

A community quality improvement approach to facilitate more respectful care for pregnant women and increase health worker-assisted deliveries in rural Ethiopia

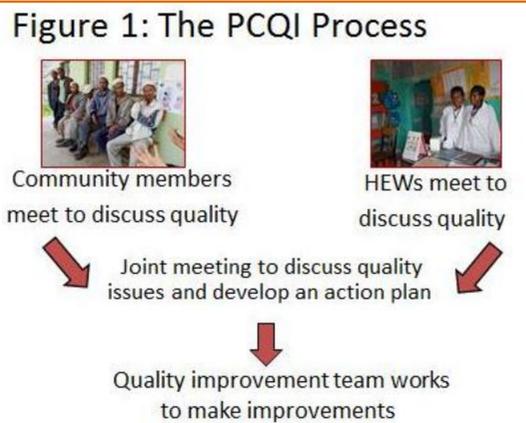
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Background

The problem: Maternal mortality in Ethiopia remains high at 676 deaths per 100,000 live births (Ethiopian DHS, 2011). Similarly, neonatal mortality (deaths within the first 28 days of life) remain high, at 37 deaths per 1,000 live births (EDHS, 2011), 25% of whom die within their first 24 hours of life. In addition, only 10% of women in Ethiopia deliver with a skilled birth attendant.

The Last Ten Kilometers Project (L10K) is funded by the Bill & Melinda Gates Foundation and implemented by JSI Research and Training Institute, Inc. (JSI). The project works to improve maternal, neonatal and child health (MNCH) coverage to 2.3 million households in 115 districts (woredas) in Ethiopia. The project works with 12 local civil society organizations (CSOs) to support and enhance the skills of 7,000 Health Extension Workers (HEWs).

Participatory Community Quality Improvement (PCQI) is an L10K strategy designed to improve access to and quality of MNCH care in rural Ethiopia. Through PCQI, community members and HEWs hold meetings to discuss quality-related issues, and together identify and implement solutions. See **Figure 1**.



The specific research questions (RQs) to be answered in this poster are:

- RQ1: What aspects of the PCQI approach are working, and what implementation changes are recommended?**
- RQ2: Does the PCQI approach to quality improvement improve utilization of key maternal and newborn health services?**

Methods

A combination of qualitative and quantitative (mixed) methods were used to examine the effect of PCQI on health services access and utilization. The study included key informant interviews with HEWs and community members in PCQI-supported communities, and an analysis of health facility service utilization statistics for key MNH indicators.

RQ1: Qualitative data: Key informant interviews were conducted with kebele (community) and woreda administrators; HEWs; community members and quality improvement (QI) teams; and L10K staff to determine what is working and how the PCQI approach can be improved. Fifty three interviews from eight purposively selected kebeles (2 per region) were coded using inductive thematic coding in Nvivo software.

RQ2: Quantitative data: Routine health statistics were collected from all health posts in the selected kebeles (n=16) for 12 months pre- and 12 months post- intervention, and analyzed using Independent samples t-tests and run charts for each indicator:

- First antenatal care (ANC1) visit
- At least one post natal care (PNC1) visit
- Delivery with a HEW (Safe and clean delivery)
- First and second tetanus toxoid injection during pregnancy (TT1 and TT2)

Results

The main themes emerging from the key informant interviews are classified below (**Table 1**) into (a) benefits and (b) challenges and recommendations of the PCQI quality improvement process.

Table 1: Key Themes Emerging from the Qualitative Interview Data

Key theme	Number (percent) of interviews by key informant group		
	Total (n=53)	Community members (n=24)	Health care implementers (n=29)
Benefits of PCQI			
▪ Awareness of/access to health services	35 (66%)	16 (7%)	19 (66%)
▪ Community empowerment/ownership	32 (60%)	15 (63%)	17 (59%)
▪ Respectful care and the relationship between HEWs and their community	21 (40%)	12 (50%)	9 (31%)
▪ Promotion of healthy behaviors	11 (21%)	7 (29%)	4 (14%)
▪ HEW skill-level and confidence	10 (19%)	1 (4%)	9 (31%)
Challenges of and recommendations for PCQI			
▪ Support, supervision, and technical quality	34 (64%)	12 (67%)	22 (76%)
▪ Integration of PCQI into government systems	26 (49%)	8 (33%)	18 (62%)
▪ Availability of resources such as supplies and transportation	25 (47%)	9 (38%)	16 (55%)
▪ Scaling up of PCQI to include entire PHCUs	24 (45%)	7 (29%)	17 (59%)
▪ Recruitment and retention of PCQI facilitators	20 (38%)	5 (21%)	15 (52%)

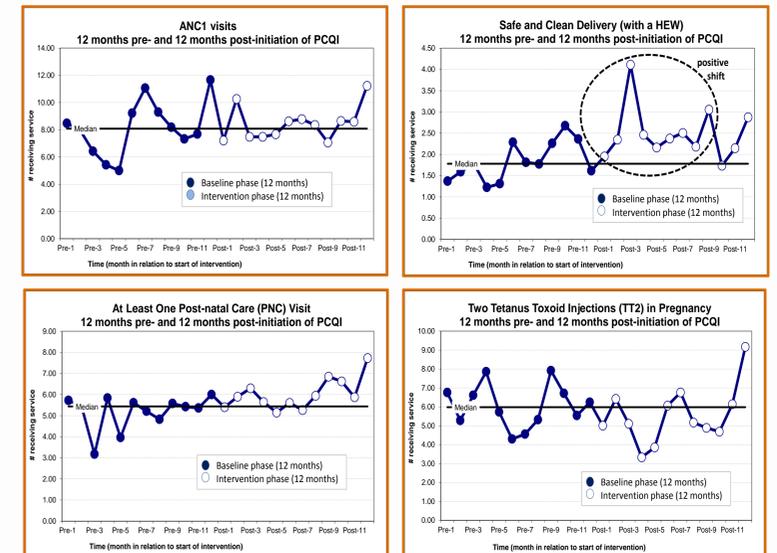
Health service utilization statistics were analyzed using independent samples t-tests. These were calculated based on the meant number of each service provided by HEWs per month in 16 health facilities. These results are presented in **Table 2**.

Table 2: Independent samples t-test results for service utilization indicators

Service provided in the health post (Indicator)	Mean (SD) pre-intervention	Mean (SD) post-intervention	Change in mean	p-value
ANC1	8.15 (±4.25)	8.45 (±4.57)	+ 0.3	0.736
Safe and clean delivery	1.84 (±1.19)	2.50 (±1.92)	+ 0.65	0.048*
PNC1	5.18 (±2.73)	6.02 (±2.64)	+ 0.84	0.127
TT1	4.28 (±4.62)	3.10 (±2.50)	- 1.18	0.122
TT2	6.07 (±4.98)	5.55 (±4.64)	- 0.52	0.600

More Results

Figure 2: Sample Run Charts for Key Service Utilization Indicators



Summary Findings

- The PCQI increased respectful care and the relationship between HEWs and communities – an unexpected finding (**Table 1**)
- Both community members and health care implementers wanted greater focus to be placed on improving supportive supervision and technical quality. (**Table 1**)
- Safe and clean delivery (i.e., delivery with a HEW) increased significantly using both independent sample t-tests and standard run chart rules (Perla et al, 2011). (**Table 2** and **Figure 2**).

Recommendations

- The notion of **respectful care** should be promoted as a core component of QI and MCH approaches. Quality improvement approaches that involve both the community and health workers, such as PCQI, can help increase respectful care.
- Quality improvement approaches that include communities in defining and improving the quality of health care need to maintain a strong focus on **technical quality**.
- Determining effective ways to **motivate** QI implementers is important, especially when scaling up QI approaches. Local friendly competitions, integrating QI approaches into existing government systems, and ensuring regular supervision and feedback are ways that motivation can be increased or maintained..