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Indicators for assessing health facility practices that affect breastfeeding

Report of the Joint WHO/UNICEF Informal Interagency Meeting
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1. INTRODUCTION

A joint WHO/UNICEF informal meeting on "Breastfeeding Indicators for Health Care Facilities" was held at WHO Headquarters in Geneva on 9-10 June, 1992.[1] The purpose of this meeting was (i) to review and reach consensus on the definitions of key indicators to evaluate whether health facilities procedures support, protect and promote breastfeeding practices; and (ii) to propose data collection methodologies for their measurement. This report summarizes the discussion and consensus reached at this interagency meeting, including the precise definitions for each of the recommended indicators, as well as sample questionnaires for data collection. A list of those participating in this meeting and/or the preparatory meeting is provided in Annex 1.

The participating agencies at this meeting agreed on a set of health facility based indicators which cover maternity services, postnatal outpatient clinics including maternal and child health care services, paediatric inpatient and family planning services with the understanding that these would be field tested and the methodology for data collection further developed. The background to these indicators and the potential users is discussed in Section 2 of this report. Precise definitions of the indicators and the rationale for their selection are given in Section 3 and the methodological issues to be developed (including sampling considerations) are discussed in Section 5. Except for Maternity Services Indicator 2, the indicators agreed on at this meeting are based on mothers' interviews at the time of their infant's discharge or at the time of attending a clinic. Indicators based on information collected from health facility staff or observation at the facility were also considered and are briefly discussed in Section 4.

2. BACKGROUND AND RATIONALE

2.1 Background

The development of health facility based indicators to monitor breastfeeding practices follows that of household based breastfeeding indicators which were agreed upon by WHO, UNICEF, the United States Agency for International Development (USAID) and the Demographic Health Surveys (DHS) Program at an informal meeting in Geneva in June 1991. The purpose of this meeting was to reach consensus on the definitions and methodology for measurement on a minimum set of indicators derived from household survey data which could be used to monitor progress toward the goals set forth in the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding, as well as the World Summit for Children. The indicators and their methodology for measurement are described in the report of the meeting (WHO/CDD/SER/91.14) and have been distributed widely.

At the June 1991 meeting, it was decided that indicators to monitor how health facilities support breastfeeding should also be defined after:

(i) The process of determining the minimum standards for attaining the "Ten Steps to Successful Breastfeeding" or becoming "Baby Friendly" were clarified.

(ii) A review of the methodological and substantive issues involved in developing such indicators was prepared by experts in the field.

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[1] This meeting was the second of two meetings on health facility based indicators. The first meeting was held on 6 March 1992 at UNICEF, New York, for the purpose of reviewing and discussing the issues raised in the draft background paper "Breastfeeding Indicators for Health Facilities" prepared by Drs Beverly Winikoff and Nancy Sloan of the Population Council in preparation for the second interagency meeting. A report of this meeting is available from UNICEF, New York.

The "Ten Steps to Successful Breastfeeding" are a selected summary of the norms formulated in the joint WHO/UNICEF statement "Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services" (1989) to encourage exclusive breastfeeding from birth. They focus on the period covering prenatal, delivery and perinatal care provided in maternity wards and clinics, and encourage those concerned with the provision of maternity services to review policies and practices that affect breastfeeding. In 1991, recognizing the key role of maternity services, WHO and UNICEF launched the Baby Friendly Hospital Initiative (BFHI) to accelerate the implementation of the Innocenti Declaration. As part of this initiative, UNICEF commissioned Wellstart/San Diego (between October 1991 and February 1992), to develop assessment criteria and procedures as well as to convene a workshop to review the assessment tools and to train master trainers in assessing the Baby Friendly Hospital Initiative and assume responsibility for training others. These activities were undertaken in close collaboration and consultation with WHO and UNICEF as well as staff from other international organizations in the field.

As soon as this work was completed, WHO and UNICEF commissioned the Population Council to prepare a background paper, reviewing the issues that the United Nations and bilateral agencies should consider in developing and selecting indicators to monitor practices at health facilities that are expected to affect breastfeeding patterns, and propose a minimum set of indicators with clear definitions, as well as the methodology to measure them. This document was reviewed in a meeting on 6 March 1992 in UNICEF, New York, and recommendations were made for the final version which provided the basis for discussion at the current meeting.

2.2 Rationale

Purpose and potential users of the indicators. The purpose of these indicators is to monitor health facility practices that affect breastfeeding. Their standardization should facilitate analysis of trends in these practices over time, as well as intercountry comparisons. They have been designed primarily for use by programme managers, who are mainly interested in monitoring or evaluating practices in a particular type of facility (such as maternity or paediatric inpatient services) at the aggregate level. However, the indicators may also be useful for those interested in improving practices within specific facilities, or possibly to make comparisons between facilities, if sample sizes are large enough to provide valid estimates. Many of the questions on which these indicators are based, once evaluated, could be included in a basic set of clinical data collected at the time of delivery and discharge from the maternity facility.

Types of facilities. Practices in health care facilities are a critical determinant of infant feeding behaviour. While the joint WHO/UNICEF statement on breastfeeding and maternity services focuses on the effect of maternity services on breastfeeding patterns, practices in other types of health care facilities are equally important in affecting infant feeding patterns from birth through the second year of life. All parts of the health care system need to enforce practices which positively promote and support breastfeeding, and indicators are needed to evaluate and monitor these practices.

Four different types of health facilities are covered by the indicators agreed upon at this meeting, including maternity services, postnatal outpatient clinics including maternal and child health care services and paediatric inpatient services and family planning clinics.

(i) Maternity facilities were considered a priority because of the strong correlation between maternity facility practices and the initiation and duration of breastfeeding demonstrated in most research on this topic. In addition, there is the advantage of being able to measure the effects of institutional practices on early neonatal feeding practices.

(ii) Postnatal outpatient clinics, including maternal and child health care services, allow contact with the mother during the early neonatal period and thereafter. During this period a mother may be vulnerable to negative advice or other influences which may discourage her continuing (exclusive) breastfeeding or encourage her to start using breastmilk substitutes, begin supplementary feeding prematurely, or use infant feeding bottles, teats or pacifiers. It is important, therefore, to monitor whether these facilities give advice to stop, decrease or replace breastfeeding, or recommend the use of, or provide, breastmilk substitutes, supplementary foods, infant feeding bottles, teats, etc.

(iii) Paediatric inpatient facilities also serve postpartum mothers and their infants, as well as older children who should still be breastfeeding. These facilities are important because of the high likelihood that policies or procedures will affect breastfeeding patterns. Poor infant feeding practices are associated with increased incidence and severity of diarrhoeal and respiratory diseases, cases which are likely to be presented to these facilities. Breastfeeding can reduce the severity and duration of these illnesses and reduce the need for medications. However, separation of mothers from their children and use of feeding bottles often occur when children are admitted to these facilities, with obvious negative consequences to unrestricted contact and breastfeeding.

(iv) Practices at family planning clinics are also important to monitor because mothers attending such clinics may receive information or advice that is detrimental to continued and successful breastfeeding. While exclusive breastfeeding can be an effective postpartum method of contraception, estrogen-containing contraceptives reduce milk volume and consequently reduce the duration of lactation by encouraging early supplementation with complementary feeding or breastmilk substitutes.

Other types of health care facilities were also considered, including under-five outpatient clinics, but were not included separately because of methodological difficulties in measurement. However, the indicators for paediatric outpatient clinics can be appropriately used in other types of facilities on occasions (such as immunization clinics) when a sufficient number and proportion of the children attending are in the appropriate age group.

2.3 Criteria for indicator selection

A number of criteria for selecting the indicators were proposed and discussed. It was decided that:

(i) There should be a limited number of carefully defined indicators. To facilitate comparisons over time, they should consist of reasonably reproducible quantitative measures that can be assessed using simple questionnaires. Moreover, they should provide simple and reliable measures of what is happening, not the reasons underlying the behaviour. One implication of adoption of these criteria is that most of the recommended indicators are measures of reported behaviour (what women said they did) rather than advice (what they said they were told to do). While advice-giving is a major way through which health practitioners can affect mothers' behaviour, there are pragmatic difficulties in measuring advice-giving by interviewing mothers using a simple questionnaire. First, it must be acknowledged that mothers' reports may not represent exactly what advice was given. Second, it may be difficult to ascertain whether the advice given was suitable in content, as well as appropriate in terms of language, type and level of explanation (see Methodology section for further discussion).

(ii) While the indicators would ideally reflect health facility practices known to have an impact on breastfeeding, research carried out to date can only show that some practices (use of

pacifiers, for example) are related to breastfeeding patterns, not prove causality. The group decided that it would be acceptable to include indicators even if causality has not yet been proven.

(iii) The indicators should reflect practices in specific types of health facilities (see Section 2.2) rather than those in the population as a whole. In general, sampling at health facilities is not an optimal way to know what is happening in the population because different segments of the population may use facilities more or less than other segments. Thus a good sample of mothers attending health facilities will not necessarily be representative of the entire population. A separate set of indicators has been developed to reflect what is happening in the population as a whole (previously referred to as household indicators).

3. INDICATORS BASED ON DATA COLLECTED FROM MOTHERS

The indicators selected at the meeting are presented below in the general order of the priority reached by consensus. The explanatory notes indicate the rationale for the indicator and more clearly define the numerator and denominator.

3.1 Maternity services

There are six recommended indicators and two optional indicators that can be collected at maternity facilities which reflect conditions at those facilities and during prenatal care. The information for all of these indicators can be obtained using interviews with mothers at the time of discharge from the facility where they gave birth. Depending on the size of the facility, interviews may need to be carried out over several days; every mother of an infant discharged during that time period should be interviewed (see Methodology section for a discussion), including infants discharged after Caesarean births, special care, or prolonged stays.

Except for the *Breastmilk substitutes and supplies receipt rate* (Indicator 2) which is based on the mother's experience and uses the number of mothers discharged from the facility in the denominator, both numerators and denominators are based on the number of infants discharged from the facility. Because the experience of every infant discharged in the relevant time period is counted, each infant of a multiple birth is considered separately. Infants who die in the hospital are not included, both for reasons of sympathy - not wanting to bother women who have lost a child - and for practical considerations. This restriction should not unduly bias results: neonates who die may have poorer breastfeeding rates, but poor breastfeeding is unlikely to have been the cause of their death.

1. *Exclusively breastfed by natural mother rate*

$$\frac{\text{Infants who were exclusively breastfed by their natural mothers from birth to discharge}}{\text{Infants discharged}}$$

Explanatory note:

All infants should be fed exclusively on breastmilk from birth to 4-6 months of age. This indicator is more restrictive than the optional indicator *exclusively breastmilk fed rate* (see below) because its numerator includes only infants receiving breastmilk from their own mothers, at the

breast.[2] It thus excludes not only children who receive any non-breastmilk liquids such as water, glucose supplements, or artificial milk at all, but also children who are wet-nursed or who receive expressed milk or breastmilk from a milk bank. This restrictive definition reflects the conditions under which both mother and child obtain the maximum benefit from breastfeeding.

The time period of interest is the entire period from birth to discharge. While this may be different for different infants, the important factor is that the infant has been exclusively breastfed throughout the time in the facility.

The numerator for this indicator includes all infants who were exclusively breastfed at the breast by their natural mothers between birth and the time of discharge. Infants who receive drops or syrups (vitamins and minerals or medicine) are considered to be exclusively breastfed; but those who receive any other liquids or food by mouth, including water, are not considered to be exclusively breastfed. The denominator includes all infants discharged during the relevant time period, including infants born by Caesarean section and those who were in special care or other nurseries.

2. *Breastmilk substitutes and supplies receipt rate*

$$\frac{\text{Mothers who received breastmilk substitutes, infant feeding bottles or teats or coupons for these items at any time prior to discharge or during a prenatal visit to this facility}}{\text{Mothers discharged}}$$

Explanatory note:

Among the facility practices which discourage exclusive breastfeeding, provision of breastmilk substitutes and supplies for bottle-feeding (including coupons for these items) are practices which are both important and relatively easy to measure.

The numerator includes all women who received any breastmilk substitutes or supplies for bottle-feeding or coupons for these items either during the perinatal hospital stay or from that facility during a prenatal visit. Including receipt of supplies during prenatal care visits accounts for the times when women may not receive supplies during the facility stay because they received them at a prenatal visit; moreover, prenatal distribution of supplies occurs fairly frequently and has a detrimental effect on exclusive breastfeeding. However, it is restricted to prenatal visits that occurred at the facility so that the indicator will reflect facility practices. (The proportion of women who receive supplies from any source during the prenatal and perinatal periods would best be determined using information obtained from a household survey).

The denominator includes all mothers discharged from the maternity facility during the stipulated time period. Mothers of children who died before discharge are not included.

[2] The first version of the 'Indicators for Assessing Breastfeeding Practices' (Report of an Informal Meeting 11-12 June 1991, Geneva, Switzerland), which defined the indicators that could be derived from household survey data, used slightly different terminology from that used here. This first health facility indicator 'exclusively breastfed by natural mother rate' is analogous to the optional household indicator 'exclusive breastfeeding rate by mother' in that version. Similarly, the optional health facility indicator 'exclusively breastmilk fed rate' is analogous to the key indicator 'exclusive breastfeeding rate' in that version. In subsequent versions, the terminology will be made consistent with the terminology used in this report.

3. *Bottle-fed rate*

$$\frac{\text{Infants who received any food or drink from a bottle in the 24 hours prior to discharge}}{\text{Infants discharged}}$$

Explanatory note:

Infants who receive anything from a bottle, whether the substance they receive is classified as food or drink, are by definition not exclusively breastfed, although they may be exclusively breastmilk fed (see optional Indicator 1). It is likely that initially there will be some, and perhaps many, infants who are both bottle-fed (this indicator) and breastfed (Indicator 5).

The time period for this indicator is limited to the 24 hours prior to discharge rather than the entire period of time from birth to discharge. This restriction ensures that a similar period of time is asked about in all facilities, which may have different practices with regard to the usual length of postpartum stay.

The numerator includes any infant who received anything (including breastmilk) from a bottle in the 24 hours prior to discharge. If infants are discharged before 24 hours after delivery, then the entire period of stay is included. The denominator is the same as for most of the other indicators - all infants discharged from any part of maternity facilities (including special care or long-stay nurseries) during the time interviews are carried out.

4. *Rooming-in rate*

$$\frac{\text{Infants rooming-in 24 hours a day, beginning within 1 hour of birth and not separated from their mothers for more than 1 hour at any time}}{\text{Infants discharged}}$$

Explanatory note:

Rooming-in (mothers having their babies staying in their room, either in the same bed or in a cot beside the bed) is important because, for on-demand breastfeeding, mothers and infants should have continuous access to each other, beginning within one hour of birth. To facilitate feeding during the night as well as during the day, rooming-in needs to occur 24 hours a day. The indicator thus includes only infants who (a) began rooming-in within one hour of birth; (b) were kept with their mothers both day and night; (c) were not separated from their mothers for more than one hour at a time.

Rooming-in is important for all infants; thus the denominator of the indicator includes infants delivered by Caesarean section as well as those delivered vaginally and all infants kept in special care, long-stay or other nurseries after birth.

5. *Breastfed rate*

$$\frac{\text{Infants who were breastfed in the 24 hours prior to discharge}}{\text{Infants discharged}}$$

Explanatory note:

This indicator should be reasonably high, even when rates for Indicator 1 (or optional Indicator 1, see below) are low. It is measured in the same way as Indicator 3, *Bottle-fed rate*.

The time period of interest, as for Indicator 3, is the 24 hours prior to discharge, although if the infant is discharged before 24 hours, the reference time period is the entire period since birth. The numerator includes any infants who breastfed at all in the reference time period. The denominator includes all infants discharged during the period that interviews are carried out.

6. *Timely first-suckling rate*

$$\frac{\text{Infants who first suckled within 1 hour of birth}}{\text{Infants discharged}}$$

Explanatory note:

Although there was agreement that early initiation of breastfeeding is correlated with adequate suckling and continuation of breastfeeding, there was much discussion about how to measure early initiation. The first issue was to identify the desirable behaviour; the possibilities considered were the infant's being in close body contact with the mother, the infant's being put to the breast, and actual suckling. Of these three, suckling was chosen as least susceptible to problems of definition, since the information has to be obtained by questioning the mother, not through observation. Whether it is always obvious to mothers whether or not the infant suckled can be determined during the pretests of this indicator.

The second issue was the time of initiation: the consensus was that one hour was a meaningful cut-off for a dichotomous measure, and should be used in order to be consistent with the definition used in the Baby Friendly Hospital Initiative Assessment Tools. There is some question of whether women are able to accurately recall time, that is able to tell if suckling first occurred within one hour of the birth or after more than one hour had elapsed. It was decided to define the indicator in terms of current knowledge about the optimal practice, and to review the experience in collecting this information to decide if the indicator should be modified.

A final area of concern about this indicator was that mothers who have a Caesarean section would be unable to suckle their infants so soon after delivery; thus facilities with a high rate of Caesarean deliveries would tend to have low timely first-suckling rates. Despite this, it was decided to include all mothers, at least during the pretests of this indicator.

The numerator for this indicator includes all infants who first suckled within one hour of birth; the denominator includes all infants discharged in the relevant time period.

Optional indicators

Opt. 1 *Exclusively breastmilk fed rate*

$$\frac{\text{Infants exclusively breastmilk fed from birth to discharge}}{\text{Infants discharged}}$$

Explanatory note:

This optional indicator is an alternative to Indicator 1, the *Exclusively breastfed by natural mother rate.* It allows for the possibility that a) the infant is not fed at the breast because either the mother is unable to breastfeed[3] or the infant is unable to suckle; or b) the infant is breastfed by someone other than the natural mother. Thus the indicator allows the inclusion in the numerator of infants who are wet-nursed or fed expressed breastmilk. While the proportion of these infants is small among the general population of infants, it could be large in some facilities with a high proportion of very low-birth-weight infants. For such institutions this indicator would show whether or not there is strong institutional support for breastmilk feeding. It reflects the advantages of exclusive breastfeeding for infants, but not for mothers, particularly if they are not expressing breastmilk.

The numerator for this indicator is similar to that for Indicator 1 in including the time period from birth to discharge. Included are all infants who were fed exclusively on breastmilk. Infants who receive drops or syrups (vitamins and minerals or medicines) are also considered to be exclusively breastfed, but those who receive any other liquids or foods by mouth, including water, are not considered to be exclusively breastfed. The denominator for this indicator is all infants discharged during the relevant time period.

Surveyors may choose to measure this indicator instead of or in addition to Indicator 1. In no circumstances, however, should Indicator 1 be used at some facilities and this optional indicator at others.

Opt. 2 *Pacifier use rate*

$$\frac{\text{Infants who received pacifiers at any time prior to discharge}}{\text{Infants discharged}}$$

Explanatory note:

This indicator is optional because definitive information concerning the relation between pacifier use and breastfeeding is not yet available. There is concern, however, that early use of pacifiers will interfere with the infant's development of proper suckling technique. Moreover, there is some preliminary information that pacifiers may become contaminated, and thus may pose a risk of infection.

Optimally, facilities should not provide or allow the use of pacifiers. Thus the numerator includes infants who received pacifiers from any source (including the mother herself) in the time

[3] This could also be the case if the mother, while able to breastfeed, is given medical advice not to do so because of risk to the infant from chemical toxins or infections.

between birth and discharge. The indicator is similar to Indicator 2, the *Breastmilk substitutes and supplies receipt rate*, in that it measures possible impediments to the establishment of exclusive breastfeeding. The denominator is all infants discharged in the relevant time period.

Possible indicators that were not adopted

The group considered three other optional indicators that were not adopted: *Prophylactic administration of ergonovine*, *Lactation problem resolution*, and *Correct positioning*. Prophylactic administration of ergonovine has been recommended as a preventive measure for postpartum hemorrhage, since ergonovine is much less expensive than oxytocin and pitocin. Ergonovine does, however, affect prolactin, and can thus interfere with breastfeeding. The group decided that including this indicator at present would be inappropriate, but urged that the guidelines concerning prophylactic ergonovine be reconsidered in view of its effect on lactation and that lactation outcomes should be measured in the ongoing studies.

Lactation problem resolution and correct positioning both reflect advice given to mothers by facility personnel. It was felt that advice-giving was inherently more difficult to measure than actual practices, since women might differ greatly in their decisions about what constituted advice. Moreover, lactation problem resolution also would depend implicitly on the definition of what constitutes a problem. Finally, it was pointed out that for experienced mothers demonstration of correct positioning might be unnecessary and possibly confusing if they were having no problems breastfeeding. Thus it is not a health facility practice that would be appropriate for all mothers.

3.2 Postnatal/paediatric outpatient services

Three indicators were selected to measure practices at postnatal or paediatric outpatient clinics which may affect breastfeeding. All three involve mothers of breastfed infants - that is, infants who are breastfeeding at all. All three focus on reports of advice, recommendations, prescriptions or supplies the mothers received during the clinic visit. Thus the information necessary for calculating these indicators can be obtained through "exit interviews" of mothers of children less than 2 years old who attend postnatal or paediatric outpatient clinics. The first two indicators apply to infants less than 4 months old; the last one, to children 4 to 24 months old.

A note about ages: the ones used in this report are exact ages, that is, the day the child turns that age. For example, a child is exact age 1 year on his or her first birthday. Thus a child 4 to 24 months old is at least 121 days but less than 731 days old. This distinction is crucial because people in different areas think about age differently: in some cultures people use 'elapsed time', and the age reported in response to the question "How old is your child?" is the number of months a child has completed. In other areas people use 'current' or 'running time', and the age reported is the month the child is currently growing through. Thus a child who is 40 days old would be considered one month old by the first group, and two months old by the second. Instructions on the sample questionnaires may need to be adjusted to reflect these differences.

1. *Supplementary feeding and supplies recommendation rate*

$$\frac{\text{Mothers of breastfed infants less than 4 months old who received a recommendation or prescription for breastmilk substitutes, supplementary feeding, bottles or teats during the clinic visit}}{\text{Mothers of breastfed infants less than 4 months old attending the clinic}}$$

Explanatory note:

All infants less than 4 months old should be exclusively breastfed; thus no mothers of infants of that age should receive any recommendations that they should use breastmilk substitutes, give their child supplementary foods, or use bottles or teats to feed their child.

The numerator for this indicator is the number of mothers of breastfed infants less than 121 days old (exact age 4 months) who report that they received a recommendation or a prescription for breastmilk substitutes, supplementary feeding, or bottles or teats from the staff or facility. The denominator is the number of mothers of breastfed infants less than 4 months old who attend the clinic in the relevant time period.

2. *Supplementary food and supplies receipt rate*

$$\frac{\text{Mothers of breastfed infants less than 4 months old who received breastmilk substitutes, supplementary foods for their infants, infant feeding bottles or teats, or coupons for these items during the clinic visit}}{\text{Mothers of breastfed infants less than 4 months old attending the clinic}}$$

Explanatory note:

Indicator 1 in this group referred to recommendations or prescriptions that mothers receive during their clinic visit; this indicator refers to actual supplies or coupons for supplies. The numerator is thus the number of mothers of breastfed infants less than 121 days old (exact age 4 months) who report that they received breastmilk substitutes, supplementary foods for their infants, bottles or teats, or that they received coupons for these items during their clinic visit. The denominator is the number of mothers of breastfed infants less than 4 months old who attend the clinic in the relevant time period.

3. *Breastfeeding discouragement rate*

$$\frac{\text{Mothers of breastfed infants 4 to 24 months old who were advised to stop or decrease breastfeeding during the clinic visit}}{\text{Mothers of breastfed infants 4 to 24 months old attending the clinic}}$$

Explanatory note:

While solid and/or semi-solid complementary foods should normally be introduced from 4-6 months of age, the Innocenti Declaration states that children should continue to be breastfed "for up to two years or beyond". This indicator measures the clinic's discouragement of breastfeeding by mothers of children 121 to 730 days old (4 months to 24 months).

The numerator is the number of mothers of breastfed children 4 to 24 months old who report that they were advised to stop or decrease breastfeeding during the clinic visit. The denominator is the number of mothers of breastfed children in the relevant age group who attended the facility in the time period of interest.

Possible indicator that was not adopted

An additional optional indicator that was considered was the *Proportion of mothers given information about the importance of continued breastfeeding and appropriate timing of other liquids and complementary foods.* The major objection to this indicator was the difficulty of assessing the content of advice, discussed above.

3.3 Paediatric inpatient services

Three indicators were selected for measurement at paediatric inpatient facilities. All three evaluate changes in the feeding status of children less than 2 years old between admission and discharge from paediatric inpatient care, and can be collected through interviews of mothers at the time of discharge of their children from the facility. The denominators are defined in terms of children's feeding status at the time of admission to the ward. For the first two indicators, the critical element is whether the child was breastfed at all at the time of admission; while for the third it is whether the child was bottle-fed at all at the time of admission. Continued breastfeeding and support of breastfeeding through allowing access both night and day are positive practices; initiation of bottle-feeding is a negative practice.

1. *Continued breastfeeding rate*

$$\frac{\text{Mothers of breastfed children less than 2 years old who have breastfed the child within 24 hours prior to discharge}}{\text{Mothers of children less than 2 years old who were breastfed at time of admission}}$$

Explanatory note:

Children who are already ill should not be put at further risk of infection or psychological discomfort by discontinuation of breastfeeding during their stay in the paediatric ward. Ideally all sick children should have their mothers with them whenever she can manage, with 24 hour a day access.

The denominator includes all mothers of children who, at the time of admission, were a) less than 2 years old; and b) breastfed at all. The numerator is the number of mothers of these children who breastfed the child at all during the 24 hours prior to discharge.

2. *Continuous access for breastfeeding rate*

$$\frac{\text{Mothers of breastfed children less than 2 years old who had access to the child day and night in order to breastfeed}}{\text{Mothers of children less than 2 years old who were breastfed at the time of admission}}$$

Explanatory note:

One specific facility practice that discourages continued breastfeeding is limiting a mother's access to her child, in particular, at night. This indicator is the measure for paediatric inpatient wards that is analogous to the maternity facilities Indicator 4, the *Rooming-in rate*. However, taking into consideration the possibility that mothers might not be able to be with the child all the time (for example because they work) it was decided that instead of measuring whether or not the mother

stayed with the child it would be appropriate to measure whether the facility allowed the mother to come and go as she wished.

The denominator of this indicator is the same as the denominator for Indicator 1 in this group: all mothers of children who, at the time of admission were a) less than 2 years old; and b) breastfed at all. The numerator is the number of mothers of these children who report that during the child's stay they were allowed to be with the child at any time of day or night in order to breastfeed. Women who report that they were ever denied access during the child's stay (except, for example, during surgical procedures) are excluded from the numerator.

For consistency with the other measures and for practical logistics, the information for this indicator is obtained through interviews with mothers at the time of their child's discharge from the paediatric ward.

3. *Bottle-feeding initiation rate*

$$\frac{\text{Children less than 2 years old who were not using a bottle at the time of admission who received anything (including ORS) from a bottle during their stay in the facility}}{\text{Children less than 2 years old who were not using a bottle at the time of admission}}$$

Explanatory note:

It is clear that paediatric inpatient wards should not encourage bottle-feeding, which represents a risk of contamination as well as detracts from breastfeeding. There was some discussion of whether paediatric clinics should discourage the use of bottles at all, even for children who are regularly using bottles at the time of admission. Some members of the group pointed out that depriving sick children of the comfort of a bottle which they are used to may cause distress; hence this idea was dropped.

The group agreed that, at the very least, children who have not been using bottles should not be introduced to the practice while they are inpatients; they should be given cup feeds, or fed small amounts of liquid with a spoon. Ideally, mothers will give such feeds, relieving pressures on staff.

The denominator for this indicator is the number of children less than 2 years old who were not using a bottle at the time of admission; the numerator is the number of those children who received anything (including ORS) from a bottle during their stay at the facility.

Possible indicators that were not accepted

Three additional indicators were considered but not adopted: (i) the *Inappropriate complementary feeding rate;* (ii) the *Promotion of continued breastfeeding rate;* and (iii) the *Demonstration of breastmilk expression rate.* No consensus was reached concerning the age group in which the *Inappropriate complementary feeding rate* could be measured unambiguously. While children more than 6 months old are the group which should be receiving complementary food, it may not be inappropriate for some breastfed children between 4 and 6 months old to be given complementary food. The other two indicators received even lower priority because of the difficulty of measuring the advice given.

3.4 Family planning sites

The three recommended indicators in this group are appropriate for use wherever women receive family planning advice. Indicator 1 refers to breastfeeding mothers of children less than 6 months old; Indicator 2 and the optional indicator refer to breastfeeding mothers of children less than 6 weeks old.

1. *Combined hormonal contraceptive rate*

$$\frac{\text{Breastfeeding mothers of infants less than 6 months old given or prescribed a combined hormonal contraceptive during a clinic visit}}{\text{Breastfeeding mothers of infants less than 6 months old attending the clinic}}$$

Explanatory note:

The use of combined hormonal contraceptives (that is, those containing both estrogen and progestogen) results in a decrease in the volume of breast milk and thus will adversely affect the duration of and ability to sustain exclusive breastfeeding. This effect is most detrimental early in the first year of life, when the rates of exclusive and continued feeding are highest.

There was some discussion whether this indicator could be applied to breastfeeding mothers of infants less than one year old. However, in order to keep this indicator consistent with family planning norms, it was decided to restrict it to breastfeeding mothers of children less than 6 months old. The denominator for this indicator thus includes all such women who attend the clinic; the numerator includes all breastfeeding mothers of infants less than 6 months old who were given or who were prescribed a combined hormonal contraceptive during the clinic visit.

2. *Lactation amenorrhoea counselling rate*

$$\frac{\text{Breastfeeding mothers of infants less than 6 weeks old receiving information about the contraceptive effect of breastfeeding during the consultation}}{\text{Breastfeeding mothers of infants less than 6 weeks old attending the clinic}}$$

Explanatory note:

Breastfeeding mothers should receive information on how to maximize the child-spacing effects of lactation. To be most useful, this information should be provided during the first 6 weeks postpartum, as the risk of pregnancy in women who do not breastfeed exclusively increases after this period.

The numerator for this indicator is the number of breastfeeding mothers of infants less than 6 weeks old (0 to 41 days old) who received information about the contraceptive effect of breastfeeding during the clinic visit. The denominator is all breastfeeding mothers of infants less than 6 weeks old who attended the clinic during the relevant time period.

Optional indicator

1. *Any hormonal contraceptive rate*

Breastfeeding mothers of infants less than 6 weeks old given or prescribed any hormonal contraceptive during the clinic visit

---

Breastfeeding mothers of infants less than 6 weeks old attending the clinic

Explanatory note:

The provision of hormonal contraceptives (including progestogen-only contraceptives) is discouraged during the first 6 weeks postpartum, in order to avoid exposing infants to them. If a contraceptive method is desired, a non-hormonal method should be the first choice.

The denominator for this indicator is all breastfeeding mothers of infants less than 6 weeks old attending the clinic during the relevant time period; the numerator is the number of these women who were given or prescribed any hormonal contraceptive (including progestogen-only pills) during that clinic visit.

Possible indicator that was not accepted

One optional indicator was discussed but dropped: the *Lactation-sensitive advice rate*, measuring whether health workers providing contraceptives take lactation into account while advising mothers. As the proposed reference group was health workers providing contraceptives, rather than mothers, this measure would be subject to the limitations discussed in Section 5 below. In addition, there is the problem of how to determine whether the advice took lactation into account.

4. INDICATORS BASED ON INFORMATION COLLECTED FROM HEALTH FACILITY STAFF OR FROM OBSERVATION AT THE FACILITY

The health facility based indicators proposed at this meeting are based on data collected from mothers at the time of their infant's discharge or after a clinic visit. However, another important method of collecting data about practices at health facilities is by direct observation at the facility or by interviewing staff working there.

Information obtained through direct observation at health facilities is relatively easy to collect and can be used to validate or refute information obtained through other methods at the facility. Data obtained through observation at one point in time may lack randomness and representativeness. Other problems include the bias that may be introduced by the observer: health care providers may alter their behaviour when they are aware of being observed.

Structured interviews with hospital staff or other service providers can also be an inexpensive and useful method of data collection, particularly regarding hospital policies and the behaviour of mothers, as well as hospital staff. However, the validity of staff interviews may be compromised by the lack of objectivity inherent in self-evaluation, with the tendency to report optimal rather than actual practices.

For most of the issues considered here interviewing mothers is the preferred method of data collection because mothers are the most likely source of complete, reliable and representative data. Mothers are less likely to consciously distort information about hospital procedures and policies or

about staff practices. They may be more accessible for interview than hospital staff. They can provide detailed information about their infant's feeding not obtainable from charts, key informants or anecdotal reports. In the absence of 24 hours a day rooming-in, mothers can, however, be unaware of how hospital staff take care of and feed their infants. In the same way as hospital staff, mothers can falsify information regarding their infants' feeding when they have a sense of what they "should" be doing, if it differs from actual practice. This type of interview is also subject to problems of recall, although these are limited in facility-based assessments by the duration of stay and can be controlled to some extent by the formulation of the indicator. (See B. Winikoff and N. Sloan, "Breastfeeding Indicators for Health Facilities. A Discussion Paper" for further details.)

The meeting considered a number of suggestions for indicators based on health facilities as the unit of measurement. Many of the proposed topics would be applicable to prenatal and postnatal clinics as well as maternity units:

1. Records on mothers' intention to breastfeed maintained in prenatal clinics (review of clinic records).
2. Training of health workers to promote breastfeeding (interviews with staff).
3. Supervision of health workers (interviews with staff and supervisors).
4. Availability of materials on breastfeeding (positive and negative) (observation/collection and examination of available materials).
5. Provision of breastmilk substitutes (interviews with staff, record review).
6. Assistance given to mothers on how to breastfeed (interviews with staff/administrators).
7. Health education sessions on breastfeeding (interviews with staff/administrators).
8. Breast exams during prenatal care (clinic records or interviews with staff).
9. Maternity support groups (interviews with staff).
10. Rooming-in policy (interviews with staff/administrators).
11. Timely first suckling (observation and interviews with administrators).
12. Problem resolution (interviews with administrators).
13. Supplementary feeding (interviews with staff).

After detailed discussion it was decided not to include indicators with health facilities as the unit of measurement, because of the potential problems with validity of the measurements and/or the lack of available evidence of their relation to breastfeeding. For example, there is no evidence that record-keeping on women's intentions to breastfeed has an effect on subsequent breastfeeding behaviour. Therefore, only the indicators based on mother's interview at discharge were retained.

However, the participants at the meeting welcome other suggestions for indicators derived directly from observation of practices or from interviews with health service providers. In addition, it was recommended that analysis comparing data from mothers to that from health facilities be carried out. For example, the Baby Friendly Hospital Initiative Assessment Tools contain both facility and mother-based indicators and results of the pretesting of this instrument could provide valuable information for a comparative analysis to assess the validity of the two different methods of data collection. This type of analysis could also be done during the field-testing of the proposed indicators.

5. METHODOLOGY

The exact methodology for collection of information for the recommended indicators was not fully addressed in the meeting, and remains to be worked out. A number of pretests may be necessary; in contrast to the situation for household-based indicators, there has been only limited

experience with collecting information concerning facility-based indicators, particularly for breastfeeding. The experience gained with the Baby Friendly Hospital Initiative Assessment Tools may be useful.

An issue related to the maternity services and paediatric inpatient indicators that was resolved was the question of whether to interview mothers of infants or children present at a facility in a specified time period, or at the time that their children are discharged from the facility. Interviewing mothers whose children are present at a facility in a specified time period might result in a biased sample because those with children who stay in the facility longer would be more likely to be interviewed. Since, for example, infants kept in a facility because they are sick are more likely to have problems breastfeeding than healthy infants who are discharged soon after delivery, this type of sample would be likely to underestimate the rates of appropriate practices. For this reason, it was decided to interview mothers of children leaving the facility during a certain time period. This period might be as short as a half-day at particularly large or busy facilities, or could stretch to several days in smaller facilities.

The two major areas of methodology that will need development and pretesting are the questionnaire and sampling. The participants agreed on a process for further developing the indicators and the methodology to collect them (outlined in Section 6). Some of the major considerations with regard to the questionnaire and sampling are outlined below. The meeting participants welcome comments and information about any relevant data collection efforts or sampling methods.

1. Questionnaire. One main criterion for the questionnaires is that they should be short, so as to be easily used at the time of discharge or exit from the clinic, when women are usually eager to leave the facility. The questions must be specific and unambiguous, and the collected information easy to analyse. A draft questionnaire for each of the different types of health facilities is attached (Annex 2). Although much of the discussion of the indicators centred on their careful definition to facilitate specificity, it is possible that it may be difficult to collect some of the necessary information, at least in certain situations.

2. Sampling. As discussed briefly in Section 2.2, a primary consideration is whether the indicators would be used to produce facility-specific rates, which would require a large number of interviews at the selected facilities in order to produce valid estimates, or to produce aggregate rates, which would require smaller samples from a moderate number of facilities. Time and cost considerations probably rule out the possibility of "having it all", that is collecting information from large enough samples of mothers to allow determination of stable facility-specific rates at a large enough number of facilities to achieve meaningful aggregate rates. However, the indicators described in this report are relevant for monitoring at both levels.

   One objection to facility-specific rates is that the main interest of programme managers, the anticipated primary users of these indicators, is likely to be practices that affect a fairly large number of women and their children. Thus rates for individual facilities, unless they are very large referral facilities, or possibly very influential facilities, are likely to be of less interest than aggregate rates. The major objection to aggregate rates is that information about diversity may be lost as well as the possibility of identifying specific facilities where action may be required. For over-time comparisons, aggregate rates that include a number of different types of facilities may mask very large changes that have occurred in just one type of facility.

In addition to these areas, we expect that further experience in monitoring health facility practices that affect breastfeeding will contribute to the resolution of a number of specific issues related to particular indicators:

1. Measuring advice given: As mentioned in Section 2.3, there was considerable concern about including indicators that reflect advice-giving because asking mothers is an indirect method of ascertaining health facility staff behaviour and because of difficulties in assessing the content of advice. For example, a simple question concerning the discouragement of breastfeeding would be "Did anyone suggest that you stop or decrease breastfeeding?". A comprehensive set of questions might also include, for example, whether anyone had told the mother to miss feeds, stop night feeds, or had said that her infant breastfed "too frequently" or "more than normal" for a child that age. To account for all relevant possibilities, an extensive series of questions would have to be developed or adapted in each site. Moreover, the more complex the content of the advice, the harder it would be to determine the practices of health facility staff by asking mothers what they were told.

   The draft questionnaires include very simple, direct questions (questions 4, 5 and 6 in Annex 2.2 and question 5 in Annex 2.4) to measure the *Supplementary feeding and supplies recommendation rate*, *Breastfeeding discouragement rate*, and *Lactation amenorrhoea counselling rate*. It remains to be seen whether the simple questions will be sufficient to allow reasonably accurate measurement of the frequency with which health facility staff give mothers specific types of advice that can affect breastfeeding behaviour.

2. Separate indicators for special types of infants: The *Rooming-in rate* and *Timely first-suckling rate* require that the relevant behaviour be started within one hour of birth. Some concern was expressed that these practices were not possible for women who had Caesarean births, and that facilities with high proportions of Caesarean births would have low rates of appropriate behaviour, but also little possibility for improvement. The Baby Friendly Hospital Initiative Assessment Tools use a different criterion, four hours, for Caesarean births. Experience with those tools will allow determination of how much using the single criterion of one hour for all births is likely to distort assessment of health facility practice at the aggregate level. Concern about any distortion will have to be weighed against the problems of increasing the number of indicators and the complexity of the questionnaires (violating the first criterion for indicator selection).

   Allowing separate indicators for Caesarean births might raise the question of separate indicators for other types of infants, for example, low-birth-weight infants. This would be inadvisable not only because it would further increase the number of indicators and the complexity of the questionnaires, but most importantly because allowing separate measurement of, say, the *Exclusively breastfed by natural mother rate* for low-birth-weight infants may imply to facility staff that possibilities for improvement are limited, and thus in effect give them permission to continue less than optimal practices.

6. NEXT STEPS

The next steps in the development of these indicators of health facility practices that affect breastfeeding will be to distribute them to key personnel involved in the monitoring and evaluation of these types of practices and to pretest the indicators proposed at this meeting. The methodology for data collection will be further developed in this process, including, for example, methods of sampling of health facilities and mothers, as well as summary sheets for hand collation of data and guidelines for data analysis and reporting.

As mentioned above, the participants of the meeting welcome:

1. Suggestions for indicators based on health facilities as the unit of observation;

2. Further comments related to the indicators based on interviews with mothers; and

3. Relevant experience in data collection, analysis and use of these indicators.

Correspondence regarding these topics may be addressed to:

Nutrition Section (H-10F)
UNICEF
3 United Nations Plaza
New York, NY 10017
USA

Fax: 1-212-326-7336

Secretariat
Working Group on Infant Feeding
Maternal and Child Health and
Family Planning
WHO
CH-1211 Geneva 27
Switzerland

Fax: 41-22-788-4264

7. ACKNOWLEDGEMENTS

We gratefully acknowledge all those who provided valuable comments on the draft of this report.

Annex 1

LIST OF PARTICIPANTS IN THE FIRST (6 MARCH 1992) AND/OR SECOND (9-10 JUNE 1992) MEETINGS

UNICEF

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Ms Margaret Kyenkya-Isabirye, Adviser, Child Feeding

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Dr Beverly Winikoff, Senior Associate, Programs Division

World Alliance for Breastfeeding Action (WABA)

Professor Michael Latham, Chairperson, Research and Studies Task Force

Wellstart

Dr Ann Brownlee, Technical Adviser for Programme Development, Evaluation and Research

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Dr Chloe O'Gara, Director, Expanded Promotion of Breastfeeding Programme

Institute for Reproductive Health, Georgetown University

Dr Miriam Labbok, Director, Breastfeeding and Maternal and Child Health

United States Agency for International Development (USAID)

Dr Mary Ann Anderson, Deputy Chief, Health Services Division, Office of Health, Bureau for Research and Development

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WHO Observers

Mrs Martha Anker, Statistician, Epidemiological and Statistical Methodology, Division of Epidemiological Surveillance and Health Situation and Trend Assessment

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Dr José Martines, Medical Officer, Diarrhoeal Disease Control Programme

Ms Susan Zimicki, Short-term Consultant, Diarrhoeal Disease Control Programme

Annex 2.1

SAMPLE DATA COLLECTION INSTRUMENT
FOR FACILITIES WHERE INFANTS ARE DELIVERED

[These questions are to be asked of all mothers whose newborn infants are being discharged on the day(s) that the facility is visited.]

Good (morning/afternoon/evening). My name is (INSERT YOUR NAME HERE) and I am working with (INSERT GROUP'S NAME HERE, i.e., the Ministry of Health, UNICEF, WHO, etc.). We are interested in learning more about some aspects of your stay here, in particular, about how your child has been fed and about your interactions with the staff here. Our discussion will take about 5 minutes of your time. May I continue?

1a. NAME OF FACILITY: _____

1b. PATIENT NUMBER: _____

1c. INTERVIEWER: _____

1d. DATE: dd/mm/yy: _ _/_ _/_ _

2. How many days old is your baby? ____ days

(if less than a day) How many hours old is your baby? ____ hours

3. Was your baby delivered by Caesarean section?

Yes	1
No	2

4. Since this time yesterday have you breastfed your baby?

Yes	1 ----> go to 6
No	2

5. Have you ever breastfed your baby?

Yes	1
No	2 ----> go to 7

6. How soon after birth did you breastfeed your baby for the first time: within one hour, a few hours, a day or more than a day?

Within one hour	1
Within a few hours	2
Within a day	3
More than a day	4
Don't know/don't remember	5

7. Since birth, has your baby received expressed breastmilk or been fed by a wet-nurse?

Yes	1
No	2

8. Since birth, have you, the hospital staff or anyone else given your baby anything to eat or drink except breastmilk?

Yes	1
No	2 ----> go to 10
Don't know	9 ----> go to 10

9. What has been given to the baby to eat or drink?

	Yes	No
Vitamins, mineral supplements, medicine	1	2
Plain water	1	2
Sweetened or flavoured water	1	2
Infant formula	1	2
Tinned, powdered or fresh (cow/goat/etc.) milk	1	2
Other _____	1	2

10. Since this time yesterday, have you, the hospital staff or anyone else fed your baby with a infant feeding bottle?

Yes	1
No	2

11. Have you, the hospital staff or anyone else given your baby teats or pacifiers to suck on since birth?

Yes	1
No	2

12. Since the baby's birth, or during a visit to this facility before the birth, has any staff person given you infant formula or tinned or powdered milk for the baby, infant feeding bottles or teats, or coupons for these items at any time?

Yes	1
No	2

13. Has your baby stayed with you in your room/bed/near your bed at all times?

Yes	1
No	2 ----> go to END.

14. How soon after birth did your baby start staying in your room/bed/near your bed? Would you say it was:

Within an hour	1
After an hour	2 ----> go to END.

15. Has your baby been separated from you for more than one hour at any one time during your stay?

Yes	1
No	2

END. Thank you very much for your time.

Annex 2.2

SAMPLE DATA COLLECTION INSTRUMENT
FOR POSTNATAL AND PAEDIATRIC OUTPATIENT FACILITIES

[These questions are to be asked of all mothers of young children attending the clinic on the day(s) that it is visited.]

Good (morning/afternoon/evening). My name is _____ and I am working with (INSERT GROUP'S NAME HERE, i.e., the Ministry of Health, UNICEF, WHO, etc). We are trying to find out about recommendations and services provided to mothers of young children, particularly those concerning feeding. Our discussion will take about 5 minutes of your time. May I continue?

1a. NAME OF FACILITY: _____

1b. PATIENT NUMBER): _____

1c. INTERVIEWER: _____

1d. DATE: dd/mm/yy: _ _/_ _/_ _

2. Are you currently breastfeeding your baby at all?

Yes	1
No	2 ----> go to END.

3. How many months old is your baby? _____ months
(circle 1):

Less than 4 months	1 ----> continue (ask 4)
4-23 months	2 ----> go to 5
24 months or more	3 ----> go to END.

4. Now I'm going to read you a list of items related to infant feeding, and I would like you to tell me if anyone today gave you any of these items, gave you a prescription or coupons for them, or recommended that you start using them.

	Given	Presc./coupons	Recom-mended	Not mentioned
Infant formula	1	2	3	4
Tinned, powdered, or fresh (cow/goat/etc.) milk	1	2	3	4
Food for the baby	1	2	3	4
Feeding bottles	1	2	3	4
Teats	1	2	3	4

Go to END.

5. During your visit here today, did anyone suggest that you stop breastfeeding?

Yes	1
No	2

6. Did anyone suggest that you decrease breastfeeding?

Yes	1
No	2

END. Thank you very much.

Annex 2.3

SAMPLE DATA COLLECTION INSTRUMENT FOR INPATIENT PAEDIATRIC FACILITIES

[These questions are to be asked of all mothers whose young children are being discharged from the inpatient paediatric facility on the day(s) that it is visited.]

Good (morning/afternoon/evening). My name is (INSERT YOUR NAME HERE) and I am working with (INSERT GROUP'S NAME HERE, i.e., the Ministry of Health, UNICEF, WHO, etc.). We are trying to find out about services provided to mothers of young children, particularly those concerning feeding. Our discussion will take about 5 minutes of your time. May I continue?

1a. NAME OF FACILITY: _____

1b. PATIENT NUMBER): _____

1c. INTERVIEWER: _____

1d. DATE: dd/mm/yy: _ _/_ _/_ _

2. How many months old is your child? _____ months
(if child is 24 months old or more - has had second birthday - go to END).

3. How many days has your child been here? _____

4. In the past 24 hours, that is since this time yesterday, have you breastfed your child?

Yes	1 ----> go to 6
No	2

5. At the time your child was admitted, were you breastfeeding him/her at all?

Yes	1
No	2 ----> go to 7

6. Since your child has been here, have you been allowed to see him/her whenever you want (day or night) in order to breastfeed?

Yes	1
No	2

7. At the time your child was admitted, was s/he taking anything from a bottle?

Yes	1 ----> go to END.
No	2

8. Since your child has been here, has s/he been given anything, including medicine, ORS or breastmilk, from a bottle?

Yes	1
No	2

END. Thank you for your time.

Annex 2.4

SAMPLE DATA COLLECTION INSTRUMENT
FOR FACILITIES PROVIDING FAMILY PLANNING INFORMATION

[These questions are to be asked of all mothers of young children attending the clinic on the day(s) that it is visited.]

Good (morning/afternoon/evening). My name is (INSERT YOUR NAME HERE) and I am working with (INSERT GROUP'S NAME HERE, i.e., the Ministry of Health, UNICEF, WHO, etc.). We are trying to find out about services provided to mothers of young children. Our discussion will take about 5 minutes of your time. May I continue?

1a. NAME OF FACILITY: _____

1b. PATIENT NUMBER: _____

1c. INTERVIEWER: _____

1d. DATE: dd/mm/yy: _ _/_ _/_ _

2. Are you currently breastfeeding your baby at all?

Yes	1
No	2 ----> go to END

3. How many months old is your baby now? ____ months
(circle 1):

0-1 month	1 ----> continue (ask 4)
2-5 months	2 ----> go to 6
6 or more	3 ----> go to END

4. How many weeks old is your baby? ____ weeks
(circle 1):

0-5 weeks	1
6 or more	2 ----> go to 6

5. During your visit here today, did anyone tell you that breastfeeding can prevent pregnancy?

Yes	1
No	2

6. During your visit here today, did you receive any prescription or recommendation for contraceptives, or did anyone provide you with contraceptives?

Prescription	1
Recommendation	2
Gave contraceptives	3
Received nothing	4 ----> go to END

7. May I know what kind of contraceptives you were (given/recommended/ prescribed)? That is, what is the name?

_____

Code later as:	Combined hormonal contraceptive	1
	Simple hormonal contraceptive	2
	Other	3
	Not a contraceptive	4

END. Thank you for your time.

BREASTFEEDING INDICATORS FOR HEALTH FACILITIES

	TITLE	DEFINITION	SOURCE
	MATERNITY SERVICES		
1	Exclusively breastfed by natural mother rate	Num: no. of infants exclusively breastfed by their natural mothers from birth to discharge Denom: no. of infants discharged	Maternal interviews at discharge
2	Breastmilk substitutes and supplies receipt rate	Num: no. of mothers who received breastmilk substitutes, infant feeding bottles, or teats at any time prior to discharge or during a prenatal visit to this facility Denom: no. of mothers discharged	Maternal interviews at discharge
3	Bottle-fed rate	Num: no. of infants who received any food or drink from a bottle in 24 hours prior to discharge Denom: no. of infants discharged	Maternal interviews at discharge
4	Rooming-in rate	Num: no. of infants rooming-in 24 hours a day, beginning within 1 hr of birth, not separated from mother for more than 1 hr at any time Denom: no. of infants discharged	Maternal interviews at discharge
5	Breastfed rate	Num: no. of infants breastfeeding in 24 hours prior to discharge Denom: no. of infants discharged	Maternal interviews at discharge
6	Timely first-suckling rate	Num: no. of infants who first suckled within 1 hour of birth Denom: no. of infants discharged	Maternal interviews at discharge
opt.1	Exclusively breastmilk fed rate	Num: no. of infants exclusively breastmilk fed from birth to discharge Denom: no. of infants discharged	Maternal interviews at discharge
opt.2	Pacifier use rate	Num: no. of infants who received pacifiers at any time prior to discharge Denom: no. of infants discharged	Maternal interviews at discharge

	TITLE	DEFINITION	SOURCE
		POSTNATAL/OUTPATIENT	
1	Supplementary feeding and supplies recommendation rate	Num: no. of mothers of breastfed infants less than 4 months old who received a recommendation or prescription for breastmilk substitutes, supplementary feeding, bottles or teats during the clinic visit Denom: no. of mothers of breastfed infants less than 4 months old attending the clinic	Maternal interviews at exit
2	Supplementary food and supplies receipt rate	Num: no. of mothers of breastfed infants less than 4 months old who received breastmilk substitutes, supplementary foods, infant feeding bottles or teats, or coupons for these items during the clinic visit Denom: no. of mothers of breastfed infants less than 4 months old attending the clinic	Maternal interviews at exit
3	Breastfeeding discouragement rate	Num: no. of mothers of breastfed infants 4 to 24 months old who were advised to stop or decrease breastfeeding Denom: no. of mothers of breastfed infants 4 to 24 months old attending the clinic	Maternal interviews at exit
		PAEDIATRIC INPATIENT	
1	Continued breastfeeding rate	Num: no. of mothers of children less than 2 years old who have breastfed the child within the 24 hours prior to discharge Denom: no. of mothers of children less than 2 years old who were breastfed at the time of admission	Maternal interviews at discharge
2	Access rate	Num: no. of mothers of breastfed children less than 2 years old who had access to the child day and night in order to breastfeed Denom: no. of mothers of breastfed children less than 2 years old who were breastfed at the time of admission	Maternal interviews at discharge
3	Bottle-feeding initiation rate	Num: no. of children less than 2 years old not using a bottle on admission who received anything (including ORS) in a bottle during their stay in the facility Denom: no. of children less than 2 years old not using a bottle on admission	Maternal interviews at discharge

	TITLE	DEFINITION	SOURCE
		FACILITIES PROVIDING FAMILY PLANNING INFORMATION	
1	Combined hormonal contraceptive rate	Num: no. of of breastfeeding mothers of infants less than 6 months old given or prescribed a combined hormonal contraceptive during clinic visit Denom: no. of of breastfeeding mothers of infants less than 6 months old attending clinic	Maternal interviews at exit
2	Lactation amenorrhoea counselling rate	Num: no. of of breastfeeding mothers of infants less than 6 weeks old receiving information about the contraceptive effect of breastfeeding during the consultation Denom: no. of of breastfeeding mothers of infants less than 6 weeks old attending clinic	Maternal interviews at exit
opt.1	Any hormonal contraceptive rate	Num: no. of breastfeeding mothers of infants less than 6 weeks old given or prescribed any hormonal contraceptive during clinic visit Denom: no. of of breastfeeding mothers of infants less than 6 weeks old attending clinic	Maternal interviews at exit