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OVERVIEW

COMMUNITY BASED NEWBORN CARE IN ETHIOPIA: INTRODUCTION TO THE SPECIAL ISSUE

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In 2012, Ethiopia achieved an under-five mortality rate (U5MR) of 68 per 1000 live births, and therefore successfully reached Millennium Development Goal 4, having reduced the U5MR by two-thirds from its level of 204 in 1990m(1). Improvements in nutrition, immunization, management of childhood diarrhea and pneumonia, water and sanitation, and use of insecticide treated bed nets contributed to Ethiopia's success. However, most of the benefit was realized by reducing mortality among older children, as the neonatal mortality rate (NMR) declined more gradually from 54 to 29 per 1000 live births. By 2013, neonates accounted for fully 43% of all under-five deaths (2).

Earlier, the Ethiopian Ministry of Health (FMOH) had prioritized newborn health in its fourth Health Sector Development Plan (HSDP IV) and the Roadmap for Accelerating the Reduction of Maternal and Newborn Mortality (2011), aiming to reduce NMR to 15 (3,4). Strategies to prevent deaths due to infections, birth asphyxia, and complications of preterm birth were developed and cascaded to hospitals and health centers, building on Integrated Management of Child Illness (IMCI) and facility delivery programs (5). Efforts were also initiated to increase access to services through the Health Extension Program (HEP) by upgrading of Health Extension Worker (HEW) capacities (6). However, utilization of primary care services for sick children, particularly newborns, lagged behind expectations. Reaching Ethiopia's large rural population consistently with care when and where it was needed proved difficult, and barriers to care-seeking by families such as distance, transport, cost, traditional beliefs, and lack of satisfaction with care were widespread (2).

From 2010 to 2012, the FMOH phased-in the integrated community case management (iCCM) program to reach more children effectively at community level with life-saving curative interventions (7). ICCM built on the HEP platform and was successfully scaled nationally through the efforts of the MOH, UNICEF, other donors, and non-governmental organization partners. Evaluation demonstrated strong implementation and adequate quality of care provided by trained HEWs, although utilization continued to be lower than hoped (8,9). Detailed lessons learned from the iCCM experience were extensively documented earlier in a special supplement to the Ethiopian Medical Journal (10).

What happened with newborns? Under iCCM guidelines, treatment for sick children under two months required referral to higher level facilities. There was even more limited care-seeking for children in this age group despite their higher risk of morbidity and mortality, especially in the first week of life. With newborns accounting for the largest share of child mortality in Ethiopia and 27% of newborn deaths estimated to be due to serious neonatal infections, the FMOH focused on developing a program to increase access by building on their primary care system strengths - HEWs, iCCM and the Health Extension Platform (11,12).

The Community-Based Newborn Care program design was based on global evidence of effective newborn care interventions, effectiveness trials of service packages, large scale experience in other countries, and the combined experience of projects in Ethiopia. Studies in India and Bangladesh had demonstrated that community health workers could diagnose and treat neonatal infections when referral was not possible, resulting in reduced mortality (13,14). Nepal had been an early leader in scaling newborn care to communities and provided policy and program guidance (15). In Ethiopia, a research trial to demonstrate the feasibility and impact of identifying and treating possible serious bacterial infection (PSBI) was underway, providing valuable information on how to understand care-seeking and implement services within the existing health system (16). Other HEP-related health projects provided information from evaluations, small studies, and service improvement efforts.

The goal of Ethiopia's Community-Based Newborn Care program is to reduce newborn mortality through the provision of high quality maternal and newborn health services and community demand creation (Table 1).

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Table 1: Components of First CBNC Package (2013)*

• Early Identification of Pregnancy
• Provision of Focused Antenatal Care (ANC)
• Promotion of institutional delivery
• Provision of misoprostol in case of home deliveries or deliveries at health post level
• Provision of immediate newborn care, including application of Chlorohexidine on cord
• Recognition of asphyxia, initial stimulation and resuscitation of newborn baby
• Prevention and management of hypothermia
• Management of pre-term and/or low birth weight neonates
• Management of neonatal sepsis/very severe disease at community level

** Source: FMOH, Community-Based Newborn Care Implementation Plan, Ethiopia Ministry of Health, 2013.*

The purpose of this supplement is to document the implementation of the national CBNC intervention in Ethiopia in order to identify implementation strengths and weaknesses, as well as to generate knowledge for future national and international public health interventions. These papers were written to provide the first comprehensive view of Ethiopia's newborn care efforts and lessons learned to date.

The first four papers in this supplement including the Forward by the Minister of Health (18), Bekele and co-author's editorial describing current newborn health policy and guidelines (19), Taylor and co-author's description of the Four Cs of PSBI (20), and Pearson and co-author's application of the Lives Saved Tool to CBNC (21), lay out the framing of this program in the context of the Ethiopian Ministry of Health's conceptual approach and priorities. The middle section, consisting of six papers, describe components and systems that played important roles in this effort. These papers review facility readiness (22), supportive supervision (23), supply and logistics (24), service delivery performance (25), referral (26), and utilization and care-seeking (27). The penultimate set of four papers go into detail on some of the efforts carried out for specific interventions including newborn corners (28), chlorhexidine for cord care (29), postnatal care and identification of PSBI (30) or for the specific location of Afar (31). The final paper discusses key aspects of sustainability for ongoing and expanded efforts (32)

Together, these papers provide the first holistic account of a vitally important step in Ethiopia's march toward better health for all its children.

We acknowledge the contributions of the many committed partners who have implemented and worked to improve the health of newborns in Ethiopia's communities. They include the Federal Ministry of Health, UNICEF, USAID, the Bill & Melinda Gates Foundation and other donors, implementing partners from non-governmental organizations and universities, Health Extension Workers and their supervisors, and the families who have experienced newborn illness and sought care from the system.

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