

Mary E. Taylor. . *Ethiop Med J*, 2019, *Supp.* 3

CONCLUSIONS

INTRODUCTION OF COMMUNITY-BASED NEWBORN CARE IN ETHIOPIA

Mary E. Taylor, PhD¹

This supplement presents findings from evidence and experience drawn from the design and early implementation of the Community-Based Newborn Care program (CBNC) in Ethiopia (2013-2016). The story of this program has its roots in the extraordinary leadership and commitment of the Ministry of Health (FMOH) to reduce neonatal mortality nation-wide by extending care into communities through its Health Extension Program (HEP).

CBNC was designed to leverage the learning and practice of Integrated Community Case Management (iCCM), that had rapidly scaled care of sick children to rural areas, and to empower Health Extension Workers (HEWs) to provide curative services for newborns when referral was not possible. CBNC was also implemented in such a way that related health services such as antenatal care, skilled delivery, case management of child illness, and nutrition could be strengthened. With strong harmonization of guidelines, partners and resources, Ethiopia was able to phase-in rapidly a complex care package in the agrarian regions of Amhara, Oromia, SNNPR and Tigray.

How well is CBNC working?

The papers in this supplement document that a functioning system has been established, although challenges to effective use of that system remain.

Readiness: The resources necessary to deliver CBNC components were often in place. In one study area, trained HEWs were available at all health posts and around 90% had the essential medicines to treat Possible Serious Bacterial Infection (PSBI). Throughout the program area, 80% of health posts were found to have supplies when visited. However, these supplies were provided through a parallel logistics arrangement rather than the routine logistics system of the MOH. When stock-outs loomed, partner workarounds were engaged. As CBNC was phased-in, health facilities were provided with medical equipment for higher level care of newborns (e.g. oxygen). While audits showed this equipment to be available, a considerable proportion was not ready for use nor used routinely.

Supervision: Supportive supervision was deployed during this initial implementation period. All health posts in a study area received at least one visit, 20% received two, and 5% received more than two visits. (The number of later visits partially reflect the limited observation time available for this data collection.) There were strong effects of supervision on the consistency of PSBI management and they improved significantly with the number of visits, with performance going from 71% correct management of PSBI with first visits to 84% with third visits.

Referral: Data for performance of the referral system in the program area were limited by poor record keeping, especially at health centers, and major gaps in formal communications between health posts and health centers (linkage within the PHCUs). Health post data showed that only one third of cases of sick young infants were referred up the system; and while close to 90% of caretakers reported adherence, little confirmatory facility data in registers or through referral slips were available.

Quality, Additions, and Adaptation: Some aspects of the CBNC package were not well implemented in certain geographic areas. For example, HEW identification of births followed by early postnatal care home visits did not happen, possibly reducing effective care of newborn PSBI cases. Other quality issues related to HEW care have been reported elsewhere and deserve more attention as the program matures (1). The addition of newborn care corners and chlorhexidine for cord care, although at different points in time, illustrate the requirements for detailed guidelines, planning and adequate lead-time, and the persistent follow-through needed to introduce them throughout the health system. Last, Ethiopia is a vast country whose health system must serve culturally and linguistically diverse populations. The CBNC program was first designed for the HEP in agrarian areas where 80% of the population lives. The example of how it was adapted to meet the needs of the pastoralist and semi-pastoralist people of Afar demonstrates one approach to addressing equity.

¹Visiting Scholar, University of Tromsø, Norway.
Author E-mail: maryt28@gmail.com

Utilization and Community Demand: Many of the supplement papers document the availability of the supply side of CBNC. In one geographic area, health posts experienced a 21-fold increase in cases of sick young infants and a 6-fold increase in cases of PSBI, after program initiation. Despite these increases, the number of cases seen was very low compared with those expected. In the referral study, HEWs saw only one third of expected cases of PSBI. Desired reductions in neonatal mortality will require a much higher level of utilization and a correspondingly increased level of demand for services. While the FMOH and partners implemented demand generation interventions, they started later than the service provision and didn't have enough time to mature. Engagement of the Health Development Army was highly variable.

The challenge of changing social norms and beliefs for newborn care and home practices, even as compared with iCCM demand, is well recognized. Multiple studies of barriers to demand for newborn care in Ethiopia have been carried out and recommendations offered (2-4). However, concerted efforts to mobilize communities and change behavior are evolving slowly and it is not clear what interventions will be most effective or in what time frame.

What will CBNC look like going forward?

Sustainability: The FMOH has maintained leadership and political commitment to newborn health and community-based care, and they remain a priority of the Health Sector Transformation Plan (HSTP) (5). However, there are challenges sustaining the performance of key system components, especially essential supplies, robust supervision, clinical mentoring, and use of data for decision making. As donor and partner resources for CBNC ebb, and the FMOH is faced with the increasing complexity of meeting Sustainable Development Goals (SDGs), it will be important to continue to emphasize evidence for progress and accountability for newborn and child health.

Saving Lives: There is good news from modelling the possible effects of CBNC. The introduction of CBNC in the agrarian areas, including management of neonatal sepsis at the community level, has contributed to more than 46,000 additional neonatal lives saved between 2013 and 2016. However, the gains could be even higher - an additional 187,500 neonatal lives saved - if Ethiopia meets its MNCH-related HSTP targets between 2017 and 2020.

Limitations

The papers in this supplement used the best data available; however, they did not cover all geographic areas equally nor was data always complete. There was variation in documentation between areas supported by different partners and/or by variation in regional and woreda public health offices. The length of observation time after introduction was fairly short for a program attempting to add a more complex intervention and to change social norms. With more observation time there might be more evidence of sustained performance and impact.

Some topics important to program and outcome assessment are missing from this documentation. These include information on program and opportunity costs, newborn service utilization data for health centers and hospitals, effectiveness data for demand interventions, and more detailed equity of performance and coverage data (by geographic or economic quintile). We are also missing the voices of HEWs, community leaders, and more caretakers that might have provided different and important perspectives on the experience of care or health behavior, and who may have had innovative ideas for improvement.

Conclusion

The papers in this supplement show the considerable potential of a holistic community-based newborn care approach when the component elements – primary health services, supplies, training, supervision, information and leadership are seriously implemented. The limited change in utilization of these efforts also highlights the critical importance of a thoughtful integration of these activities across service delivery levels and of active community engagement. As Ethiopia's ambitious CBNC efforts expand, these areas would be well worth the attention of senior program managers.

Ethiopia has demonstrated its ability to dramatically change the realities of healthcare and access among its diverse and far-flung population. Few countries can match the progress made here over the past quarter century. Today's newborns will be the productive adults driving Ethiopia's society and economy in 2050 and beyond. It is the hope

of the authors of this supplement that the experiences and lessons learned described here, will enhance the likelihood that today's newborns will be the healthy and productive contributors needed for Ethiopia's future.

ACKNOWLEDGEMENTS

We would like to acknowledge those who provided support to writing through advice or participation in workshops and article reviews including Edit911, Dr. Ephrem Lemango, Dr. David Marsh, Dr. Luwei Pearson (UNICEF), and Dr. Steven Wall (Save the Children USA). We would also like to thank the reviewers of the Ethiopian Medical Journal for their feedback and support. Finally, we would like to thank the three Ministers of Health who have supported Community Based Newborn Care throughout this journey, H.E. Dr. Amir Aman, H.E. Professor Yifru Berhan Mitke, and H.E. Dr. Kesete Birhan Admasu.

REFERENCE

1. Berhanu D., Avan B.I. Community Based Newborn Care: Quality of CBNC programme assessment - midline evaluation report, March 2017. London: IDEAS, London School of Hygiene & Tropical Medicine.
2. Amare, Y et al. "Illness recognition and appropriate care seeking for newborn complications in rural Oromia and Amhara regional states of Ethiopia." *BMC Pediatrics* 2018;18(1): doi:10.1186/s12887-018-1196-6
3. Amare, Yared A, Tedbabe D, Brian M. Newborn care seeking practices in Central and Southern Ethiopia and implications for community based programming. *Ethiop J Health Dev* 2013;27:3-7.
4. PATH. Overview of Findings from a Study to Examine Barriers to Uptake of Service. OHEP Project, January 2016.
5. Ethiopia. 2015. HSTP: Health Sector Transformation Plan : 2015/16 - 2019/20 (2008-2012 EFY).