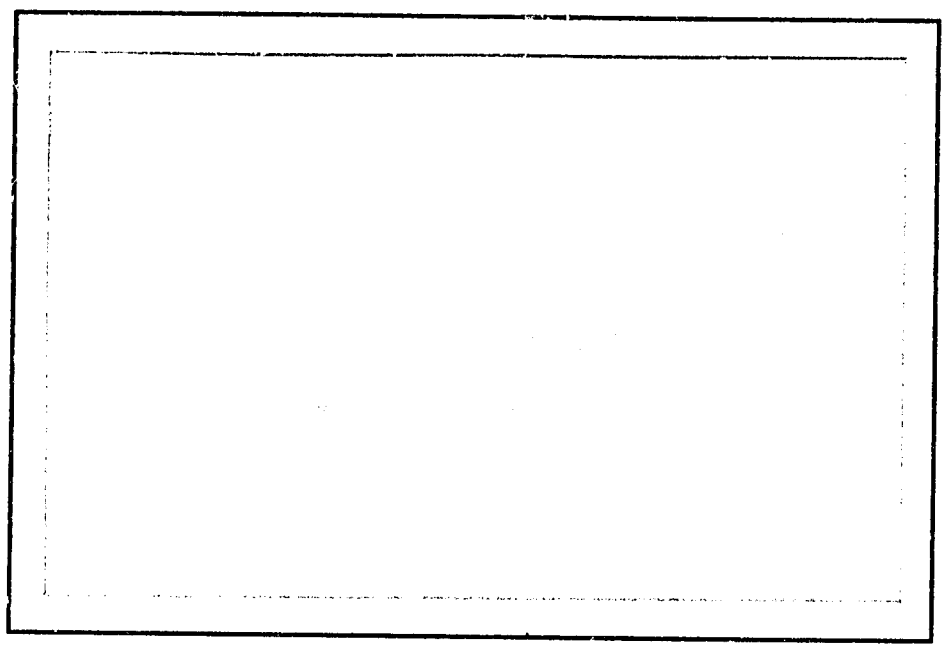

PRITECH

Technologies for Primary Health Care

Management Sciences for Health
1925 North Lynn Street
Suite 400
Arlington, Virginia 22209

PN-ABP-186

KENYATTA NATIONAL HOSPITAL
LACTATION MANAGEMENT
NEEDS ASSESSMENT FOR MOTHERS

A Report Prepared by PRITECH Consultant(s):
ALTRENA G. MUKURIA

During The Period:
FEBRUARY 1993

TECHNOLOGIES FOR PRIMARY HEALTH CARE (PRITECH) PROJECT
Supported By The:
U.S. Agency for International Development
CONTRACT NO: AID/DPE-5969-Z-00-7064-00
PROJECT NO: 936-5969

AUTHORIZATION:
AID/S&T/HEA: 04/30/93
ASSGN NO: SUP 254-KE

ACKNOWLEDGEMENTS

The mothers knowledge, attitudes, beliefs and practices survey was developed jointly by the Kenyatta National Hospital Lactation Management Team, along with Ms. Pamela Malebe, Nutritionist, Division of Family Health, Ministry of Health, Dr. Rachel Musoke, Dept. of Paediatrics, University of Nairobi, Dr. Larry Casazza, Technical Officer, PRITECH/Washington and Ms. Karen Blyth, Kenya Country Representative, PRITECH. The Lactation Management Team is composed of the following individuals:

Dr. Kamenwa
Ms. Grace Kibua
Ms. Joyce Kiruki
Ms. Waithera Mirie
Ms. Anne Murui
Ms. Hannah Njenga

Members of the Lactation Management Programme Team conducted the interviews of the mothers along with eight medical students under the instruction of Dr. Rachel Musoke.

This report was prepared by Altrena G. Mukuria, Services for Health Care Development for the Kenya Country Office of the PRITECH Project, Technologies for Primary Health Care, with funds provided by Management Sciences for Health as prime contractor to the U.S. Agency for International Development under Prime Contract Number DPE-5969-Z-00-7064-00.

A note of appreciation goes to the PRITECH/Kenya office staff for their support and assistance and to Ms. Jane Mayoli for completing the data entry. A special thanks goes to all who participated in the development and conduct of the study.

TABLE OF CONTENTS

LIST OF TABLES

EXECUTIVE SUMMARY

A Lactation Management Training Program was established at Kenyatta National Hospital (KNH) by a six person multi-disciplinary team in 1992 to provide in-service lactation management courses for health workers. Two studies were conducted to collect baseline information on breastfeeding knowledge, attitudes and practices of health workers and mothers at the hospital. The findings of the two studies provided guidance for the team in the development of an in-service training curriculum for KNH staff. This report describes the findings of the survey of mothers' knowledge, attitudes, beliefs and practices (KABP) as well as hospital practices as reported by the mothers.

A survey questionnaire was developed by the Lactation Management Team with technical assistance from PRITECH to collect information on the mothers' personal characteristics, obstetrical history, current birth history, previous breastfeeding experience and antenatal history in addition to infant feeding KABP. Interviews were conducted of 311 mothers of singleton newborns (less than one month of age) who were recruited from selected in-patient wards of Kenyatta National Hospital.

It was found that mothers had a high level of knowledge about breastfeeding. However there were discrepancies between knowledge and practice. Mothers were aware of the nutritional importance of exclusive breastfeeding, however, they planned to introduce other fluids or foods prior to the recommended weaning period. More than 50% of the mothers had breastfed their previous child for 18-24 months. A few mothers complained of insufficient milk. It appears that many of these mothers had infants less than one day old and may not be aware of the time it takes for a mother's milk to come in.

Kenyatta National Hospital was recently awarded baby-friendly status by UNICEF. This study confirms that infants are breastfed on-demand in the hospital, rooming-in is widely practiced and few infants receive supplements. No infant formula is used. However there are areas in which the hospital can strengthen its baby-friendly activities. Mothers should be routinely helped to put their babies to the breast within half an hour after delivery. Comprehensive breastfeeding information needs to be given to mothers antenatally and postnatally. Lactation management assistance should be provided to all mothers during the post-partum period in the hospital.

Therefore it is recommended that the in-service training for hospital staff focus upon lactation management, particularly exclusive breastfeeding, and communication skills to enable staff to counsel and advise mothers. In-patient and out-patient follow-up support for mothers with breastfeeding problems should be instituted. In addition, it is advised that the Lactation Management Programme assist the hospital to develop and monitor a policy that enforces the national infant feeding policy. A hospital-based communication strategy needs to be developed to include counselling guidelines for all staff and information materials on breastfeeding for mothers.

I. INTRODUCTION

This report covers the findings of a Needs Assessment of Mothers Breastfeeding Knowledge, Attitudes, Beliefs and Practices and Hospital Practices as reported by Mothers at Kenyatta National Hospital in July/August 1992. It is a companion report to the Kenyatta National Hospital (KNH) Health Workers Lactation Management Knowledge and Attitudes Assessment Report of June 1992. Both studies were undertaken at the request of the Kenya Lactation Management Training Team (LMTT) to provide baseline information for the development of a staff in-service training program as part of the newly established National Lactation Management Training Programme based at KNH.

PRITECH (Technologies for Primary Health Care) which funded the studies provides assistance to the Ministry of Health, Kenya through the Control of Diarrheal Diseases (CDD) Programme. As part of PRITECH's assistance it was decided that in order to promote breastfeeding effectively, hospital-based health workers should be targeted to strengthen their knowledge of lactation management and to improve hospital practices.

In Kenya, diarrhea causes 20% of the deaths in under fives and is the second major cause of child morbidity.[1] Breastfeeding provides protection against illness and death associated with diarrhea. Breastfeeding promotion is expected to reduce diarrhoea mortality by 24-27% and diarrhoeal morbidity rates by 8-20% among children under six months of age.[2] (For further discussion on the role of breastfeeding in diarrhoea prevention see the Health Workers Knowledge and Attitudes Assessment, June 1992)

---

[1] Kenya Demographic and Health Survey, 1989, National Council for Population and Development, Ministry of Home Affairs and National Heritage, DHS, Institute for Research Development/Macro Systems, Inc., October, 1989.

[2] Feachem and Koblinsky, "Interventions for the Control of Diarrhoeal Diseases Among Young Children: Promotion of Breastfeeding of Breastfeeding, " Bulletin of the World Health Organization, 1984, 62:271-91.

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) launched the Baby-Friendly Hospital Initiative with the cooperation of other international non-governmental organizations. Baby friendly hospitals promote an environment that supports women in breastfeeding. Staff provide assistance to breastfeeding mothers and implement policies which safeguard the breastfeeding relationship. Kenyatta National Hospital has been considered a baby friendly hospital.

Although the assessment of health workers knowledge and attitudes demonstrated that health workers at KNH have a high level of understanding of breastfeeding and lactation and that they were aware of the health and nutritional aspects of breastfeeding, there were still gaps in knowledge. The health workers were not knowledgeable of the period of exclusive breastfeeding, and they were not comfortable with advising working mothers or mothers with breastfeeding problems such as insufficient milk. The health workers were also unfamiliar with the national and hospital breastfeeding policies.

Previous studies in Kenya of health workers also found that misconceptions persisted about specific aspect of infant feeding.[3] In 1989, 35% of health workers still felt that it was necessary to give babies boiled water or glucose water before the mother's milk came in. Many did not understand the basic mechanisms of lactation. Health workers over-emphasized the medical and physiological aspects of breastfeeding problems instead of the psychological ones leading to physical rather than emotional solutions. It was also found that 38% of the health workers recommended the introduction of semi-solid foods at inappropriate times for weaning.

In addition it was reported that current hospital practices in Kenya no longer include the routine use of bottles and infant formula. The separation of babies and

---

[3] Ministry of Health and UNICEF, Kenya, "Breastfeeding in Kenyan Maternity Facilities. A Study of Changes in Knowledge, Attitudes and Practices 1982-1989," A Collaborative Report, March 1990.

mothers that hindered breastfeeding initiation and limited breastfeeding support in the past are no longer practiced.

Previous studies of mothers attitudes and practices have shown that in Kenya, 97% of babies are breastfed with a median duration of 17.8 months.[4] However Kenya has a low median duration of exclusive breastfeeding of .8 months.[5] In studies conducted over ten years ago it was found that mothers supplemented breastmilk with water and/or fruit juice as early as the first month and mothers believed that an infant would be healthier if it received infant formula in addition to breastmilk in the first three months of life.[6,7] Among mothers who introduced other milks before four months of life, the most commonly stated reasons were either the baby was hungry or that the mother did not have enough milk.

Another study published in 1984, surveyed middle-income African and Indian women in Nairobi[8] and found that 56% of the African and 87% of the Indian mothers were giving other milks besides breastmilk or had stopped breastfeeding their infants even before they were discharged from the hospital despite over 90% of the mothers having agreed that breastmilk was the

---

[4] Kenya Demographic and Health Survey, 1989, National Council for Population and Development, Ministry of Home Affairs and National Heritage, DHS, Institute for Research Development Macro Systems, Inc. October 1989.

[5] Sharma, R., Rutstein, S.O., Labbok, M., "Infant Feeding Practices in Developing Countries: Findings from Demographic and Health Surveys," Draft, 1991.

[6] Dimond, H.J., Ashworth, A., "Infant Feeding Practices in Kenya, Mexico and Malaysia. The Rarity of the Exclusively Breast-fed Infant," Human Nutrition, Applied Nutrition, 1987, 41A, pp.51-64.

[7] Winikoff, B., Castle, M.A., Laurkaran, V.H., eds., Feeding Infants in Four Societies, Causes and Consequences of Mothers' Choices, under the auspices of Population Council Contributions in Family Studies, No. 14, Greenwood Press, N.Y., 1988.

[8] Lakhani, S., and Jansen, A.A.J., "Opinions About Breastfeeding Amongst Middle-Income African and Indian Women in Nairobi," East African Medical Journal, April 1984, pp.266-271.

best milk for a baby under four months of age. (The usual stay in the hospital was three days after a normal delivery and ten days after a caesarean section.)

To determine current KNH hospital practices as well as current maternal breastfeeding knowledge, attitudes, beliefs and practices, a survey of mothers at KNH was developed and conducted.

II. OBJECTIVES

The objectives of the study were to collect information on :

1. Mothers' knowledge, attitudes and beliefs about breastfeeding.
2. Mothers' previous, planned and current breastfeeding practices.
3. Hospital breastfeeding practices as reported by the mothers
4. Breastfeeding advice and information provided to mothers from hospital staff and others.

The findings will be used to compare with the findings of the health workers knowledge and attitudes survey in the design of a lactation management training curriculum for in-service training of health workers at Kenyatta Hospital.

III. METHODOLOGY

A modified survey questionnaire was developed based upon the questionnaire designed by the Lactation Management Training Team while attending training at Wellstart. San Diego, California, U.S.A. and the PRITECH/Zambia hospital-based questionnaire for post-partum mothers. The questionnaire was designed to collect information on the mothers' personal characteristics, obstetrical history,

current birth history, previous breastfeeding experience and antenatal history. The questionnaire also collected information on the mothers' breastfeeding knowledge, attitudes and beliefs, maternal breastfeeding practices and hospital practices. A copy of the questionnaire is appended.

Purposive sampling was used to target mothers of newborn infants defined as less than one month of age. These mothers were recruited from the postnatal, newborn, paediatric emergency and paediatric wards of Kenyatta National Hospital.

Interviews were conducted of 313 mothers by four members of the Lactation Management Training Team and eight medical students of the University of Nairobi, School of Medicine between July and August 1992. Two of the questionnaires were not used because they were of mothers of multiple births. All others were of single births.

Although the questionnaire was translated into Swahili, the interviewers were not conversant enough with the written Swahili to use it. Hence the questionnaire was in English but the interviewers used spoken Swahili to interview the mothers.

Data from the interviews was entered into EPI Info Version 5.01b computer program of the Centers for Diseases Control, Atlanta, U.S.A. and WHO, Geneva, Switzerland. A consultant was engaged to assist with the questionnaire coding, supervision of data collection, data analysis and report writing. Recoding was necessary for a few of the questions prior to analysis to reflect the common responses to the "other" categories and to code the open ended questions.

IV. LIMITATIONS OF THE DATA

It would have been most appropriate to use a standard Swahili questionnaire. However due to the language limitations of interviewers, verbal translations were necessary. All of the interviewers were Kenyan health

professionals and conversant with the concepts survey and the spoken language of the interview.

Data was not collected on the ward in which the mother was recruited and hence analysis could not benefit from variations due to the ward in which the mother was found.

The only socio-economic variable used was mothers education.

V. RESULTS

A. CHARACTERISTICS OF THE SAMPLE

1. Maternal Characteristics

A total of 313 mothers on the maternity wards of Kenyatta National Hospital were interviewed between July 6th and August 3rd 1992. Of these, 311 questionnaires were usable for the analysis. Table 1 below lists the general characteristics of the respondents.

The mothers' ages ranged between 16 and 40 years with a median age of 23 years. The majority of the respondents had either a primary (1-8 years) or secondary level of education. The median number of years completed was 9 years. 68% of the women were married and 32% were not (single, divorced, widowed). Single women (30%) made up the bulk of the not married women. 36% of the respondents had been working while 64% did not work. 57% of the sample resided in Nairobi. The other 43% resided outside Nairobi; 23% in other urban areas and 17% in rural areas.

TABLE 1: MATERNAL CHARACTERISTICS:

	n	%
Age (years) (N=311)		
16 to 19	76	24.4
20 to 24	120	38.6
25 to 29	73	23.5
30 to 34	29	9.3
35 to 40	13	4.2
Median Age: 23 years		
Education (N=311)		
None	18	5.8
Primary	137	44.0
Secondary	141	45.3
Post-secondary	15	4.8
(Median years education: 9 years)		
Marital Status (N=311)		
Married	212	68.2
Divorced	6	1.9
Single	92	29.6
Widowed	1	.3
(Married 68%; not married 32%)		
Residence (N=310)		
Nairobi	175	56.5
Urban	72	23.2
Rural	52	16.8
Other	11	3.5
Work Status (N=309)		
Work	110	35.6
No work	199	64.4

2. Obstetrical History

As seen in table 2 below, an obstetrical history was taken. Mothers reported the total number of pregnancies including the current one. The number of pregnancies ranged from 1 to 10 with a median number of 2 pregnancies. The number of live births ranged from 1 to 6 with a median of 2 births. Mothers were asked about the number of abortions or miscarriages they had experienced. They reported from 0 to 5 abortions with 80% of the respondents reporting not having had an abortion/miscarriage.

TABLE 2: OBSTETRICAL HISTORY

	n	%
No. of Pregnancies (N=310)		
1	126	40.6
2	63	20.3
3	58	18.6
4	27	8.7
5	20	6.5
6	12	3.9
7	3	1.0
10	1	0.3
No. of Births (N=311)		
1	144	46.3
2	68	21.9
3	51	16.4
4	25	8.0
5	14	4.5
6	9	2.9
No. of Abortions/Miscarriages (N=307)		
0	248	80.8
1	41	13.4
2	13	4.2
3	2	0.7
4	2	0.7
5	1	0.3

3. Birth History

Information was collected on the current birth. 73.3% were normal deliveries with the remaining 26.4% being cesarian sections, vacuum suctions, breech or other. The infants range from one hour to over one week of age. The median age was two days. The infant's weight ranged from 750 gms to 4900 gms. The median weight was 3000 gms. 19% of the infants were of low birth weight and 81% were of normal weight. (See Table 3 below)

TABLE 3: BIRTH HISTORY

	n	%
Type of Delivery (N=311)		
Normal	228	73.3
Cesarian Section	74	23.8
Vacuum Suction	7	2.3
Breech	1	0.3
Other	1	0.3
Infant's Age (N=311)		
< 6 hours	38	12.2
7-12 hours	41	13.2
13-23 hours	35	11.3
24 hours	36	11.6
<1 week	71	22.8
1 week	8	2.6
>1 week	82	26.4
Infant's Weight (N=303)		
<2000 gms	58	19.1
2001 to 4900	245	80.9

4. Previous Breastfeeding Experience

Of the 170 mothers to whom it was applicable, 97% had breastfed the previous child. Only six had not. 165 mothers reported for how long they had breastfed. In table 4 below, the median length for previous breastfeeding was 18-24 months.

TABLE 4: LENGTH OF PREVIOUS BREASTFEEDING

N=165	n	%
<6 months	7	4.2
6-11 months	12	7.3
12-17 months	40	24.2
18-24 months	88	53.3
>24 months	18	10.9

5. Antenatal History

a. Antenatal Care

An over whelming majority (92%) of the mothers reported having received antenatal care. For the most part the antenatal care was received in government clinic. Although

the mothers had received antenatal care, only 30% reported having been given advice on breastfeeding as part of that care. (See Table 5 below)

TABLE 5: ANTENATAL HISTORY

	n	%
Received Antenatal Care (N=311)		
YES	287	92.3
NO	24	7.7
Where was Antenatal Care Provided (N=287)		
Government	237	82.6
NGO Clinic	22	7.7
Private Nurse/Midwife	12	4.2
Private Doctor	14	4.9
Other	2	0.7
Antenatal Advice on Breastfeeding (N=286)		
YES	87	30.3
NO	199	69.3

b. Antenatal Advice

In table 6 on the next page is a list of topics and specific advice mothers reported to have received. The topics include among others, how to care for the breasts, period of exclusive breastfeeding, how to breastfeed and the protection breastfeeding offers mothers and infants. The conflicting messages given to mothers on any one topic should be noted.

TABLE 6: TOPICS OF ANTENATAL ADVICE GIVEN

1. How to care for the breasts
    a. wash hands
    b. use vaseline and massage
    c. advice to mother with flat nipples
    d. how to care for breasts during antenatal period in order to produce milk later

2. Importance of breastfeeding
    a. no reason given
    b. best food for the baby
    c. convenient
    d. nutritious

3. Timing of weaning
    a. introduce fruits in first week
    b. inappropriate to wean before infant is 3 months
    c. wean between 4 to 6 months
    d. wean at 4 months
    e. wean at five months
    f. exclusively breastfeed for 4 months

4. How to position baby
    a. laying down is best

5. How to breastfeed
    a. breastfeed on demand
    b. do not breastfeed the child every time he cries; find out what is wrong first
    c. let baby suck as long as he wants to stimulate milk production
    d. breastfeed for half an hour
    e. put child to breast within half an hour after delivery
    f. express milk while away

6. Breastfeeding provides protection
    a. breastmilk protects from infections and diarrhea
    b. breastmilk protects from other vaccinatable diseases
    c. breastfeeding prevents conception

7. Duration of breastfeeding
    a. breastfeed for 2-3 years
    b. breastfeed for 2 years
    c. breastfeed for 3 years
    d. breastfeed for 1-4 months

8. Other
    a. nutrition for mother is important to get enough milk
    b. use spoon and cup to give other foods

B. MATERNAL KNOWLEDGE, ATTITUDES AND BELIEFS

The mothers were queried on their knowledge, attitudes and beliefs related to infant feeding, exclusive breastfeeding and the timing of weaning, duration of breastfeeding and the benefits and drawbacks to breastfeeding.

1. Knowledge

As indicated in Table 7 below, 39% of the mothers responded that an infant could remain healthy on breastmilk only for up to 4 months. Another 46% responded between 4 to 6 months. When asked what is the best way to feed a newborn infant (less than 1 month), 55% of the mothers stated with breastmilk only. 23% of the mothers indicate that breastmilk and water should be given to a newborn. (See Table 8)

TABLE 7: AGE INFANT REMAINS HEALTHY ON BREASTMILK ONLY

(N=309)	n	%	
<1 MONTH	14	4.5	
1 MONTH	21	6.8	
2 MONTHS	36	11.7	
3 MONTHS	49	15.9	<4 MONTHS =39%
4-6 MONTHS	142	46.0	
7-24 MONTHS	11	3.6	
> 2 YEARS	2	0.6	
DON'T KNOW	34	11.0	

TABLE 8: BEST WAY TO FEED A NEWBORN (INFANT < 1 MONTH)

Breastmilk Only	171	55.2
Breast & Water	70	22.6
Breast & Glucose/Water	36	11.6
Breast & Uji	4	1.3
Breast & Banana	5	1.6
Breast & SSS	15	4.8
Don't Know	3	1.0
Other	6	1.9

Two questions were asked on the length of time mothers should breastfeed their babies. 57% planned to breastfeed for

18-24 months and 28% planned to breastfeed for longer than 24 months. Very few mothers (9%) planned to breastfeed for less than 17 months. (Table 9)

In table 10 is listed the age mothers felt it best to stop breastfeeding. Consistent with their answers to how long the mothers planned to breastfeed, mothers also felt that 2 years was the best age (57%), with three years (19%) as the next best age to stop breastfeeding.

TABLE 9: HOW LONG DO YOU PLAN TO BREASTFEED YOUR BABY

PLAN	Freq	Percent
3-5 mo	1	0.3%
6-11 mo	9	2.9%
12-17	19	6.1%
18-24	176	56.6%
>24	86	27.7%
As long	4	1.3%
Other	3	1.0%
N.A.	1	0.3%
D.K.	12	3.9%
Total	311	100.0%

TABLE 10: BEST AGE TO STOP BREASTFEEDING

STOP	Freq	Percent
Years		
1	18	5.8%
2	177	56.9%
3	58	18.6%
4	9	2.9%
5	1	0.3%
6	1	0.3%
Other	36	11.6%
8	1	0.3%
D.K.	10	3.2%
Total	311	100.0%

2. Attitudes and Beliefs

A set of statements were read to mothers regarding breastfeeding, and they were asked if they agreed, disagreed or didn't know. Table 11 (next page) has the summary answers.

When presented the statement, "It (breastfeeding) is nutritious enough for the baby for the first four months of life," consistent with previous knowledge questions, 80% of the mothers agreed with the statement. 19% either disagreed or did not know. (See Table 11-A)

Table 11-B summarizes what mothers thought of the statement that breastfeeding can make a woman fat. 25% agreed and 53% disagreed with the statement; 22% did not know.

Table 11-C summarizes mothers responses to the statement that breastfeeding protects a baby against diarrhea and pneumonia. 87% agreed and 7% disagreed with the statement and 6% did not know.

The majority of the mothers (96%) agreed with the statement that breastfeeding makes a closer mother-child relationship (Table 11-D).

63% of mothers disagreed with the statement that breastfeeding makes the breasts ugly (Table 11-E). 30% of the mothers agreed that breastfeeding makes the breasts ugly.

Only 46% agreed with the statement that breastfeeding makes it difficult to become pregnant. Another 31% disagreed and 23% did not know.

TABLE 11: ATTITUDES AND BELIEFS AROUND BREASTFEEDING

A:NUTRITIOUS	Freq	Percent
Agree	249	80.1%
Disagree	34	10.9%
Not answer.	1	0.3%
Don't Know	27	8.7%
Total	311	100.0%

TABLE 11: ATTITUDES AND BELIEFS AROUND BREASTFEEDING (CONT'D)

B.FAT	Freq	Percent
Agree	79	25.4%
Disagree	164	52.7%
Not answer.	1	0.3%
Don't Know	67	21.5%
Total	311	100.0%

C.PROTECTS	Freq	Percent
Agree	271	87.1%
Disagree	22	7.1%
Not answered	1	0.3%
Don't Know	17	5.5%
Total	311	100.0%

D. CLOSER	Freq	Percent
Agree	298	95.8%
Disagree	8	2.6%
Not Answered	1	0.3%
Don't Know	4	1.3%
Total	311	100.0%

E. UGLY	Freq	Percent
Agree	91	29.3%
Disagree	196	63.0%
Not Answer.	1	0.3%
Don't Know	23	7.4%
Total	311	100.0%

F. PREGNANT	Freq	Percent
Agree	143	46.0%
Disagree	97	31.2%
Not Answered	1	0.3%
Don't Know	70	22.5%
Total	311	100.0%

To contrast with knowledge questions concerning exclusive breastfeeding, mothers were asked when they planned to give additional fluids or foods to their infants. Table 12 list the timing as stated by the mothers. Almost 60% of the mothers intend to give additional fluids or foods at less than 4 months of age. 36% of the mothers plan to give additional foods between 4 and 6 months. Twelve mothers did not know.

Only 12% of the mothers indicated they would use a bottle to feed their infants any additional fluids or foods. 87% would give with either a cup or a cup and spoon. (See Table 13 below)

TABLE 12: WHEN DO YOU INTEND TO GIVE ADDITIONAL FLUIDS OR FOODS

GIVE	Freq	Percent
<1 mo	60	19.3%
1 mo	40	12.9%
2-3 mo	80	25.7%
4-6 mo	112	36.0%
Other	1	0.3%
>6 mo	5	1.6%
No Ans	1	0.3%
D.K.	12	3.9%
Total	311	100.0%

TABLE 13: HOW DO YOU PLAN TO GIVE ADDITIONAL FLUIDS AND FOODS

HOW	Freq	Percent
Bottle	36	11.6%
Cup	55	17.7%
Cup/Sp	216	69.5%
Other	3	1.0%
DK	1	0.3%
Total	311	100.0%

In Kenya, mothers are known to introduce foods and fluids at different times. Therefore mothers were asked more specifically at what age they would introduce water, uji

(porridge), mashed fruits, cereal, sugar water and salt sugar solution (ORS). Their responses were recorded in days, weeks or months exactly as the mothers indicated.

WATER: 76% of mothers who responded (N=302), reported that they would introduce water at less than four months. 43% would give water within the first four weeks of life. 17% responded that they would introduce water in the 4 to 6 month period.

TABLE 14: AT WHAT AGE DO YOU PLAN TO INTRODUCE WATER*

WATER	Freq	Percent
Months		
1	51	16.4%
2	36	11.6%
3	14	4.5%
4	39	12.5%
5	3	1.0%
6	9	2.9%
8	1	0.3%
Weeks		
1	40	12.9%
2	34	10.9%
3	10	3.2%
4	8	2.6%
5	1	0.3%
6	2	0.6%
Days		
1	17	5.5%
2	11	3.5%
3	4	1.3%
3	1	0.3%
4	3	1.0%
5	2	0.6%
Other	6	1.9%
N/A	5	1.6%
N.A.	9	2.9%
D.K.	5	1.6%
Total	311	100.0%

* N/A - Not Applicable
N.A. - Not Answered
D.K. - Don't Know

UJI: Of the 307 mothers who answered with an age, 51% of mothers planned to introduce uji at less than 4 months. 43% at 4-6 months. 13% (39) would give uji at one month or less.

TABLE 15: AT WHAT AGE DO YOU PLAN TO INTRODUCE UJI (PORRIDGE)[10]

UJI	Freq	Percent
Months		
1	26	8.4%
2	42	13.5%
3	74	23.8%
4	87	28.0%
5	17	5.5%
6	28	9.0%
7	6	1.9%
8	4	1.3%
Weeks		
1	1	0.3%
2	2	0.6%
3	8	2.6%
4	2	0.6%
6	1	0.3%
Other	4	1.3%
N.G.	1	0.3%
N.A.	4	1.3%
D.K.	4	1.3%
Total	311	100.0%

[10] N.G. - Not Given
N.A. - Not Answered
D.K. - Don't Know

FRUITS: Of the 307, mothers who answered, 50% (155) would introduce fruits at less than 4 months of age. 41% (126) would introduce between 4 and 6 months of age. 18% (54) would introduce at 1 month or less. See Table 16 below.

TABLE 16: AT WHAT AGE DO YOU PLAN TO INTRODUCE FRUITS[11]

FRUITS	Freq	Percent
Months		
1	27	8.7%
2	42	13.5%
3	58	18.6%
4	89	28.6%
5	16	5.1%
6	21	6.8%
7	7	2.3%
8	4	1.3%
9	1	0.3%
Weeks		
1	5	1.6%
2	7	2.3%
3	10	3.2%
4	3	1.0%
7	1	0.3%
Days		
3	1	0.3%
Other	6	1.9%
N.G.	4	1.3%
N.A.	4	1.3%
D.K.	5	1.6%
Total	311	100.0%

(1= 10 weeks; 4 > 6 months.; 1=other)

[11] N.G. - Not Given
N.A. - Not Answered
D.K. - Don't Know

CEREAL: Of the 293 who responded with an age, 19% (56) would introduce cereal at less than four months. 37% (109) would introduce at 4 to 6 months. 5% (16) would introduce cereal at one month or less. It should be noted that 27% (78) would not give cereal at all.

TABLE 17: AT WHAT AGE DO YOU PLAN TO INTRODUCE CEREAL[12]

CEREAL	Freq	Percent
Months		
1	12	3.9%
2	12	3.9%
3	28	9.0%
4	43	13.8%
5	21	6.8%
6	45	14.5%
7	6	1.9%
8	14	4.5%
Weeks		
1	2	0.6%
3	1	0.3%
4	1	0.3%
Other	14	4.5%
N.G.	78	25.1%
N.A.	18	5.8%
D.K.	16	5.1%
Total	311	100.0%

[12] N.G. - Not Given
N.A. - Not Answered
D.K. - Don't Know

SUGAR WATER: Of the 291, mothers who answered, 79% (229) would give sugar water at some age; 14% (40)would not give their infant sugar water. 22 (8%) did not know if they would give sugar water. 70% (204) would give sugar water at 4 months or less. 42% (122) would give sugar water at one month or less.

TABLE 18: AT WHAT AGE DO YOU PLAN TO INTRODUCE SUGAR WATER[13]

SWATER	Freq	Percent
Months		
1	41	13.2%
2	26	8.4%
3	19	6.1%
4	37	11.9%
5	6	1.9%
6	8	2.6%
8	1	0.3%
9	1	0.3%
Weeks		
1	21	6.8%
2	24	7.7%
3	10	3.2%
4	4	1.3%
6	1	0.3%
Days		
1	7	2.3%
2	7	2.3%
3	3	1.0%
4	4	1.3%
5	1	0.3%
Other	8	2.6%
N.G.	40	12.9%
N.A.	20	6.4%
D.K.	22	7.1%
Total	311	100.0%

[13] N.G.- Not Given
N.A.- Not Answered
D.K.- Don't Know

It has been reported that care-givers are giving infants salt sugar solution (an oral rehydration solution) as treatment for diarrhea and as a prevention.[14] Hence mothers in this survey were asked about the introduction of Salt Sugar Solution (SSS) to infants. Interestingly, it was found that of the 281 who responded, 70% (198) said they would give their infant SSS. Of the 281, 37% (104) would give SSS to their infant at one month or less. 13.5% (38) would give SSS in the first week of life. The mothers were not asked why they would give the SSS.

TABLE 19: AT WHAT AGE DO YOU PLAN TO INTRODUCE SALT SUGAR SOLUTION

SSS	Freq	Percent	Cum.
Months			
1	32	10.3%	10.3%
2	23	7.4%	17.7%
3	14	4.5%	22.2%
4	32	10.3%	32.5%
5	5	1.6%	34.1%
6	7	2.3%	36.3%
8	1	0.3%	36.7%
9	1	0.3%	37.0%
Weeks			
1	21	6.8%	43.7%
2	23	7.4%	51.1%
3	7	2.3%	53.4%
4	4	1.3%	54.7%
6	2	0.6%	55.3%
8	1	0.3%	55.6%
Days			
1	4	1.3%	56.9%
2	8	2.6%	59.5%
3	2	0.6%	60.1%
4	3	1.0%	61.1%
Other	8	2.6%	63.7%
N/A	54	17.4%	81.0%
N. Ans	30	9.6%	90.7%
D.K.	29	9.3%	100.0%
Total	311	100.0%	

[14] Personal conversation with Bernadette Theuri, Kenya Medical Research Institute (KEMRI), Nutrition Division, December 1991.

3. Influence on Breastfeeding Decisions

To ascertain who may affect mothers' breastfeeding decisions, they were asked who influenced their decision to give other milk or fluids in addition to breastmilk to their child. (See Table 20 below)

It was found that 21% of the mothers surveyed said they decided to supplement on their own. Another 62% (194) were influenced by other sources and 17% said they were not influenced. Of the 194 who were influenced by other sources, 52% (101) were influenced by health professionals, 26% (51) by their parents, 14% (28) by neighbors/relatives/friends, 6% (12) by reading materials or school and 1% (3) by another source.

TABLE 20: WHO INFLUENCED YOU TO SUPPLEMENT?

INFLUENCE	Freq	Percent
Doctor	31	10.0%
Midwife/Nurse	69	22.2%
TBA/T.Healer	2	0.6%
Parents	51	16.4%
Neighbor/Relative	24	7.7%
Husband	2	0.6%
Self	64	20.6%
Other	15	4.8%
No one	53	17.0%
Total	311	100.0%

C. MATERNAL PRACTICES

Mothers were asked several questions related to their breastfeeding practices. The questions not only give an indication of their practices in the hospital but also gives some insight into the hospital promoted practices as well.

1. Feeding Schedule

Mothers were asked if they follow a schedule to breastfeed their babies. As indicated in Table 21 below, 26% of the mothers use a schedule.

TABLE 21: FEEDING SCHEDULE

SCHEDULE	Freq	Percent
YES	80	25.7%
NO	222	71.4%
NOT APPL.	9	2.9%
Total	311	100.0%

Of the 80 mothers who said they feed on schedule, 64% (51) said the schedule was set by the hospital staff. On further analysis of those 51, 41 (80%) were mothers of low birth weight babies.

All mothers were asked how many times in the past six hours did they breastfeed their infants. It was found that low birth weight babies (2000 gms or less) were breastfeed for a median of 2 times and normal birth weight babies were breastfeed for a median of 3 times. For all birth weights, the babies were breastfed for a median of 3 times.

2. Method of Breastfeeding and Breast Problems

To determine how mothers breastfeed, they were asked which breast they used for breastfeeding. See table 22 below.

TABLE 22: WHICH BREAST USED FOR FEEDING

WHICH	Freq	Percent
RIGHT ONLY	14	4.5%
LEFT ONLY	16	5.1%
ALT. DUR.	197	63.3%
ALT. BET	22	7.1%
NO PATTERN	36	11.6%
BOTH/NOW ONE	4	1.3%
NOT ANS./NA	22	7.1%
Total	311	100.0%

The table above list the answers of mothers which includes whether they use the right or left breast only, alternate breasts during a feed or between feeds, use no set pattern in their feeding or use both breast but have changed to only one. Some mothers did not answer or had not yet started to breastfeed.

It was found that most mothers (63%) alternate breasts during a feed and almost 10% use only one breast. Of the 30 mothers who only used one side, they were asked why. We found no statistically significant difference between the right or left side. Nor was there a clear consensus on the reasons why they chose one breast over the other. Table 23 below lists the reasons why the 30 mothers use only one breast.

TABLE 23: REASONS FOR CHOOSING ONLY ONE BREAST

	Right n	Left n	%
Inverted Nipple	0	1	3.3
Decreased Milk	3	5	26.7
Baby Refuses	3	3	20.6
Other	8	7	50.0
TOTAL	14	16	100

Mothers were asked about breasts problems. Only 70 (22%) mothers reported any breast problems. However of the 70, only 61 mothers were able to describe their breast problems. The problems are listed in the Table 24 below.

TABLE 24: BREAST PROBLEMS

PROBLEMS	Freq	Percent
SORE NIPPLES	6	9.8%
ENGORGEMENT	7	11.5%
BABY WON'T SUCK	10	16.4%
INVERTED NIPPLE	1	1.6%
INSUFFICIENT MILK	28	45.9%
POOR ATTACHMENT	3	4.9%
OTHER	6	9.8%
Total	61	100.0%

It should be noted that almost 46% reported insufficient milk as a problem. Gussler and Briesemeister (1980)[15] and others[16] have discussed the insufficient milk syndrome at length and attribute this answer to biological as well as cultural factors. Due to modern infant care practices, mothers and infants are separated for longer periods of time which results in a reduction in the amount of milk the mother produces as well as reduces the suckling of the infant. In addition, the marketing of breastmilk substitutes, the attitudes and practices of health professionals as well as the cultural beliefs and expectations encourage mothers to feel that they do not have enough milk for their infants.

Multiple reasons seem to explain why mothers may feel they did not have enough milk in this study. Of the mothers complaining of insufficient milk, only 25% (7) of the infants were of low birth (< 2000gms) and 21% of the mothers had a cesarian section delivery. These mothers and babies may have been separated due to hospital practices for low birth weight babies and cesarian sections. It is widely known that mothers milk may take up to three days to come in. 34% of those mothers complaining of insufficient milk had infants less than one day. These mothers may not be aware that their milk takes time to come in. If the infant is not put to the breast early and frequently, the mothers milk may be further delayed. Only 31% of all infants were put to the breast within the recommended half hour after birth and 62% of the mothers had stayed with their infants in their room or bed. Mothers reporting that they have insufficient milk could be explained by the infant care practices and the separation of mothers and infants. However the mothers could also be influenced by cultural attitudes and expectations or lack of knowledge

---

[15] Gussler, J. and Briesemeister, L., "The Insufficient Milk Syndrome: A Biocultural Explanation," Medical Anthropology, Spring 1980, pp. 145-173.

[16] Van Esterik, P., Latham, M., and Griener, T., Replies to Gussler and Briesemeister, Commentary, Medical Anthropology, Spring 1981, pp.253-257.

regarding the physiology of breastfeeding in the early post-partum period.

3. Supplemental Feeding

TABLE 25 : SUPPLEMENTAL FEEDING

GIVEN SUPPL.	Freq	Percent	w/Prob.	% of w/Prob.	% of Total
YES	68	21.9%	17	24.3%	25.0%
NO	241	77.5%	52	74.3%	21.6%
DK	2	0.6%	1	1.4%	50.0%
Total	311	100.0%	70	100.0%	22.5%

Infant feeding was further probed to determine if the infants were given supplemental feeds to the mothers breastmilk. Of the total 311, 68 (22%) reported that their infants were given supplemental feeds. Of these 68, only 17 were of mothers who reported that they had a problem with breastfeeding. Only seven mothers who reported insufficient milk also reported that their infants were given something else. When asked if their infants sucked on a dummy (pacifier), only 5 mothers answered yes.

TABLE 26: SUPPLEMENTAL FLUIDS

ELSE	Freq	Percent	Cum.
WATER	9	13.2%	13.2%
GLUCOSE WATER	8	11.8%	25.0%
HONEY	1	1.5%	26.5%
SALT SUGAR SOL.	5	7.4%	33.8%
COW'S MILK	43	63.2%	97.1%
OTHER	2	2.9%	100.0%
Total	68	100.0%	

As seen in Table 26 above, the supplemental fluids ranged from water to salt sugar solution. It should be noted that no infant formula was reported to have been given.

D. HOSPITAL PRACTICES

Mothers were asked about hospital practices.

1. Mother Infant Contact

Early and continual mother-infant contact is important for successful breastfeeding. Mothers were asked how soon they were given their babies after delivery. The responses indicate that 31% had received their infants at the most optimum time, within half hour after birth. 73% of mothers were given their babies between one and six hours after delivery. There were some mothers who reported that at the time of the interview they were not yet given their infants. Of those who were not given their infants, 13 infants were less than one day and 10 were older than one day.

TABLE 27: HOW SOON AFTER DELIVERY WERE YOU GIVEN YOUR BABY?

RESPONSES	Freq	Percent	Cum.
within half hour after delivery	97	31.2%	31.2%
1-6 hrs	130	41.8%	73.0%
6-12 hrs	23	7.4%	80.4%
13-24 hrs	11	3.5%	83.9%
> 24 hrs	20	6.4%	90.4%
not given; child is < 1 day	13	4.2%	94.5%
not given; child is > 1 day	10	3.2%	97.7%
Delivered at home	4	1.3%	99.0%
Don't Remember	3	1.0%	100.0%
Total	311	100.0%	

Mothers were asked how soon they breastfeed after delivery. 304 mothers were able to answer the question. 18% breasfed their babies within half an hour after birth. The majority (59%) breastfed within 6 hours. 12% breastfed after 24 hours.

TABLE 28: HOW SOON AFTER DELIVERY DID YOU BREASTFEED?

RESPONSES	Freq	Percent	Cum.
w/in half hour	54	17.8%	17.8%
1-6 hrs	124	40.8%	58.6%
6-12 hrs	41	13.5%	72.0%
13-24 hrs	13	4.3%	76.3%
> 24 hrs	36	11.8%	88.2%
Not yet	36	11.8%	100.0%
Total	304	100.0%	

Upon further analysis, a strong relationship was found between how soon the mother was given the child after birth and how soon she breastfed. 88% of those who breastfed within half an hour were also given their child within half an hour.

TABLE 29: REASONS FOR DELAY IN BREASTFEEDING

REASONS	Freq	Percent
Preterm Baby	53	22.3%
Sick Baby	16	6.7%
Sick Mother	39	16.4%
Moth Request	26	10.9%
Mother Tired	49	20.6%
Baby Tired	13	5.5%
Other	2	0.8%
Don't Know	22	9.2%
No Milk	13	5.5%
Baby refused	5	2.1%
Total	238	100.0%

In table 29 above, mothers were asked the reason why they did not breastfeed their babies within half an hour. It appears that the majority of reasons fall between pre-term baby (22%), the mother was tired (21%) and the mother was sick (16.4%). Some mothers requested not to breastfeed (11%) and a few babies refused to breastfeed (2.1%). In addition a few mothers said they had no milk which indicates that if they thought they had milk, they may have breastfed.

TABLE 30: ROOMING-IN

	Freq	Percent
YES	222	71.4%
NO	88	28.3%
N/ANS.	1	0.3%
Total	311	100.0%

Almost 72% of mothers and infants stayed together while the mother was in the hospital. (See Table 30 above) Mothers were asked why if they did not stay with their babies. It was found that the pre-term babies were the main reason why mothers and babies did not stay together. Secondly, mothers reported that the babies were sick (16%). See Table 31 below.

TABLE 31: WHY MOTHERS HAD NOT STAYED WITH THEIR INFANTS

	n	%
PRE TERM	61	69.3
SICK BABY	14	15.9
SICK MOTHER	7	8.0
OTHER	5	5.7
NOT APPLIC	1	1.1
Total	88	100.0

2. Breastfeeding Advice Given to Mothers

Advice given to mothers during their stay in the hospital may effect their breastfeeding practices. Mothers were asked about breastfeeding advice given during their hospital stay.

TABLE 32: BREASTFEEDING TALKS IN HOSPITAL

TALK	Freq	Percent
YES	26	8.4%
NO	284	91.6%
Total	310	100.0%

WHO	Freq	Percent
NURSE	19	76.0%
DOCTOR	3	12.0%
NUTRI	1	4.0%
OTHER	2	8.0%
Total	25	100.0%

As indicated in Tables 32 above, only 26 mothers reported that someone talked to them about breastfeeding. 25 of the mothers recalled who talked to them. The majority (76%) were talked to by a nurse.

TABLE 33: BREASTFEEDING TOPICS COVERED

	YES		NO		
	n	(%)	n	(%)	N
How to position baby	44	(14.2%)	265	(85.5%)	310
How to express breastmilk	79	(25.5%)	231	(74.5%)	310

When asked which breastfeeding topics were covered, 44 mothers (14.2%) said they were shown how to position and attach their baby for breastfeeding and 79 (26%) said they were shown how to express their breastmilk. Even though only 26 mothers originally said they received breastfeeding advice/

Mothers were asked if they felt adequately prepared to breastfeed at home. 92.3% (286) said they felt prepared. Of the 24 who indicated they were not prepared, only 21 (88%) reported they had not been talked to about breastfeeding. Mothers who did not feel adequately prepared were further asked what additional help they needed. Eighteen mothers replied, as follows: how to feed adequately (22%); dealing with problems (11%); how long breastfeeding is adequate for the child (17%); how to produce enough milk (39%) and that the information provided was not enough/mother does not feel confident to breastfeed (11%). Although these mothers are few, their need for assistance is not being met by the current hospital practices.

Mothers were asked if they were given any advice or ideas on how they could get information or help with breastfeeding once they left the hospital. Thirty-three (33) or 11% of the survey sample reported having been given advice. Of these 33, 12 were mothers who had previously reported they had problems with breastfeeding. That is only 17% of mothers with problems in the hospital were given advice to seek help after they leave.

Thirty-five mothers answered the question of where they would go for breastfeeding assistance after they leave the hospital. From the results in Table 34 below, mothers will go to various health facilities and services, making obvious the need for health professionals in a variety of settings to be trained in lactation management since other support facilities are not known or available.

TABLE 34: WHERE TO GO FOR BREASTFEEDING ASSISTANCE

PLACES	FREQ	%
Well baby clinic	4	11.4
Clinic/Health Centre/Hospital	13	37.1
MCH/FP Clinic	8	22.9
Antenatal Clinic	4	11.4
Nurses	2	5.7
Other	4	11.4
TOTAL	35	99.9

It is interesting to compare the hospital practices related to advice and the mothers' need for assistance. Mothers were asked if they thought anything would hinder their breastfeeding once they returned home. Their responses are listed below in Table 35. Only 42, 13.5%, of the mothers reported that they may be hindered. About 88% of those stated that having to return to work outside the home or school would hinder their breastfeeding. One responded that her family planning method, another excessive work at home and three others responded that they did not know what may hinder them.

TABLE 35: LIMITATIONS TO BREASTFEEDING AT HOME

REASONS	FREQ	%
Work outside home	31	73.8
Returning to school	6	14.3
Family planning method	1	2.4
Excessive work at home	1	2.4
Don't Know	3	7.1
TOTAL	41	100

VI. SUMMARY OF FINDINGS

A. BACKGROUND

The mothers surveyed represent an urban-based population who delivered or who have newborns at Kenyatta Hospital. The mothers are a median age of 23 years, having completed a median of 9 years of education. However 50% of the mothers surveyed had secondary or higher level of education. Therefore one can safely assume that the mothers in the survey were literate. Over 50% of the mothers were married and were not working. They had at least one previous live birth and have breastfed the previous child for 18-24 months. They had received antenatal care but had not received any breastfeeding advice as part of that care. Those who did indicate they received advice, received conflicting information on a wide range of topics related to breastfeeding.

B. MOTHERS KNOWLEDGE, ATTITUDES AND BELIEFS

Although most mothers reported that breastmilk is nutritious and that infants can remain healthy for 4-6 months on breastmilk alone, when further probed about when they planned to introduce other fluids or foods, 43% of mothers said they would give water in the first month of life. Over 10% said they would give uji and/or fruits in the first month. And 42% would give sugar water in the first month. Even salt sugar solution (oral rehydration solution used for diarrhea) would be given by over 10% in the first week of an infant's life. Hence it appears that the planned practice of supplementation contradicts the mothers knowledge of not supplementing breastmilk before 4 to 6 months.

C. MOTHERS PRACTICES

In this study it was found that mothers breastfeed on demand and frequently while in the hospital. For all ages of newborns (less than one month), mothers breastfed three times in the past six hours for an average of breastfeeding every two hours. Few mothers had breast problems and most of those who did reported insufficient milk. This may be because

mothers were not helped to put their infants to the breast soon after delivery (within half an hour). Or that mothers were not aware that it can take up to three days for the milk to come in. Also mothers of low birth weight and sick babies and mothers who had cesarian sections were separated from their infants for some time. In addition, some mothers may have been influenced by cultural beliefs and expectations to believe they cannot produce enough milk for their infants in the early post-partum period. Nevertheless, only 22% of the mothers reported that their infants received supplemental feeding in the hospital. About 10% of those who were given supplements received water or glucose water. 63% received cow's milk. The mothers did not report any use of infant formula.

D. HOSPITAL PRACTICES

Only 18% of mothers were helped to breastfeed within half an hour of birth, which is contrary to the National Policy on Infant Feeding Practices. (See Annex 2) This may be because only 31% were given their babies within half an hour after delivery. Most mothers were given their infants between one and six hours after delivery. The most frequently given reasons for not receiving their babies within half an hour after delivery were because of pre-term babies, the mother was tired, the mother was sick or the mother requested not to be given.

Rooming-in (defined as mothers and infants staying together in the same room or ward bed) is widely practiced with 71% of the respondents having roomed in. Those who did not room-in did not because of pre-term babies and sick babies were kept separate from their mothers.

Although the national policy recommends that all pregnant and lactating mothers should be informed of the benefits and management of breastfeeding, only 26 (8.5%) reported having been talked to about breastfeeding in the hospital. With 87 mothers having received breastfeeding advice as part of their antenatal care, only 7 mothers received breastfeeding both

ante-natally and post-natally. Approximately 41% received some breastfeeding advice at some point.

Remarkably 8% (24) mothers reported they were not adequately prepared to breastfeed when they return home. Although the mothers reported that they feel adequately capable of breastfeeding, they do not appear to breastfeed adequately. Early supplementation may lead to diarrheal diseases and possibly death.

VII. CONCLUSIONS

It is important that the mothers contact with the hospital results in a consistent message and positive support for breastfeeding. In comparing the health workers[17] assessment with this mothers assessment it is noted that despite the health workers had expressing confidence with promoting breastfeeding and counselling or advising mothers, the mothers received little or no advice or counselling. Mothers need support to successfully breastfeed. This support should be provided both ante-natally and post-natally.

Exclusive breastfeeding is an area that should be of key concern to any planned in-service training. The health workers assessment showed a gap in knowledge around the definition and period of exclusive breastfeeding. This study also confirms that mothers are aware of the period of exclusive breastfeeding, but do not fully understand what is exclusive breastfeeding nor do they plan to exclusively breastfeed their infants.

Policy is another key area. From the health workers assessment, it was found that they were not clear who is responsible for policies of how babies are fed on the maternity ward and about day to day decisions on infant feeding. Some of the health workers were not aware of the national policy on infant feeding practices. From the assessment of mothers and hospital practices it is confirmed

---

[17] Kenyatta National Hospital, Health Workers Lactation Management Knowledge and Attitudes Assessment, June 1992.

that improvements in knowledge and the implementation of the national policy is needed. Of the fourteen points in the national policy, six points were found to be lacking in practice at Kenyatta National Hospital. These are as follows:

1. Exclusive breastfeeding should be encouraged for infants below four to six months.

2. Mothers should be helped to breastfeed within half an hour of birth.

4. Mothers should be shown how to maintain lactation even if they are separated from their infants.

7. Infants should not be given any foods in addition to breastmilk before 4 months.

9. Inform all pregnant and lactating mothers of the benefits and management of breastfeeding.

11. Foster the establishment of breastfeeding support groups.

VIII. RECOMMENDATIONS

It is important that in Kenyatta National Hospital, exclusive breastfeeding be promoted both ante- and post-natally. Mothers should be shown how to maintain lactation even if they are separated from their infants. Mothers should be helped to initiate breastfeeding within half an hour after delivery. Rooming-in practices should be protected and extended so that most mothers are able to room in with their infants to facilitate breastfeeding on demand. Working mothers and mothers who feel they have insufficient milk need to be advised and supported.

To facilitate improvements in hospital breastfeeding practices, in addition to the recommendations of the health workers assessment[18], it is recommended that:

1. A hospital policy on infant feeding practices needs to be implemented and monitored to enforce the national policy on infant feeding with special attention to points 1, 2, 4, 7, 9, and 11 as described above and in Annex 2.

2. A hospital-based communications strategy be developed to include:

   a) Counselling guidelines for all staff in contact with mothers and children so as to respond to the national policy to provide information to all pregnant and lactating women on the benefits and management of breastfeeding.

   b) A brochure on breastfeeding written in simple language for mothers to be distributed in appropriate clinics.

3. Breastfeeding and lactation management training should focus on developing health workers interpersonal communication skills that go beyond basic health education and that will facilitate the implementation of the hospital-based communication strategy.

4. In-patient and out-patient follow-up support be provided to mothers with breastfeeding problems through referrals to the Lactation Management Center or other appropriate community groups.

---

[18] Kenyatta National Hospital Health Workers Lactation Management Knowledge and Attitudes Assessment, June 1992, pp.23.

Final English

Kenyatta National Hospital
Lactation Management
Date of Interview (dd/mm/yy)

Questionnaire No. _ _ _

Date __ __ /__ __ /__ __

Interviewer Name: _____

Interviewer No. __ __

NEEDS ASSESSMENT FOR MOTHERS

BACKGROUND

1. Name _____

2. Occupation -- --

01=hawker (vegetable seller)
02=hairdresser, tailor,
03=hotel worker
04=housewife
05=office (low)
06=clerical
07=sales woman
08=student
09=maid
10=farmer/fish monger
11=health worker
12=runs business
13=unemployed
14=teacher
15=Other: _____
88=Not reported

3. Age (in years) __ __

4. Level of Education (Years completed 2 digits) __ __

5. Marital Status ____

1. Married
2. Divorced
3. Single
4. Widow

6. Residence ____

1. Nairobi
2. Outside Nairobi (urban)
3. Outside Nairobi (rural)
4. Other: _____

OBSTETRICAL HISTORY

7. Number of pregnancies __ __

8. Number of live births __ __

9. Number of abortions or miscarriages ____

M3

NEEDS ASSESSMENT FOR MOTHERS QUESTIONNAIRE NO. ___ ___ ___

BIRTH HISTORY

10. Age of infant ___ ___

a. Record date of infant's birth

___ ___/___ ___/___ ___

b. If infant is less than one day, also record age in hours:

___ ___ Hours (01-23)

24. one day
25. two days
26. three days
27. four days
28. five days
29. six days
30. one week
31. > one week

11. Type of Delivery ____

1. Normal Vaginal
2. C-Section
3. Vacuum
4. Breech Birth
5. Other (Specify) _____

12. Birth Wt. of infant (from chart in gms.) ___ ___ ___ ___

PREVIOUS BREASTFEEDING EXPERIENCE

13. Did you breastfeed the child before this one? ____

1. Yes 2. No 8. Not Applicable

14. If not, why not?

_____

_____

15. If yes, for how long did you breastfeed? ____

1. 3 months
2. 6 months
3. 12 months
4. 24 months
5. Other: _____
8. Not Applicable
9. Don't Know

44

NEEDS ASSESSMENT FOR MOTHERS QUESTIONNAIRE NO. ___ ___ ___

ANTE-NATAL HISTORY

16. When you were pregnant with this child, did you get ante-natal care? ____

1. Yes 2. No

17. If so, where did you go? (List local resources, including midwives, traditional midwives) ____

1. Government clinic
2. Non-government clinic
3. Private Nurse or Midwife
4. Private Doctor
5. Traditional Birth Attendant
6. Traditional Healer
7. Other (Specify): _____
8. Not Applicable

18. While being examined, did you get advice on breastfeeding? ____

1. Yes 2. No 8. Not Applicable

19. What was the advice?

_____

_____

_____

_____

MATERNAL KNOWLEDGE AND ATTITUDES

20. According to you, up to what age will a baby remain healthy by only breastfeeding, not even water, juice or any other food? (Do not prompt) ____

1. _____ hours
2. _____ days
3. _____ weeks
4. _____ months
7. Other: _____
9. Don't Know

47

21. According to you, what is the best way to feed a newborn (less than one month) baby? (Provide choices to mother) ____

1. Breastfeeding only
2. Breastfeeding and water
3. Breastfeeding and glucose (sugar) water
4. Breastfeed and infant formula, if needed
5. Breastfeed and uji
6. Breastfeed with mashed banana or solid food if needed
7. Breastfeed with salt, sugar solution
8. Cannot give advice
9. Other (specify): _____

22. According to you, what is the best age to stop breastfeeding a child altogether? ____

1. _____ months
2. _____ years
3. Other (specify): _____
9. Don't Know

23. Do you: 1. agree
2. disagree
9. don't know

with the following statements on breastfeeding?

1. It is nutritious enough for the baby for the first four months of life ____
2. Can make a woman fat ____
3. Protects a baby against diarrhea and pneumonia ____
4. Makes a closer mother-child relationship ____
5. Makes breasts ugly ____
6. Makes it difficult to become pregnant ____

24. How long do you plan to breastfeed your baby? ____

1. 3 months
2. 6 months
3. 12 months
4. 24 months
5. Other: _____
9. Don't know

NEEDS ASSESSMENT FOR MOTHERS QUESTIONNAIRE NO. _ _ _

25. After you leave the hospital, do you think there will be anything that may hinder or limit your continued breastfeeding practices? (Give example, working outside the home)

_____

_____

_____

26. When do you intend to give the baby something else (even water) in addition to breastmilk? (Do not Prompt) ___

1. Less than one month
2. one month
3. 2-3 months
4. 4-6 months
5. Other: ___ _____
9. Don't know

27. How will you give additional fluid/feed to your child? (Do not Prompt) ___

1. From a bottle
2. From a cup
3. With a cup and spoon
4. Other: _____

_____

28. At what age do you plan to introduce the following items into your baby's diet? (List answers in appropriate columns)

	In Days.	Weeks or Months	Other (88/99)
1. Water			
2. Uji			
3. Mashed fruits			
4. Cereal			
5. Sugar water			
6. Salt sugar solution			
7. Other : _____			

_____

29. Did any of the following persons influence your decision to give your child other milk or fluids in addition to breastmilk? (Read the list. Ask who was the most most influential. Circle that person) ____

1. Doctor
2. Midwife/nurse
3. Traditional healer/midwife
4. Parents-in law/own parents
5. Neighbor/relative(s)
6. Husband
7. Self
8. Other: _____
9. No one

HOSPITAL PRACTICES

30. How soon after delivery were you given your baby? ____

1. Within 1/2 hour
2. 1-6 hours
3. Between 6 -12 hours
4. Between 13-24 Hours
5. More than 24 Hours
6. Other: _____

31. Has your baby <u>stayed</u> with you in your room/ward/bed while you have been in the hospital? ____

1. Yes 2. No

32. If no, why? ____
1. Pre-term Baby
2. Sick Baby
3. Sick Mother
4. Mother's request
5. Other: _____
8. Not Applicable

33. How soon after delivery did you breastfeed? ____

1. Within 1/2 hour
2. 1-6 hours
3. Between 6 -12 hours
4. Between 13-24 Hours
5. More than 24 Hours
6. Not breastfed yet
7. Other: _____

NATIONAL POLICY ON INFANT FEEDING PRACTICES

SUMMARY STATEMENT

Every facility providing maternity facilities and care for newborn infants should:

1. Encourage exclusive breastfeeding of infants below four to six months.
2. Help mothers initiate breastfeeding within half hour of birth.
3. Not give any prelacteal feeds.
4. Show mothers how to maintain lactation even if they should be separated from their infants.
5. Practice rooming in.
6. Encourage breastfeeding on demand.
7. Not give infants any foods in addition to breastmilk before 4 months.
8. Encourage mothers to breastfeed for a least 24 months.
9. Inform all pregnant and lactating mothers of the benefits and management of breastfeeding.
10. Support breastfeeding efforts of postpartum mothers.
11. Foster the establishment of breastfeeding support groups.
12. Not accept any free supplies of breastmilk substitutes.
13. Not allow any publicity by the manufacturers of breastmilk substitutes.
14. Not give artificial teats or dummies to breastfeeding infants.

Prof. J.S. Oliech
Director of Medical Services
September 1991