The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

CHAIN / BREAST MILK Composition SUB-STUDY (BMC study)

BMC SITE NAME: _____ Time now: ___: ___

ENROLMENT – COMMUNITY PARTICIPANT

Eligibility checklist		
Infant enrolled in CHAIN	☐ yes	☐ no
Infant aged between 7 days and below 6 months at CHAIN enrolment	☐ yes	☐ no
Mother currently breastfeeding	☐ yes	☐ no
Mother breastfed the infants in the past 5 days	☐ yes	☐ no
Consent to BMC sub-study	☐ yes	☐ no
All of the above must be YES to be eligible for BMC sub-study		
Name of FW		
Date of Consent	__ __ / __ __ / __ __ __ __ *D D / M M / Y Y Y Y*	
Time of Consent	____:_____ (hh:mm)	
Special Circumstances		
Mother is currently taking any nutrition supplements	☐ yes	☐ no
If yes, write names of the supplements the mother is taking: (*Ask to see the supplement packaging and write the name of supplement)*	☐ Unknown 1. 2. 3. 4.	
Time since mother took the last supplement?	☐ <1 hr ☐ 1-3 hrs ☐ 3-6 hrs ☐ >6 hrs ☐ Unknown	

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Mother is currently taking any medicine	☐ yes	☐ no
Where did mother get medication from?	☐ Unknown ☐ Hospital/clinic ☐ Herbal/traditional ☐ Pharmacy ☐ Healer ☐ Shop ☐ Neighbour/friend	
If yes, list names of the medicine the mother is taking: *(Ask to see medicine and write the names of the medicine)*	☐ Unknown 1. 2. 3. 4.	
Mother is currently breastfeeding more than one child (e.g. twins)	☐ yes	☐ no

Mothers Characteristic (currently collected in main CHAIN CRF)	
Age	☐ <18 years ☐ >18 years
Education	☐ None ☐ Some Primary ☐ Completed Primary ☐ Some Secondary ☐ Completed Secondary ☐ Above Secondary

HIV status in last 6 months	☐ Known + ☐ Tested + ☐ Tested - ☐ Not Tested ☐ Known –
If positive is mother on ART? *(If yes, ensure the names of the ART medications are listed under medications above)*	☐ yes ☐ no
If positive is mother on cotrimoxazole or Septrin?	☐ yes ☐ no

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Mother's Anthropometry	MUAC: ___ ___. ___ ___ cm Height: ___ ___ ___ . ___ ___ cm Weight: ___ ___. ___ ___kg
Participants birth order	___ ___ of ___ ___ live births
Age at first pregnancy	__ __ years ☐ unknown
Marital status	☐ Married monogamous ☐ Married polygamous ☐ Stable relationship ☐ Single ☐ Unstable/complicated/separated relationship ☐ Divorced ☐ Widowed
Mother has any long-term (chronic) known illness?	☐ yes ☐ no **If yes,** which disease? ☐ Diabetes ☐ Alzheimer's disease ☐ High blood pressure ☐ Arthritis ☐ Cancer ☐ Obesity ☐ Other (specify) _____
Has mother taken any of the following in last 7 days?	☐ Alcohol ☐ IV drugs ☐ Khat ☐ Cannabis ☐ Tobacco ☐ None ☐ Other (specify) _____
Infant characteristics (currently collected in main CHAIN CRF)	
Date of sub-study enrolment	__ __ / __ __ / __ __ __ __ *D D / M M / Y Y Y Y*
Date of birth	__ __ / __ __ / __ __ __ __ *D D / M M / Y Y Y Y*

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Is the date of birth	☐ true/recorded ☐ estimated
Sex	☐ male ☐ female
Birth details	☐ premature ☐ born small <2.5kg ☐ twin/multiple birth ☐ born term ☐ unknown
Gestational age	☐ known/recorded __ __ weeks ☐ estimated, reported __ __ weeks ☐ unknown

Birth weight	☐ known/recorded __ __. __ __Kg ☐ estimated, reported __ __. __ __Kg ☐ unknown
Birth length	☐ known/recorded, __ __. __ cm ☐ estimated, reported __ __. __ cm ☐ unknown

Mode of delivery	☐ unassisted vaginal delivery (normal) ☐ assisted vaginal delivery (forceps) ☐ c-section

Infant feeding	
Breastfeeding frequency in the past 24 hrs?	☐ <4 times ☐ 4-8 times ☐ >8 times
Does mother avoid feeding the baby from one breast?	☐ yes ☐ no

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

If YES, why?	☐ Pain ☐ Other forms of discomfort ☐ Baby preference ☐ Other (specify)_____
List other liquids sometimes consumed by infant?	☐ Nothing ☐ Water ☐ Sweetened water ☐ Juice ☐ Soda/fizzy drinks ☐ Tea/cocoa ☐ Formula milk ☐ Soups ☐ Gripe water ☐ Herbal medicine ☐ Special milk/DF100 ☐ Honey ☐ Cow's milk ☐ Others
If YES to liquids, at what age did infant FIRST consume any liquids other than breast milk?	☐ Birth–day 5 ☐ Day 5 – 2 weeks ☐ >2 weeks to 1 month ☐ 1 month – 3 months ☐ >3 months
List other semi-solid foods consumed by infant?	☐ Porridge ☐ Fruit purees ☐ Vegetable purees ☐ Others (list below) _____ _____
If YES to semi-solid foods, at what age did infant FIRST consume any semi-solids other than breast milk?	☐ Birth–day 5 ☐ Day 5 – 2 weeks ☐ >2 weeks to 1 month ☐ 1 month – 3 months ☐ >3 months
Early initiation of breastfeeding	
What did the child receive other than breastmilk in the first 3 days of life?	☐ sweetened water ☐ formula/powdered milk ☐ animal milk ☐ fruit juice ☐ tea ☐ water ☐ pure honey ☐ glycerine ☐ nothing ☐ porridge/pulp ☐ others
Feeding of colostrum at birth	☐ yes ☐ no ☐ unknown
How early was colostrum/breastfeeding initiated	☐ Within 1 hour of birth ☐ Between 1-12 hours ☐ >12 hours

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Colostrum difficult to obtain	☐ yes ☐ no

Who helped mother initiate breastfeeding?	☐ Nurse/midwife ☐ Organised lactation support group ☐ Infant's grandmother ☐ Sister ☐ Other family member ☐ No one
How many children has she breastfed before this infant	☐ None/first child ☐ 1 ☐ 2 ☐ 3 ☐ More than 3
Is mother currently pregnant	☐ yes, confirmed ☐ no ☐ suspected pregnancy ☐ unknown

Breast assessment (as observed at the time of assessment)

Does the right breast look healthy?	☐ yes ☐ no IF no, Nipples are cracked ☐ slight ☐ severe with bleeding
Does the left breast look healthy?	☐ yes ☐ no IF no, Nipples are cracked ☐ slight ☐ severe with bleeding
Size and shape of nipples	Right nipple ☐ inverted ☐ flat ☐ pointed on one end ☐ round (normal) Left nipple ☐ inverted ☐ flat ☐ pointed on one end ☐ round (normal)

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Size and shape of breast	Right breast ☐ large ☐ engorged and painful ☐ full / rounded (normal) ☐ flat / deflated ☐ small Left breast ☐ large ☐ engorged and painful ☐ full / rounded (normal) ☐ flat / deflated ☐ small
Dripping milk	☐ yes ☐ no
Signs of inflammation or infection (*tick all that apply*)	☐ redness ☐ swollen ☐ None ☐ painful ☐ fever/feeling ill ☐ warm to the touch ☐ thickening of breast tissue
Pain, burning or discomfort during breastfeeding	☐ yes ☐ no

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Breast oozes with milk mixed with pus or blood	☐ yes ☐ no If yes, which breast ☐ right ☐ left ☐ both
Mother noticed anything wrong with breast?	☐ yes ☐ no If yes, comment: _____
Mother thinks breast milk is sufficient for her baby?	☐ yes ☐ no
Bottle feeding?	☐ yes ☐ no If yes, what is fed in a bottle? *(tick all that apply)* ☐ breast milk at room temperature ☐ warmed breast milk ☐ animal milk ☐ Formula milk ☐ Other liquids e.g. Juices, etc.
Does the mother currently use hand expression?	☐ yes ☐ no ☐ rarely ☐ on occasion ☐ often IF yes, why: ☐ relieve engorgement ☐ collect milk to feed the infant at a later time ☐ aid in stimulation/production of milk

Breastfeeding assessment to be completed for all mothers and used to support feeding technique for all mothers at the end of the sample collection.

Breastfeeding assessment (Observed)			
Positioning		*Attachment*	
Baby's head and body in line	☐ yes ☐ no	More areola seen above baby's top lip	☐ yes ☐ no
Baby held close to mother's body	☐ yes ☐ no	Baby's mouth open wide	☐ yes ☐ no
Baby's whole body supported	☐ yes ☐ no	Lower lip turned outward	☐ yes ☐ no
Baby approaches breast nose to nipple	☐ yes ☐ no	Baby's chin touches breast	☐ yes ☐ no
Suckling		*Mother*	

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Slow deep sucks with pauses	☐ yes ☐ no	Mother looks healthy	☐ yes ☐ no
Cheeks round when suckling	☐ yes ☐ no	Mother relaxed and comfortable	☐ yes ☐ no
Baby releases breast when finished	☐ yes ☐ no	Bonding with baby	☐ yes ☐ no
Mother notices signs of oxytocin reflex (milk dripping by itself)	☐ yes ☐ no		

Mothers Diet	
Is mother currently on nutrition programme	☐ Yes ☐ No
Mothers dietary habits	☐ Mixed diet ☐ Vegetarian but with milk ☐ Strictly vegetarian ☐ Others

What time did mother take breakfast this morning? *(indicate approximate time)*	__ __:__ __ (hh:mm) ☐ None
List all foods and liquids consumed as part of breakfast (include liquids)	☐ None 1. 2. 3. 4. 5.
What time did you eat dinner last night? *(estimated time)*	__ __:__ __ (hh:mm) ☐ None

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

List all foods and liquids consumed as part of dinner (include liquids)	☐ None 1. 2. 3. 4. 5.
List all foods and liquids consumed as snacks between dinner and breakfast (during the night)	☐ None 1. 2. 3. 4.

In the past 7 days, did the mother consume at least 1 tablespoon of the following food? **If yes, how many times?**	Number of times ☐
	Yes ☐ No
Pulses	☐ Yes ☐ No
Nuts and seeds	
Dairy	
Meat, poultry and fish	☐ Yes ☐ No
Eggs	☐ Yes ☐ No
Dark green leafy vegetables	☐ Yes ☐ No
Yellow fruits and vegetables	
Other fruits and vegetables	☐ Yes ☐ No
	☐ Yes ☐ No
	☐ Yes ☐ No

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

Breastmilk collection	
Breastmilk collection attempted	☐ yes ☐ no
Date of collection	__ __ / __ __ / __ __ __ __ *D D / M M / Y Y Y Y*
Time of collection (start)	__ __:__ __ (hh:mm)
Time of collection (end)	__ __:__ __ (hh:mm)

The Childhood Acute Illness & Nutrition Network

CHAIN Number

[ ] [1] [0] [0] [0] [3] [ ] [ ]

More than 20ml was collected using only the first breast?	☐ yes ☐ no
Amount of milk sample collected from first breast? Which breast was used	__ __mL ☐ right ☐ left
If second breast was used, total milk volume obtained after full hand expression of 2nd breast	__ __mL ☐ Not applicable
Unable to collect 20ml breastmilk sample why?	☐ insufficient milk in the breast ☐ difficulty in expressing ☐ other (specify) _____
How to best describe the milk collection process	☐ Milk flow was fast and easy ☐ Milk flow was slow and difficult
Was mother experienced in hand expression	☐ Experienced ☐ Not experienced

CRF Completed by (Initials) – to be signed when complete. *Do not sign if any fields are empty*	__ __ __	Date __ __/ __ __/ __ __ __ __ *D D / M M / Y Y Y Y*	Time __ __:__ __