



**Report on Community based Kangaroo Mothers
Care Monitoring: Findings of LQAS Rapid
Assessment in five Primary Health Care Units in
Ethiopia**

Maternal and Child Health Integrated Program

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Introduction

MCHIP-supported districts are pilot testing the incorporation of KMC into the community-based MNCH care package provided by HEWs. In May 2012 HEWs were trained to counsel pregnant women on the use of KMC and to visit newborn babies delivered at home within 24 hours after birth to assess newborns and initiate KMC. With support from MCHIP funds and implementation partners, HEWs were trained to provide these services in 10 woredas.

The monitoring and evaluation plan for the study includes baseline survey, midline qualitative assessment, routine data extraction on selected maternal and newborn health care indicators from health posts and community volunteers, and end line survey. But due to late roll-out of community health information system, the routine data extraction of MNCH indicators from health posts suffers from incomplete, inaccurate and unreliable data. To address the gap in the routine monitoring information need, the study team decided to conduct a rapid household level survey on the current practices of CKMC among recently delivered women (RDWs) in the community using LQAS.

Objective

The objective of the Lots Quality Assurance Sampling (LQAS) monitoring survey was to determine the coverage and quality of CKMC and other selected MNCH services in selected PHCUs implementing CKMC. Based on the level of current coverage and quality of the CKMC the study team will also decide on the appropriate timing for the end line evaluation of the program.

Methods

Study Design

The monitoring assessment employed Lots Quality Assurance Sampling (LQAS) methodology where 5 of the 10 primary health care units (PHCUs) implementing Community Based Kangaroo Mothers Care (CKMC) were selected as supervision areas. The selection was made based on a set of criteria including convenience, program maturity, geographical location and strength of the CKMC implementation measured by routine supportive supervision.

Survey instrument

The survey used selected indicators from the CKMC baseline assessment instrument to measure the coverage and quality of CKMC and other MNCH indicators. The questions were converted to binary response form (yes/no) to fit with the requirement of Lots Quality Assurance Sampling (LQAS).

Sampling Strategy

Although MCHIP is implementing the feasibility study on the effectiveness of community based mother care in Ethiopia at 10 Primary Health Care Units (PHCUs) covering 70 rural health posts/kebeles, this

monitoring survey included 5 PHCUs focusing on rural kebeles. All 41 health posts/rural kebeles linked to the five health centers selected were included in the monitoring survey.

Using LQAS methodology, the five health centers were used as supervision areas. In each supervision area a total of 19 RDWs were randomly selected and interviewed. The selection of 19 RDWs used probability proportionate to size to allocate the number of women selected from each of the kebeles (satellite health posts linked to the health centers). Then using table of random numbers the selected number of women were assigned to villages in each kebele. Finally using spinning the bottle technique RDWs were identified from randomly selected villages. In instances where no RDWs were available in the selected villages, additional villages were randomly selected and surveyed .

Using the 19 sample RDWs, comparison of performance of selected CKMC indicators with a predetermined targets were performed. LQAS table for sample size 19, with 80% power used to determine supervision areas which are above or below the predetermined targets.

The coverage for the five supervision areas were also calculated but no inference were made about the overall CKMC intervention areas as the sampling was not planned to be representative of the overall CKMC intervention area.

Table1: Selected PHCU for Monitoring Survey with Catchment Population and Selected RDWs

Region	Name of Health Center	Name of the Health Post	Urban/Rural	Catchment population	Cumulative pop	# RDW selected
Tigray	Hagereselam HC	1-Doglawoyane	Rural	3018	3018	3
		2-Melfa	Rural	4845	7863	4
		3-Mahbereselase	Rural	5209	13072	4
		4-Selam	Rural	4000	17072	3
		5-Mekaeal Abiy	Rural	5910	22982	5
Amhara	Haik HC	1 -05(ketie)	Rural	6314	6314	3
		2-09(undie)	Rural	4172	10486	2
		3-012(Gobyay)	Rural	5266	15752	2
		4-013(Jarie)	Rural	6043	21795	3
		5-015(Godgwadet)	Rural	6004	27799	3
		6-Wahilow (014)	Rural	8060	37203	4
		7- Nibo(026)	Rural	5097	42300	2
Oromiya	Kore HC	1-Doda dayo	Rural	8170	8170	3
		2- Shire obensa	Rural	3401	11571	1
		3- Bole hilensa	Rural	6587	18158	3
		4- Hunduqa qumbi	Rural	7949	26107	2
		5-Beta wantisha	Rural	7826	33933	3
		6- Jema serdo	Rural	9651	43584	3
		7-Waji Ibsana	Rural	6951	50535	3
		8- Qoma Sede	Rural	5160	55695	1
SNNPR	Birbir HC	1.Delibo	Rural	3491	3,491	2
		2.Alge	Rural	3391	6,882	2

		3.Mole	Rural	6393	13,275	3
		4.Ogayehu	Rural	2036	15,311	1
		5.Ankober-1	Rural	3590	18,901	2
		6. Ankober-2	Rural	3590	22,491	1
		7.Faragosa	Rural	1693	24,184	1
		8.Fura	Rural	2111	26,295	1
		9.Omolante	Rural	6449	32,74the 4	3
		10.Degaomo	Rural	1526	34,270	2
		11.Degadone	Rural	4181	38,451	1
	Morsito HC	1. Morsito PA	Rural	5816	5,816	4
		2. Abushura	Rural	2593	8,409	1
		3. Guna	Rural	4585	12,994	3
		4. Hage	Rural	3018	16,012	2
		5. Ashewalawatche	Rural	3230	19,242	2
		6. Ashewala wato	Rural	2755	21,997	1
		7. Tula	Rural	2755	24,752	2
		8. Dangawera	Rural	2109	26,861	1
		9. Suteamba	Rural	2892	29,753	2
		10. Madbet-Amba	Rural	2344	32,097	1

Data Collection

A total of 14 data collectors and supervisors participated in the monitoring survey. Before the actual data collection date, a two day orientation (April 2-3, 2013) was conducted. The orientation included topics such as how to use LQAS for monitoring, discussion on the tool used for the survey and how to select and enroll RDWs for the survey.

To collect data from each PHCU, teams consisting of one MCHIP coordinator/officer with woreda health office MNCH focal person participated.

The field data collection process was conducted from April 5-18, 2013. Each team spent at least one day per kebele to identify and interview 1-3 RDWs per kebele. In some instances where the topography was not convenient and RDWs were not found in the selected villages, more than one day were spent in one kebele.

Screening and listing of RDWs

The numbers of eligible RDWs were assigned per kebele using probability proportional to size as shown in table 1 above. In each kebele a team met kebele administration and HEWs to discuss on the objective of the study and obtain list of villages. The list of villages were filled in a listing template in alphabetical order. The pre-assigned numbers of RDWs were allocated to villages using a table of random numbers. In a selected village, a team along with a local guide who is not part of health development army assigned by the kebele traveled to the center of the village and using spinning the bottle method determined the direction for screening households. Presence of recently delivered women in the past 1-7 months was the screening question.

Data Analysis

A total of 95 RDWs were included in the survey. In each supervision area 19 RDWs were interviewed and a decision rule were made whether the supervision areas were above or below a predetermined target and each team debriefed findings to each PHCU management and team. The summary for the 5 health center were compiled using a simple table and simple coverage were calculated for the 5 supervision areas. For each indicator, supervision areas performing above and below the predetermined targets were identified.

Limitations

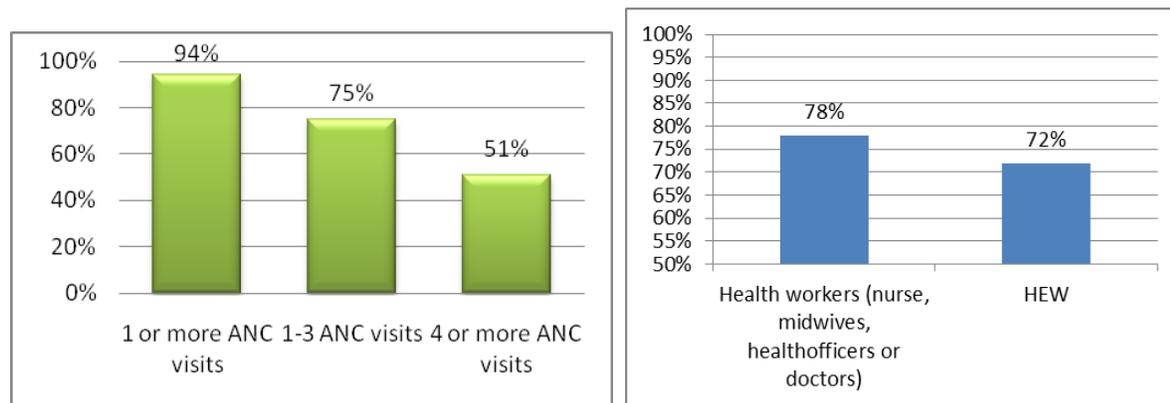
This study is a cross-sectional household survey that relies on women's recall of events taking place in the past 1 – 7 months. Women's recall of antenatal, delivery, and postnatal care may not always be accurate, and some women reported that they did not know how the newborn was cared for, particularly among women delivering at a health facility. Also, the assessment was done for 5 of the 10 PHCU where CKMC is being piloted and, although it is likely that similar findings are expected in all CKMC pilot sites, findings from the 5 may not be extrapolated to the remaining 5 PHCU that were not assessed.

Results

ANC

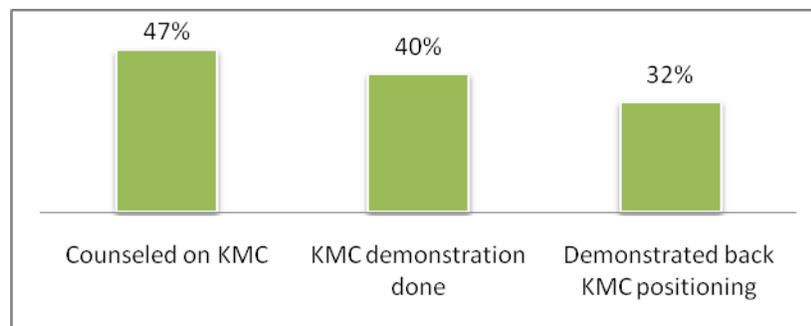
In the PHCUs surveyed, it was observed that 94% of women received at least one ANC visit from anyone but only 51% received four or more ANC visits, all health centers were performing below 80% coverage target set for the program. The majority of respondents (78%) reported that ANC services were obtained from health workers at health centers or hospitals and 72% received from HEW and 6% didn't receive any ANC service from anyone.

Figure1. Antenatal care coverage among surveyed RDWs (n=95)



Only 47% of RDWs reported that they were counseled on KMC during ANC, for 40% of them KMC positioning was demonstrated and 32% back demonstrated the KMC positioning for HEW during the counseling session.

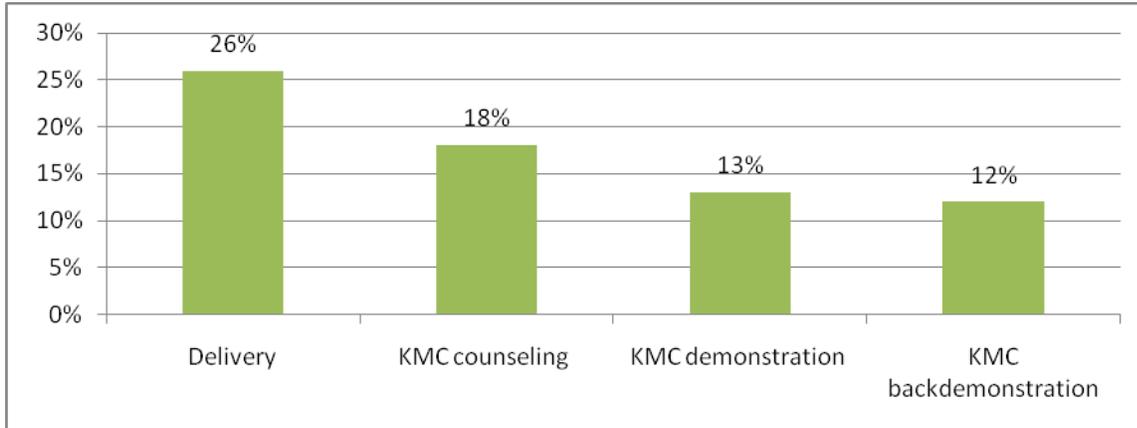
Figure2. KMC Counseling and Demonstration during ANC by HEW among RDWs (n=95)



Delivery and Postnatal Care

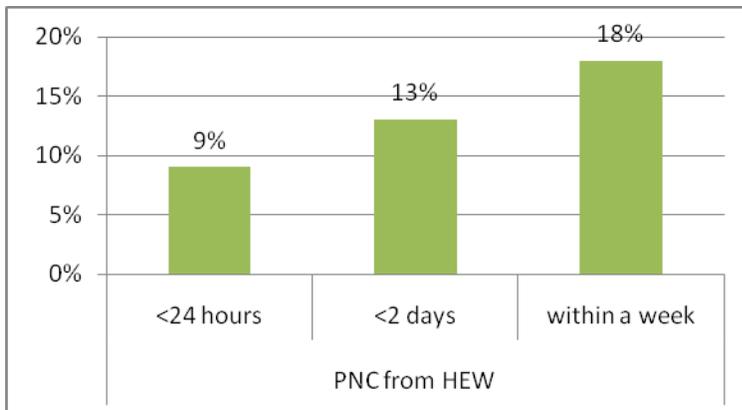
In the surveyed PHCUs, 26% reported that their last deliveries were attended by skilled birth attendant at health facility level. The coverage for delivery by skilled birth attendant was lower than the baseline coverage because the urban kebeles were excluded from this assessment. However, KMC counseling at delivery were provided to 18% of RDWs, for 13% of them KMC positioning was and 12% RDWs demonstrated back KMC to the health workers .

Figure3. Delivery Care and KMC Demonstration in Health Facilities among RDWs (n=95)



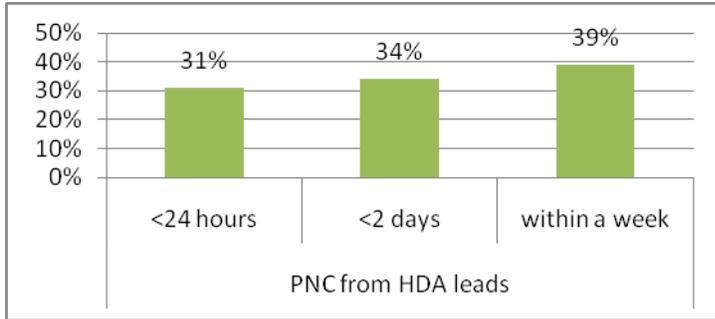
Although health extension workers were expected to visit every pregnant mother during postnatal care, the practice was quite different. Postnatal care visits from HEWs were very low in the surveyed PHCUs. Only 9%, 13% and 18% of RDWs received PNC visits from HEW within 24 hours, 2 days and a week respectively.

Figure4. Postnatal care visits from HEWs among RDWs (n=95)



Similarly 1-to-5 network HDA leads who are very close to households and assumed to have a day today contact with RDWs were not providing PNC visits. In the PHCUs assessed, PNC visits from 1-to-5 network leads were provided to 31% of RDWs within 24 hours of delivery, 34% within 2 days of delivery and 39% of RDWs within a week of delivery.

Figure5. Postnatal care visits from HDA Leads among RDWs (n=95)



Newborn care

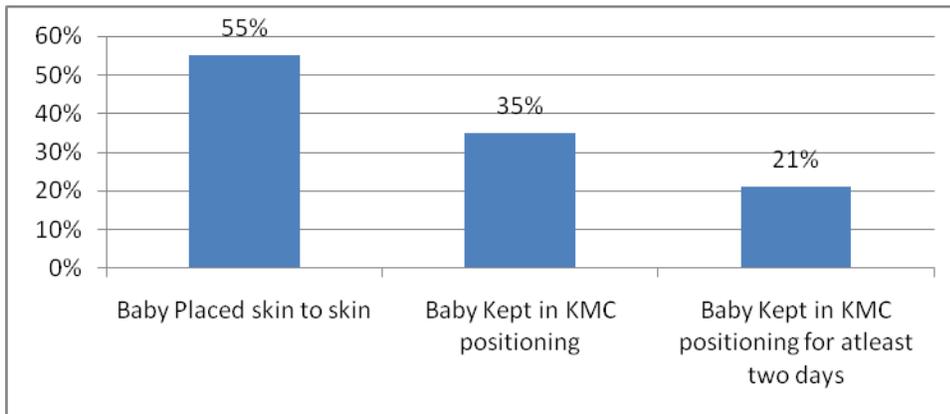
In the communities surveyed, wiping/drying of the baby before delivery of the placenta was reported by 74% of RDWs. This showed an improvement from the 59% baseline coverage. Wrapping of the baby was also practiced in 82% of RDWs surveyed.

Breastfeeding before the delivery of the placenta were observed in 34% of RDWs whereas 23% of RDWs provided some kind of fluid in the first two days after delivery.

Delaying bathing until 24 hours was observed in 56% of RDWs. Similarly coverage of skin to skin positioning immediately after birth was 55%.

Thirty-five percent of RDWs reported that they have practiced KMC positioning immediately after birth but it was only 21% of RDWs who reported keeping in KMC position for at least 48 hours.

Figure6. Skin-to-skin and KMC Practice among RDWs (n=95)



Discussion

The LQAS monitoring survey was conducted in the rural kebeles of five out of ten PHCUs implementing the feasibility study of community based kangaroo mothers care in Ethiopia. The point estimate about coverage of key indicators is for the five health centers only however findings obtained from these five health centers can be indicative of the overall program area. In the selected primary health care unit, almost all RDWs received ANC but only 50% received the recommended 4 or more visits. Less than one third of deliveries were happening in health facilities in the surveyed PHCUs. The coverage for institutional delivery showed a slight decline from the baseline due to exclusion of urban kebeles in this assessment. Majority of women reported that they did not get postnatal visit from health providers or health extension workers in their last delivery.

Current levels of indicators directly linked with the CKMC study- home visits by HEWs during PNC, counseling on KMC, use of skin-to-skin and practice of KMC positioning —show that minimal progress towards target. Only 47% of RDWs reported receiving care from HEWs, 72% received ANC from HEWs. Implying HEWs provided KMC counseling for two out of three ANC clients. Less than 20% of RDWs received home visits from HEWs within a week after birth. Similarly less than 40% of RDWs received PNC visit from health development army 1-to-5 leads in the first week after birth. Skin to skin was practiced by 55% of RDWs whereas KMC was practiced by 35% of RDWS and only 20% practiced KMC for 2 days. Other newborn care practices were reported showing no progress from baseline, including exclusive breast feeding, wrapping the baby before delivery of the placenta. The results indicate room for improving other newborn care practices such as delayed bathing and feeding.

Recommendations

Based on the information obtained from 5 PHCUs, the following recommendations are made for the CKMC program:

1. Discuss with each PHCU about the status of postnatal visits by HEWs and HDA leads and seek ways to strengthen PNC visits
2. Strengthen KMC counseling during ANC and focus on demonstration of KMC positioning to RDWs and back demonstration by RDWs
3. Strengthen counseling on exclusive breast feeding, wrapping of baby before delivery of placenta and delayed bathing.
4. Extend CKMC program implementation period till December 2013 so that the endline survey could be conducted to allow sufficient time for the program to mature and conduct additional LQAS survey in September 2013

Annex 1. Key indicators summary for LQAS

#	Indicator	Baseline	Benchmark target	Decision rule	Total Correct Response per supervision area					Total correct	Sample size	Coverage
					Birbir HC (SNNPR)	Morsito (SNNPR)	Hageresela m (Tigray)	Haik HC (Amhara)	Kore HC (Oromiya)			
	<i>Antenatal care (ANC)</i>											
1.1	During your last pregnancy did you receive ANC from anyone?	83%	90%	15	19	15	17	19	19	89	95	94%
1.2	If yes, did you receive 4+ ANC visits during your last pregnancy?	43%	80%	13	9	14	7	8	10	48	95	51%
1.3	During your last pregnancy did you receive ANC from health professionals at health facility (doctor, nurse, health officer etc)?	76%	90%	15	12	13	16	19	14	74	95	78%
1.4	During your last pregnancy did you receive ANC from HEW?	18%	80%	13	15	15	11	12	15	68	95	72%
1.5	During your last pregnancy did the HEW in your Kebele counseled you on KMC?	7%	80%	13	8	9	9	6	13	45	95	47%
2	<i>Delivery and postnatal care</i>											
2.1	During your last pregnancy did you deliver your baby at health facility?	29%	50%	13	6	4	9	5	1	25	95	26%

2.2	During your last birth did the HEW in your Kebele visited you within the first week after delivery?	2%	80%	13	4	2	5	3	3	17	95	18%
2.3	During your last birth did the Health Development Army 1-to-5 leader/Health Development leader in your Kebele visit you within 48 hours after delivery?	-	80%	13	4	6	13	7	2	32	95	34%
3	Newborn care											
3.1	During your last delivery was your baby wiped/dried before delivery of the placenta?	59%	80%	13	13	8	17	16	16	70	95	74%
3.2	During your last delivery did you breastfeed your baby before the delivery of the placenta?	50%	80%	13	2	8	1	13	8	32	95	34%
3.3	During your last delivery was bathing of your baby delayed until after first 24 hours?	25%	80%	13	15	7	14	6	11	53	95	56%