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Health Facility Assessment for Care of Premature/Low Birthweight Newborns: Summary of Findings

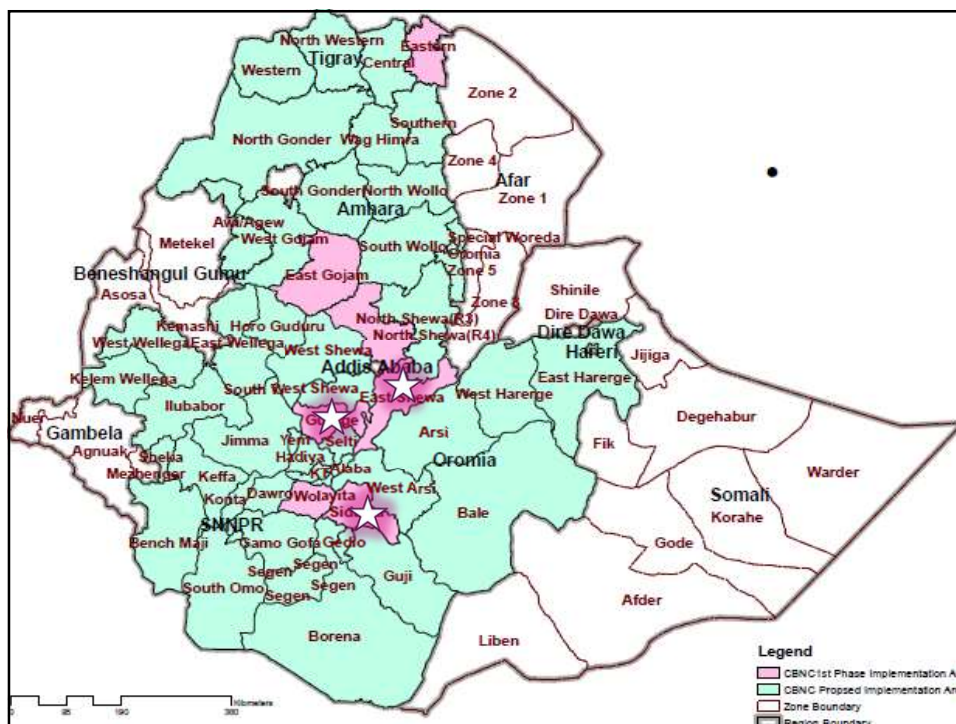


Background

- Prematurity-related death is a leading cause of under-5 mortality in Ethiopia
 - Unfinished agenda for MCH as Ethiopia enters the era of the SDG
- Kangaroo Mother Care (KMC) can reduce mortality among low birthweight and premature babies by up to 40% when implemented appropriately
- National Newborn Child Survival Strategy calls for a national scale-up of facility-based KMC services as part of a package of high-impact interventions for low birthweight babies

Objectives

- Determine facility readiness to provide KMC and other services for preterm/low birthweight (LBW) babies including availability of knowledgeable and skilled staff, supplies and space, and supervision.
- Assess services available to manage preterm labor and preterm/LBW newborns
- Determine caseload of preterm/LBW
- Assess provider attitudes regarding preterm/LBW management
- Assess provider perspectives on barriers to use of services



Methodology

- Cross-sectional survey; qualitative and quantitative techniques
- ALL hospitals and 19 randomly-sampled health centers assessed in:
 - East Shoa
 - Sidama
 - Gurage

| No | Zone | # of Hospitals | # of Health centers |
|----|-----------|----------------|---------------------|
| 1 | East Shoa | 2 | 52 |
| 2 | Sidama | 3 | 126 |
| 3 | Gurage | 1 | 61 |

Methodology, cont.

- Qualitative data collection
 - Purposive sampling
 - 6 interviews: 5 providers in NICU, one head of MNH/delivery

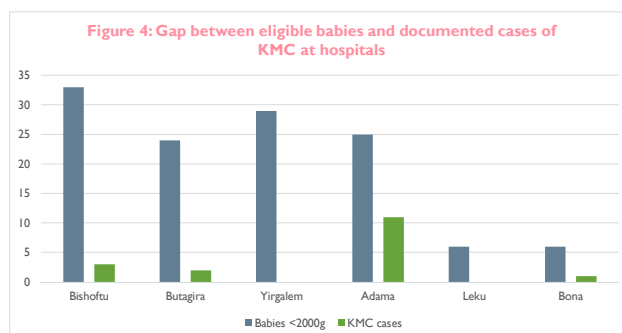
| No | Zone | District | Type of facility | Profession of interviewee |
|----|-----------|-----------|-------------------|---------------------------|
| 1 | East Shoa | Adama | Health center | Midwife nurse |
| 2 | East Shoa | Adama | Referral hospital | Midwife nurse |
| 3 | East Shoa | Bishoftu | Referral hospital | Midwife nurse |
| 4 | Sidama | Shabedino | District hospital | Midwife nurse |
| 5 | Sidama | Dale | Referral Hospital | Midwife nurse |
| 6 | Gurage | Meskan | District hospital | Midwife nurse |

Results: Identification of Eligible Newborns

| | Hospital births (N=4466) | | HC births (N=1975) | | Total births (N=6441) | |
|-----------------------------|--------------------------|------|--------------------|------|-----------------------|------|
| | # | % | # | % | # | % |
| Total LBW | 319 | 7.1% | 11 | 0.6% | 330 | 5.1% |
| <1500gm | 38 | 0.9% | 2 | 0.1% | 40 | 0.6% |
| 1500-1999gm | 85 | 1.9% | 3 | 0.2% | 88 | 1.4% |
| 2000-2499gm | 196 | 4.4% | 6 | 0.3% | 202 | 3.1% |
| Missing Birth weight | 69 | 1.6% | 4 | 0.2% | 73 | 1.1% |

- 5.1% of births at surveyed facilities were LBW.
- 2% were <2000g, which is the national cut-off for KMC
- These volumes are lower than expected per global estimates

Results: Identification of Eligible Newborns



- Only 14% of eligible babies were enrolled in KMC
- Despite the small number of LBW newborns, there is still large unmet need for KMC

Results: Equipment & Supplies

| | Hospital (N=6) | | Health Centers (N=19) | |
|---------------------------|----------------|------|-----------------------|-----|
| | n | % | n | % |
| Supplies available | | | | |
| Nasogastric tubes | 5 | 83% | 0 | - |
| Oxygen | 6 | 100% | 1 | 5% |
| IV fluids | 6 | 100% | 14 | 74% |

- Equipment and supplies for the care of low birthweight newborns are lacking particularly at the health center level.
- Most HCs had IV fluids, but no oxygen or nasogastric tubes.

Results: Equipment & Supplies

Table 9:

| | Hospital (N=6) | | Health Centers (N=9) | |
|--------------------------------------|----------------|-----|----------------------|-----|
| | n | % | n | % |
| Space for KMC | | | | |
| Separated | 2 | 33% | 1 | 11% |
| Integrated | 4 | 67% | 8 | 89% |
| Beds available for KMC | | | | |
| 1-2 | 1 | 17% | 6 | 67% |
| 3-4 | 3 | 50% | 3 | 33% |
| 5+ | 2 | 33% | 0 | - |
| Equipment to increase comfort | | | | |
| Low beds | 3 | 50% | 6 | 67% |
| Head rest/pillow | 1 | 17% | 5 | 56% |
| Chairs | 5 | 83% | 2 | 22% |
| TV | 1 | 17% | 0 | - |
| KMC guidelines (observed) | 1 | 17% | 0 | - |
| KMC register available | 1 | 17% | 0 | - |
| KMC register up to date | 1 | 17% | 0 | - |

- Approximately half of facilities had amenities in place to make families comfortable for an extended stay in KMC.
- Many hospitals had no place to record what care was given to babies in KMC.

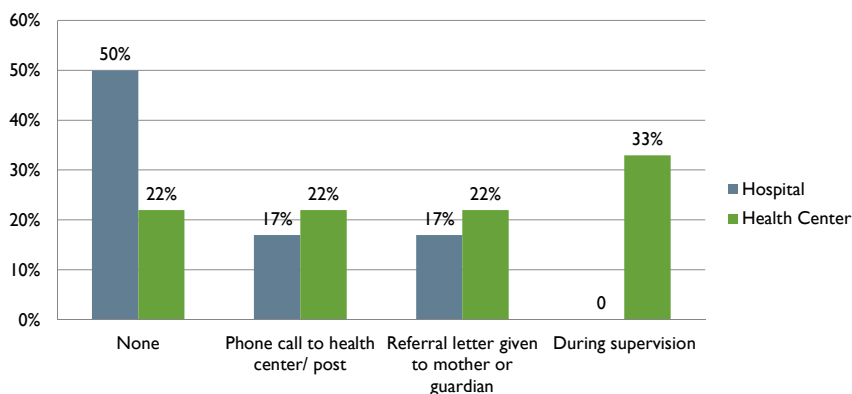
Results: Staff Training

| | Hospital (N=6) | Health Centers (N=19) | Total (N=25) |
|--|----------------|-----------------------|--------------|
| KMC admission criteria mentioned n (%) | | | |
| <2000g | 2 (33%) | 9 (47%) | 11 (44%) |
| Mother willing | 2 (33%) | 1 (5%) | 3 (12%) |
| Baby stable | 2 (33%) | 1 (5%) | 3 (12%) |
| Not in national training manual: | | | |
| <2500g | 4 (67%) | 4 (21%) | 8 (32%) |
| Preterm | 3 (50%) | 5 (26%) | 8 (32%) |
| Low Apgar | 0 | 1 (5%) | 1 (4%) |
| Hypothermic | 1 (17%) | 2 (11%) | 3 (12%) |
| Not breastfeeding | 1 (17%) | 1 (5%) | 2 (8%) |
| Aspirating baby | 0 | 1 (5%) | 1 (4%) |

- Less than 20% of delivery attendants, who are primarily responsible for timely initiation of KMC, are trained in KMC.
- Knowledge about admission criteria was a knowledge gap, despite inclusion in the Essential Newborn Care Training Manual.

Results: Follow-up Care

Figure 5: Communication system to inform health center/post of baby's discharge for follow up



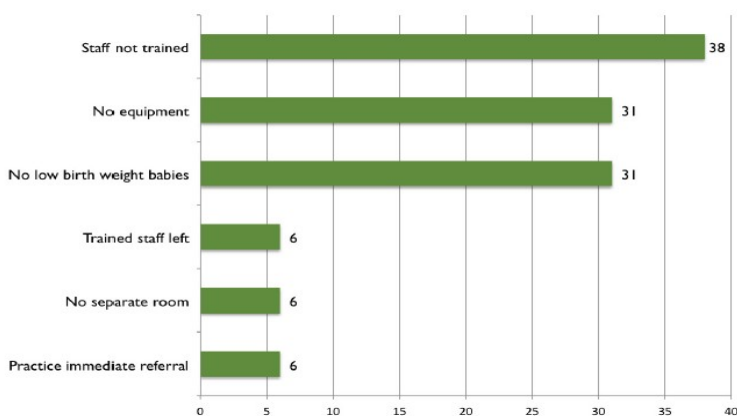
- 78% of health centers report a follow-up system consisting of either phone, letter, or supervision mechanism
- However, rate and timeliness of follow-up completion is unknown and not documented

Results: Supervision

- 42% of health centers report no supervision for MNH
- 68% of health centers had no supervision for care of preterm/LBW newborns

Results: Main Barriers to Implementation

Health Centers: Reasons for not Providing KMC



- The top 3 barriers to provision of KMC are: small volume of low birthweight newborns, no equipment, and untrained staff.

Results: Perspectives on Barriers to Use of Services

- “Babies are usually carried at the back not in front”
- “Small babies will not survive what so ever is done for them”
- “A lot of people enter this room and it is chaotic; had the room been separate and peaceful, they would have the chance to pay attention to their babies.”

Recommendations

Develop/review detailed national KMC guidelines

- Include admission criteria, inpatient management, discharge criteria, follow up, home care, referral, and transport at all levels of the health system.
- Consider forthcoming global guidance for KMC from the World Health Organization (early-2016) that can be adapted in consultation by a consortium of pediatric and neonatal professionals in Ethiopia.

Formalize and standardize the referral mechanism for babies discharged from KMC service

- Include a standard protocol for contacting the health facility and HEW with whom the baby will follow-up
- Include a standardized document used for tracking baby's growth, development, and clinical progress (i.e. health passport).

Include KMC in pre-service training for all health workers involved in delivery and care for preterm/LBW babies

- Pre-service training is a longer pipeline to service delivery than in-service training, but is less dependent on donor support.
- Especially important for midwives, as they are the primary cadre in a position to immediately initiate KMC.
- Capacity-building needs to also address health workers' misconception that separate space is a pre-requisite for KMC or that KMC is a last option when incubator is not available.

Ensure that admission to KMC is reported in HMIS

- KMC admissions should be completely recorded in registers and reported through HMIS to assist with national tracking
- Consider selecting a standard denominator to produce a meaningful KMC indicator, rather than reporting numbers of admitted patients.

Provide health education and anticipatory guidance for women at risk of preterm birth during antenatal care

- Provide targeted health education for high-risk pregnancies during ANC visits
- Leverage HDA platform for social norm change around skin-to-skin contact and premature/LBW newborns

Begin by concentrating on expanding provision of quality KMC services in Type A Health Centers, and strengthening KMC services in hospitals

- **Ultimate goal is quality KMC in ALL hospitals and health centers**, but an accelerated phased approach will allow for simultaneous investment to improve referral, transport, and follow-up systems, development of national KMC guidelines and measurement mechanisms.

Leverage resources from the global community

- The KMC Acceleration Partnership (KAP) is working with WHO to make available global guidance for implementation of KMC that can be adapted to Ethiopia context
- KAP has disseminated a set of 10 core KMC indicators that can be incorporated into routine health systems.