

Integrating neonatal clinical services into Ethiopia's health system: Are underprivileged communities receiving sound health care?

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Policy



Serious new-born infections responsible for more than 550,000 deaths globally

To address the high burden of neonatal mortality in lower- and middle-income countries, World Health Organization recommends using injectable antibiotics when neonatal sepsis or very severe disease (VSD) are provisionally diagnosed.

Translations of policy into practice



Ethiopia's health system is leading the way in adopting this recommendation.

The Community based Newborn Care (CBNC) is key milestone initiative launched in 2014 to reduce newborn mortality by strengthening Primary health care unit and Health Extension Programme.

Front-line workers - health extension workers (HEWs) - are trained to diagnose VSD and provide 7 day course of antibiotics (oral Amoxicillin and injectable Gentamycin) antibiotics in community health facilities (health posts), so that neonatal-care services reach the most underprivileged rural communities.

Evaluation



The Informed Decisions for Actions (IDEAS) group at the London School of Hygiene & Tropical Medicine evaluated the CBNC programme of Ethiopian health services by comparing the management of sick newborns by front-line workers with the standard of care provided by health officers.



Methods

The study was conducted in 30 districts (woredas) across 12 zones and four regions of Ethiopia in December 2015.

240 health posts were assessed through multiple methods to triangulate HEWs' potential to deliver VSD case-management services for neonates. Assessment included testing HEWs' knowledge, clinical problem-solving (vignettes), and antibiotic-injection simulation.

For clinical case classification, 893 infants under two months had an observed consultation with a HEW, after which they were re-examined by a health officer.

Results

Good news first ...

- **Healthy neonates:** 97% of neonates were correctly identified as healthy by HEWs, indicating a negligible misuse of antibiotics.
- **Drug supply:** more than 90% of the health post have Amoxicillin and Gentamycin injection available
- **Trained workers:** Almost 98% of HEWs were fully-trained to manage VSD cases in the community.

Potential to improve ...

- **Sick neonates:** Only 30% of infants with VSD were correctly classified by HEWs. This indicates that a considerable proportion of sick infants were not receiving appropriate life-saving drugs at the health post.
- **Knowledge:** 56% of HEWs were unaware of any side-effects of the injectable antibiotics used to treat neonatal VSD.
- **Skill:** HEWs' ability to inject newborns with intramuscular antibiotics - including hygiene practices, dose preparation and administration, and follow-up advice - showed a skills' deficit of more than 50%.
- **Supportive supervision:** about 50% of the Health posts received monthly integrated supervision visit during the preceding month



Conclusion



This study identified the potential of front-line workers to deliver critical newborn clinical services at the door-step in deprived rural communities.

However, their ability to correctly diagnose a sick infant also relied on opportunities to practice clinical skills, supportive supervision and clinical mentoring.

It also highlighted the need to sustain efforts to secure clinical mentoring and supportive supervision, and to build further capacity of the health force in the areas of theoretical understanding and practical challenges in clinical practice.



Commissioned by: Ethiopian Federal Ministry of Health
Funded by: Bill & Melinda Gates Foundation
Local partner: JaRco Consulting, Ethiopia