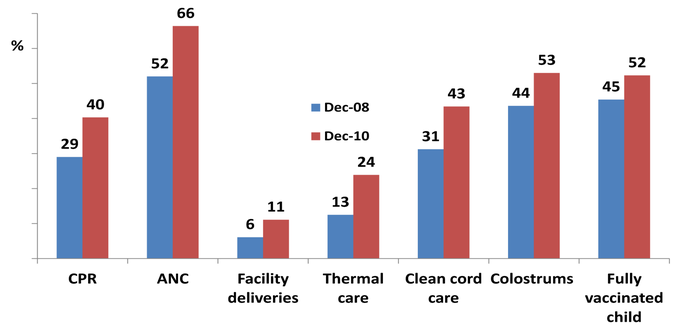
Health extension program supply side systems' response to community-based strategies for improving reproductive, maternal, newborn, and child health in rural Ethiopia

Ali Mehryar Karim, Dessalew Emaway and Wuleta Betemariam

Background

Since December 2008, the Last Ten Kilometers Project (L10K), funded by Bill & Melinda Gates Foundation, has been implementing community-based strategies to enhance the interactions between the health extension program (HEP) frontline workers (i.e., health extension workers [HEWs] and voluntary community health workers [vCHWs$^{\mu}$]) and the households (HHs) to improve reproductive, maternal, newborn and child health (RMNCH) and contribute towards MDGs 4 and 5

Between December 2008 and December 2010, the RMNCH care practices improved significantly in the L10K areas



The HEP coverage in the L10K areas was almost universal in December 2008; as such, there was a marginal scope for improvement

- ❑ **% of kebeles with at least one HEW increased from 94% to 99% (p<0.05)**
- ❑ **HEW to population ratio did not change significantly (P>0.1)**

Therefore, the improvements in RMNCH care practices were not likely due to expansion in HEP coverage

Research question

Do increased demand creation for RMNCH services improve the supply side factors? Or, does the HEP supply side adequately respond to the increased demand for RMNCH services? Or, what was the response of the HEP supply side systems to the increased demand for RMNCH services?

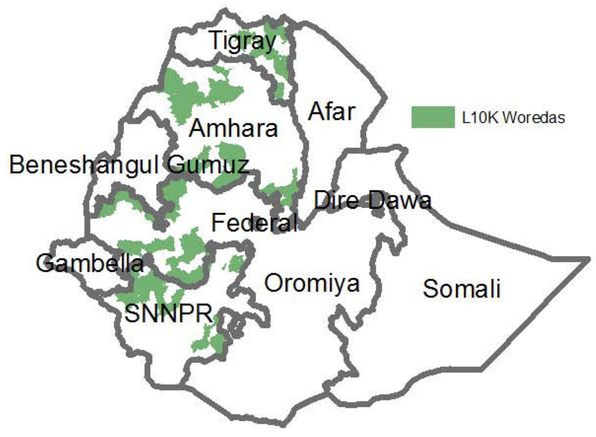
Methods

The L10K project

Provides technical and financial support to 12 local Civil Society Organizations (CSOs) to implement community based strategies

- ❑ Supports HEWs to engage their communities to take health actions and participate in the provision of RMNCH services
- ❑ Support HEWs to select, train, mentor and utilize vCHWs, 1 for every 5 HHs
- ❑ vCHWs promotes key health actions in their neighborhood using Family Health Cards
- ❑ Anchor vCHWs in local institutions to motivate and sustain volunteerism and improved health outcomes

L10K is implemented in 115 woredas covering about 14 million people



$^{\mu}$ The vCHWs are currently the health development army (HDA) members

Study design

- ❑ Pretest-posttest only (adequacy) design
- ❑ Study domain was the L10K areas
- ❑ Sample sizes:
  - Baseline (Dec. 2008): 203 kebeles
  - Follow-up (Dec. 2010): 326 kebeles

Analysis

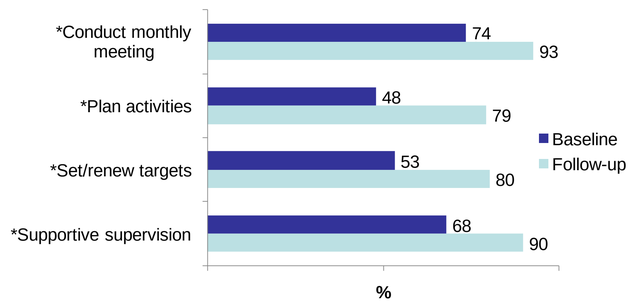
Chi-square tests for differences in proportion and t-tests for differences in means

Results

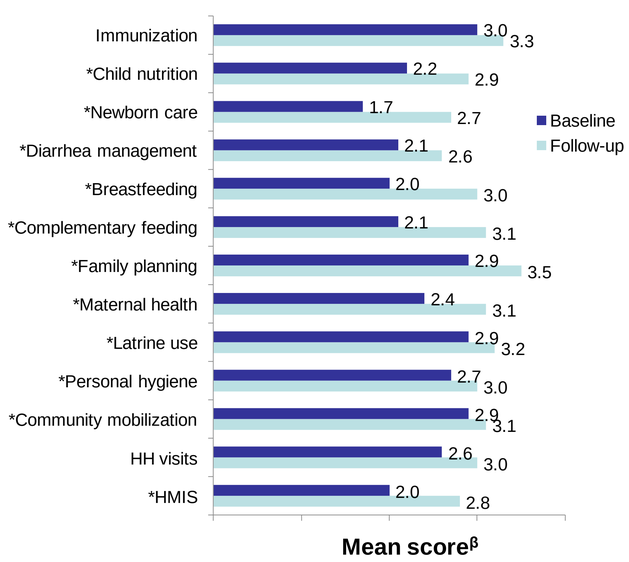
L10K coverage

- ❑ **97% of the HEWs reported receiving training from L10K**
- ❑ **95% of the HEWs reported attending woreda-level review meetings organized by L10K**
- ❑ **73% of the HEWs reported that they receive some level of support from L10K to implement RMNCH services**
- ❑ **The average number of vCHWs per kebele increased from 12 in Dec 2010 to 33 in Dec 2010**

HEWs' activity with the vCHWs increased significantly

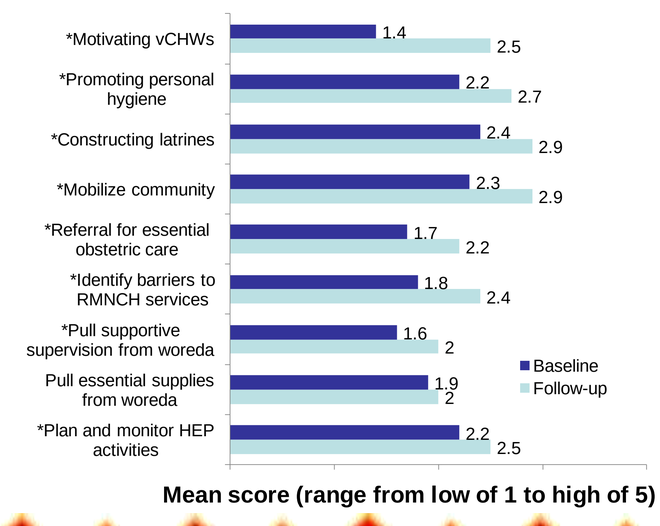


HEWs report significantly higher support from the vCHWs

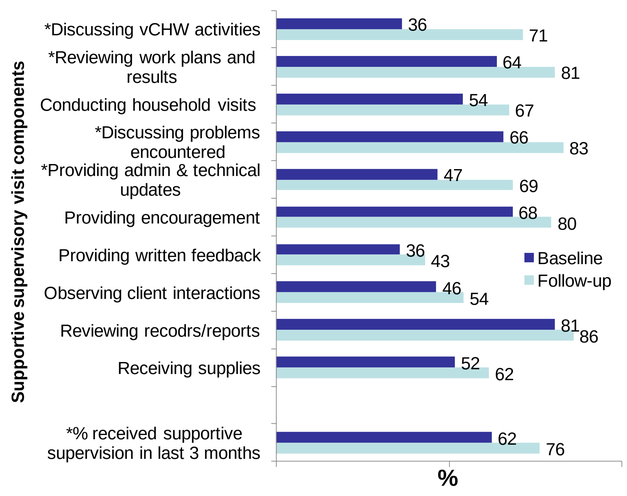


$^{\beta}$ The mean score ranges from low of 1 to high of 4; higher score indicates greater support the HEWs get from the vCHW for each of the items

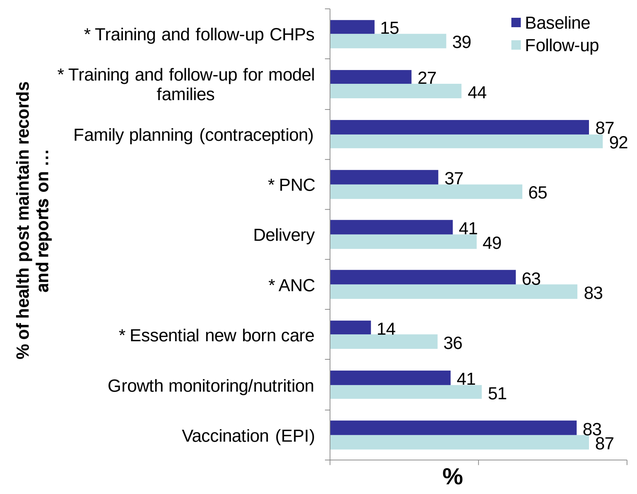
HEWs report significantly higher support from the kebele health committee



HEWs report significantly more and better supportive supervision



Health posts' record keeping and reporting improved significantly



Availability of contraceptives improved

% of kebeles have …	Baseline (n=200)	Midterm (n=322)
Combined pills	59.7	83.3 *
Injectables	64.0	87.7 *
Condoms	48.8	68.4 *
ORS	38.0	65.2 *
Vitamin A	30.0	61.8 *
Vaccines	18.9	36.0 *
De-worming medicine	17.6	51.4 *
Cotrimoxizole	1.8	1.4
ACT	37.3	52.4 *
Rapid test for malaria	37.5	47.3
Fansidar	2.2	0.9
Bed nets	16.5	22.6
Iron tablets	27.1	28.5
Misoprostol	3.2	2.5
Ergometrine	6.1	0.1 *

However, the availability of maternal health commodity remained low; while the availability of child health commodities were less than optimum

Conclusions & Implications

- ❑ The HEP supply side systems' are responsive to the increase in demand for RMNCH services
- ❑ Although improvements in HEP health systems have been observed, it is still not optimum
- ❑ Availability of maternal health commodities needs special attention

*** Change between baseline and follow-up is statistically significant (p<0.05)**

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