

Berhanu, Della; Avan, Bilal (2015) How Do Frontline Workers Provide the Four Cs of CBNC? Contact with newborns, Case identification, Care and Completion of treatment. In: How Do Frontline Workers Provide the Four Cs of CBNC?, June 2015, London School of Hygiene and Tropical Medicine.

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How Do Frontline Workers Provide the Four Cs of CBNC?

Contact with newborns, Case identification, Care and Completion of treatment



Qualitative Study

June 2015







Research teams:

- LSHTM
 - **CBNC** Qualitative Research:
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 - Supervised by Bilal Avan
- JaRco :
 - **CBNC** Qualitative Research
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- This research was conducted by IDEAS, for the FMOH Ethiopia, funded by BMFG under the IDEAS project PI: Joanna Schellenberg



Outline of presentation

- CBNC Phase-1 Evaluation Questions
- Qualitative Study Methods
- Key Findings:
 - Section 1: 4Cs
 - Section 2: Motivation
 - Section 3: Demand for Newborn Care Services
 - Section 4: Supervision
 - Section 5: PHCU Linkages
- Recommendations



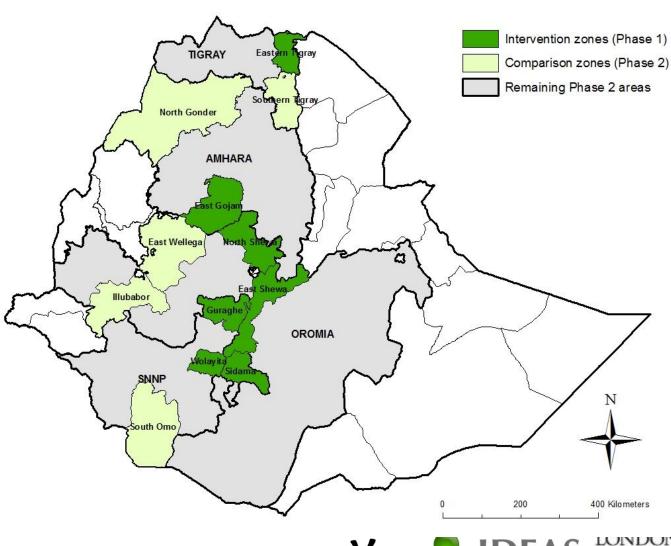


Overall Evaluation Plan for CBNC Phase-1





CBNC Evaluation: Study Areas









CBNC Evaluation Questions:

- 1. What is the effect of CBNC on coverage of key MNH interventions along the continuum of care at the health post, health centre and household levels, reflecting each of the nine CBNC components? (*Baseline and End-line surveys*)
- 2. What are the CBNC processes through which HEWs and the WDA leaders deliver the four Cs and their respective key components? (qualitative health system level)
- 3. What is the process by which beliefs, attitudes and care seeking for newborn illness are addressed by CBNC at the household level? (qualitative household/community level)
- 4. What is the quality of CBNC services provided by HEWs at the PHCU level? (*mid-line* survey)



The Four Cs of CBNC

Early Contact

With all newborns through WDA leaders and HEWs

Case Identification

Of newborns with signs of possible Very Severe Disease by HEWs and WDA leaders

Care and Treatment

Timely initiation, prescribed by HEWs

Completion of treatment

Provision of a 7-day course of amoxicillin by families and gentamycin by HEWs and WDA leaders



How Do Frontline Workers Provide the Four Cs of CBNC?

Contact with newborns, Case identification, Care and Completion of treatment







Study Questions

Question 1: What are the mechanisms through which HEWs and the WDA leaders:

- Contact newborns early,
- Identify cases,
- Provide treatment (HEWs only) and,
- Ensure treatment completion

Question 2: how is the HEWs and WDA leaders' potential to contact, identify, provide treatment and ensure completion affected by:

- Motivation,
- Demand for newborn services,
- Supportive supervision (for HEWs only), and
- PHCU linkages



Study Premise

To develop understanding of:

- Challenges and opportunities to delivering the 4 Cs
- Factors affecting motivation of HEWs and the WDA leaders in delivering the four Cs.
- Factors affecting demand for newborn care from the perspective of HEWs and WDA leaders
- Opportunities and challenges for communication, supervision and referral linkages



How Do Frontline Workers Provide the Four Cs of CBNC?

Contact with newborns, Case identification, Care and Completion of treatment

Methods



Study Area

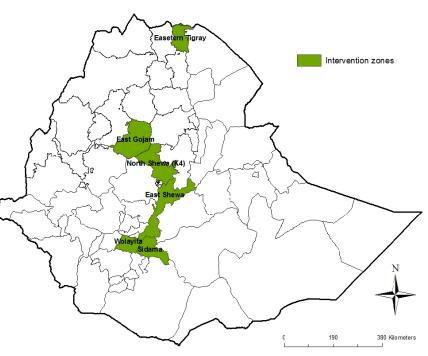
In the four regions (6 zones) of Ethiopia:

Oromia: N. Show and E. Shoa Zones

Amhara: E. Gojam Zone

SNNPR: Sidama and Wolayita Zones

• Tigray: E. Tigray Zone





Sampling Methodology

- Aim: to include range of facilities with varying treatment workload
 - Utilized implementing partner* woreda level data on number of newborns with Very Severe Disease (VSD) that were treated since start of CBNC implementation
 - 90% woredas had a range of 0-8 VSD cases reported (treatment initiated) at the health post level since CBNC implementation
 - Among the 16 selected woredas 8 were randomly selected which had VSD treatment workload of 0-3 and another 8 were selected with 4 and more.



Participants and Data Collection Methods

Participants

- Woreda Health Bureau staff (CBNC trained staff)
- Health center staff (HEW coordinator/ MCH officers)
- HEWs
- WDA leaders

Data collection methods

- In-depth interviews (IDI)
- Focus group discussions (FGDs)



Sampling-Number of FGDs and IDIs

IDIs = 96FGDs = 32

Region	Woreda*	Number of FGDs		Number of IDIs			
		HEW	WDA	HEW	WDA	HEW/MCH Supervisor	Woreda Head
Oromia	4	4	4	8	8	4	4
SNNP	4	4	4	8	8	4	4
Amhara	4	4	4	8	8	4	4
Tigray	4	4	4	8	8	4	4
Total	16	16	16	32	32	16	16



Data Collection and Analysis

Collection

- Data collection period: November December, 2014
- Data capture:
 - Sound recordings
 - Expanded field notes
- Research team meeting to synthesize preliminary findings
- On going synthesis during data collection

Analysis

- Expanded field notes
 - Data examined and categorized by thematic areas of the framework,
 - Ongoing addition of emerging themes
 - Ranking by frequency of occurrence
- Data triangulation:
 - Two investigators reviewing expanded field notes
 - Consensus building workshop



Key Findings

- Section 1. Four Cs- First C (Early Contact)
- Section 2. Motivation
- Section 3. Demand for Newborn Care Services
- Section 4. Supervision
- Section 5. PHCU Linkages
- Recommendations









Primary Mechanism: WDA leaders identify newborns in their network and inform HEWs

....the fact that they [WDA leaders] have a strong relationship and live in close proximity to their members facilitates identification of newborn on the day of birth. (WDA leader)

 HEW acknowledged WDA leaders role in the identification of newborns

WDA leaders identify newborns in the villages and report to HEWs in a timely way. (HEW)

 Early identification facilitated by improved communication (mobile telephone) between WDA leaders and HEWs



Secondary Mechanism: HEWs

- Routine house-to-house visits by HEWs
- Contact with newborn as consequence of regular ANC

When the pregnant women come to us we calculate their EDD so that we will be able to visit them on the date their baby is expected to be born. (HEW)

Cessation of contraceptive use

If a regular user stops using of contraceptives we ask a WDA leader to follow up on her to find out it if is due to a pregnancy...this way we can find newborns in our locality. (HEW)

Health center notifying HEWs of pregnant women and facility delivery

• Families coming to health posts to inform HEWs

Children are sent to inform us of the birth of a new baby on their way to school. (HEW)



Key Challenges

- **HEWs Heavy workload**The administrative and political activities are given precedence over provision of health care. (HEW)
- Lack of precision in calculations of Expected Due Date-due to inaccurate date of menstrual cycle provided by mothers
- Delayed identification of home deliveries
 When the mother gives birth at home it often takes us 4 to 7 days to discover.
 When the delivery occurs in health facility the difficulty to contact the newbor

When the delivery occurs in health facility the difficulty to contact the newborn is not much serious. (HEW)



Key Challenges

- Delayed visits: due to delay in the passing of information on deliveries from WDA leaders to HEWs
- Cultural and traditional practices
 - It is the common practice in our community that an expecting woman moves temporarily to her parents' residence to give birth there. This is commonly practiced if the woman is to give birth to her first child. In that case, we cannot visit the new born baby. (WDA leader)
- Delayed feedback from health center to HEWs on facility delivery prevents early contact of newborns with HEWs



Best practices

- Identifying and listing all pregnant women by HEWs and WDA leaders
- HEWs receiving delivery notification from health center staff
- HEWs receiving information on deliveries from family members



Key Findings

- Section 1. Four Cs- Second C (Case Identification)
- Section 2. Motivation
- Section 3. Demand for Newborn Care Services
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Primary mechanism: HEWs

 House-to-house PNC visits- HEWs provide visits in the first seven days after delivery

...I noticed that the baby had difficulty breastfeeding. Then I advised the mother to bring the baby to the health post.....I also did my own examination and found the baby had severe fever. (HEW)



Secondary Mechanism-WDA leaders

1 to 5 and 1 to 30 WDA leaders

We live together; we fetch water together; we go to a funeral together. Thus, when a baby gets sick in our locality, we can easily hear about it. (WDA leader)

WDA leaders accompany families when needed

It is part of our culture to visit a women during delivery. And as a WDA leaders if we see that the baby is sick and the mother is too weak to travel, we offer to take the baby to the health post on her behalf. WDA leader)



Key Challenges

HEWs

- Supervisor's opinion that HEW case identification skills are not up to the mark
- Communities low level of confidence in the services for newborn care

WDA leaders

- Lack of orientation on danger signs for VSD
- Unaware of their roles in identifying and reporting sick newborns to HEWs



Best practices

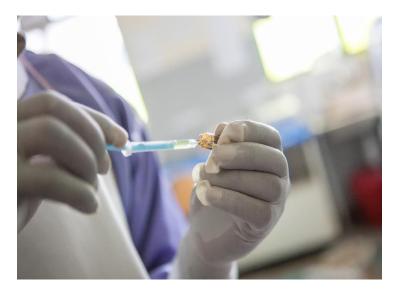
- Pregnant women's conferences to create awareness on newborn VSD symptoms
- WDA leaders accompanying a sick child with parents/caregivers to health facility
- Availability of job aid: family health card as a reference material for identification of signs for newborn illness
- Direct information from mothers to HEWs

....a woman approached me and told me that her baby was not feeling okay. I urged her to bring him to health post and treated the baby. (HEW)



Key Findings

- Section 1. Four Cs- Third C (Care and Treatment)
- Section 2. Motivation
- Section 3. Demand for Newborn Care Services
- Section 4. Supervision
- Section 5. PHCU Linkages
- Recommendations





Section 1. Third C-Care and Treatment

Primary mechanism-HEW referral to Health Center

 HEWs provide pre-referral treatment dose of amoxicillin and gentamycin, and refer the case to health center

By following newborn care procedures I identified the kind of infection the baby had. However, I had to refer the baby to health center as I realized the infection could not be treated in the health post. So I injected gentamycin and sent the baby to health center. (HEW)



Section 1. Third C-Care and Treatment

Secondary Mechanism- HEW treatment at community

- HEW provide treatment at the health post or at the household when referral is not possible
- Reasons for health post treatment

HEWs'	Family's			
Confidence and capacity	Cultural practices			
Availability of drug supply	 Newborn considered is too ill to be taken to health center 			
 Social acceptance for successfully treating VSD 	Transportation costs			
 Moral satisfaction and pride from curing a sick newborn 	 Difficulty for mothers to ravel soon after delivery 			



Section 1. Third C-Care and Treatment

Key Challenges

- Lack of HEW orientation on the importance of treatment at health center
- HEWs treatment Skills
 - Limited opportunity to treat due to low number of VSD cases, which increases the
 possibility for HEWs to forget what they learned in the CBNC training
- HEWs' availability
 - Not available at health post due to meetings, maternity leave or conducting outreach work affecting treatment schedule for sick newborn
- Community perceptions on the CBNC treatment regimen: (according to HEWs)
 - "How can a newborn of just a few days be injected?"
 - "Injection causes death to a newborn"
 - "Newborn illness can be healed with the leaves of local herb called amessa"



Key Findings

- Section 1. Four Cs- Fourth C (Completion of Treatment)
- Section 2. Motivation
- Section 3. Demand for Newborn Care Services
- Section 4. Supervision
- Section 5. PHCU Linkages
- Recommendations









Section 1. Fourth C-Completion of Treatment

Primary Mechanism-Health Center Treatment Completion

- Newborns treatment status is recorded on daily basis to follow up progress and drug completion
- Health center staff conduct supervisory visits, during which they use the opportunity to check on sick newborns



Section 1. Fourth C-Completion of Treatment

Secondary Mechanism-HEW Treatment Completion

HEWs administer the seven-day course gentamycin and amoxicillin
 The home of the sick newborn was a short distance from the health post...I
 had to administer the gentamycin which required the mother to bring the
 sick newborn each day for the period of the treatment. (HEW)

....we give the first dose [of amoxicillin] at the health post ourselves. Then we send the mother home with the required supply of **amoxicillin**...We explain to the mother all the necessary details including the amount and timing of the medication, and the risks of non-compliance. (HEW)



Section 1. Fourth C-Completion of Treatment Key challenges

- HEW availability-
 - Health posts closed on weekends; some HEWs reside in a different kebele
- Heavy HEW workload
 - Meetings and other non-health related activities
- Lack of follow up by WDA leaders
 - Some WDA leaders are not fully cognizant of their responsibilities;
 - Domestic and agricultural commitments
- Drug compliance by caregivers- discontinue amoxicillin if sick newborn
 - Does not show progress or
 - Shows improvement in the middle of the treatment



Section 1. Fourth C-Completion of Treatment

Best Practices

- Family involvement in newborn care
- HEWs making 7 day schedule for gentamycin injection
- HEWs making 'buddy arrangements' between mother and WDA leader for amoxicillin compliance



Key Findings

- Section 1. Four Cs
- Section 2. Motivation
- Section 3. Demand for Newborn Care Services
- Section 4. Supervision
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Section 2. Motivation-Overall Levels

HEWs level of motivation

 The level of motivation of HEWs in relation to CBNC service delivery was moderate

WDA leaders Level of motivation

- Generally motivated to play their roles as volunteers
- However, inconsistent level of motivation in their work involving sick newborn identification and supporting treatment completion



Section 2. Motivation-Internal Factors

 Pride (HEWs): A majority said they are proud for being directly responsible for saving the life of sick newborn

I am proud to have saved the life sick newborns (HEW)

 Satisfaction (HEWs and WDA leaders): Moral satisfaction derived from services rendered to mothers and newborns

Knowing that maternal and newborn mortality is prevented through our work encourages me to contribute my time and effort with even greater commitment. (WDA)



Section 2. Motivation-Internal Factors

Personal Experience (WDA leaders)

As a woman who had more than five miscarriages, I appreciate the problem from personal experience. The seriousness of the risks involved.....compel me to carry out my assignment with commitment and care. (WDA)

Increased skills (HEWs): motivated by acquiring more skills (e.g., VSD treatment)



Section 2. Motivation-External Factors

Improvement in community MCH Status (HEWs and WDA leaders)

Maternal and newborn mortality is steadily on the decrease as a result of the changes brought about in behavior through the service of HEWs. (HEW)

- Community Acceptance (HEWs and WDA leaders)
 -people referred to us by derogatory terms as 'those dirt people'. That has now changed, and the community views and treats us with high regard. (HEW)
- A few HEWs were discouraged by opinions that they do their work for the payments. Collaboration and competition (HEWs): Motivated by teamwork and healthy competition with fellow HEWs
- Support and encouragement (HEWs and WDA leaders): For HEWs from health center staff and for WDA leaders from HEWs



Section 2. Demotivation-External Factors

Incentives (HEWs) and recognition (WDA leaders)

I have to complete a treatment that I start giving to a newborn even if it involves working at the weekends or other holidays. I get no extra payments for working on such occasions. On the other hand, nurses get paid for the work they do during extra hours. (HEW)

Poor working environment

I am not happy.... working as HEW in rural communities is burdensome. Working and living conditions are hardly favorable for smooth job performance. (HEW)

Lack of opportunities (HEWs): heavy workload and low ceiling for growth

As an individual, I want to improve my life through further education. But chances for this are rare in our circumstances. (HEW)

- Perceived other government workers had better education, salary and work location
- Long duration of placement in one kebele



Key Findings

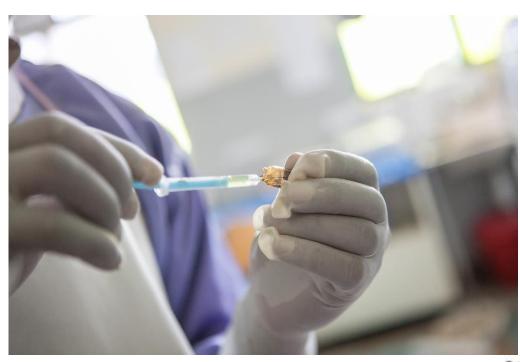
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Section 3. Demand for Newborn Care-Overall Levels

 HEWs and WDA leaders reported the level of demand for newborn care services is on the rise





Section 3. Demand for Newborn Care-External Drivers

Factors increasing demand

- Community attitudes towards HEWs and WDA leaders
 -when we go out to the villages on home visits, mothers are welcoming and hospitable to us. They invite us in and offer us coffee. (HEW)
 - Some mothers still lack confidence in HEWs' skills and are reluctant to report their newborn's illnesses to them.
- Change in the behavior of men who now support facility delivery
- Improved health outcomes due to uptake of maternity services



Section 3. Demand for Newborn Care-Internal Drivers

Factors decreasing demand

- Traditional practices hindering service uptake
 - Traditional healers (Raga-Oromia) and medicines (Amessa-Sidama)
 - Seclusion of newborn prior to blessings from traditional leader (e.g., Amechissa)
 - Protection from the evil eye (Buda)

When I made home visits carrying scales to weigh the newborns, mothers refused saying that measurement of weight would do their newborns harm making them vulnerable to evil ye. (HEW)

Perceptions on newborns and their illness hindering service uptake

- Illness will pass without treatment
- Infants cannot handle injections
- Lack of knowledge of serious danger signs
- Detachment: a newborn death is considered a 'loss' to family, while 'death' and 'resting in peace' is designated to the ending of life of all other age groups

In our community even when infants die, they call it someone has lost a baby. They do not consider this as a death of a human being. (HEW)



Section 3. Demand for Newborn Care-External Drivers

Factors increasing demand

- Free provision of care and treatment at the health post (e.g., VSD treatment)
- Forums that provide information and education messages

In a [pregnant women's] conference, we trained women to identify symptoms of sick newborns. We also repeatedly advised them to visit health posts if they observe symptoms of sickness. (HEW)

Factors decreasing demand

- Lack of communication of VSD treatment at the health post

 Little has been done to raise the awareness of community members
 regarding the provision free CBNC service at health posts. (MCH head)
- Quality of services: where lacking preference given to health center/hospital



Key Findings

- Section 1. Four Cs
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Section 4. Supervision-Overall Levels

- Health center staff provide weekly supervisory visits to the health posts
- Verbal and written feedback provided to HEWs
- Monthly meetings with all HEWs in a PHCU
- Supervision at health post entailed:
 - Reviewing the new registers,
 - Guidance on proper registration and chart booklet utilization,
 - Ensuring correct antibiotic dosage,
 - In some places, visit to households with a newborn or a sick newborn
- Overall CBNC related supervision was perceived as moderate and can be further strengthened by woreda level program ownership, increasing CBNC trained health center staff numbers, and standardized supervision checklist.



Section 4. Supervision-Internal Drivers

- Lack of CBNC program ownership
 - Some Woreda and Health Center staff members feel it is an NGO initiative
 - Considered to limit the strength of CBNC supervision

A lot of times NGOs are providing training, but if the training was provided to all the staff at woreda level they would see it as a government initiative therefore this would bring ownership and they would focus on it. (Woreda official)



Section 4. Supervision-External Drivers

- Insufficient number of CBNC strained staff at both levels.
 - The lack of knowledge about the CBNC program on the part of the woreda has made it difficult to provide support to health center and health post staff. (Woreda head)
 - Sometimes training is not provided to the person that follows up on CBNC
 - HEWs are not receptive to supervision from an person not trained in CBNC
- Standardized checklist: some health centers and woreda health offices did not have a standardized form



Key Findings

- Section 1. Four Cs
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Section 5. PHCU Linkages-Overall Levels

- Between PHCUs and Woreda Health Offices
 - **Planning** of maternal and newborn care programs

 We assist PHCUs prepare their own maternal and newborn care plans based on the regional indicators. (MCH Officer)
 - CBNC training in collaboration with implementing partners
 - Supervision of CBNC implementation
 - Reporting
 - Facilitation of medicine and equipment supply
- Overall linkages were considered to be strong in all aspects but supervision



Section 5. PHCU Linkages-Overall Levels

- Between health center and health posts:
 - **Supportive supervision**: weekly supervision to health posts
 - Reporting: using CBNC specific forms
 - Referrals: HEWs provide pre-referral dose and refer to health centers.
 - Health centers provide back referrals to health posts for follow up.
 - Referrals rarely happens from health centers to health posts

If treatment is started in the health center it is usually completed at the health center (Woreda head)

 Overall linkages: reported to be moderate, needing major improvements in supervision and referrals



Section 5. PHCU Linkages-drivers

Referral system:

 No verification of check if patients referred by HEWs actually visit health centers

Health centers do not give feedback to HEWs on sick newborns, which they referred from the health post. (Woreda head)

- Lack of information to HEWs on newborns seen at health center
 Health centers also do not inform HEWs about newborns that have been treated in health centers and sent home to continue the treatment (Woreda head)
- Lack of follow of HEWs on the back referred cases.



Key Findings

- Section 1. 4Cs
- Section 2. Motivation
- Section 3. Demand for Newborn Care Services
- Section 4. Supervision
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1st C-Early Identification

- Ensure listing of pregnant women by HEWs and WDA leaders
- Increase direct communication between Health Center and HEWs on:
 - Pregnant women seeking ANC at health centers for the first time
 - Deliveries in health centers for timely PNC follow up by HEWs

2nd C- Case Identification

- Refresh HEWs knowledge on symptoms for VSD cases during supervisory visits
- Frequent orientation to WDA leaders on danger signs of sick newborn
- Avail sufficient family health card to WDA leaders
- Involve the WDA leaders to engage in roles beyond referral e.g., accompanying sick newborn and family to health facility when needed



3rd C-Care and Treatment

- Strong supportive supervision on HEWs' treatment provision
- Address community misconceptions on illness/treatment of sick newborns

4th C- Completion of treatment

- Have HEW set-up an a schedule for gentamycin injection ahead of time with the mother/caregiver
- Include other family members when explaining treatment regimen
- Incorporate compliance of treatment in WDA leaders orientation to inform on:
 - What and how medication is provided
 - How to follow up on compliance of medication with care givers



HEWs' level of motivation

- Hold 'healthy' competition between HEWs in the provision of PNC visits
- Acknowledge and reward well performing HEWs with respect to 4 Cs

For future policy consideration

- Provide Compensation for working on weekends
- Increase opportunities for further education,
- Salary increase (particularly with improved education qualification),
- Change place of assignment after a designated number of years
- Give similar payments increase and education access as counterparts in education and agriculture

WDA leaders' level of motivation

- Acknowledge well performing WDA leaders along relevant work across the 4 Cs
- Give stronger support from kebele command post and/or HEWs
- Provide more feedback mechanisms to convey community's appreciation of WDA leaders



Level of demand:

- Improve awareness of the provision of VSD treatment, particularly among WDA leaders
- Link (strengthen linkage) HEWs with religious healers and leaders (e.g., Amechissa and Raga) to ensure that they encourage mothers to seek PNC for their newborns and treatment for their sick newborns
- Support HEWs and WDA leaders to conduct pregnant women's conference where danger sings for sick newborns are addressed



Level of supervision:

- Develop an integrated and standardized checklist for woreda/health center and health center/health post supervision that captures key 4 C processes
- Involve more woreda and health center staff in the planning and training of CBNC to ensure their ownership of program
- Train/orient more individuals at health center and woreda level so as to sufficiently support CBNC program
- Ensure training is provided to appropriate individuals (HEW supervisors)



Level of linkages:

- Ensure the availability of standardized referral forms at health posts
- Ensure health center staff provide information on sick newborns receiving treatment to relevant HEWs
- Close supportive supervision for HEWs to follow up on sick newborns seen at health centers

For future policy consideration

 Sepsis case treatment and referral information integrated into HMIS reporting form at the health post level



Acknowledgments

- JaRco Consulting
- CBNC Steering Committee
- IDEAS team (Particularly Zelee Hill and Pauline Scheelbeek)
- Paolo Patruno Photography
- FMOH
- BMGF





Thank you

