CONCERN worldwide

Essential Newborn Care Corps

Evaluation of program to rebrand traditional birth attendants as health promoters in Sierra Leone

Background

Challenge

Sierra Leone is estimated to have the world's highest maternal mortality and one of the highest infant mortality rates[1]. It is critical for Sierra Leonean women to have access to skilled care before, during and after childbirth in order to avert maternal and neonatal morbidity and deaths. However, the culture of giving birth at home remains strong, with about 40% of births conducted without a skilled health provider, and over 90% of these assisted by a traditional birth attendant (TBA)[2]. The 2014 Ebola Virus Disease outbreak led to further declines in the use of health care facilities in many communities across Sierra Leone, with a much lower proportion of women reporting pregnancy-related care and a 23% drop in facility deliveries nationwide[3].

Opportunity

Traditional birth attendants have supported women in Sierra Leone through pregnancy and delivery for generations. Acquiring their learnings from older TBAs or through brief government-sponsored trainings, TBAs are relied on by women and their families as a trusted and well-respected resource during pregnancy and childbirth.

With the aim of improving health outcomes, the Government of Sierra Leone in 2010 made health care free for pregnant women and young children and heavily discouraged TBAs from performing home deliveries. This shift diminished the status of the TBAs and challenged the role they could play in providing care for mothers and newborns. Yet despite the efforts to discourage TBA activity, women continue to seek their advice and services, making clear the need to engage TBAs and reframe their roles to complement the formal health system.

Partners

As lead agency, Concern Worldwide U.S. worked with multiple partners.

Implementing Partners	Global Research Partner	Local Research Partners	Funder
Health Poverty Action	JSI Research & Training Institute, Inc.	NestBuilders International	Bill & Melinda Gates Foundation
Sierra Leone Ministry of Health and Sanitation – Bo District Health Management Team		Ask Consulting	
		FOCUS 1000	

[1]*World Health Organization (2015). Trends in Maternal Mortality: 1990 to 2015. Available from: http://apps.who.int/iris/bitstream/10665/193994/1/WHO_RHR_15.23_eng.pdf?ua=1*

[2]*Statistics Sierra Leone and ICF International (2014). Sierra Leone Demographic and Health Survey 2013. Freetown, Sierra Leone and Rockville, Maryland, USA: SSL and ICF International.*

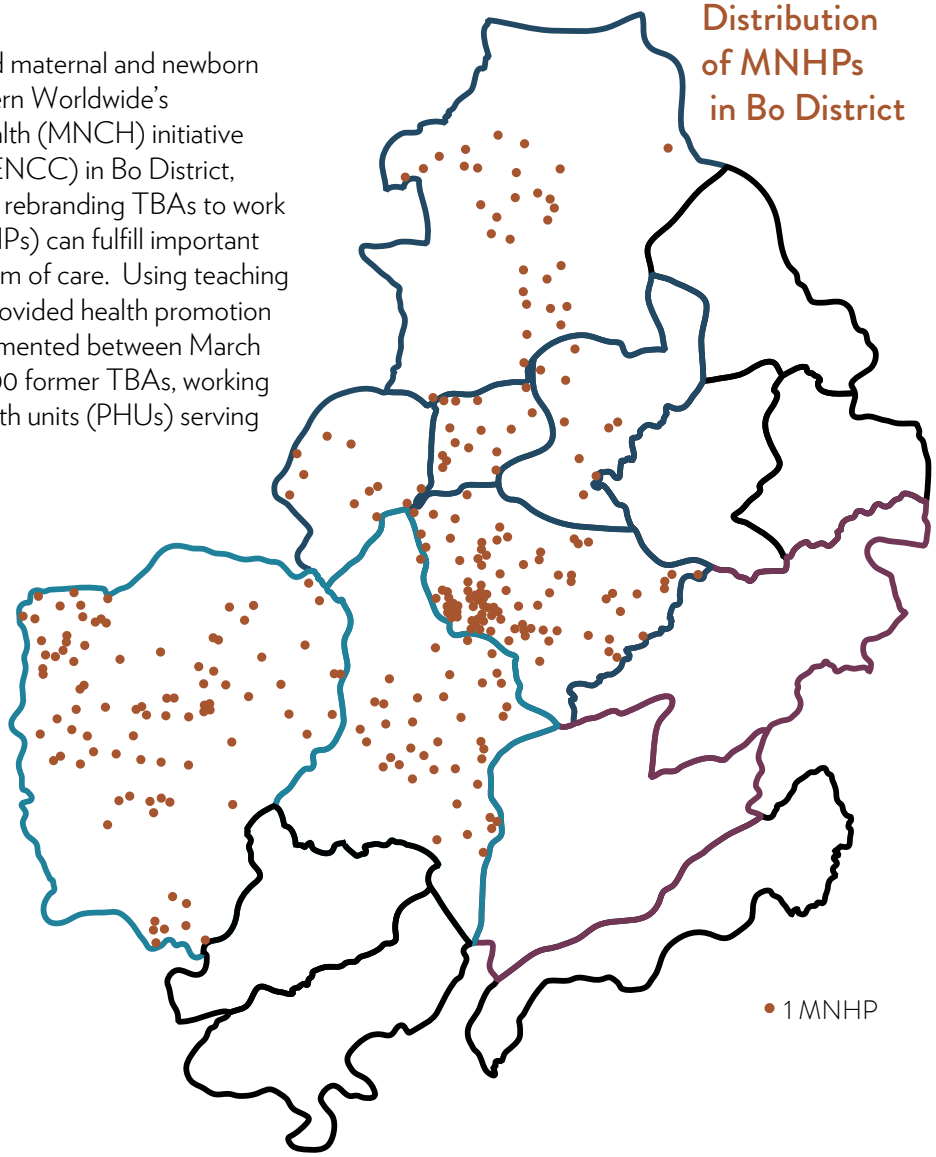
[3]*Volunteer Services International (2015), "Exploring the Impact of the Ebola Outbreak on Routine Maternal Health Services in Sierra Leone". Available from: https://www.vsointernational.org*

Project Description

Recognizing TBAs as a crucial yet overlooked maternal and newborn health resource in their communities, Concern Worldwide's Innovations for Maternal Newborn & Child Health (MNCH) initiative launched the Essential Newborn Care Corps (ENCC) in Bo District, Sierra Leone. ENCC explores how training and rebranding TBAs to work as Maternal Newborn Health Promoters (MNHPs) can fulfill important community health roles in the MNCH continuum of care. Using teaching tools for non-literate audiences, the program provided health promotion training and supervision to former TBAs. Implemented between March 2014 and September 2016, the pilot targeted 200 former TBAs, working within the catchment areas of 18 peripheral health units (PHUs) serving seven chiefdoms and 344 villages.

Health Promotion activities by the MNHPs featured:

- Home visits to counsel mothers on antenatal care (ANC), birth preparedness, facility delivery, postnatal care (PNC), breastfeeding, danger signs for the mother and newborn, and family planning.
- Referrals for antenatal and postnatal care, facility delivery, treatment of maternal and newborn complications, and family planning.
- Monthly meetings with health facility nurses known as MCH Aides and project staff to address project challenges and receive refresher training.



Social Enterprise

The ENCC project also included a complementary business model to incentivize MNHPs in their new roles. Half of the MNHPs received business training and a loan in the form of a start-up basket of health and baby products, valued at approximately USD30, to sell during their home visits. During monthly meetings, MNHPs made loan payments and had the opportunity to purchase more products to build their businesses.

In December 2014, all MNHPs were trained in Ebola community sensitization and mobilization and continued to conduct their home visits using the national No Touch Guidelines.

Design

ENCC used a three-arm study design with two intervention arms and one comparison group to assess the added value of adding a business model to the health promoter role.

Study Arm	Chiefdoms
Health Promotion (HP)	Valunia, Gbo, Selenga, Kakua & Niawa Lenga
Health Promotion & Social Enterprise (HP+)	Bumpe & Tikonko
Comparison	Boama, Kakua & Jiama-Bongor

Co-Designing the MNHP Brand with Former TBAs

Evaluation

Scope of the Evaluation

The evaluation used a mixed-method approach that combined quantitative measurement of the project's effect on key outcomes with qualitative explorations. The table below details the different components of the strategy.

Research, Monitoring and Evaluation Strategy

Evaluation Question	Evaluation Design	Data Sources
Did the pilot effectively improve the following MNH outcomes? • Initiation of ANC during the first trimester of pregnancy • Four or more ANC visits • Health facility delivery • Postnatal care for mothers and newborns by a health professional • Initiation of breastfeeding within one hour of delivery Did the social enterprise have an added effect?	**Mixed-method approach** • **Impact evaluation:** Three-arm quasi-experimental design, with a baseline household survey in October-December 2013 and an endline survey in June-July 2016. • **Qualitative investigation:** focus group discussions, in-depth interviews and key informant interviews at endline.	**Quantitative**: • Survey of women age 15-49 who had a live birth in the year prior to the survey or who were pregnant at the time of the survey. Our final sample included 795 eligible women at baseline and 1,110 at endline. • Survey of 196 MNHPs to collect information including background, knowledge and job satisfaction. **Qualitative**: • Interviews with 5 village chiefs, 3 MCH Aides, 11 MNHPs, 16 mothers, and 3 District Health Management Team (DHMT) members.
Is the intervention cost-effective? Which arm (HP or HP+) is more cost-effective?	**Cost-effectiveness analysis** using impact estimates and the project's costs to estimate the lives saved from the intervention and the cost per person.	Cost data and document review on the cost-effectiveness of MNCH interventions.
Are the implementation strategies effective? Are the assumptions guiding the theory of change pathways valid?	**Process documentation** (PD) using qualitative data to describe the pathway from project design to implementation to outcomes, identifying drivers and barriers that influenced the process of change.	Two rounds of focus group discussions, in-depth interviews, key informant interviews with MNHPs and their husbands, MCH Aides, mothers, community leaders and DHMT members.
How were human-centered design (HCD) methods applied? How did they influence program implementation and outcomes?	**Case study** to document the application of human-centered design in refining the pilot design and shaping the implementation strategy.	Two rounds of process documentation and focused qualitative interviews with project staff and beneficiaries.
How are the project's activities aligned with the human rights-based approach?	**Synthesis report** using evaluation data and limited primary qualitative data	Secondary data and limited primary data included in the endline household survey.

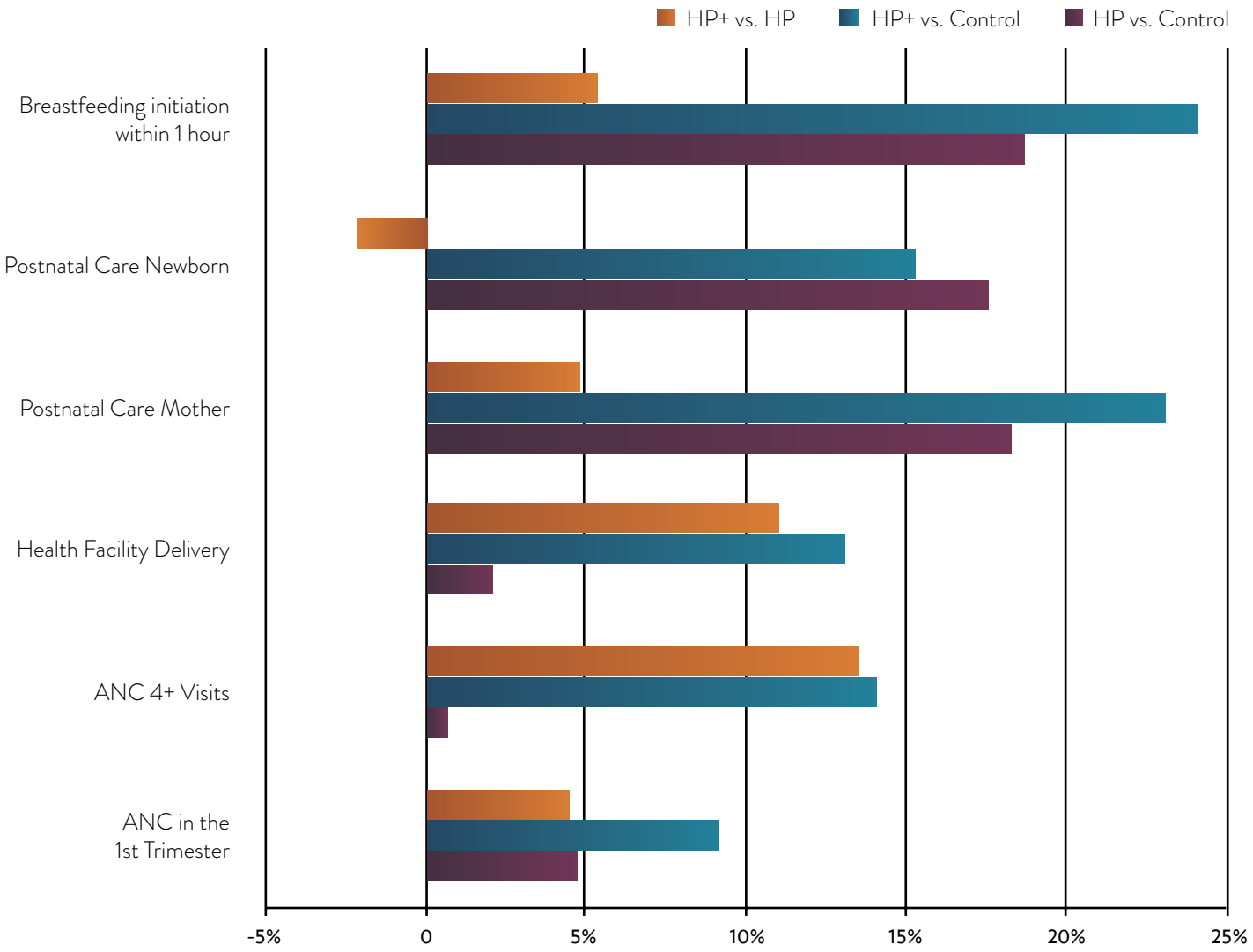
Findings

Effects on Health Outcomes

Our findings suggest that the ENCC intervention had:

- A statistically significant effect on the three post-delivery outcomes – breastfeeding initiation, postnatal care for the mother and postnatal care for the newborn – in both interventions arms.
- A statistically significant effect on four or more ANC visits during pregnancy and health facility delivery in HP+ arm only.
- No effect on ANC initiation within the first trimester.
- An added value from the business model on four or more ANC visits and health facility deliveries.

Effect of ENCC on health outcomes*:
percentage change compared across the three arms



*Difference-in-difference estimate

Women's Exposure to the Intervention

- About 85% of women in the HP arm and 89% in the HP+ arm sought services from an MNHP during their recent pregnancy.
- A small percentage (14%) of respondents reported seeking services from MNHPs in the comparison area. This indicates a spillover of interventions to the comparison zone that may have happened in Kakua chiefdom.

Percent Change in Outcomes from Baseline to Endline

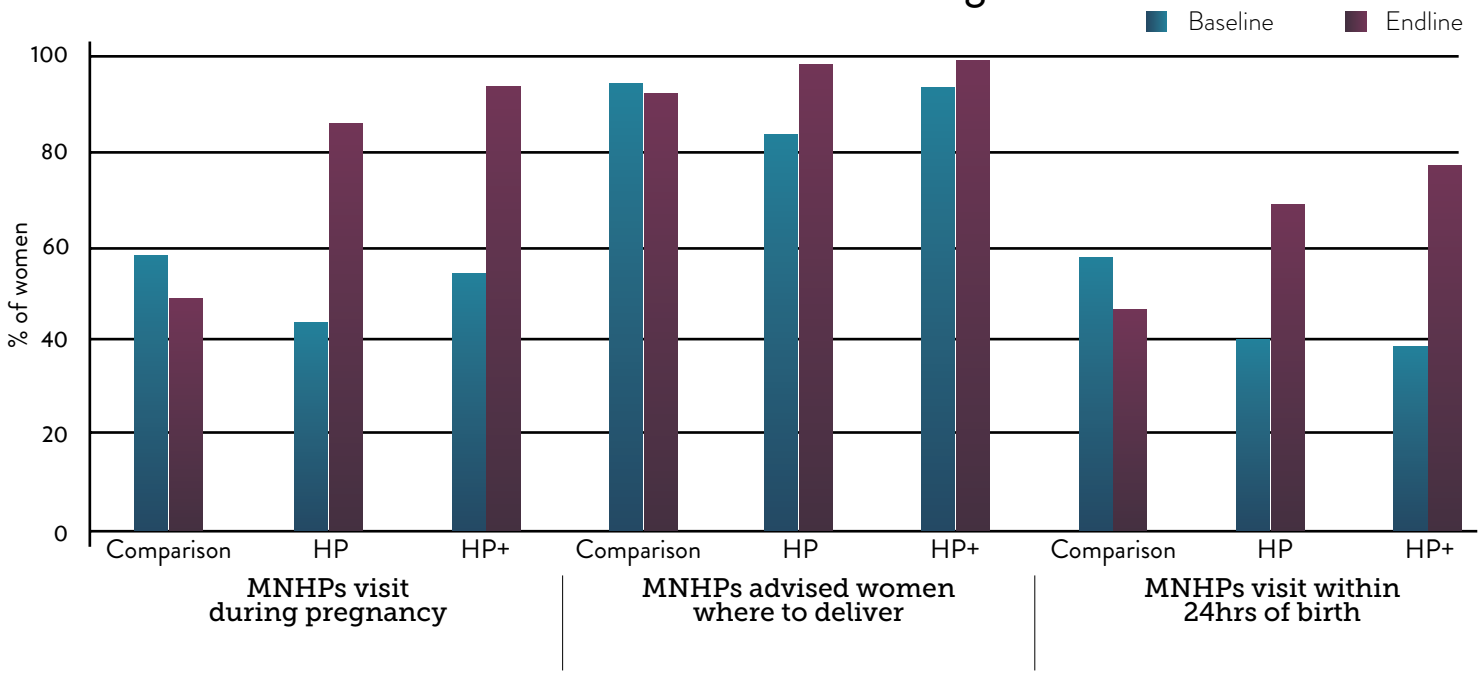
	Comparison			HP			HP+		
	Baseline	Endline	*Change*	Baseline	Endline	*Change*	Baseline	Endline	*Change*
ANC in first trimester	50.9	50.5	***-0.4***	48.0	52.3	***4.3***	43.9	52.7	***8.8***
ANC 4+ visits	92.4	94.7	***2.3***	92.0	94.9	***2.9***	79.1	95.5	***16.4***
Health facility delivery	85.5	95.1	***9.6***	72.8	84.5	***11.7***	62.8	85.5	***22.7***
Postnatal Care Mother	85.5	74.1	***-11.4***	81.7	88.6	***6.9***	74.5	86.2	***11.7***
Postnatal Care Newborn	94.6	76.2	***-18.4***	92.2	91.3	***-0.9***	90.3	87.2	***-3.1***
Breastfeeding within one hour	81.9	83.2	***1.3***	62.8	82.8	***20.0***	70.3	95.7	***25.4***
Number of women	167	185	–	180	272	–	165	309	–

Services Provided by MNHPs/TBAs

MNHPs were very active in their communities and intensely engaged in providing support and services to their clients. Compared to visits by TBAs at the beginning of the project, there was an increase in:

- The percentage of women visited by MNHPs during pregnancy, advised by MNHPs on where to deliver, and visited by MNHPs within 24 hours after delivery in both intervention arms.
- The number of birth preparedness topics discussed by the MNHPs. 22% of women in the HP arm and 33% of women in the HP+ arm recalled four or more topics at endline, compared to nearly 0% at baseline.

Services Provided by MNHPs/TBAs to Women:
change from baseline to endline



MNHPs often accompanied women to the health facilities, especially during delivery, or when women or babies showed danger signs. At the health facility, they often actively supported health care workers in providing services.

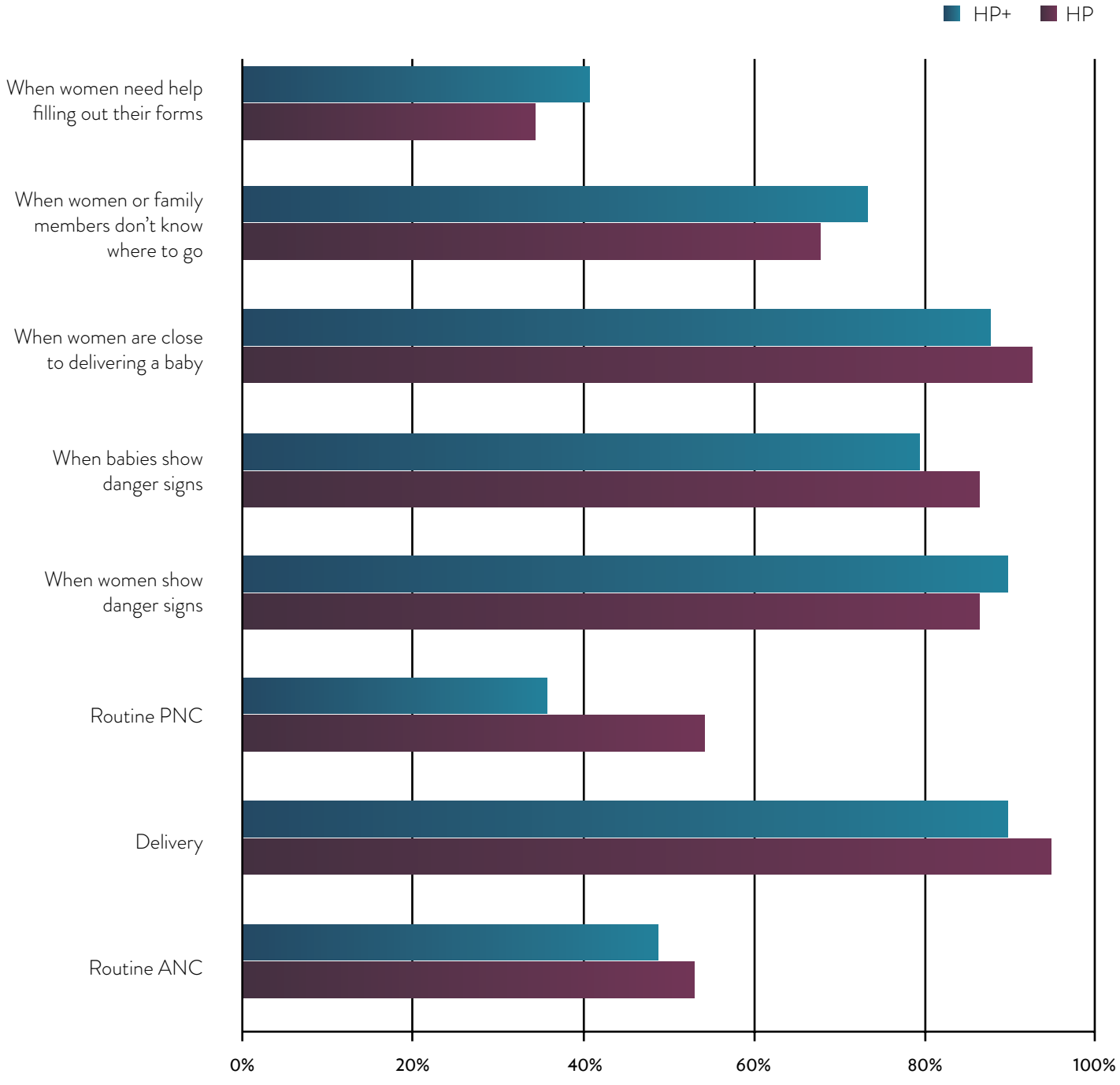
- 91% of MNHPs in the HP arm and 61% in the HP+ arms helped the health care providers deliver babies at health facilities.
- Almost all MNHPs reported providing emotional support to women during delivery at health facilities.
- A few MNHPs (about 9%) reported conducting deliveries at health facilities.

Findings

Women's and MNHPs' Knowledge

- The mean number of newborn danger signs recalled by women increased significantly.
- Knowledge of dangers signs for the mother during and after labor increased similarly across all three study arms, suggesting no effect of the intervention.
- Among MNHHPs knowledge about ANC or when to conduct postnatal care was nearly universal in both intervention arms.
- By contrast, knowledge on which ANC visit to discuss birth preparedness or family planning, or when to advise on newborn care was relatively low in both HP and HP+ areas. Knowledge about danger signs during pregnancy, delivery and postnatal period was substantially lower among MNHPs in the HP+ arm, compared to the HP arm.

Reasons MNHPs Accompany Women to Health Facilities:
by percentage of all MNHPs



Community Involvement

- Husbands became more involved during the pregnancy and postpartum period, encouraging their wives to follow the advice of the MNHPs. Husbands' involvement in decision making increased by 28% in the HP group and 19% in the HP+ group, compared to 5% in the comparison group.
- Community members, including chiefs and husbands, provided encouragement and support for MNHPs to fulfill their responsibilities. This included financial, material, and physical support, such as help with farm work.

Social Enterprise

- 56% of women reported purchasing products from MNHPs.
- Reasons women reported for purchasing products from MNHPs included convenience (83%), cheaper price (73%), lack of availability of products in the community (66%), and higher product quality (44%).
- 86% of women purchased products from an MNHP when she came for a health promotion home visit.
- Nearly all (97%) MNHPs felt "neutral" about the profit they made selling goods, but they reported that the business helped them pay for things they were initially unable to pay for, including education for their children (78%), food (77%), and medicine (56%).
- Close to 75% of MNHPs reported using the profits to buy more products for the business.

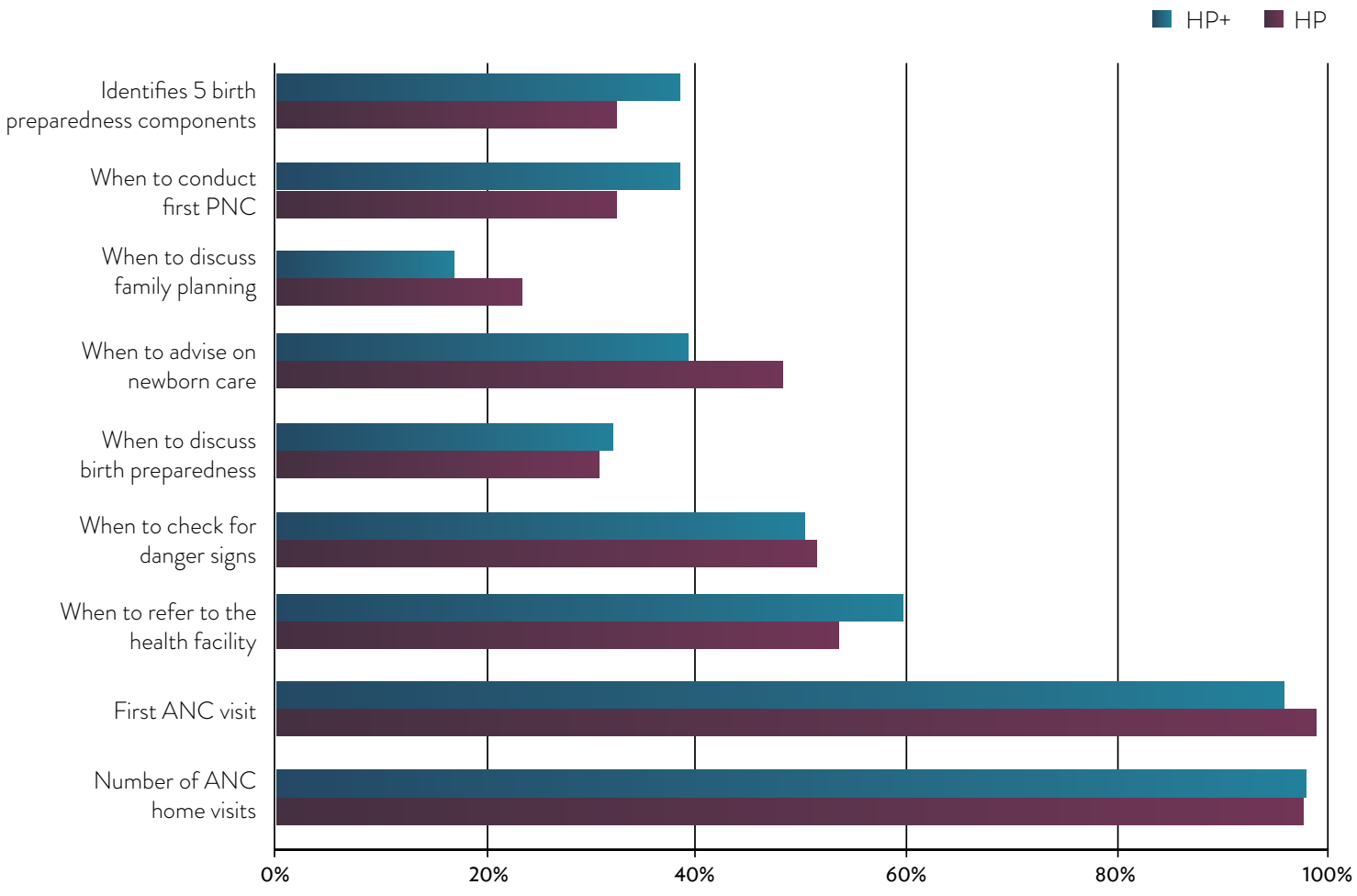
MNHP Job Satisfaction

MNHPs were generally happy in their roles. What they like most and least about their work differed between HP and HP+ arms. MNHPs from both arms expressed highest satisfaction at counseling mothers. Among MNHPs in the HP+ arm, the next-highest source of satisfaction was the social enterprise. A majority of MNHPs from the HP+ arm reported that there was nothing that they disliked about their work, whereas MNHPs in the HP arm reported disliking documentation.

Limitations

- Most outcome behaviors targeted for increase by the project were already at high levels at baseline, making it harder to generate substantial improvements through project interventions.
- The sample size was not large enough to detect changes in certain outcome variables.
- In retrospect, qualitative data should have been collected in the comparison arm to understand changes and contextual factors that might have led to improvements in key outcomes in that arm.

MNHPs' knowledge of ANC and PNC components:
by percentage of all MNHPs



Conclusions

Successes

Along with the positive outcomes summarized above, the project enjoyed considerable successes that bode well for its sustainability.

- 100% retention of MNHPs throughout the duration of the project. Not a single MNHP dropped out or was lost to follow-up.
- High household coverage achieved by MNHPs, who provided extensive support to mothers about accessing health facilities, preparing for birth and recognizing danger signs, even during Ebola.
- Strong acceptability and support of MNHPs by women and their husbands, community leaders, health facility staff and the District Health Management Team.
- Increased trust between communities and health facilities, fostered by improved formal relationships between MNHPs and the health system.
- Successful rebranding of TBAs as MNHPs, legitimizing them in their new roles.
- Timely loan repayment by all MNHPs, continual reinvestment in their businesses and contribution of MNHP profits to family well-being.
- Strong support from District Health Management Team in project activities and advocacy for continuation of the MNHP role post-project funding. Potential for all 197 MNHPs to be added to Bo district's roster of Community Health Workers (CHW).

Challenges

- Low literacy of MNHPs makes documentation and record-keeping difficult.
- Lack of developed road networks make travel to health facilities difficult for mothers and complete household coverage challenging for MNHPs.
- A few community members voiced misconceptions around the new role of MNHPs, (i.e. that MNHPs are paid for their work and should not receive any community assistance).
- Need for continued funding to sustain the current product supply chain for the social enterprise.
- Six-month hiatus in project activities caused by Ebola.

Lessons Learned

ENCC yielded important lessons that are relevant for other programs seeking to improve women's access to care in under-served communities.

- Low literacy populations such as TBAs need not be excluded from the community health workforce; instead their respected roles within the community should be leveraged.
- With capacity-building opportunities such as adult literacy programs, community health members like MNHPs could become even more powerful allies to the formal health services.
- Community health workforce members, like MNHPs who focus their efforts on the critical perinatal period, improve newborn health significantly.
- As demand increases for facility-based services, service quality must be strengthened.

Next Steps

Priority next steps for Concern Worldwide and other actors involved in primary health care will be to:

- Explore with the Ministry of Health how the social enterprise model could serve as a sustainable incentive model for members of the community health workforce.
- Advocate, in collaboration with the Bo District Health Management Team, for inclusion of women, particularly former TBAs, in the national Ministry of Health community health workforce.

CONCERN worldwide

JSI

HEALTH POVERTY ACTION

MINISTRY OF HEALTH AND SANITATION
THE REPUBLIC OF SIERRA LEONE

Concern Worldwide U.S.
355 Lexington Ave. 16th Floor
New York, NY 10017 USA
concernusa.org
bit.ly/innovationsformnch