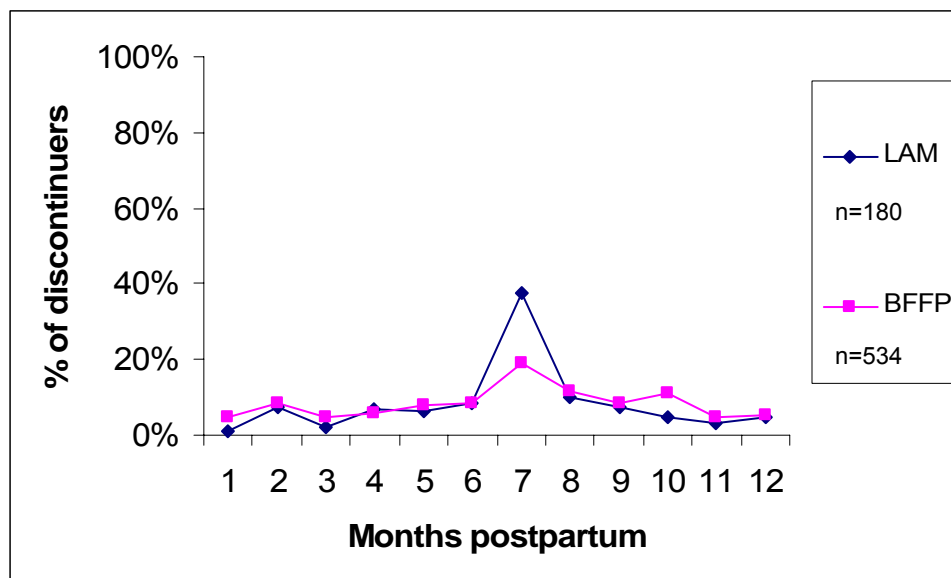
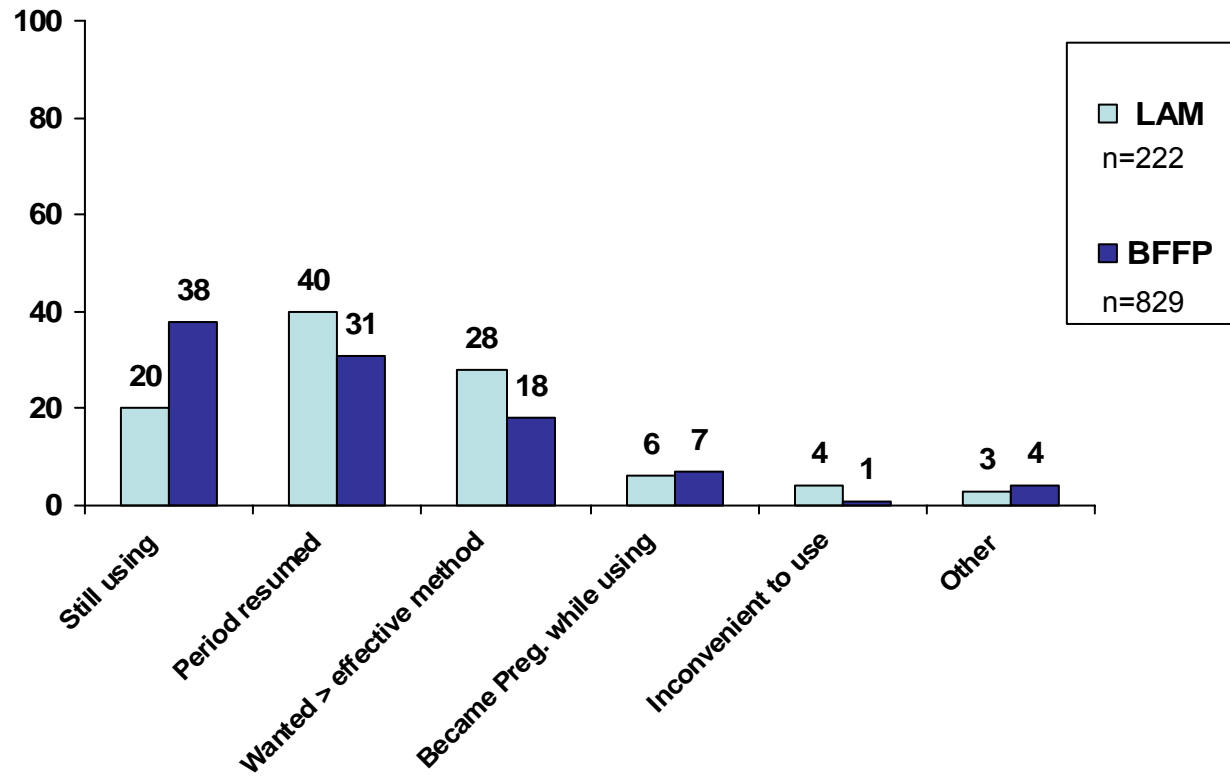


Figure 8. Percent of women using LAM or BFFP in the first six months postpartum by their status at 12 months or reason for discontinuing its use



Relationship of previous use of modern methods to use at 12 months

Whether LAM use is able to improve use of family planning among previous non-users is addressed in Table 8, which shows the use of a modern method at 12 months, controlling for use of a modern method in the 24 months preceding the index pregnancy. Among women who *did not* use a modern method in the 24 months preceding the index pregnancy, those who used LAM in the first six months postpartum were more likely than those who used breastfeeding (38.2% vs. 20.0%) and non-family planning users (15.7%) to be using a modern method at 12 months. This suggests that LAM may in fact be increasing use of modern methods among women who did not use them in the 24 months prior to the index pregnancy.

Table 8. Percent of women using a modern method at 12 months (among women who did not become pregnant) controlling for ever use of modern method in the 24 months preceding the index pregnancy

Family planning use in first six months	Percent of women using a modern method at 12 months (among women who did not have a pregnancy by 12 months) by type of family planning in the first six months			
	No modern method used in 24 months before index child	N	Used modern methods in 24 months before index child	N
LAM	38.2%	110	73.7%	76
BFFP	20.0%	475	48.8%	240
No use	15.7%	255	38.8%	67
Periodic Abstinence	4.5%	67	7.7%	13
Withdrawal	14.2%	275	26.5%	102
Condoms	60.8%	74	90.9%	88
Pills	70.5%	129	90.6%	181
IUD	94.0%	183	96.8%	312
Total	33.6%	1568	71.6%	1079

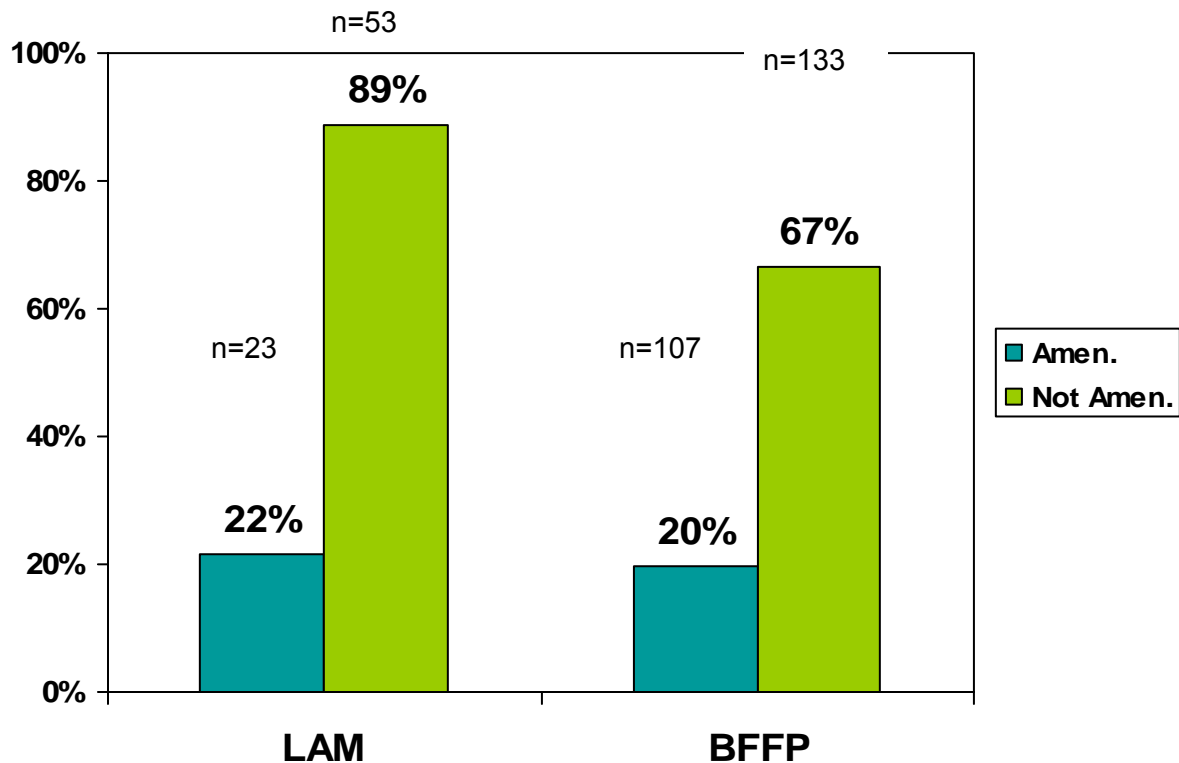
While the trends are similar for women who had used a method in the preceding 24 months, rates of use at 12 months are much higher for them. For example, 48.8% of BFFP users and 38.8% of non users who had used a modern method in the 24 months preceding the index pregnancy used a modern method at 12 months compared to 73.7% of LAM users ($p < .001$).

Since one criticism of LAM promotion could be that it draws women away from using other modern methods, it is important to assess why LAM users who had previously used a modern method before were not using one at 12 months. Figure 9 shows that 89% of LAM users who had resumed menses by 12 months were using a modern method at 12 months but only 22% of those who were amenorrheic at 12 months were using a modern method at that time. Thus even though they knew the 6th month

criterion, many LAM users appeared to wait until till their menses returned before resuming use of modern methods.

The patterns for BFFP users were similar, but even fewer of those who were *not* amenorrheic at 12 months were using a modern method compared to LAM users (67% vs. 89%).

Figure 9. Percent of women using a modern method at 12 months by amenorrhea status at 12 months and use of LAM or BFFP in the first six months (among those who previously used a modern method in the 24 months preceding the index pregnancy)



Characteristics of women who transition

Cross-tabulations and chi-squared analyses of LAM users who had not become pregnant in the 12 months following birth of the index child were conducted to assess what characteristics differentiate women who transition to a modern method from those who do not. Women who had become pregnant were excluded because they would not be expected to use a method during pregnancy. Transition is defined here as use of a modern method at 12 months.

Transition among LAM users was not related to whether they had been counseled on LAM, their score for the number of sources where they learned LAM criteria, their score for frequency of counseling, how they learned about LAM, whether they were told about the need to transition, timing of introduction of milks or solids, desire for another child, or mother's age ($p > .05$).

Factors related to transition among LAM users included previous use of modern methods in the 24 months preceding the index pregnancy, duration of amenorrhea, number of living children, ($p \leq .001$), mother's education ($p \leq .05$), and wealth score ($p \leq .05$). Those who transitioned were more likely to have previously used a modern method and to have resumed menses by 12 months, and less likely to have only one child, to be poor or to be highly educated than non-transitioners (see Table 10).

When these variables were entered into a binary logistic regression, only previous use of a modern method ($p \leq .001$), amenorrhea status at 12 months ($p \leq .001$), and parity ($p \leq .05$) were significantly related to use of a modern method among LAM users at 12 months.

Table 9. Percent of LAM users (who were not pregnant by 12 months) with selected characteristics by whether they were using a modern method (transitioners) or not at 12 months postpartum

Characteristic of LAM user	Percent of LAM users with the characteristic by whether they transitioned to a modern method at 12 months or not		
	Used a modern method at 12 months (Transitioned) N=96	Did not use a modern method at 12 months (No Transition) N=90	P value
	%	%	
Previously used a modern method in 24 months before index child	57.8%	25.0%	$p \leq .001$
Resumed menses by 12 months	87.8%	45.8%	$p \leq .001$
Only 1 living child	8.9%	19.8%	$p \leq .001$
Lowest 1/3 wealth score	20.0%	35.4%	$p \leq .05$
Some higher education	24.4%	38.5%	$p \leq .05$

Implications of results on use of family planning at 12 months and patterns of transition

- 1) LAM users were twice as likely to be using a modern method at 12 months compared to BFFP users.**
- 2) LAM users also discontinued LAM by the end of the 6th month more often than BFFP users, suggesting that their knowledge of the six month criterion affected their practices.**
- 3) Nearly all (89%) LAM users who had resumed menses by 12 months were using a modern method at that time, compared to 68% of BFFP users who had resumed menses by 12 months.**
- 4) Continuation rates for modern methods are quite low for women who had not previously used a modern method in the 24 months preceding the index pregnancy. Such women are generally of lower parity.**
- 5) Among LAM users, the principal factors distinguishing those who transition from those who do not is the previous use of modern methods, duration of amenorrhea, and number of living children.**
- 6) These results suggest the need for programs to**
 - tailor messages for women at low parity to encourage modern method use for birth spacing**
 - provide special efforts to communicate that “fertility protection from amenorrhea diminishes after six months postpartum”**
 - increase the timely transition at six months from LAM to another modern method to avoid unintended pregnancies**
 - increase continuation rates for modern methods.**

VI. Discussion

The vast majority of literature on LAM has been devoted to documenting its efficacy in preventing pregnancy. This research in Jordan is one of the few studies on LAM conducted in a programmatic setting to show characteristics of LAM users and how they differ from other postpartum women. This study additionally examined whether LAM increases the pool of modern method users at 12 months as a result of transition from LAM to modern method use.

LAM users were, in general, not very different from other postpartum women in socio-demographic characteristics. They were similar in age to most other women and they did not differ from most other groups in wealth; the only groups that stood out were non-users who were less wealthy and periodic abstinence users who were most likely to be wealthier. About two-thirds of all users, including LAM users, desired another child (only IUD users were less likely to desire another child).

The only clear socio-demographic differences between LAM users and other women were in their higher educational levels (except for periodic abstinence users who were also more highly educated) and in their parity. Very few LAM users (13%), and BFFP users (17%) had only one living child, compared to 20-25% for all others except IUD users (5%). These data countered our initial assumptions that LAM users were younger women starting their families. Perhaps women decide to use LAM or BFFP once they have already experienced a pregnancy and are secure about their ability to successfully breastfeed.

What factors did differ between LAM users and other women? The major difference between LAM users and other women were in their breastfeeding practices and in their preceding use of modern methods. LAM users had better breastfeeding practices than all other women, except for BFFP users who were almost as good. In contrast to other modern method users, LAM users were less likely to have previously used modern methods. They were more likely to have previously used modern methods than other women (BFFP, non-users, periodic abstinence and withdrawal users).

The impact of LAM use and continued modern method use on preventing unwanted pregnancies beyond six months was evident. The first hypothesis was confirmed that there is no difference in unintended pregnancy rates by 12 months between LAM (12%) and short term modern method users (9%). It is noteworthy that users of withdrawal had an unexpectedly low rate of unintended pregnancies (9%) for what is considered a "traditional method." The low unintended pregnancy rate of LAM users shows that promotion of LAM does not result in more unintended pregnancies than promotion of other short term methods. It is useful as a means of increasing the array of methods offered to postpartum women and is a method which some may find more suitable.

An important question is whether promotion of LAM increases overall use of modern methods or whether it replaces modern method use. As predicted from our second hypothesis, the results from this study illustrate that LAM has a positive impact on total modern family planning use at 12 months postpartum. LAM users had an increased rate of modern method use over non-family planning users, BFFP users, and traditional users of abstinence or withdrawal. When assessing highly effective methods, while rates of pill and IUD use at 12 months are lower for LAM users (35%) than for pill users (75%) or IUD users (94%), they are much higher than for condom users (21%). LAM promotion may in part be responsible to this enhanced use of highly effective methods.

Another question is whether LAM introduces some women to modern methods who would have not used them? Or would those women have used another modern method if LAM were not offered, because they were ready to start using a modern method at that point in time? To answer these questions, the association of LAM use with modern method use at 12 months was compared to use among women who had *not* used a modern method in the preceding two years. Such LAM users were *more* likely than such BFFP users, withdrawal, periodic abstinence and non-family planning users during the

first six months to be using a modern method at 12 months. Thus LAM seems to be a means to encourage modern method use among previous non-family planning users.

The concern that LAM may replace modern method use was not substantiated. Among condom, pill and IUD users who had previously used modern method users, over 90% were using a modern method at 12 months. Thus it is unlikely that promotion of LAM led to lesser rates of use.

Additionally, it is helpful to compare LAM and BFFP users who had previously used a modern method, in order to assess their use of modern methods at 12 months by risk of pregnancy. Nearly all LAM users (89%) who had resumed menses by 12 months were using a modern method compared to only 67% of BFFP users. Modern method use was lower in both groups among women who were still amenorrheic. These women still were partially protected from pregnancy due to the amenorrhea.

These results suggest that LAM users will use a modern method if they perceive themselves at risk of pregnancy due to resumption of menses. If the average duration of use for a method is similar among women once use has begun, LAM use will extend the total duration of use of modern methods, since LAM users start a new method later in the postpartum period.

Since reporting on the six month criterion is primarily what differentiates LAM users from BFFP users, LAM users should be more likely to end LAM use at six months than BFFP users (if they follow this criterion.) This was found to be the case, with a higher proportion of LAM users than BFFP users who discontinued ending the method at six months.

Accurately identifying LAM users was not a simple procedure. No commodity serves as a benchmark for use. The terminology used to identify LAM creates a challenge for accurate identification of LAM users. Furthermore, LAM is easily confused with using breastfeeding as a family planning method since a key behavior is shared by both LAM users and BFFP users. Indeed, most women learned about LAM not in the context of being a contraceptive method *per se* but rather as an additional benefit of breastfeeding. Women were learning about all the advantages of breastfeeding, one of which is fertility protection. In part, this explains why few women referred to themselves as “LAM” users and many more responded positively to using breastfeeding to plan the family.

While unprompted knowledge of the three criteria served to distinguish the two groups, it is the six month criterion that is the most important distinguishing factor. In part due to this definition, only 7% of the postpartum women in the study were classified as using LAM. This rate is especially low given that the clinics that were included in the study were selected because they were likely to have a higher proportion of LAM users. However, it may be that women who were classified as using BFFP would be reported in monitoring statistics as LAM users. Regardless of this problem, programs need to focus on the six month criterion so that more BFFP users know to start modern methods earlier, especially if menses has resumed.

Even though LAM users had full knowledge of the criteria, it is noteworthy that failure to follow the known criteria occurred often. Self-identified use of LAM after six months was high but as discussed above, it appears that many LAM users who remain amenorrheic decide to delay use of modern methods until after menses have resumed. Anecdotally,

some LAM users who continued to rely on breastfeeding after six months said they understood the six month criterion had impact on a population level but as individuals, they felt comfortably protected based on their previous successes relying on the return of menses to signal the return of fertility.

In addition to benefits for family planning use, another important issue is whether promotion of LAM improves breastfeeding practices or whether good breastfeeders choose LAM or BFFP. The results suggest that both are true.

The delay in introduction of milks other than breastmilk among LAM users compared to BFFP (91% vs. 84%) and in the delay in introduction of solids (54% vs. 42%) is in line with the results showing that LAM users were more likely to have been counseled on LAM, and to have been counseled to exclusively breastfeed and to delay introduction of semi-solids. Thus to some extent, promotion of LAM does seem to result in better breastfeeding.

Socio-economic status is often associated with timing of introduction of other milks and semi-solids. Often those with the highest education introduce other milks earlier. This was shown in the 2002 DHS, where durations of predominant breastfeeding ranged from 2.1 months for mothers with no education, 3.4 months for those with elementary school education, 2.5 for preparatory and secondary education, and 1.2 months for higher education. In this study, a similar pattern was seen with women with higher education introducing other milks earlier. But when education was controlled, the pattern of better breastfeeding practices for LAM users versus BFFP users and other women remained. This again supports the suggestion that LAM is related to improved breastfeeding practices and is not caused by differences in the socio-economic status of LAM users.

While there were differences in breastfeeding practices between LAM and BFFP users, generally their patterns were more similar to each other than to other postpartum women. The differences in breastfeeding practices were more striking comparing LAM and BFFP as a group to other women in the study. LAM and BFFP users were less likely to have stopped breastfeeding in the first six months, more likely to have continued breastfeeding beyond 12 months, and less likely to have introduced other milks and semi-solids in the first six months compared to other women. Since these patterns remained once educational status and wealth were controlled, it is clear that the differences in breastfeeding practices are not due to socio-economic variations in the different groups. Since the proportion of women counseled on LAM was higher in LAM and BFFP users than in other groups, LAM counseling may have improved breastfeeding practices. However it is also possible that good breastfeeders remember having been counseled since they were more interested in breastfeeding than other women.

Since women who choose LAM or BFFP are better breastfeeders than other postpartum women, this probably influences their decision to use LAM or BFFP. Better breastfeeders (with their longer durations of amenorrhea) are more likely to trust breastfeeding to protect them from pregnancy than women who breastfeed less frequently and intensively. Since only 13% of LAM users and 17% of BFFP users had only one living child, most had previously breastfed and may have correlated their previous durations of amenorrhea with their breastfeeding patterns. Since the proportion of LAM and BFFP users with durations of amenorrhea less than six months (15.3% and 19.2%) was lower than the 39.1% normally seen in Jordan (Department of Statistics and

Macro, 2002), it is likely that women who have longer amenorrhea associated with better breastfeeding practices are more likely to choose to use LAM or BFFP.

Why are some women better breastfeeders? This study suggests it is not due to socio-economic differences. Breastfeeding promotion activities have been on-going in Jordan for nearly a decade. More LAM and BFFP users had been counseled about breastfeeding and LAM than women who did not use LAM or BFFP. Continued counseling on breastfeeding practices appears to give more women success in breastfeeding and reduce the proportion that stop early or give other liquids, hastening the return of menses. For such women, even if they choose not to consciously use LAM, they would be at a lower risk of pregnancy.

While nearly all women breastfed, a much higher proportion of non-family planning users (24.4%) and periodic abstinence users (28.7%) stopped breastfeeding during the first six months compared to LAM and BFFP users. The proportion of non-family planning users who became pregnant by 12 months was higher (33.8%) compared to 16.2% for LAM users ($p < .001$). While women using modern methods were protected from pregnancy when they stopped breastfeeding, non-family planning users were no longer protected by breastfeeding and had no replacement protection when they stopped. Since LAM users and BFFP users were not likely to stop breastfeeding in the first six months, they had more protection against pregnancy. Promoting improved breastfeeding practices thus can be a means of passively increasing spacing between births since continued breastfeeding and associated increased durations of amenorrhea will increase birth intervals.

VII. Conclusion

The suggestion that LAM can help increase overall rates of modern method contraceptive use appears to be validated by this study. In addition, promotion of LAM appears to bring about the added benefit of improved breastfeeding practices. Family planning programs can improve child health by promoting LAM and thus get double benefits from their efforts (increased modern method use and improved breastfeeding practices). Family planning programs including LAM among the method mix offered to women need to focus attention on the six month criterion and emphasize the importance of transitioning to another modern method at the appropriate time when LAM criteria are no longer met.

The data show that LAM users are similar to BFFP users with regard to previous use of modern methods and have lower previous modern method use rates than pill, condom, or IUD users. Given that 1) LAM appears to be attractive to women who are less likely to have used modern methods previously, and 2) LAM users are transitioning to other modern methods at higher rates than non-modern method users, promotion of LAM seems to be an effective approach to improving breastfeeding practices and increasing modern method use at 12 months postpartum.

However, given that such a small proportion of women (7%) used LAM, how practical is it to promote a short term method that few women use? A third of all postpartum women used breastfeeding to protect themselves from pregnancy in this study, and LAM use represented 20% of all such women. Since BFFP users were more similar to LAM users

in their subsequent use of family planning than they were to other non-modern method users, it is likely the LAM promotion led to improvements in modern method use among BFFP users, although not as much as was seen among LAM users. Thus the impact on overall rates of modern method use may be greater than rates of LAM use may initially indicate. Additionally it may have also helped improve breastfeeding practices among these women.

Eventually the promotion of LAM is likely to affect breastfeeding practices among other groups as well. Continued messages to encourage breastfeeding will have benefits for child health and thus have a double advantage by affecting both reproductive health and child health programs.

The Jordanian MOH's promotion of LAM led to appropriate and effective use of the method while improving breastfeeding practices. Close to half of all women who used LAM transitioned to another modern method. Moreover, there is evidence suggesting that LAM can introduce previous non-users to modern contraceptives. Given this backdrop, modest interventions implemented by augmenting existing prenatal and postpartum messages can reduce unmet need for contraception and the rate of unintended pregnancies and increase birth intervals.

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Appendices

Table A-1. Respondents' age by use of family planning in the first six months postpartum						
	16-19	20-24	25-29	30-34	35-49	Total
	%	%	%	%	%	N
LAM	2.3	23.0	33.3	26.6	14.9	222
BFFP	2.2	21.5	29.2	28.7	18.5	829
No use	4.1	27.7	28.3	22.1	17.8	488
Periodic Abstinence	2.0	21.0	30.0	22.0	25.0	100
Withdrawal	3.2	21.2	32.3	25.6	17.7	434
Condoms	2.0	23.6	35.2	26.6	12.6	199
Pills	2.9	25.1	37.7	20.9	13.4	350
IUD	1.2	20.0	32.7	27.0	19.2	511
Total	2.5	22.8	31.7	25.6	17.4	3133

Table A-2. Number of living children by type of family planning in the first six months postpartum					
	Number of living children				
	1	2	3	4+	Total
	%	%	%	%	N
LAM	12.6	26.1	19.8	41.4	222
BFFP	16.9	24.8	20.4	37.9	829
No use	23.6	35.5	15.8	25.2	488
Periodic Abstinence	25.0	28.0	17.0	30.0	100
Withdrawal	20.3	30.0	20.0	29.7	434
Condoms	22.1	32.2	15.1	30.7	199
Pills	20.6	32.9	21.1	25.4	350
IUD	5.3	26.0	24.1	44.6	511
Total	17.2	28.9	19.8	34.0	3133

Table A-3. Respondents' educational level by type of family planning in the first six months postpartum				
	Educational level of mother			
	Less than secondary	Secondary and above	Total	
	%	%	N	
LAM	21.6	78.4	222	
BFFP	31.4	68.6	829	
No use	44.7	55.3	488	
Periodic Abstinence	22.0	78.0	100	
Withdrawal	27.4	72.6	434	
Condoms	26.1	73.9	199	
Pills	30.9	69.1	350	
IUD	33.9	66.1	511	
Total	31.9	68.1	3133	

Table A-4. Respondents' wealth score by type of family planning in the first six months postpartum				
	Socio-economic status			
	Lowest 1/3	Middle 1/3	Highest 1/3	Total
	%	%	%	N
LAM	30.6	23.0	46.4	222
BFFP	32.7	26.7	40.7	829
No use	41.0	25.6	33.4	488
Periodic Abstinence	21.0	24.0	55.0	100
Withdrawal	30.2	29.7	40.1	434
Condoms	24.1	29.1	46.7	199
Pills	30.9	30.0	39.1	350
IUD	30.3	25.8	43.8	511
Total	32.0	27.0	41.0	3133

Table A-5. Respondents' desire to have more children by type of family planning in the first six months postpartum

	Desire for future children		
	Wants another child	Does not want another child	Total
	%	%	N
LAM	66.8	33.2	220
BFFP	63.2	36.8	817
No use	69.8	30.2	483
Periodic Abstinence	67.7	32.3	99
Withdrawal	63.8	36.2	431
Condoms	64.5	35.5	197
Pills	64.8	35.2	344
IUD	53.4	46.6	506
Total	63.4	36.6	3097

Table A-6. Percent of Respondents who used a modern method at 12 months postpartum by previous use of modern methods and type of family planning in the first six months postpartum

	Previously used modern method	No modern method used previously	Total
	%	%	N
LAM	38.7	61.3	222
BFFP	31.1	68.9	829
No use	17.6	82.4	488
Periodic Abstinence	17.0	83.0	100
Withdrawal	25.1	74.9	434
Condoms	48.7	51.3	199
Pills	54.0	46.0	350
IUD	63.0	37.0	511
Total	37.2	62.8	3133

Table A-7. Percent of women who knew the six month criterion by whether or not they had been counseled on LAM and by family planning use in first six months postpartum

	Counseled		Not Counseled		Total
	% who knew six month criterion	N	% who knew six month criterion	N	N
LAM	100	141	100	81	222
BFFP	7.1	197	2.1	632	829
No use	31.7	41	3.1	447	488
Periodic Abstinence	25.0	12	8.0	88	100
Withdrawal	10.6	47	5.4	387	434
Condoms	31.4	35	7.3	164	199
Pills	38.2	55	8.5	295	350
IUD	34.8	69	5.4	442	511
Total	38.9	597	7.8	2536	3133

Table A-8. Percent of respondents (among those counseled on breastfeeding) counseled to exclusively breastfeed and delay introduction of complementary foods until six months by use of family planning in the first six months postpartum

	Counseled to exclusively breastfeed	Counseled to introduce complementary foods at six months	
	%	%	Total N
LAM	40.0	26.1	115
BFFP	14.2	7.3	260
No use	15.1	2.1	146
Periodic Abstinence	6.9	3.4	29
Withdrawal	10.3	3.4	56
Condoms	17.9	5.4	56
Pills	11.4	7.0	161
IUD	12.4	6.8	161
Total	16.2	7.9	997

Table A-9. Percent of women who reported knowing about the need to transition by type of family planning use in the first six months postpartum

	% Reporting Transition	Total N
LAM	80.2	222
BFFP	48.0	829
No use	28.5	488
Periodic Abstinence	35.0	100
Withdrawal	36.4	434
Condoms	36.2	199
Pills	44.3	350
IUD	36.2	511
Total	42.1	3133

Table A-10. Percent of women (who reported at least one LAM criteria) by number of sources and whether they had been counseled on LAM by family planning use in the first six months postpartum

	Counseled on LAM						Not counseled on LAM						Total					
	Number of sources a woman learned about LAM from:						Number of sources a woman learned about LAM from:						Number of sources a woman learned about LAM from:					
						Total						Total						Total
	0	1	2	3			0	1	2	3			0	1	2	3		
	%	%	%	%	%	N	%	%	%	%	%	N	%	%	%	%	%	N
LAM	1.4	46.1	41.1	11.3	100	141	11.1	72.8	14.8	1.2	100	81	5.0	55.9	31.5	7.7	100	222
BFFP	2.5	65.5	25.4	6.6	100	197	53.3	37.8	7.9	.9	100	632	41.3	44.4	12.1	2.3	100	829
No use	14.6	56.1	22.0	7.3	100	41	71.8	24.8	2.5	.9	100	447	67.0	27.5	4.1	1.4	100	488
Periodic Abstinence	8.3	66.7	8.3	16.7	100	12	63.6	31.8	2.3	2.3	100	88	57.0	36.0	3.0	4.0	100	100
Withdrawal	14.9	61.7	17.0	6.4	100	47	71.6	25.6	2.8		100	387	65.4	29.5	4.4	.7	100	434
Condoms	5.7	57.1	31.4	5.7	100	35	66.5	27.4	5.5	.6	100	164	55.8	32.7	10.1	1.5	100	199
Pills	12.7	50.9	25.5	10.9	100	55	67.1	28.1	4.7		100	295	58.6	31.7	8.0	1.7	100	350
IUD	10.1	56.5	29.0	4.3	100	69	64.7	29.6	4.8	.9	100	442	57.3	33.3	8.0	1.4	100	511
Total	6.2	57.1	28.6	8.0	100	597	62.8	31.3	5.1	.7	100	2536	52.0	36.3	9.6	2.1	100	3133

Table A-11. Percent of women who learned LAM's criterion from print materials by whether or not they had been counseled on LAM by family planning use in the first six months postpartum

	Counseled on LAM		Not counseled on LAM			Total		
	% who learned about LAM through print materials		% who learned about LAM through print materials			% who learned LAM through print materials		
	% Yes	N	% Yes	N	N Total	% Yes	% Total	N Total
LAM	46.1	141	71.6	58	81	55.4	100	222
BFFP	29.4	197	37.3	231	619	35.4	100	816
No use	24.4	41	20.6	80	388	21.0	100	429
Periodic Abstinence	41.7	12	32.9	27	82	34.0	100	94
Withdrawal	21.3	47	24.5	86	351	24.1	100	398
Condoms	34.3	35	27.5	39	142	28.8	100	177
Pills	33.3	54	29.0	75	259	29.7	100	313
IUD	40.6	69	27.3	110	403	29.2	100	472
Total	34.6	596	30.4	706	2325	31.2	100	2921

Table A-12. Percent of respondents (who could mention at least one LAM criteria) who learned about criterion during pregnancy with index child or before the index child was six months of age by type of family planning use in the first six months postpartum

	Timing of learning LAM criterion		
	% who learned during pregnancy with index child	% who learned before index child was 6 mo.	Total N
LAM	20.7	41.0	222
BFFP	13.0	17.9	816
No use	14.7	18.9	429
Periodic Abstinence	12.8	18.1	94
Withdrawal	11.3	15.6	398
Condoms	11.3	16.9	177
Pills	11.8	19.2	313
IUD	9.7	15.0	472
Total	12.8	19.1	2921

Table A-13. Percent of women who learned LAM's criterion by score based on when they heard and whether or not they had been counseled on LAM by family planning use in the first six months postpartum



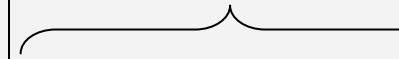
	Counseled on LAM								Not counseled on LAM								Total							
	Score of when heard LAM criteria:								Score of when heard LAM criteria:								Score of when heard LAM criteria:							
																								
	0		1		2		Total		0		1		2		Total		0		1		2		Total	
%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	
LAM	31.9	45	54.6	77	13.5	19	100	141	74.1	60	24.7	20	1.2	1	100	81	47.3	105	43.7	97	9.0	20	100	222
BFFP	43.7	86	40.6	80	15.7	31	100	197	84.0	531	14.6	92	1.4	9	100	632	74.4	617	20.7	172	4.8	40	100	829
No use	46.3	19	39.0	16	14.6	6	100	41	75.4	337	23.3	104	1.3	6	100	447	73.0	356	24.6	120	2.5	12	100	488
Periodic Abstinence	41.7	5	50.0	6	8.3	1	100	12	77.3	68	21.6	19	1.1	1	100	88	73.0	73	25.0	25	2.0	2	100	100
Withdrawal	38.3	18	57.4	27	4.3	2	100	47	81.7	316	17.1	66	1.3	5	100	387	77.0	334	21.4	93	1.6	7	100	434
Condoms	48.6	17	45.7	16	5.7	2	100	35	81.7	134	18.3	30	.0	0	100	164	75.9	151	23.1	46	1.0	2	100	199
Pills	45.5	25	43.6	24	10.9	6	100	55	80.3	237	18.6	55	1.0	3	100	295	74.9	262	22.6	79	2.6	9	100	350
IUD	39.1	27	53.6	37	7.2	5	100	69	85.5	378	13.1	58	1.4	6	100	442	79.3	405	18.6	95	2.2	11	100	511
Total	40.5	242	47.4	283	12.1	72	100	597	81.3	2061	17.5	444	1.2	31	100	2536	73.5	2303	23.2	727	3.3	103	100	3133

Table A-14. Percent of women introducing milks other than breastmilk by age when introduced other milks and type of family planning use in the first six months

	Age when fed other milks to index child				
	<six months	6-11 months	12-24 months or not yet given	Total	
	%	%	%	%	N
LAM	8.6	23.4	68.0	100	222
BFFP	15.7	18.8	65.5	100	829
No use	35.3	23.7	41.1	100	465
Periodic Abstinence	45.3	14.7	40.0	100	95
Withdrawal	33.4	17.9	48.6	100	407
Condoms	31.0	19.3	49.7	100	187
Pills	35.3	18.5	46.2	100	329
IUD	30.5	17.7	51.7	100	491
Total	27.0	19.5	53.6	100	3025

Table A-15. Timing of introduction of semi-solids/solids (not-grouped < 6 mo) by type of family planning use in the first six months

	solids Age when fed solids to index child.															
	1 mo		2 mo		3 mo		4 mo		5 mo		6-11 mo		12-24 mo or not yet given		Total	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
LAM			1.4%	3	3.2%	7	34.2%	76	7.2%	16	50.9%	113	3.2%	7	100%	222
Breastfeeding	.1%	1	1.7%	14	6.6%	55	38.2%	317	11.7%	97	37.9%	314	3.7%	31	100%	829
No use	.6%	3	3.7%	17	10.1%	47	35.8%	166	13.6%	63	32.3%	150	3.9%	18	100%	464
Abstinence					4.2%	4	53.7%	51	14.7%	14	26.3%	25	1.1%	1	100%	95
Withdrawal	1.0%	4	3.4%	14	11.1%	45	37.6%	153	14.3%	58	29.0%	118	3.7%	15	100%	407
Condoms	1.6%	3	4.8%	9	8.6%	16	32.6%	61	10.7%	20	39.6%	74	2.1%	4	100%	187
Pill	.9%	3	1.2%	4	10.9%	36	43.2%	142	12.2%	40	29.2%	96	2.4%	8	100%	329
IUD	.4%	2	3.9%	19	9.6%	47	39.6%	194	12.2%	60	30.8%	151	3.5%	17	100%	490
Total	.5%	16	2.6%	80	8.5%	257	38.4%	1160	12.2%	368	34.4%	1041	3.3%	101	100%	3023

Table A-16. Timing of introduction of other milks by mother's educational level and type of family planning use in the first six months

	Percent of women Introducing other milks <six months					
	Primary/Secondary Education		Higher Education		Total	
	%	N	%	N	%	N
LAM	8.1	148	9.5	74	8.6	222
BFFP	14.7	620	18.7	209	15.7	829
No use	34.1	387	41.0	78	35.3	465
Periodic Abstinence	35.1	57	60.5	38	45.3	95
Withdrawal	32.3	279	35.9	128	33.4	407
Condoms	24.0	125	45.2	62	31.0	187
Pills	30.9	233	45.8	96	35.3	329
IUD	29.4	388	35.0	103	30.5	491
Total	25.1	2237	32.4	788	27.0	3025

Table A-17. Timing of introduction of other milks by mother's socio-economic score and type of family planning use in the first six months

	Percent of women introducing milks before six months postpartum by socio-economic score							
	Lowest 1/3 score		Middle 1/3 score		Highest 1/3 score		Total	
	%	N	%	N	%	N	%	N
LAM	10.3	68	11.8	51	5.8	103	8.6	222
BFFP	15.9	271	12.7	221	17.5	337	15.7	829
No use	30.6	193	36.1	119	40.5	153	35.3	465
Periodic Abstinence	31.6	19	37.5	24	53.8	52	45.3	95
Withdrawal	37.1	124	35.6	118	29.1	165	33.4	407
Condoms	24.4	45	26.8	56	37.2	86	31.0	187
Pills	26.5	102	33.7	98	43.4	129	35.3	329
IUD	25.5	145	27.8	126	35.5	220	30.5	491
Total	24.4	967	26.0	813	29.6	1245	27.0	3025

Table A-18. Wantedness of pregnancies occurring by 12 months postpartum by type of method used in the first six months

FP use in first 6 mo.	Wanted12 Wanted to be preg at 12 months							
	Wanted then		Wanted Later		Not wanted		Total	
	%	N	%	N	%	N	%	N
LAM	20.6%	7	79.4%	27	.0%	0	100.0%	34
Breastfeeding	24.8%	27	65.1%	71	10.1%	11	100.0%	109
No use	46.4%	71	45.1%	69	8.5%	13	100.0%	153
Abstinence	20.0%	4	65.0%	13	15.0%	3	100.0%	20
Withdrawal	31.5%	17	57.4%	31	11.1%	6	100.0%	54
Condoms	30.6%	11	55.6%	20	13.9%	5	100.0%	36
Pill	37.8%	14	54.1%	20	8.1%	3	100.0%	37
IUD	21.4%	3	50.0%	7	28.6%	4	100.0%	14
Total	33.7%	154	56.5%	258	9.8%	45	100.0%	457

Survey Questionnaire



Academy for Educational Development



Postpartum Health Survey 2004

Index No.

Information is confidential by virtue of the statistical law

(Interviewer) Hello My name is: "The Ministry of Health is conducting a survey about the health of women and children. We would very much appreciate it if you could answer a few questions. This will take a few minutes. Participation is voluntary and you can choose not to answer any individual questions or all of the questions. However, we hope that you will participate. May I ask you a few questions now?"

Yes.....1→ continue

No.....2→ end interview

ID information

Q.N.	Questions	
1.	Has the woman been interviewed about her child for about 45 minutes since January 2004? <input type="text"/> Yes.....1→ end interview No.....2 continue----->	2.Clinic Name <input type="text"/>
3.	Date : ____ / ____ / 2004	4. Woman's Serial # <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
5.	Woman's Name:	6. Telephone No. (If available)
7.	Result of Interview:	Completed.....1 Partially Completed.....2 Refused.....3 <input type="text"/> Not complete because child is sick.....4 Refused because already screened before...5 Other (Specify).....6

Stages of Work

Name	No.	xx	Date
Interviewer:			/ / 2004
Supervisor:			/ / 2004
Field Editor:			/ / 2004
Keyer:			/ / 2004

☐ Interviewer: Check this box, if you use another questionnaire for this respondent

8. Date of Birth: Day/Month/Year <u> </u> / <u> </u> / <u> </u>								
9	How old were you at your last birthday? Age in completed years..... <u> </u> <u> </u> <u> </u>			Note for interviewer: If age 15-49 → continue If age 50+ → end interview				
10.	What is your marital status now?			Married.....1 Single, divorced, widowed, separated.....2			→ continue → end interview	
10a.	Are you seeking care today for:			Yourself.....1→end interview Any child under five years.....2→ continue Both (1 and 2).....3→ continue Neither (specify).....4→end interview				
11	Interviewer : Now I would like to record the names of all your live births(boys and girls) from all your marriages since January 1999, whether still alive or not, starting with the youngest one you had. How many such births do you have? No. of births <u> </u> → continue <div style="text-align: right;">No. of births 0 → end interview</div>							
12	13	14	15	16	17	18	19	20
Serial No.	What name was given to your (youngest/next) baby? NAME	What is his/her sex?	Is child (NAME) a single or twin ? Record twins on separate line	In what month and year was (NAME) born? PROBE: What is his/her birthday?	Is (NAME) still alive?	If live How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED MONTHS	Did you bring this child with you to the clinic for curative care or preventive care or you did not bring him?	Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME)?
1		BOY.....1 GIRL.....2	single.. 1 twin.....2	MONTH... <u> </u> <u> </u> YEAR <u> </u> <u> </u> <u> </u> <u> </u>	YES 1 NO 2 ↓ Skip to Qn.20	AGE IN MONTHS <u> </u> <u> </u>	Curative..... 1 Preventative... 2 Did not bring for care..... .3	
2		BOY.....1 GIRL.....2	single.. 1 twin.....2	MONTH... <u> </u> <u> </u> YEAR <u> </u> <u> </u> <u> </u> <u> </u>	YES 1 NO 2 ↓ Skip to Qn.20	AGE IN MONTHS <u> </u> <u> </u>	Curative..... 1 Preventative..... 2 Did not bring for care..... .3	YES1 NO2
3		BOY.....1 GIRL.....2	single.. 1 twin.....2	MONTH... <u> </u> <u> </u> YEAR <u> </u> <u> </u> <u> </u> <u> </u>	YES 1 NO 2 ↓ Skip to Qn.20	AGE IN MONTHS <u> </u> <u> </u>	Curative..... 1 Preventative..... 2 Did not bring for care..... .3	YES1 NO2
4		BOY.....1 GIRL.....2	single.. 1 twin.....2	MONTH... <u> </u> <u> </u> YEAR <u> </u> <u> </u> <u> </u> <u> </u>	YES 1 NO 2 ↓ Skip to Qn.20	AGE IN MONTHS <u> </u> <u> </u>	Curative..... 1 Preventative..... 2 Did not bring for care..... .3	YES1 NO2
5		BOY.....1 GIRL.....2	single.. 1 twin.....2	MONTH... <u> </u> <u> </u> YEAR <u> </u> <u> </u> <u> </u> <u> </u>	YES 1 NO 2 ↓ Skip to Qn.20	AGE IN MONTHS <u> </u> <u> </u>	Curative..... 1 Preventative..... 2 Did not bring for care..... .3	YES1 NO2

21	Note for interviewer: check Q18, is any living child between 13-24 months of age? (If there is more than one child in this age range, select the youngest.)	Yes..... 1 No..... 2	→ continue → end interview
22	Note for interviewer: Check Q15: is this child single or a twin? If there are more than two eligible children and the youngest is a twin, select the eldest child who is a singleton.	Single..... 1 Twin..... 2	→ continue → end interview
22a	Was this child brought for preventive or curative care?	Yes..... 1 No..... 2	→ Continue → end interview
23.	Note for interviewer: See Qn. 12 and circle the serial # of the index child selected above. Write the serial number in the box.		<input type="text"/>
24.	Did you bring any other child less than 5 years of age for curative care today?	Yes..... 1 No..... 2	
25.	Note to interviewer: If woman has a sick child, give her a continuation of interview card and ask her to have the service provider give approval to continue. Service provider approved	Yes..... 1 No..... 2	→continue →end interview
26	Note for interviewer: Send this woman to be interviewed.	Yes, sent..... 1 Not sent..... 2	→continue →end interview

Hello. My name is _____ and I am working with MOH/LINKAGES. We are conducting a survey about the health of mothers and children. We would very much appreciate your participation in this survey. You are being chosen to take part in this survey because you have a child between the age of 13 and 24 months. I would like to ask you about your health and the health of your children. This information will help us plan health services. The survey usually takes between 45 -60 minutes to complete. We will try not to disturb your care. Every effort will be made to keep whatever information you provide strictly confidential. It will not be shown to anyone other than those on the research team.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

For questions about the survey you may contact xxx at xxx. For questions about your rights as a participant you may contact ... at

At this time, do you want to ask me anything about the survey? May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED 1 → CONTINUE

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END INTERVIEW

SECTION 1: RESPONDENT'S BACKGROUND INFORMATION

FOR EACH QUESTION BELOW, CIRCLE THE RESPONSE GIVEN OR WRITE THE RESPONSE IN THE SPACE PROVIDED.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	Record the time of interview.	MINUTES _ _ HOUR _ _	
	Interviewer: Now I would like to ask a few questions about you and your family		
102	Have you been married once or more than once since Jan. 1999?	Once 1 More than once 2	continue →end interview
103	In what year and month did you start living with your current husband? Interviewer : If the year was 2002 or 2003 end the interview..	MONTH _ _ DON'T KNOW MONTH..... 98 YEAR _ _ _ _ DON'T KNOW 9998	
104	Does your husband have another wife (other wives) besides you?	Yes 1 No 2 Don't know 8	→106 →106
105	How many wives does he have, in total, including you?	Number _ _ Don't know 8	
106	Have you ever attended school?	Yes 1 No 2	→109
107	What is the highest level of school you attended? Old elementary, old preparatory, old secondary, new basic, new secondary, intermediate diploma, graduate, or higher?	OLD SYSTEM Elementary 1 Preparatory 2 Secondary 3 NEW SYSTEM Basic 4 Secondary 5 INTERMEDIATE 6 DIPLOMA GRADUATE 7	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP		
		HIGHER 8 Unknown 9			
108	What is the highest grade you completed successfully at that level?	GRADE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>			
109	Have you done any work in the last seven days, even for an hour? By "work", I mean any paid work, any work in a business completely or partially owned by yourself, any work in a business owned by the household without payment (for example: work in farm or shop), or work in other business?	Yes 1 No 2	→111		
110	Do you have any job, but you did not practice it during the last seven days for a reason such as vacation, travel, or illness?	Yes 1 No 2	→113		
111	What is your current occupation, that is, what kind of work do you mainly do? _____ _____	Upper management/legislatures 1 Professionals(Drs.,Engineers) 2 Technicians 3 Clerks 4 Service sector workers 5 Agriculture sector 6 Craftsmen 7 Machine operators 8 Unskilled workers 9 Military forces 10			
112	What is your employment status: are you a paid employee, an employer, are you self-employed (without employees), are you working for your family without payment, or are you working for someone else without payment?	Employee 1 Employer 2 Self-employed 3 Unpaid family worker 4 Unpaid worker 5			
113	Did your husband ever attend school?	Yes 1 No 2	→116		
114	What is the highest level of school he attended? Old elementary, old preparatory, old secondary, new basic, new secondary, intermediate diploma, graduate, or higher?	OLD SYSTEM Elementary 1 Preparatory 2 Secondary 3 NEW SYSTEM Basic 4 Secondary 5 INTERMEDIATE 6 DIPLOMA GRADUATE 7 HIGHER 8 DON'T KNOW 9	→116		
115	What is the highest grade he completed successfully at that level?	GRADE <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> DON'T KNOW 98			
116	Has your husband done any work in the last seven days, even for an hour? By "work", I mean any paid work, any work in a business completely or partially owned by himself, any work in a business owned by the household without payment (eg. farm, grocery), or work in other business?	Yes 1 No 2	→118		
117	Does your husband have any job, but he did not practice it during the last seven days for a reason such as vacation, travel, illness, or other?	Yes 1 No 2	→120		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
118	What is your husband's current occupation, that is, what kind of work does he mainly do? (Write down his occupation in detail): _____	Upper management/legislatures 1 Professionals (Dr., Engineer) 2 Technicians 3 Clerks 4 Service sector workers 5 Agriculture sector 6 Craftsmen 7 Machine operators 8 Unskilled workers 9 Military forces 10	
119	What is your husband's employment status: is he an employee, an employer, is he self-employed, is he working for his family without payment, or is he working for someone else without payment?	Employee 1 Employer 2 Self-employed 3 Unpaid family worker 4 Unpaid worker 5	
120	What is your religion?	Islam 1 Christian 2 Other(specify)_____ 6	
121	Who in your family usually has the final say on the following issues?	Respondent Husband Respondent & Jointly with Husband Other Respondent & Other jointly	
.1	Your own health?	1 2 3 4 5	
.2	Your children's health?	1 2 3 4 5	
.3	Making household purchases for daily needs?	1 2 3 4 5	
122	What type of housing unit do you live in?	Apartment 1 Dar 2 Villa 3 Barracks/ camp 4 Other (specify)_____ 6	
123	Does your household have any of the following? 1. Radio or tape recorder 2. Television 3. Satellite 4. Telephone/cellular 5. Refrigerator 6. Washing machine 7. Solar water heater 8. Computer 9. Internet access 10. Central heating	YES NO 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	
124	Does your household have a private car or pick-up? IF Yes: How many and enter in box. IF 7 MORE , RECORD 7 IF NONE, RECORD '0'.	NUMBER OF CARS <input type="text"/>	

SECTION 2: REPRODUCTION

INTERVIEWER: Now I would like to ask about the births you have had during your life whether still living or not. I have a calendar here in which I will be recording information. During the course of our interview, I will be adding more information to the calendar.

No.	Questions and Filters	Coding Categories	Skip
201	How many children have you given birth to alive (male and female), and are still living?	TOTAL	
202	How many boys and girls have you ever given birth to who were born alive but later died? If none record '00'	TOTAL	

203	INTERVIEWER: Refer to Qn.13 and record the names of all live births (male and female) the woman had since January 1999 whether still living or not, starting with the latest birth. Enter names in Qn. 205. Record twins on separate lines.		
204	205	206	207
Serial No.	NAME of last child, next to last / etc	At the time you became pregnant with (Name) did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any more children at all?	How many months after (NAME) was born did your period not return?
1		Then.....1 Later.....2 Not at all.....3	MONTHS Didn't return 97 Don't know 98
2		Then.....1 Later.....2 Not at all.....3	MONTHS Didn't return 97 Don't know 98
3		Then.....1 Later.....2 Not at all.....3	MONTHS Didn't return 97 Don't know 98
4		Then.....1 Later.....2 Not at all.....3	MONTHS Didn't return 97 Don't know 98
5		Then.....1 Later.....2 Not at all.....3	MONTHS Didn't return 97 Don't know 98

208	INTERVIEWER: FOR EACH BIRTH SINCE JAN. 1999, ¹ ENTER 'B' IN THE MONTH OF BIRTH IN COLUMN 1 OF THE CALENDAR. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.) WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE.		
209	Since Jan. 1999, have you had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES 1 NO 2	→214
210	When did the last such pregnancy end?	MONTH YEAR.....	
211	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'T' IN COLUMN 1 OF CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS..... Don't know / remember 98	
212	Have you ever had any other pregnancies since January 1999 that did not result in a live birth?	YES 1 NO 2	→214

SECTION 3: PREGNANCY AND BIRTH OF INDEX CHILD

Now, I would like to ask you a few questions specifically about the pregnancy and birth of (NAME OF INDEX CHILD).
Interviewer: check Qns. 12 and 13. Record serial number and name of index child in Qn. 301.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	Serial number (From Qn. 12) Name (From Qn. 13)	<div style="text-align: center;"> _ </div> Name : _____	
302	When you were pregnant with (NAME OF INDEX CHILD), did you receive antenatal care?	Yes 1 No 2	→306
303	Where did you receive the majority of antenatal care? (NAME OF PLACE) _____ PROBE TO IDENTIFY THE NAME OF PLACE	PUBLIC SECTOR 1 PRIVATE SECTOR 2 OTHER (SPECIFY) 3	
304	How many months pregnant were you when you first received antenatal care for (index child's) pregnancy?	Number of months..... _ _ Don't know 98	
305	How many times did you receive antenatal care during (index child's) pregnancy?	Number of months..... _ _ Don't know 98	
306	Where did you give birth to (NAME OF INDEX CHILD)? IF PLACE IS HOSPITAL, HEALTH CENTER OR CLINIC, WRITE THE NAME OF THE PLACE, PROBE TO IDENTIFY THE NAME OF PLACE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	HOME Your Home 1 Other Home 2 PUBLIC SECTOR Government Hospital 3 Government Health Center 4 Other Public _____ 5 (Specify) PRIVATE SECTOR Private Hospital/Clinic 6 Other Private _____ 7 (Specify) 8 OTHER _____ (Specify)	
307	Who assisted with the delivery of (NAME OF INDEX CHILD)? ² Anyone else? PROBE FOR THE TYPE OF PERSON AND CIRCLE 1 FOR ALL PERSONS ASSISTING AND CIRCLE 2 FOR THOSE NOT ASSISTING. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PROFESSIONAL Yes No 1. Doctor 1 2 2. Nurse/Midwife 1 2 OTHER PERSON 3. Traditional Birth Attendant 1 2 4. Relative/Friend 1 2 5. OTHER _____ 1 2 (Specify)	

SECTION 4: BREASTFEEDING AND INTRODUCTION OF COMPLEMENTARY FOODS

I would like to ask some questions about how you fed your children since 1999. I will ask about each one separately.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			SKIP
401	ENTER IN THE TABLE THE SERIAL NUMBER AND NAME OF THE YOUNGEST 3 BIRTHS IN 1999 OR LATER. ASK THE FOLLOWING QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THE INDEX CHILD DOES NOT APPEAR, ELIMINATE THE YOUNGEST CHILD, AND IF THIS CHILD IS A TWIN, ELIMINATE THE TWIN				
	Child's Ranking	Youngest Child	Second Youngest Child	Third Youngest Child	
402	Child's line No. (from Qn. 12)	<input type="text"/>	<input type="text"/>	<input type="text"/>	
403	Child's name (from Qn. 13)	Name <input type="text"/>	Name <input type="text"/>	Name <input type="text"/>	
404	Did you ever breastfeed (name)	Yes 1 No 2 → 408	Yes 1 No 2 → 408	Yes 1 No 2 → 408	
405	Note to interviewer: check Qn. 17 if child is still alive.	still alive <input type="text"/> dead <input type="text"/> ↓ 407	still alive <input type="text"/> dead <input type="text"/> ↓ 407	still alive <input type="text"/> dead <input type="text"/> ↓ 407	
406	Are you still breastfeeding (NAME)?	Yes 1 → 410 No 2	Yes 1 → 410 No 2	Yes 1 → 410 No 2	
407	For how many months did you breastfeed (NAME)?	No. of months <input type="text"/> Don't know 98	No. of months <input type="text"/> Don't know 98	No. of months <input type="text"/> Don't know 98	
408	What is the main reason you never breastfed/stopped breastfeeding? Ill/weak mother Ill/weak child Child's death Nipple/breast problem Insufficient milk Working mother Child's refusal Weaning age (time to stop) Pregnancy Use of contraceptive Return of menses To keep figure Other _____ Specify _____	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11 12 13	
409	Check 404.	Breastfed1→ Never breastfed ..2→ cont 413	Breastfed1→ Never breastfed ..2→ cont 413	Breastfed1→ Never breastfed ..2→ cont 413	
410	At what age did you start giving (NAME) milks other than breast milk (like natural milk or formula) regularly?	Age in months <input type="text"/> Child died <input type="text"/> Not yet given ..98	Age in months <input type="text"/> Child died <input type="text"/> Not yet given ..98	Age in months <input type="text"/> Child died <input type="text"/> Not yet given ..98	
411	At what age did you start giving (NAME) semi-solid/solid foods regularly?	Age in months <input type="text"/> Child died <input type="text"/> Not yet given ..98	Age in months <input type="text"/> Child died <input type="text"/> Not yet given ..98	Age in months <input type="text"/> Child died <input type="text"/> Not yet given ..98	
412	For how many months after the birth of (NAME) did you not have sexual relations?	Months <input type="text"/> Not yet.....98 less 1 month00	Months <input type="text"/> Not yet.....98 less 1 month00	Months <input type="text"/> less 1 month ... 00	
413	Interviewer	Go back to Q 404 in next column or to 414 if no births	Go back to Q 404 in next column or to 414 if no births	Go back to Q 404 in next column or to 414 if no births	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
414	Note to interviewer: Check Qns. 12 and 13 and record serial number and name of index child.	Serial number <input type="text"/>				
		Name: <input type="text"/>				
415	Note to interviewer: Check 404. Was index child ever breastfed?	Yes	1			
		No	2			→ 419
416	How long after birth did you first put (NAME OF INDEX CHILD) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	Immediately	0	00		
		Hours	1	<input type="text"/>		
		Days	2	<input type="text"/>		
417	In the first 3 days after delivery was (NAME OF INDEX CHILD) given anything to drink other than breast milk in the first three days after birth before your milk began flowing regularly?	Yes	1			
		No	2			→ 419
418	What was (NAME OF INDEX CHILD) given to drink before your milk began flowing regularly? Anything else? INTERVIEWER : RECORD ALL LIQUIDS MENTIONED (Do not read answers)	1. Milk (Other than breast milk)	Yes 1	No 2		
		2. Plain water	1	2		
		3. Sugar or glucose water	1	2		
		4. Gripe water	1	2		
		5. Salt and sugar solution	1	2		
		6. Fruit juice	1	2		
		7. Infant formula	1	2		
		8. Tea/herbs	1	2		
		9. Honey	1	2		
		10. Other _____ Specify	1	2		
419	Have you ever been counseled by a specialist on breastfeeding your (index) child? Note for interviewer: By counseling I mean "given detailed information on or had detailed discussion on."	Yes	1			
		No	2			→ 501
420	By whom? Any others? INTERVIEWER: RECORD ALL ANSWERS MENTIONED. (Do not read answers)	1. Nurse/Midwife	Yes 1	No 2		
		2. Auxiliary Nurse	1	2		
		3. Doctor	1	2		
		4. Health educator	1	2		
		5. Nutritionist at MCH Centers	1	2		
		6. Worker in Jordan. As. Of FP and Protection (JAFPP)	1	2		
		7. Mother-to-Mother Support Group	1	2		
		8. Other _____ Specify	1	2		
421	When were you counseled by a specialist on breastfeeding, before or after (NAME OF INDEX CHILD) was born or both?	Before index child was born	1			
		After index child was born	2			
		Both before and after index child was born	3			
		Other _____ Specify	4			
422	Can you tell me what you were told about breastfeeding (your index child)? INTERVIEWER : RECORD ALL ANSWERS MENTIONED (do not read answers)	1. Initiate breastfeeding within an hour after birth	Yes 1	No 2		
		2. Exclusively breastfeed for 6 months	1	2		
		3. Introduce complementary foods at 6 months	1	2		
		4. Breastfeed up to the age of 2 years and beyond	1	2		
		5. Breastfeeding has benefits for your health	1	2		
		6. Breastfeeding protects the health of your child	1	2		
		7. Other _____ Specify	1	2		

SECTION 5: LAM BEHAVIORAL DETERMINANTS (BREASTFEEDING)

Interviewer: My next few questions are also about breastfeeding. As you know, some women breastfeed their child exclusively or nearly exclusively during the first six months of the child's life and some don't. By exclusive breastfeeding, I mean that the infant receives only breast milk, and no other liquids or solids, including water during the first six months.

NO.	QUESTIONS AND FILTERS	<u>Coding Categories</u>			SKIP	
501	<p>Interviewer: Check Qns. 12 and 13. Record serial number and name of index child in questions 501.</p> <p>I would like for you to think about the first six months of (NAME OF INDEX CHILD)'s life.</p>	<p>Serial number (from Qn. 12): <input type="text"/></p> <p>Name (from Qn. 13): <input type="text"/></p>				
502	<p>Interviewer: check Qns. 410 and 411. Priority is for the smaller answer in either, and to all questions 502 to 507.</p> <p>2 months or more, has not been given anything yet <input type="text"/></p> <p style="text-align: center;">↓</p> <p>In your opinion, what were the <u>advantages or good things</u> that happened, or the things that made breastfeeding easy, when you breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first six months of his/her life?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>Less than 2 months, did not breastfeed or blank <input type="text"/></p> <p style="text-align: center;">↓</p> <p>In your opinion, what were the <u>advantages or good things</u> that might have happened, or the things that might have made breastfeeding easy, if you had breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first six months of his/her life?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>1. Inexpensive/economical</p> <p>2. Immunity against disease</p> <p>3. Mother- Infant bonding</p> <p>4. Slimmer/keep figure</p> <p>5. Prevents breast cancer</p> <p>6. Temporarily prevents pregnancy</p> <p>7. Ease of feeding</p> <p>8. Other specify <input type="text"/></p> <p>9. Provides balanced nutrition</p>	<p>Yes 1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>No 2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	
503	<p>Interviewer: check Qns. 410 and 411</p> <p>2 months or more, has not been given anything yet <input type="text"/></p> <p style="text-align: center;">↓</p> <p>In your opinion, what were the <u>disadvantages</u> to breastfeeding (NAME OF INDEX CHILD); what was difficult about it? Or did any bad things happen when you breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first 6 months of his/her life?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>Less than 2 months, did not breastfeed or blank <input type="text"/></p> <p style="text-align: center;">↓</p> <p>In your opinion, what would have been the <u>disadvantages</u> to breastfeeding (NAME OF INDEX CHILD); what was difficult about it? Or what bad things might have happened if you had breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first 6 months of his/her life?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>1. Breast pain/ discomfort</p> <p>2. Wrinkles/sagging breasts</p> <p>3. Embarrassment to expose breasts in public</p> <p>4. Tied to your child/night feeding/disrupted sleep</p> <p>5. Need to return to work and can't feed</p> <p>6. Other specify <input type="text"/></p> <p>7. Don't know</p>	<p>Yes 1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>No 2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	

504	<p>Interviewer: check Qns. 410 and 411</p> <p>2 months or more, has not been given anything yet <input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p>Who <u>approved/encouraged</u> that you breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first 6 months of his/her life?</p> <p>Anyone else?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>Less than 2 months, did not breastfeed or blank <input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p>Who <u>would have approved/encouraged</u> that you breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first 6 months of his/her life?</p> <p>Anyone else?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>1. Myself</p> <p>2. Husband</p> <p>3. Mother-in-law</p> <p>4. Mother</p> <p>5. Sister</p> <p>6. Sister-in-law</p> <p>7. Other relatives</p> <p>8. Friend</p> <p>9. Neighbors</p> <p>10. Doctor</p> <p>11. Other health professional</p> <p>12. Other (specify)</p>	<p>Yes</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>No</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	
505	<p>Interviewer: check Qns. 410 and 411</p> <p>2 months or more, has not been given anything yet <input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p>Who <u>disapproved/discouraged</u> that you breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first 6 months of his/her life?</p> <p>Anyone else?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>Less than 2 months, did not breastfeed or blank <input type="checkbox"/></p> <p style="text-align: center;">↓</p> <p>Who <u>could have disapproved/discouraged</u> the idea that you breastfed (NAME OF INDEX CHILD) exclusively or nearly exclusively during the first 6 months of his/her life?</p> <p>Anyone else?</p> <p>RECORD CODE 1 FOR ALL RESPONSES MENTIONED AND 2 FOR THE REST</p> <p>DO NOT READ RESPONSES</p>	<p>1. Myself</p> <p>2. Husband</p> <p>3. Mother-in-law</p> <p>4. Mother</p> <p>5. Sister</p> <p>6. Sister-in-law</p> <p>7. Other relatives</p> <p>8. Friend</p> <p>9. Neighbors</p> <p>10. Doctor</p> <p>11. Other health professional</p> <p>12. Other (specify)</p>	<p>Yes</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>No</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	

SECTION 6: CONTRACEPTION KNOWLEDGE, ATTITUDES AND PRACTICES

Interviewer: Now I would like to talk about family planning methods: I mean the various ways or methods that a couple can use to delay or avoid pregnancy.

Note: Any time LAM is said throughout this section, it is read as "LAM, the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family".

	601 Method	602. Have you ever heard of (METHOD)? PROBED YES NO	603. Have you ever used (METHOD) at any time? YES NO
1	PILL Women can take a pill every day to avoid pregnancy.	1 2	1 2
2	IUD Women can have a loop or coil placed inside them by a doctor or a nurse to avoid pregnancy.	1 2	1 2
3	LAM, the lactational amenorrhea method	1 2	1 2
4	INJECTABLES Women can have an injection by a doctor or nurse that stops them from becoming pregnant for one or more months.	1 2	1 2
5	CONDOM Men can put a rubber sheath on their penis before sexual intercourse	1 2	1 2
6	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	1 2	1 2
7	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse that can prevent pregnancy for several years.	1 2	1 2
8	FOAM OR JELLY Women can place a suppository, jelly, or cream in their vagina before intercourse	1 2	1 2
9	RHYTHM OR PERIODIC ABSTINENCE Every month a woman can avoid having sexual intercourse on the days of the month she is most likely to get pregnant.	1 2	1 2
10	WITHDRAWAL Men can be careful and pull out before climax	1 2	1 2
11	Have you heard of any other ways or methods that women or men can use to delay or avoid pregnancy	Breastfeeding.....1 Other1 Specify _____ 2	1 2 1 2
12.	Have you heard of planning the family using breastfeeding and amenorrhea to delay menstruation	1 2	1 2


604	CHECK 603: NOT A SINGLE "YES" (NEVER USED) <input type="checkbox"/> AT LEAST ONE "YES" (HAS USED) <input type="checkbox"/>		→608
605	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES1 NO2	→607
606	ENTER '0' IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH. _____		609
607	What have you used or done? CORRECT 602, 603 IF WOMAN SAYS BREASTFEEDING, ADD TO 602 #11; IF SAYS ANY OTHER, ADD WHERE APPROPRIATE		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
608	<p>Interviewer: I would like to ask you some questions about the times you or your husband may have used a method to avoid getting pregnant during the last few years.</p> <p>USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 1999 USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS.</p> <p>IN COLUMN 1 OF CALENDAR, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH.</p> <p>ILLUSTRATIVE QUESTIONS: COLUMN 1:</p> <ul style="list-style-type: none"> When was the last time you used a method? Which method was that? When did you start using that method? How long before the birth of (NAME)? How long did you use the method then? <p>IN COLUMN 2 OF CALENDAR, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE. NUMBER OF CODES IN COLUMN 2 MUST BE SAME AS NUMBER OF INTERRUPTIONS OF METHOD USE IN COLUMN 1.</p> <p>ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT.</p> <p>ILLUSTRATIVE QUESTIONS: COLUMN 2:</p> <ul style="list-style-type: none"> Why did you stop using the (METHOD)? Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason? <p>IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK:</p> <ul style="list-style-type: none"> How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER '0' IN EACH SUCH BLANK MONTH IN COLUMN 1. <p>IN COLUMN 3 OF CALENDAR</p> <p>DETERMINE MONTHS MARRIED OR LIVING WITH HUSBAND SINCE JANUARY 1999. ENTER 'M' IN COLUMN 3 OF CALENDAR FOR EACH MONTH MARRIED OR LIVING WITH HUSBAND, AND ENTER 'F' FOR EACH MONTH NOT MARRIED/NOT LIVING WITH HUSBAND, AND ENTER '0' FOR EACH MONTH NOT MARRIED SINCE JANUARY 1999.</p>		
609	Since Jan. 1999, have you ever been refused a family planning method by a health professional or clinic or pharmacy?	Yes No	1 2 —>613
610	Were you refused a method before pregnancy with (index child)?	Yes No	1 2 —>611
610a	Why were you refused a method prior to pregnancy with (index child)?	Menses had not yet returned They believed I could be pregnant I could not pay expenses at the time Other _____ Specify Health concerns I heard rumors (from any source) the method might cause sterility	1 2 3 4 5 6
610b	What is the name of the method you were refused prior to pregnancy with (index child)?	Name of method _ Refer to codes from reproductive calendar	
611	Were you refused the method when (index child) was less than 6 months old?	Yes No	1 2 —>612

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP																																	
611a	Why were you refused the method when (index child) was less than 6 months old?	Menses had not yet returned They believed I could be pregnant I could not pay expenses at the time Other _____ Specify Health concerns I heard rumors (from any source) the method might cause sterility	1 2 3 4 5 6																																		
611b	What is the name of the method you were refused when (index child) was less than 6 months old?	Name of method _ refer to codes in reproductive calendar																																			
612	Were you refused a method when (index child) was 6-12 months?	Yes No	1 2	→613																																	
612a	Why were you refused the method when (index child) was 6-12 months old?	Menses had not yet returned They believed I could be pregnant I could not pay expenses at the time Other _____ Specify Health concerns I heard rumors (from any source) the method might cause sterility	1 2 3 4 5 6																																		
612b	What is the name of the method you were refused when (index child) was 6-12 months old?	Name of method _ refer to codes in reproductive calendar																																			
613	Interviewer: Check method 3 in question 602 You said you (had/had not) heard of a family planning method called LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family). (If the two answers are yes, circle code Yes. If both answers are no, circle code No.)	Yes No	1 2	→625																																	
613a	Have you heard, seen or read about LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family)? from Interviewer: Read each of the following answers	<table border="0"> <tr> <td></td> <td>Yes</td> <td>No</td> </tr> <tr> <td>1. Doctor</td> <td>1</td> <td>2</td> </tr> <tr> <td>2. Nurse</td> <td>1</td> <td>2</td> </tr> <tr> <td>3. Friend/family member</td> <td>1</td> <td>2</td> </tr> <tr> <td>4. Radio</td> <td>1</td> <td>2</td> </tr> <tr> <td>5. Television</td> <td>1</td> <td>2</td> </tr> <tr> <td>6. Newspaper or magazine</td> <td>1</td> <td>2</td> </tr> <tr> <td>7. Posters</td> <td>1</td> <td>2</td> </tr> <tr> <td>8. Bulletin/booklet</td> <td>1</td> <td>2</td> </tr> <tr> <td>9. Lectures</td> <td>1</td> <td>2</td> </tr> <tr> <td>10. Any other (specify) _____</td> <td></td> <td></td> </tr> </table>		Yes	No	1. Doctor	1	2	2. Nurse	1	2	3. Friend/family member	1	2	4. Radio	1	2	5. Television	1	2	6. Newspaper or magazine	1	2	7. Posters	1	2	8. Bulletin/booklet	1	2	9. Lectures	1	2	10. Any other (specify) _____				
	Yes	No																																			
1. Doctor	1	2																																			
2. Nurse	1	2																																			
3. Friend/family member	1	2																																			
4. Radio	1	2																																			
5. Television	1	2																																			
6. Newspaper or magazine	1	2																																			
7. Posters	1	2																																			
8. Bulletin/booklet	1	2																																			
9. Lectures	1	2																																			
10. Any other (specify) _____																																					
613b	Have you ever been advised not to use LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family)?	Yes No	1 2	→614																																	
613c	By whom?	Health professional Other	1 2																																		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES								SKIP
614	Have you ever been counseled by a specialist on LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family) as a method of family planning? By counseling I mean "given detailed information on or had detailed discussion on a method of using breastfeeding to plan the family"	Yes	1						} → 620	
		No	2							
		Don't remember	3							
615	Who told you about LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family)? Anyone else? IF SOURCE IS FROM A GOVERNMENT FACILITY, WRITE THE NAME OF THE FACILITY. _____ NAME OF FACILITY			Yes			No			
		1. Government Health workers	1				2			
		2. Private doctor or nurse	1				2			
		3. JAFPP Staff	1				2			
		4. Mother-to-Mother Support Group	1				2			
		5. Other _____ Specify	1				2			
616	Interviewer: ENTER IN THE TABLE THE SERIAL NUMBER AND NAME OF THE YOUNGEST 3 BIRTHS IN 1999 OR LATER. ASK THE FOLLOWING QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. IF THE INDEX CHILD DOES NOT APPEAR, ELIMINATE THE YOUNGEST CHILD, AND IF THIS CHILD IS A TWIN, ELIMINATE THE TWIN									
617	Serial No. of child (Qn.12)	Youngest child		Second Youngest Child		Third Youngest Child				
	Name of child (Qn.13)	_____		_____		_____				
618	On any of the following occasions did you receive counseling on LAM, (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family)?									
1	During antenatal visit when you were pregnant with (Name of child)	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
2	Immediately after you delivered (Name of child) while you were at health facility?	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
3	Well baby visit (Name of child)	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
4	Immunization appointment of (Name of child)	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
5	Postpartum check up for you after birth (Name of child) (following departure from hospital, up to 42 days)	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
6	Family Planning Clinic Visit after the birth (Name of child)	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
7	Other _____ (Specify)	Yes	1	Yes	1	Yes	1			
		No	2	No	2	No	2			
	Interviewer :	Skip to next column. If no births, skip to Qn. 619		Skip to next column. If no births, skip to Qn. 619		Skip to next column. If no births, skip to Qn. 619				
619	Can you tell me what you have been told about LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family)? <u>ANY OTHER PERSON?</u>	1. Period has not returned (amenorrhea) 2. Breastfeeding (exclusive or nearly full) 3. Baby is less than 6 months 4. Need to transfer to another method if one of these criteria no longer exists				Yes	No			
						1	2			
						1	2			
						1	2			
						1	2			
						1	2	If at least one yes, → 620		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP	
	Interviewer: Do not read responses	5. Other _____ Specify	1 2	<input type="checkbox"/> If at least one yes <input type="checkbox"/> → 619a	
		6. Other _____ Specify	1 2		
Interviewer: If all answers are no, skip to 625. If there is a yes for responses 1-4 AND a yes in responses 5 and/or 6, skip to Q620.					
619a	Where did you obtain this information about LAM? (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family)? Any other person? Interviewer: do not read responses. Interviewer: skip to question 625	1. Radio/TV 2. Printed materials, posters, brochures/lectures. 3. Clinic Health worker 4. Doctor 5. Nurse 6. Family member 7. Friend/neighbor 8. Other _____ Specify	Yes 1 2 1 2 1 2 1 2 1 2 1 2 1 2	No 2 2 2 2 2 2 2	
620	What criteria need to be met for LAM, (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family) to be used as a family planning method? Any other criteria? Interviewer : Do not read responses	1. Period has not returned (amenorrhea) 2. Breastfeeding (exclusive or nearly full) 3. Baby is less than 6 months 4. Transition to another method at 6 months of age 5. Other _____ Specify	Yes 1 2 1 2 1 2 1 2 1 2	No 2 2 2 2 2	
621	Where did you obtain this information about LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family) criteria? Anyone else? Interviewer : Do not read responses	1. Radio/TV 2. Printed materials, posters, brochures/lectures 3. Clinic Health worker 4. Doctor 5. Nurse 6. Family member 7. Friend/Neighbor 8. Other _____ Specify	Yes 1 2 1 2 1 2 1 2 1 2 1 2 1 2	No 2 2 2 2 2 2 2	
622	When did you obtain this information about LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family) criteria? Interviewer: Mention the name of (index child). Read the answers.	1. Before pregnancy with index child 2. During pregnancy with index child 3. Before index was 6 months old 4. After index was 6 months	1 2 1 2 1 2 1 2		
623	Were you told that you need to transfer to another method of family planning when one of the LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family) criterion is no longer met?	Yes No Don't remember	1 2 8	→ 625 → 625	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
623 A	What methods were you told you could transition to? <i>Note to interviewer: Circle all methods mentioned</i> 1. Pill 2. IUD 3. Injectables 4. Condom 5. Female sterilization 6. Implants 7. Diaphragm/foam/jelly 8. Periodic abstinence 9. Withdrawal 10 Breastfeeding	<i>For field editors only</i> Short term Pill and/or injection and/or condom and/or foam Long term IUD and/or Norplant and/or sterilization etc. Traditional Periodic Abstinence, withdrawal, breastfeeding		
624	When were you told that you need to transfer to another method of family planning when one of the LAM (the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family) criterion is no longer met? Interviewer : Mention the name of (index child) and read responses.	1. Before pregnancy with index child 2. During pregnancy with index child 3. Before index was 6 months old 4. After index was 6 months	1 2 1 2 1 2 1 2	
625	Do you think that breastfeeding affects a woman's chance of becoming pregnant?	Yes No Don't know	1 2 8	—>629 —>629
626	Do you think a woman's chance of becoming pregnant is increased, decreased, or stays the same by breastfeeding?	Increased Decreased Stays the same Don't Know	1 2 3 8	—>629 —>cont —>629 —>629
627	For how long? INTERVIEWER : RECORD ALL RESPONSES (DO NOT READ RESPONSES) If the answer is given in months, specify number and enter in boxes.	1. Until period returns 2. Until child is fully or almost fully breastfed 3. Until child is 6 months old 4. Number of months Other (specify) Do not know 5. Until weaning	Yes 1 1 1  96 98 1 No 2 2 2 2	
628	Have you ever relied on breastfeeding as a method of avoiding pregnancy?	Yes No	1 2	—>631
629	Check 214 (Currently Pregnant?)	Pregnant Not Pregnant Unsure	1 2 3	—>631
630	Are you currently relying on breastfeeding to avoid getting pregnant?	Yes No	1 2	

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES				
631	In your opinion, to what extent are the following methods considered completely ineffective, moderately effective or very effective in influencing the ability to become pregnant? Interviewer: When asking about LAM list the 3 criteria	Method	Not effective	Moderately effective	Very effective	Don't know	Doesn't know method
		1. Female sterilization	1	2	3	8	9
		2. Pill	1	2	3	8	9
		3. IUD	1	2	3	8	9
		4. Injectables	1	2	3	8	9
		5. Implants	1	2	3	8	9
		6. Condom	1	2	3	8	9
		7. Foam or jelly	1	2	3	8	9
		8. Rhythm or periodic abstinence	1	2	3	8	9
		9. Withdrawal	1	2	3	8	9
		10. LAM, the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family*	1	2	3	8	9
632	Would you say that you approve of couples using the following methods to avoid getting pregnant?		Approve	Approve with conditions	Disapprove	Doesn't have an opinion	Doesn't know method
		1. Female sterilization	1	2	3	8	9
		2. Pill	1	2	3	8	9
		3. IUD	1	2	3	8	9
		4. Injectables	1	2	3	8	9
		5. Implants	1	2	3	8	9
		6. Condom	1	2	3	8	9
		7. Foam or jelly	1	2	3	8	9
		8. Rhythm or periodic abstinence	1	2	3	8	9
		9. Withdrawal	1	2	3	8	9
		10. LAM, the lactational amenorrhea method which is a method of using breastfeeding to delay menstruation in order to plan the family	1	2	3	8	9

* If you are less than six months postpartum, your period has not returned and you are fully or nearly fully breastfeeding, you are protected from pregnancy.

SECTION 7: FAMILY PLANNING AVAILABILITY AND COUNSELING

Interviewer: I would like to ask a few questions about family planning availability and counseling.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Do you know of a place where you could obtain a method of family planning?	Yes 1 No 2	—>703
702	Where is that? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME(s) OF PLACE) Any other place? RECORD ALL PLACES MENTIONED	PUBLIC SECTOR 1. Govt. Hospital 1 2 2. Govt. Health Center 1 2 3. Govt. MCH 1 2 4. University Hospital/Clinic 1 2 5. Royal Medical Services (Armed Forces) 1 2 6. Other Public 1 2 _____ (Specify) PRIVATE SECTOR 7. Private Hospital/Clinic 1 2 8. Private Doctor 1 2 9. Pharmacy 1 2 10. Jordanian As. Of FP and Protection (JAFPP) 1 2 11. UNRWA Health Centers 1 2 12. Other Non Gov. Organization 1 2 13. Other Private 1 2 _____ Specify OTHER SOURCE 14. Friend/Relative 1 2 1 2 15. OTHER _____ (Specify)	
703	In your opinion, can you always, sometimes, or never obtain family planning methods in the area in which you live?	Always 1 Sometimes 2 Never 3 Don't know 8	
704	Would you say that the cost of using family planning is too expensive to afford, expensive but affordable, inexpensive, or free?	Too expensive 1 Expensive, but affordable 2 Inexpensive 3 Free 4 Don't know 8	
705	Note to interviewer: Check Qns. 12 and 13 and record serial number and name of index child.	Serial number (from Qn 12) : _____ Name: _____	
706	During any of your antenatal visits when you were pregnant with (NAME OF INDEX CHILD), did any staff member at the facility counsel you about methods of family planning you could use to avoid future pregnancies? By "counseling" I mean "given detailed information or had detailed discussion on."	Did not receive antenatal care 0 Yes 1 No 2 Don't remember 3	—>708 —>708 —>708

707	Which methods were you counseled on? RECORD ALL METHODS Any other method?	Yes 1. Pill 1 2. IUD 1 3. Injectables 1 4. Implants 1 5. Foam/Jelly 1 6. Condom 1 7. Female Sterilization 1 8. LAM 1 9. Periodic Abstinence 1 10. Withdrawal 1 11. Other 1	No 2 2 2 2 2 2 2 2 2 2 2		
708	Since the time (NAME of index child) was born until now, have you visited any governmental health facility for any reason either for your health of the health of your child/family?	Yes 1 No 2		—>712	
709	Which government health facility did you visit? Any other? RECORD ALL FACILITIES	Yes 1. Govt Hospital 1 2. Govt Health Center 1 3. Govt. MCH 1 4. University Hospital/Clinic 1 5. Royal Medical Services (Armed Forces) 1 6. Other Public Specify _____	No 2 2 2 2 2 2		
710	Did any staff member at the health facility counsel you about family planning methods during any of your visits? By "counseling" I mean "given detailed information or had detailed discussion on."	Yes 1 No 2 Don't remember 3		—>712 —>712	
711	Which methods were you counseled on? RECORD ALL METHODS Any other method?	1. Pill 1 2. IUD 1 3. Injectables 1 4. Implants 1 5. Foam/Jelly 1 6. Condom 1 7. Female Sterilization 1 8. LAM 1 9. Periodic Abstinence 1 10. Withdrawal 1 11. Other 1 Specify _____	Yes 1 1 1 1 1 1 1 1 1 1 1 1	No 2 2 2 2 2 2 2 2 2 2 2	
712	Since the time (NAME OF INDEX CHILD) was born until now, have you visited any private doctor or clinic for any reason?	Yes 1 No 2		—>715	
713	Did the doctor or any staff person there counsel you about family planning methods during any of your visits? By "counseling" I mean "given detailed information or had detailed discussion on."	Yes 1 No 2		—>715	

714	Which methods were you counseled on?		Yes	No
		1. Pill	1	2
		2. IUD	1	2
		3. Injectables	1	2
		4. Implants	1	2
		5. Foam/Jelly	1	2
		6. Condom	1	2
		7. Female Sterilization	1	2
		8. LAM	1	2
		9. Periodic Abstinence	1	2
		10. Withdrawal	1	2
		11. Other	1	2
		Specify _____		
715	Where do you usually obtain family planning methods?	Public health clinic	1	
		Private clinic or doctor	2	
		Other specify	3	

		Does not use f.p.	8	

SECTION 8: PERSONS INFLUENCING BREASTFEEDING AND FAMILY PLANNING PRACTICES

INTERVIEWER : We've discussed your family planning use in the past few years in great detail. Now I want to ask your ideas about what other people who are important to you think of family planning and breastfeeding.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																
801	<p>Often, people have opinions about how to feed babies, especially in the first 6 months of life.</p> <p>Whose opinions about infant feeding matter the most to you? (Probe once, then ask "anyone else?")</p> <p>RECORD ALL RESPONSES</p>	<table> <tr> <td></td><td>Yes</td><td>No</td></tr> <tr> <td>1. Mother</td><td>1</td><td>2</td></tr> <tr> <td>2. Mother-in-law</td><td>1</td><td>2</td></tr> <tr> <td>3. Husband</td><td>1</td><td>2</td></tr> <tr> <td>4. Sister</td><td>1</td><td>2</td></tr> <tr> <td>5. Sister-in-law</td><td>1</td><td>2</td></tr> <tr> <td>6. Other relative</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> <tr> <td>7. Friend/neighbor</td><td>1</td><td>2</td></tr> <tr> <td>8. Doctor</td><td>1</td><td>2</td></tr> <tr> <td>9. Nurse</td><td>1</td><td>2</td></tr> <tr> <td>10. TBA</td><td>1</td><td>2</td></tr> <tr> <td>11. Other health worker</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> <tr> <td>12. Others</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> </table>		Yes	No	1. Mother	1	2	2. Mother-in-law	1	2	3. Husband	1	2	4. Sister	1	2	5. Sister-in-law	1	2	6. Other relative	1	2	Specify _____			7. Friend/neighbor	1	2	8. Doctor	1	2	9. Nurse	1	2	10. TBA	1	2	11. Other health worker	1	2	Specify _____			12. Others	1	2	Specify _____			
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802	<p>Who, if anyone, did you talk to about feeding (NAME of INDEX CHILD)? (Probe once, then ask "anyone else?")</p> <p>RECORD ALL RESPONSES</p>	<table> <tr> <td></td><td>Yes</td><td>No</td></tr> <tr> <td>1. Mother</td><td>1</td><td>2</td></tr> <tr> <td>2. Mother-in-law</td><td>1</td><td>2</td></tr> <tr> <td>3. Husband</td><td>1</td><td>2</td></tr> <tr> <td>4. Sister</td><td>1</td><td>2</td></tr> <tr> <td>5. Sister-in-law</td><td>1</td><td>2</td></tr> <tr> <td>6. Other relative</td><td>1</td><td>2</td></tr> <tr> <td>7. Friend/neighbor</td><td>1</td><td>2</td></tr> <tr> <td>8. Doctor</td><td>1</td><td>2</td></tr> <tr> <td>9. Nurse</td><td>1</td><td>2</td></tr> <tr> <td>10. TBA</td><td>1</td><td>2</td></tr> <tr> <td>11. Other health worker</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> <tr> <td>12. Other</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> </table>		Yes	No	1. Mother	1	2	2. Mother-in-law	1	2	3. Husband	1	2	4. Sister	1	2	5. Sister-in-law	1	2	6. Other relative	1	2	7. Friend/neighbor	1	2	8. Doctor	1	2	9. Nurse	1	2	10. TBA	1	2	11. Other health worker	1	2	Specify _____			12. Other	1	2	Specify _____						
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803	<p>People around us often have opinions about whether we should use modern family planning or not.</p> <p>Whose opinions about modern family planning matter most to you?</p> <p>RECORD ALL RESPONSES</p>	<table> <tr> <td></td><td>Yes</td><td>No</td></tr> <tr> <td>1. Mother</td><td>1</td><td>2</td></tr> <tr> <td>2. Mother-in-law</td><td>1</td><td>2</td></tr> <tr> <td>3. Husband</td><td>1</td><td>2</td></tr> <tr> <td>4. Sister</td><td>1</td><td>2</td></tr> <tr> <td>5. Sister-in-law</td><td>1</td><td>2</td></tr> <tr> <td>6. Other relative</td><td>1</td><td>2</td></tr> <tr> <td>7. Friend/neighbor</td><td>1</td><td>2</td></tr> <tr> <td>8. Doctor</td><td>1</td><td>2</td></tr> <tr> <td>9. Nurse</td><td>1</td><td>2</td></tr> <tr> <td>10. TBA</td><td>1</td><td>2</td></tr> <tr> <td>11. Other health worker</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> <tr> <td>12. Other</td><td>1</td><td>2</td></tr> <tr> <td>Specify _____</td><td></td><td></td></tr> </table>		Yes	No	1. Mother	1	2	2. Mother-in-law	1	2	3. Husband	1	2	4. Sister	1	2	5. Sister-in-law	1	2	6. Other relative	1	2	7. Friend/neighbor	1	2	8. Doctor	1	2	9. Nurse	1	2	10. TBA	1	2	11. Other health worker	1	2	Specify _____			12. Other	1	2	Specify _____						
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804	<p>Whom, if anyone, did you talk to about using modern family planning after (INDEX CHILD) was born?</p> <p>Probe once, then ask "any one else"?</p> <p>RECORD ALL RESPONSES</p>	<table> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr><td>1. Mother</td><td>1</td><td>2</td></tr> <tr><td>2. Mother-in-law</td><td>1</td><td>2</td></tr> <tr><td>3. Husband</td><td>1</td><td>2</td></tr> <tr><td>4. Sister</td><td>1</td><td>2</td></tr> <tr><td>5. Sister-in-law</td><td>1</td><td>2</td></tr> <tr><td>6. Other relative</td><td>1</td><td>2</td></tr> <tr><td>7. Friend/neighbor</td><td>1</td><td>2</td></tr> <tr><td>8. Doctor</td><td>1</td><td>2</td></tr> <tr><td>9. Nurse</td><td>1</td><td>2</td></tr> <tr><td>10. TBA</td><td>1</td><td>2</td></tr> <tr><td>11. Other health worker</td><td>1</td><td>2</td></tr> <tr><td colspan="3">Specify _____</td></tr> <tr><td>12. Other</td><td>1</td><td>2</td></tr> <tr><td colspan="3">Specify _____</td></tr> </tbody> </table>		Yes	No	1. Mother	1	2	2. Mother-in-law	1	2	3. Husband	1	2	4. Sister	1	2	5. Sister-in-law	1	2	6. Other relative	1	2	7. Friend/neighbor	1	2	8. Doctor	1	2	9. Nurse	1	2	10. TBA	1	2	11. Other health worker	1	2	Specify _____			12. Other	1	2	Specify _____			
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805	<p>Was your decision to use or not to use contraception after (index child) was born mainly your decision, mainly your husband's decision or did you both decide together?</p>	<table> <tbody> <tr><td>Mainly respondent</td><td>1</td></tr> <tr><td>Mainly husband</td><td>2</td></tr> <tr><td>Joint decision</td><td>3</td></tr> <tr><td>Other</td><td>4</td></tr> <tr><td colspan="2">Specify _____</td></tr> </tbody> </table>	Mainly respondent	1	Mainly husband	2	Joint decision	3	Other	4	Specify _____																																					
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806	<p>After (Index child) was born, was the choice of which method to use mainly your decision, mainly your husband's decision or did you both decide together?</p>	<table> <tbody> <tr><td>Mainly respondent</td><td>1</td></tr> <tr><td>Mainly husband</td><td>2</td></tr> <tr><td>Joint decision</td><td>3</td></tr> <tr><td>Other</td><td>4</td></tr> <tr><td colspan="2">Specify _____</td></tr> <tr><td>Didn't use</td><td>5</td></tr> </tbody> </table>	Mainly respondent	1	Mainly husband	2	Joint decision	3	Other	4	Specify _____		Didn't use	5	Check Calendar																																	
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807	<p>How often have you talked to your husband about family planning since the birth of (NAME OF INDEX CHILD)?</p>	<table> <tbody> <tr><td>Never</td><td>1</td></tr> <tr><td>Once or twice</td><td>2</td></tr> <tr><td>More than twice</td><td>3</td></tr> </tbody> </table>	Never	1	Once or twice	2	More than twice	3																																								
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More than twice	3																																															
808	<p>Interviewer: Record time.</p>	<p>MINUTES _ _ </p> <p>HOOR _ _ </p>																																														

		COLUMN #	COL 1	COL 2	COL 3		
Year	Month		BIRTHS & PREGNANCIES, CONTRACEPTIVE USE	REASON FOR DISCONTINUATION	MARRIED, LIVING APART		
INSTRUCTIONS:							
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.							
<u>COLUMN 1: BIRTHS & PREGNANCIES, CONTRACEPTIVES USE</u>							
	06 JUN					6	
	05 MAY					5	
2	04 APR					4	
0	03 MAR					3	
0	02 FEB					2	
4	01 JAN					1	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
1	08 AUG					08 AUG	2
2	07 JUL					07 JUL	0
0	06 JUN					06 JUN	0
3	05 MAY					05 MAY	3
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
2	08 AUG					08 AUG	2
0	07 JUL					07 JUL	0
0	06 JUN					06 JUN	0
2	05 MAY					05 MAY	2
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
2	08 AUG					08 AUG	2
0	07 JUL					07 JUL	0
0	06 JUN					06 JUN	0
2	05 MAY					05 MAY	2
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
2	08 AUG					08 AUG	2
0	07 JUL					07 JUL	0
0	06 JUN					06 JUN	0
1	05 MAY					05 MAY	1
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
2	08 AUG					08 AUG	2
0	07 JUL					07 JUL	0
0	06 JUN					06 JUN	0
0	05 MAY					05 MAY	0
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
2	08 AUG					08 AUG	2
0	07 JUL					07 JUL	0
0	06 JUN					06 JUN	0
0	05 MAY					05 MAY	0
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>CONTRACEPTIVE USE</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
1	08 AUG					08 AUG	1
9	07 JUL					07 JUL	9
9	06 JUN					06 JUN	9
9	05 MAY					05 MAY	9
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	
<u>COLUMN 3: MARRIED OR LIVING APART</u>							
	12 DEC					12 DEC	
	11 NOV					11 NOV	
	10 OCT					10 OCT	
	09 SEPT					09 SEPT	
1	08 AUG					08 AUG	1
9	07 JUL					07 JUL	9
9	06 JUN					06 JUN	9
9	05 MAY					05 MAY	9
	04 APR					04 APR	
	03 MAR					03 MAR	
	02 FEB					02 FEB	
	01 JAN					01 JAN	

This page should be the last page in the questionnaire

THANK YOU FOR YOUR TIME. YOUR PARTICIPATION IN THIS SURVEY IS MUCH APPRECIATED.

REQUEST FOR TELEPHONE NUMBER:

IF WE HAVE ANY FURTHER QUESTIONS, WE MAY WISH TO CALL YOU AT YOUR HOME.

WOULD YOU BE WILLING TO LET US CALL YOU?

YES 1

NO 2

Do not have phone 3

May I have your telephone number:

Telephone number: _____

WHAT IS THE BEST TIME TO CALL YOU?

Early morning 1

Late morning 2

Afternoon 3

Evening 4

Time: Minute Hour

Interviewer: THANK YOU ONCE AGAIN FOR YOUR COOPERATION AND PARTICIPATION IN THIS STUDY.

Notes:

Clinic Number _____ Mother's serial number _____

1. Write in Clinic number and mother's serial number at top of code sheet
2. Circle the index child's month of birth (check for births Jan-Dec. 2002, or Jan-March 2003)
3. Draw a box around the row for the month of birth. 4. Draw a line below the same month of birth 24 months earlier
5. Draw a box around the same month 12 months after the index birth
6. Draw a line above the 5th month above the index birth. Between the index birth and this line is the period 1-5 months postpartum.
7. Between the 5th month line and the bottom of the box below the 12th month is the period 6-11 months postpartum
8. Wherever you find code A in the calendar, consider it LAM method (i.e. code 3)

Code sheet for Reproductive Calendar

Variable	Description	Yes	No	SKIP
901	Type of method used in 24 months before index pregnancy Ever used any method	1	2 -----	to 905
901_1	Ever used short term modern (1,4,5,8)	1	2	
901_2	Ever used long term modern (2,6,7)	1	2	
901_3	Ever used LAM (3, R, E, K, Y,A)	1	2	
901_4	Ever used withdrawal (w)	1	2	
901_5	Ever used abstinence (9)	1	2	
901_6	Ever used breastfeeding (F)	1	2	
901_7	Ever used other (X)	1	2	
902	No. of different methods of family planning used in preceding 24 mo.			
903	No. of different modern methods (1-8,R,E,K,YA) used in the preceding 24 months			
904	No. of different traditional methods (9,W, F) used in the preceding 24 months			
1-5 months - Family Planning use 1-5 months				
905	1-5 months 1 st method used-Type of contraception If no methods used in months 1-5 = 0			If 0, skip to 912
906	No. of months used 1st method from 1-5 mo (range 1-5)			
907	Month when started 1 st method from 1-5 months (range 1-5)			
908	Total duration of use of first method started in month 1-5 (range 1-12)			
909	2 nd method -type of contraception postpartum for index child-1-5 months			
910	3 rd type method 1-5 months			
911	Pattern of family planning use 1-5 mo postpartum			
<p>(These are only examples. Other patterns will exist.)</p> <p>LAM only (33333) =10 Lam then modern (33222) =11 Lam then withdrawal (3333W) =12 Lam then abstinence (33399)=13 Lam then no use (33000)=14 Lam then pregnancy (3333p)=15 Note (A,R,E,K,Y are LAM)</p> <p>Modern only (11166) = 20 Modern then lam (11333) = 21 Modern then withdrawal (22WWW)= 22 Modern then abstinence (11599) =23 Modern then no use (22000) =24 Modern then pregnancy (2222p)=25</p> <p>Withdrawal only (wwwwww) = 30 Withdrawal then modern (www11) = 31 Withdrawal then LAM (ww333) = 32 Withdrawal then abstinence (ww999) =33 Withdrawal then no use (www00) =34 Withdrawal then pregnancy (wwwwp) = 35</p> <p>Abstinence only (99999) = 40 Abstinence then modern (99955) = 41 Abstinence then LAM (99333) = 42 Abstinence then withdrawal (99www) =43 Abstinence then no use (99900) =44 Abstinence then pregnancy (9999p) = 45</p> <p>BF only (FFFFF) =50 BF then modern (FF222) =51 BF then withdrawal (FFFFw) =52 BF then abstinence (FFF99) =53 BF then no use (FF000) =54 BF then pregnancy (FFFFp) =55</p> <p>No use then LAM (00033) = 61 No use then modern (001222) = 62 No use then withdrawal = (00www) =63 No use then abstinence = (00009) =64 No use then pregnancy (0000p) = 65</p> <p>Any other pattern including a pregnancy=70</p> <p>All other patterns that do not include pregnancy = 80 (examples include 9911w, 33220)</p>				
Family planning use 6-11 months postpartum				
912	6-11 mo. 1 st method used -Type of contraception If no methods used= 0			If 0, skip to 918
913	No. of months used 1st method from 6-11 mo (range 1-6)			
914	Month when started or continued 1 st method from 6-11 mo (range 6-11)			
915	2 nd method used- type of contraception 6-11 months postpartum			
916	3 rd method type of contraception 6-11 months postpartum			
917	Pattern of family planning use 6-11 mo postpartum (see 911 for codes)			
918	Ever pregnant 0-11 mo postpartum	yes	1	
		no	2	
Family Planning Use at 12 months				
919	Method used at 12 months (use codes on reproductive calendar)			If 0,P,B,T skip to 922
920	Total duration of use of method used at month 12 (range 1-12)			
921	Mo. postpartum when first started method being used at 12 months			
922	Was LAM or BREASTFEEDING used any time 1-12 mo. postpartum?	yes	1	923
		no	2-----	933

	LAM or B.F. use 1-5 months postpartum		
923	No. of months LAM or breastfeeding /amenorrhea (3,A) only use 1-5 mo postpartum (range 1-5)		
924	No. of months LAM + other method (REKY) use 1-5 mo postpartum (range 1-5)		
925	Last mo. of LAM (3AREKY) use 1-5 (range 1-5)		
926	Mo. LAM (3A) only use 6-11 mo. (range 1-6)		
927	Mo. LAM + other method (REKY) use 6-11 mo. (range 1-6). If method not used, leave blank		
928	Transition from LAM to other method any time 1-12 months postpartum 0. Used only LAM (3REKYA) / No use of other method after LAM 1. If used LAM (3REKYA) sometime during mo.1-5 and immediately used modern method (1,2,4-8) in mo 1-5, (eg 00331) 2. If used LAM sometime during 1-5 and immediately used a modern method (1,2,4-8) in month after lam in month 6-11 (eg 333333111) 3. If used LAM sometime during 1-5 and immediately used withdrawal in mo 2-5 (eg 333ww) 4. If used LAM sometime during 1-5 and immediately used abstinence in mo 2-5, (eg 33399) 5. If used LAM sometime during 1-5 and immediately used withdrawal in mo 6-11, (333333333www) 6. If used LAM sometime during 1-5 and immediately used abstinence in mo 6-11, (333333333999) 7. If used LAM sometime during 1-5 and immediately used breastfeeding (e.g. 333FFFFFF) 9. Other pattern (other pattern = 9)		
929	No. of months BF only use 1-5 mo postpartum (range 1-5)		If no breastfeeding (F), skip to 933
930	Last mo. of BF only use 1-5 (range 1-5)		
931	Mo. BF only use 6-11 mo postpartum (range 1-6)		
932	Transition from BF to other method any time 1-12 months postpartum 0. Used only BF/ No use of other method after B.F. 1. If used BF sometime during mo.1-5 and immediately used modern method in mo 2-5, (eg 00FF1) 2. If used BF sometime during 1-5 and immediately used a modern method in month after BF in month 6-11 (eg FFFFF111) 3. If used BF sometime during 1-5 and immediately used withdrawal in mo 2-5, (eg FFFww) 4. If used BF sometime during 1-5 and immediately used abstinence in mo 2-5, (eg FFF99) 5. If used BF sometime during 1-5 and immediately used withdrawal in mo 6-11 (FFFFFFFwww) 6. If used BF sometime during 1-5 and immediately used abstinence in mo 6-11 (FFFFFFF999) 9. Other pattern (other pattern = 9)		
	Marriage and discontinuation from reproductive calendar		
933	No. of months 1-5 postpartum not living with husband, if not living with husb.=0		
934	No. of months 6-11 postpartum not living with husband		
935	Whether living with husband during 12 th month	yes no	1 2
936	First discontinuation (during months 0-11) code of method used		
937	First discontinuation (during months 0-11) reason discontinued		
938	First discontinuation (during months 0-11) number of months after birth		
939	First discontinuation (during months 0-11) months of use		
940	Second discontinuation (during months 0-11) code of method used		
941	Second discontinuation (during months 0-11) reason discontinued		
942	Second discontinuation (during months 0-11) number months after birth		
943	Second discontinuation (during months 0-11) months of use		
944	No. of discontinuations (during months 0-11) after child was born		