

# COMMUNITY BENEFITS HEALTH Results from a Mixed Methods Evaluation

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### Introduction

### Health challenges faced at the community level

Despite improvements in maternal health in Ghana over the last 20 years, maternal mortality remains high, and the country fell short in meeting the 2015 Millennium Development Goal (MDG) targets. The maternal mortality ratio in the country fell from 634 maternal deaths per 100,000 live births in 1990 to 319 per 100,000 live births in 2015, but this fell short of the 2015 MDG goal (WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division, 2015).

High rates of poverty in rural areas coupled with cultural traditions that foster low levels of women's empowerment continue to undermine health outcomes, particularly in Ghana's Upper West region. While the Community-Based Health Planning and Services (CHPS) strategy introduced through the Ghana Health Service (GHS) provides a platform to deploy health services in rural areas, there is still a need to address knowledge, social norms, and cultural practices at the community level that influence maternal health—seeking behavior (Nyonator, 2005).



### A health behavior change pilot to address social norms

The Community Benefits Health (CBH) pilot is part of Concern Worldwide's Innovations for Maternal, Newborn & Child Health (*Innovations*), an initiative that seeks to identify, support, and field-test bold innovative ways to overcome barriers to delivering proven solutions to women and children.

The CBH pilot aims to provide the government of Ghana with an innovative solution to address knowledge, social norms, and cultural practices related to maternal, newborn, and child health (MNCH) at the community level through the introduction of a community-based nonmonetary incentive and a comprehensive health messaging strategy.

At the heart of the CBH pilot is the focus on normative behavior change, which emphasizes and takes advantage of social structural factors that influence behavioral choices, including network structures, nature of relationships, and equitable availability of social and material resources. By shifting attitudes and behaviors of key members of the community, social norms around care-seeking behavior may also improve, resulting in improved health outcomes.

Pronet North, the implementing organization, collaborated with the GHS to introduce the community- based behavior change intervention in order to address the social norms and cultural practices influencing the utilization of select maternal health and breastfeeding behaviors. JSI Research & Training Institute, Inc., (JSI R&T) serves as the global research partner.

Few evaluations have sought to understand how a woman engages with her community, including the nature of her relationships, the types of advice or support received, and the characteristics of her social network that may increase her receptivity to adopting improved maternal health behaviors. This evaluation seeks to understand the effect of the CBH pilot on improving maternal health behaviors by influencing social networks and generating community-level social support.

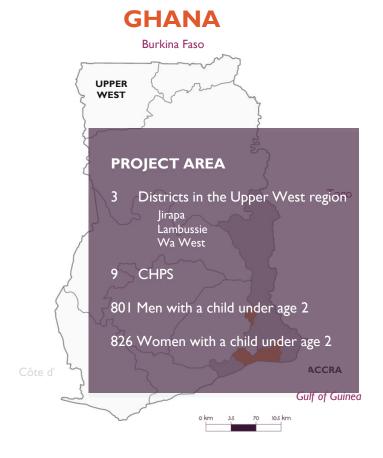
The objective of the Community Benefits Health pilot is to influence a woman's social network and generate community-level support, leading to improved knowledge, attitudes, self-efficacy, and maternal health behaviors.

### Program design

### How the project was designed

The *Innovations* initiative used design thinking (DT) concepts and tools in two stages to come up with five projects, one of which is the CBH project:

- MARCH 2011: The "ideate, incubate, test, and evaluate" process was used
  to define several possible pilots to address barriers to accessing MNCH
  services. Different DT tools were used to ensure that pilot ideas reflected
  the needs, interests, and desires of target communities and to tap into
  expertise outside the traditional health sector. Five pilots were selected,
  then shaped and refined using DT methods, including divergent thinking
  from cross-disciplinary and multidisciplinary domain experts through a
  charrette and formative research.
- JANUARY 2014: A DT workshop was held for the CBH pilot to engage design experts from design firm Thinkplace with the aim of refining perceptions of the problem, which was to understand barriers women faced to adopting maternal health behaviors, to identify a community-based nonmonetary incentive through a community engagement process, and to establish a process for determining the steps a community needed to take to receive the incentive.



# Description of the Community Benefits Health pilot

### **Project Messaging Activities**

- I. Radio
- 2. Videos/dramas
- Community meetings led by community health officer (CHO)
- 4. Visits from peer educators
- 5. Posters



Community Benefits Health (CBH) is a behavior change and communication intervention designed to leverage traditional health messaging activities with the promise of nonmonetary community-based incentives to improve MNCH behaviors.

The pilot implemented a comprehensive health messaging strategy that included use of video and drama presentations at the community level, home visits from peer educators, community-based meetings facilitated by community health officers (CHOs), and radio programs.

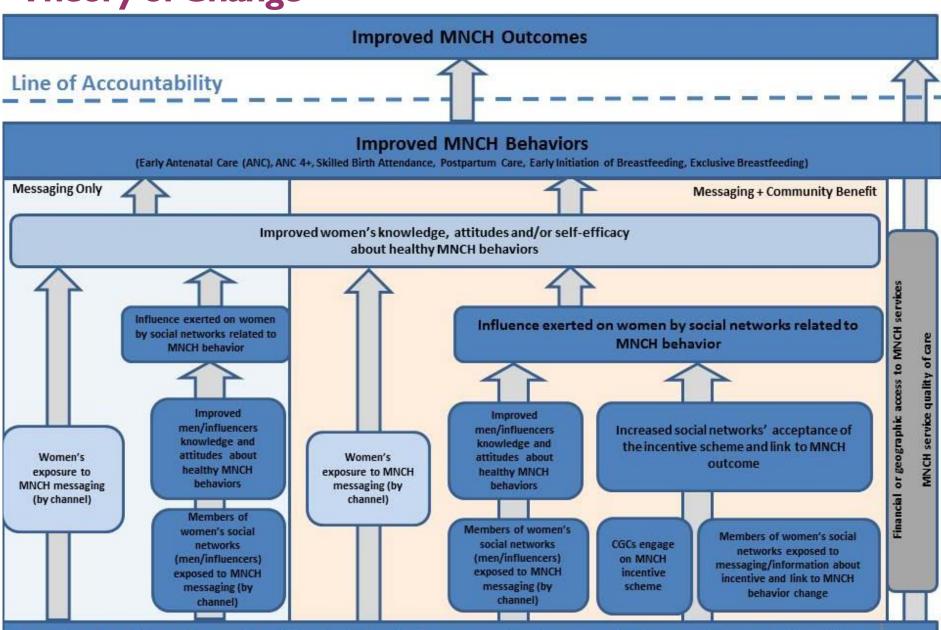
A select number of communities were also identified as candidates for the nonmonetary community-based incentive. The community incentive, identified in partnership with the community as part of the intervention, benefits all members of the community as far as is possible, both directly and indirectly. That is, there is a dual outcome: The community benefits from the more tangible advantages that the incentive brings, and individual community members will benefit from accessing health services.

Incentives, which include boreholes and an emergency transport systems, are awarded to an entire community, if the community fulfills the conditions of the incentive scheme

By incentivizing health behavior change, CBH aimed to reduce resistance to accessing antenatal care, skilled birth attendance, and postpartum care services and encourage early initiation and exclusive breastfeeding, ultimately changing normative behaviors or community-wide social norms by the end of the two-year pilot.

The incentives were awarded to communities in a series of "win celebrations." These celebrations occurred when communities achieved certain progressive targets. The celebrations for communities that selected a borehole included surveying the well site and digging the hole, installing the pump, and then attaching the handle to make it operational. For communities selecting an emergency transport system, the "win celebrations" consisted of a visit to a local manufacturer with community representatives, construction of a garage, and handing over of the keys in the final ceremony.

### **Theory of Change**



Foundational enabling environment: health system is functioning well, quality of care acceptable, community organizations effective

# Pathways to change social norms and MNCH outcomes



After the CBH project design was completed, a visual representation of the pilot's *Theory of Change* (TOC) was developed to display the pathways through which the various activities would work at improving the knowledge, attitudes, and self-efficacy of women and their key influencers, improving their adoption of improved MNCH behaviors.

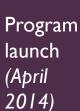
The CBH pilot was guided by social network theory and the theory of planned behavior (Ajzen, 1991; Valente et al., 2015). The pilot encompassed elements of social network theory as it recognized that women take actions based on their network environment or who they are connected to. These connections may provide a woman with information or advice or other forms of tangible support that will enable her to practice a specific behavior. If a person in a woman's network holds a position of influence such as a community leader or a partner, this may have a greater influence on a woman to adopt a behavior. Finally, shifts in these connections have the potential to change social norms.

In order to stimulate the flow of support between these network connections, the pilot introduced messaging activities that sought to address the knowledge, attitudes, and self-efficacy of the individual actors as outlined in the theory of planned behavior.

The messaging activities were implemented across two intervention arms, as seen in the pilot TOC. The pilot sought to further catalyze these relationships in one of the two intervention arms by providing a community-based incentive. In these communities, the pilot sought to understand if the "promise" of a communitybased incentive, managed by a community governance committee (CGC) and supported by a woman's social network, could more effectively influence her knowledge, attitudes, self-efficacy, and ultimately behaviors compared with those that were only exposed to traditional behavior change messaging activities. The CBH pilot TOC presents the two intervention arms and the pathways that we anticipated the communities would follow to achieve behavior change. The TOC presented summarizes the pathway of change this pilot seeks to undertake to ultimately contribute to improvements in MNCH-related behaviors.

### When activities were implemented







sessions begin (June 2014)



Dramas begin (August 2014)



- Borehole first win
- Final group of peer educators trained & education sessions begin (April 2015)



Final win ceremonies (March 2016)



**CGCs** set (May 2014)

**Videos** begin (July 2014)



- **CETS** first win
- **Borehole** second win (July 2015)

- **CETS** second win
- **Posters** disseminated (January 2016)



### Questions we want to answer

#### PROCESS EVALUATION QUESTIONS

- How did the CBH pilot engage with community stakeholders and what was their response?
- How was the nonmonetary community-based incentive introduced and what was the response?
- How do social networks influence health behaviors?

#### **EVALUATION RESEARCH QUESTIONS**

What effect did the CBH interventions have in altering social networks?

What was the effect of the CBH activities on maternal health care and breastfeeding knowledge, attitudes, self-efficacy, and behaviors?

What were the process/mechanisms through which this effect took place?

What was the difference in the effect between the two sets of interventions?

### Methodology

### **Quantitative data**

What	Data were from a pre/post quasi-experimental evaluation with three arms (messaging only, messaging plus incentive, and comparison groups)
How	Analyzed using bivariate and multivariate regression techniques on key outcomes
Who	Women aged 15-49 and men aged 15-59 who had a child in the two years preceding the survey
Where	Nine CHPS zones in three districts (Jirapa, Lambussie. and Wa West) in Upper West region, Ghana
When	Baseline data collected November 2013-January 2014 and endline data collected April-May 2016

### Description of our quantitative data

Survey	BASELINE	Endline	
Dates of data collection	November 2013- January 2014	April-May 2016	
Household survey	2,721 households	2,882 households	
Men's survey	801 eligible men	<b>637</b> eligible men	
Women's survey	826 eligible women	955 eligible women	

The surveys administered at baseline and endline included a household survey as well as men's and women's surveys for eligible individuals. The men's and women's surveys captured information about reproductive history, knowledge and attitudes about specific MNCH behaviors, influential social networks, and health messaging exposure. Household surveys included a roster of all residents of the household and basic information about each person in addition to questions about drinking water sources, toilet facilities, household construction, and possessions. The total populations for each of the three surveys given at baseline and endline are included in the table to the left.

### **Study outcomes**

Outcomes selected included a mix of maternal and child health indicators that were influenced by factors at the community level.

**Antenatal care (ANC)** 

Early ANC – first visit within the first trimester

ANC4+ – 4 or more ANC visits over the duration of pregnancy

Delivery & postpartum care (PPC)

**Breastfeeding** 

Skilled birth attendance (SBA)

PPC48 – PPC within 48 hours of delivery

Controlling for Key Variables

- oAge
- •Education
- Religion
- oParity (birth number)
- oWomen's group attendance
- oListened to radio in past week

Early initiation of breastfeeding (IBF) – within 30 min of delivery

Exclusive breastfeeding – for first 6 months

### **Qualitative data**

What	Focus group discussions (FGDs) and in-depth interviews
How	Developed inductive and deductive codes and analyzed using thematic analysis techniques
Who	Women and men who had a child in the two years preceding the interview as well as community influencers and program managers and Ghana Health Service staff
Where	Three messaging communities and three messaging + incentive communities in Upper West region, Ghana
When	FGDs and in-depth interviews conducted in March 2016

## **Description of our qualitative** data

### Communities where FGDs were held, by district

	Jirapa	Lambussie	Wa West
Messaging Only	Kenee	Tapuma2	Kachuu
Messaging + Incentive	Saawie	Chebogu	Dabo

Focus group discussions (FGDs) and in-depth interviews were conducted with community members, project staff, and GHS officials to better understand the impact of the project from a qualitative perspective. Six communities, one from each district (Jirapa, Lambussie, and Wa West) and the two programming study arms (messaging only and messaging + incentive) were selected for FGDs.

Mothers of children under 2, fathers of children under 2, and community influencers were separated into three groups in each community to discuss pregnancy and breastfeeding practices, gauge exposure to the CBH project, and elicit feedback about the project activities.

In total, 18 FGDs were held across the six communities and the discussions included

- 65 community influencers
- 52 fathers of children under 2
- 61 mothers of children under 2

Additionally, five in-depth interviews were conducted with CBH project and GHS staff to better understand the context in which CBH was implemented and perceived challenges and successes.

### **Analysis** methodology

The results presented in this evaluation report are primarily based on the baseline and endline results to get a better understanding of change in the outcomes over time. The qualitative data from baseline and endline, as well as process documentation, provide context as well as help explain the reasons for change observed. Data from process documentation in particular are useful to understand whether the observed change followed the pathways outlined in the TOC.

We conducted a mixed-methods study to evaluate the effectiveness of the CBH pilot in three districts located in the Upper West region of Ghana from November 2013 to May 2016. The purpose of the mixed-methods design was to assess changes in time over key program outcomes using quantitative methods while explaining how and why changes occurred using qualitative methods.

We conducted bivariate analysis of women's knowledge, attitudes, self-efficacy, and behaviors. We also assessed changes in social network characteristics using bivariate analysis. To measure the program effect on health outcomes, we estimated logistic regression models on each health behavior while controlling for demographic characteristics of age, parity, religion, educational level, and network size. We included variables to control for listening to the radio in the past week to account for program messages delivered by radio. We also accounted for women's group participation because these groups were used as a means to mobilize community members for group messages. We found considerable evidence indicating diffusion of intervention messages to control areas. To adjust for this effect, we controlled for the study period (baseline and endline) and constructed an exposure variable based on the dose of messaging activities received by each respondent to measure program effects. Each respondent was asked at endline if they participated in a project messaging activity and, if yes, the number of times they had participated in this activity. We ran factor analysis on the number of times each respondent had participated in a project messaging activity, as well as if they had heard of the community incentive, and then calculated an exposure variable as the mean of the individual items. We also controlled for the messaging and messaging-plus-incentive study arms.

We used thematic analysis techniques to identify themes emerging from the qualitative data. The study team focused on each component of the TOC and searched the data using the established codes as well as deductive codes that emerged to develop an understanding of the topics. Findings were described and compared across subgroups. We then triangulated results from the qualitative and quantitative data to develop a more comprehensive understanding of how the pilot was implemented and what factors related to the context and implementation influenced the results that were derived.

### **Limitations**

The pilot worked closely with the GHS to design and implement activities and as a result was required to work in three separate districts. With the goal of evaluating pilot activities, it was also important to ensure that there were three study arms so that we could tease out the added benefit of including an incentive while also providing a comparison group composed of communities that did not receive an intervention. The complexity of the study design coupled with the need to address GHS needs created some challenges for the evaluation and pilot implementation. For pilot implementation, the proximity of communities participating in the pilot created an issue where messaging communities felt frustrated that they were not receiving an incentive.

The pilot responded by encouraging the messaging communities to outperform the incentive communities. Data from the evaluation also found evidence of spillover across study arms due to the proximity of the study sites. These contextual factors may have influenced the findings that there was little difference between messaging and incentive communities and that there were improvements across all three study arms. Additional factors that may have mitigated the results were that there were some resource flow constraints that interrupted pilot activities for six months of the two-year pilot and the fact that some of the behaviors were high at the onset of activities, which made it challenging to register a significant change over time.

### What we found

### **Results outline**

The results are organized based on the research questions, which follow the TOC pathways. First, we present how the CBH pilot engaged with the community stakeholders, including introducing the community-based nonmonetary incentive, and we explore the community response. We then consider how members in women's social networks influence a woman's health-seeking behaviors after exposure to the pilot activities. Using quantitative data, we present information on the characteristics of who a woman speaks with about pregnancy and breastfeeding behaviors and assess how this has changed and influenced health-seeking behavior following exposure to the intervention. And, using qualitative data, we explore how the social support from these members of a woman's social networks influenced her behavior. Next, we present baseline and endline levels of knowledge, attitudes, and self-efficacy by health behavior and study group. Finally, we present the overall effects of the CBH activities on select outcomes by study arm.



## How did the CBH pilot engage with community stakeholders?

The communities in the Upper West region of Ghana include leaders that attend to both political and traditional needs throughout the community. In order to work collaboratively with a community, outsiders must address and seek approval from these leaders through traditional meetings, which are referred to as *Durbars*. The CBH pilot obtained approval to launch activities in the Upper West by respecting these protocols and working collaboratively with community leaders. In communities selected to receive an incentive, the CBH pilot introduced the concept of a community governance committee (CGC). The CGCs that developed were composed of a range of community members and included village chiefs, community health volunteers, and women's group leaders. The role of the CGCs was to serve as a point of entry for the CBH pilot to engage with the community by organizing community members for scheduled pilot events and meetings and monitoring community participation in activities that would qualify the community for the incentive. The CGC also worked to provide information on health issues to community members by conducting home visits.



## What was the community response?



The communities worked diligently to establish CGCs to support implementation of the pilots. The CGC members were also involved throughout the pilot not only in monitoring the community's progress toward the targets but also encouraging community members to uptake the behaviors.

The CGCs also enacted fines and mobilized resources to further bolster support for MNCH behaviors. Community members voiced overwhelming support for the fines and noted that they helped to motivate people to participate in the pilot because they wanted to avoid the debt and they did not want the elders to question why they failed to respond to health issues.

One community leader from Dabo, a messaging + incentive community, noted that the fines "... changed behavior of people of this community because people fear to be asked to pay the fine. It's even an embarrassment for one to be fined because your wife delivered at home." Overall, the efforts of the CGC were well received and generated a sense of social cohesion.

## How was the nonmonetary community-based incentive introduced?

The CBH pilot was designed to provide a nonmonetary community-based incentive if community members met certain targets. The purpose of the incentive was to act as a catalyst to stimulate uptake of MNCH behaviors more quickly than is achieved through traditional behavior change projects. Three CHPS zones from three districts were selected to receive the nonmonetary communitybased incentive in each of their catchment communities if they participated in the pilot. The communities were involved in selecting the incentive through a design process in which pilot staff interviewed and consulted with community members to understand barriers to maternal health-seeking behaviors and breastfeeding. The pilot staff introduced a number of potential incentives to the communities, and nine communities selected a borehole while two communities selected an emergency transport system (ETS). Participants from communities that selected the borehole reported spending many hours each day in line for water, which kept them from attending ANC, and participants in communities that selected the ETS noted that transportation was a barrier to facility delivery. In order to receive the incentive, communities were required to meet three targets over the course of two years.



## What was the community response to the incentive?

Several respondents expressed that the incentive had helped to generate unity in the community.

"The benefit enticed us to increase health practices among men and women; health care used to be left in the hands of the women only but now it is a collective responsibility of everybody. The project has brought us peace and love because we learn and share knowledge about MCH together in groups and at home." (Saawie woman)

Several community members felt that some people would not have responded to the activities without the promise of the incentive and that the incentive helped to motivate behavior change because community members wanted the incentive. Others felt that the community would have reached the targets without the incentive but that the incentive helped to stimulate action to a greater degree.

"If we were given the borehole earlier, I doubt if we would have been accompanying our wives to the health facility as we are doing now. Neither would CGC have held regular monthly meetings. I'm not saying that we wouldn't have done it but not to the degree to which we are doing now." (Dabo man)

There were some differences in how women and men responded to the incentive. Many women felt that the information on MNCH shared through the community dramas and videos and visits from peer educators was important and that regardless of the incentive they would have taken action on this information because it was to their benefit.

"The women would have done it because it is their health anyway, but the men would not do it. But this way it has made every community member serious about the borehole because we all need it." (Dabo woman)

Others stated that the men would have been less likely to participate in the pilot without the promise of the incentive.

"It has encouraged us especially the men to take special interest in the health of their pregnant wives and infants" (Chebogo influencer) The CBH pilot sought to influence a woman's decisions related to adopting improved MNCH behaviors by engaging with her, her community, and her husband through a variety of channels. Extensive efforts were made to encourage the community members to support women through *Durbars*, monthly meetings, and messaging activities such as videos and dramas that were open to the entire community. Through the introduction of the community-based nonmonetary incentive, the pilot sought to further influence by galvanizing support from the greater community, resulting in a shift in social norms and increased social pressure to support the woman in adopting improved health behaviors.

# What effect did the CBH interventions have in altering social networks?

In order to understand how the CBH intervention influenced who a woman spoke with about the key behaviors, we asked women to identify up to three people that they "chatted with about breastfeeding or receiving care before or after pregnancy." We then collected information on the characteristics of these relationships. We looked specifically at the education level and marital status of the social contact, how the woman was related to the social contact, where the social contact lived, and the direction of the advice and information (i.e. did the woman receive information and advice or did she give information and advice to the social contact).

## How do social networks influence health behaviors?

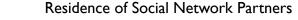
We then sought to further explain how these shifts in who women spoke with following exposure to pilot activities ultimately influenced health behaviors by examining who provided support and how this support changed over time.

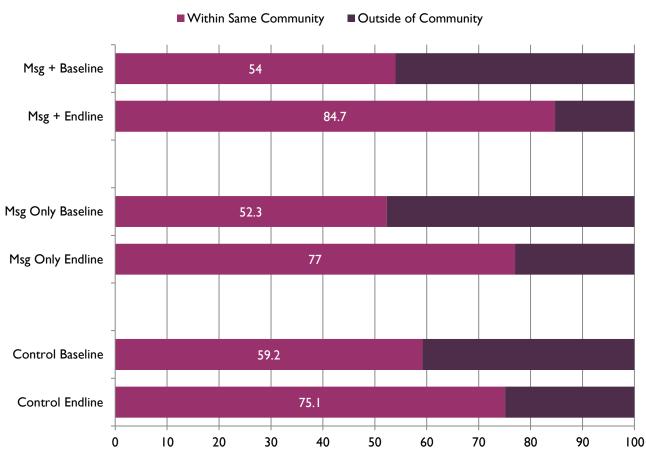


Who women speak with about pregnancy and breastfeeding issues has shifted since the baseline in 2013. More women in the intervention communities are now speaking with individuals such as friends and family members who live within the same community. This change is less pronounced in the comparison areas.

A number of community members spoke of the increased discussions on MNCH issues throughout the community and attributed this increase to the pilot activities. As channels for sharing information on MNCH issues increased, information diffused across the community, and discussions are now more commonly heard on the farm, at women's groups meetings, at the markets, funerals, water sources, and even among men at pito bars. Community members are now taking initiative to discuss these issues more openly.

"We used to be afraid of talking to someone's wife because you could be accused of negative things. But because of CBH, we freely talk to people without fear. Old and young men and women are talking about MNCH in the community. We now know the need for discussion." (Dabo Influencer)





As the number of conversations on pregnancy and breastfeeding have increased in the community, we have also seen a shift in whom women speak with from primarily health providers at baseline to now increasingly speaking with family members and friends on these issues.

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The support from family and friends has helped to reinforce advice from the CHO. Husbands are now increasingly accompanying women to the facility, and this helps to ensure that there are no misunderstandings between the husband and wife regarding advice from the CHO.

"We used not to accompany them to the health facility, but the CHO made us to understand that there is a lot of advice our wives used to keep to themselves although we needed to know about it. Also, if my wife goes to the facility alone, she can come back and say something and I may not believe. For example, the CHO can advise her to eat eggs but because I was not there, I will not take her serious and may even scold her. But, if you, the husband, are present at the facility, you will hear it personally. (Dabo man)

#### Relationship to Social Network Partners ■ Health Professional ■ Partner ■ Family ■ Friend/Other Msg + Baseline 8.1 10.3 Msg + Endline 27.3 22.4 Msg Only Baseline 25.5 16.3 Msg Only Endline 21.5 35 Control Baseline 28.6 13.3 Control Endline 30.2 23.6

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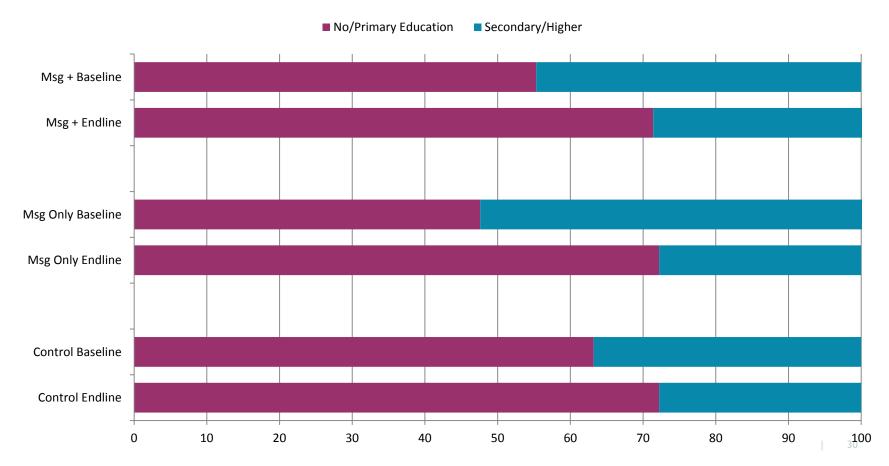
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As women speak increasingly with family members and friends, you see that the level of education of those that they are speaking with declines to a greater proportion of women saying their network partner now has no education or only a primary education.

### **Education of Social Network Partners**



## Social support role of husbands

While the quantitative data emphasized that women were increasingly speaking with family members and friends, we also found through the qualitative data that how women interacted with their husbands also changed as a result of the CBH pilot.

Many activities focused on the role of husbands in pregnancy and childbirth. During the messaging activities, many of the videos and dramas emphasized the importance of male involvement in supporting a woman during pregnancy and childbirth. Events sponsored by the CGCs and related community events encouraged men to attend ANC with their pregnant wives, and some CHOs also offered smaller motivations such as taking their pictures to encourage male involvement. In incentive communities, men were required to participate in health messaging activities in order for the community to receive the incentive. This helped encourage male participation in the pilot.

Findings from the qualitative research indicated that the pilot was effective in building support among husbands. As husbands were exposed to pilot messages, discussions on MNCH issues increased between husbands and wives.

"Men scarcely discussed these issues with their wives and even among themselves. But today, discussions among men and women are prevalent as well as between fellow men." (Tapumu influencer)

Exposure to videos and flip charts that demonstrate how women and men can talk about pregnancy and childbirth has helped to create an environment where husbands and wives have something in common to discuss.

"Now I can discuss weighing issues (PNC) with my husband freely because he has been part of the meetings and knows the targets and benefits. Before the project, we only talked about health when the baby was sick." (Dabo woman)

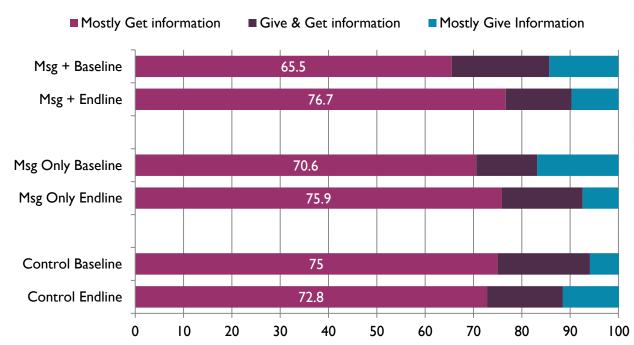
These improved opportunities for dialogue have strengthened a woman's role in household decisionmaking.

Men don't dominate decisionmaking with regards to the health of the baby and the kind of jobs to do while pregnant. The videos and pictures have helped to increase communication between men and women." (Saawie influencer)

### **Social support**

Traditionally, other women support pregnant women by helping out with household chores and providing advice. Mothers-in-law also accompany pregnant women to the facility. The CBH pilot has helped to generate increased communication between women so that there is greater exchange of information and advice. Women expressed through the qualitative research that because the husband and mother-in-law now provide support, they are able to attend the facility where they learn important information that reinforces their behavior. This information was reinforced through our quantitative data, where we found that women acknowledged receiving more information in the intervention communities following exposure to the pilot.

#### Information Flow between Social Network Partners





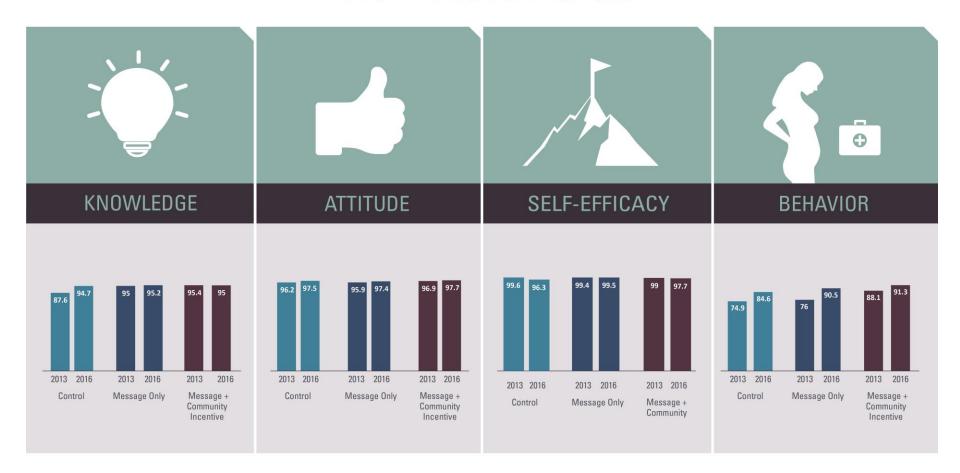
# What was the effect of the CBH activities on maternal health care and breastfeeding knowledge, attitudes, and self-efficacy?

We first ran bivariate analysis among women who had a child in the two years preceding the survey to assess changes in knowledge, attitudes, self-efficacy, and behaviors. We then ran logistic regressions for each of the key outcomes across two samples. The first sample compared women in the messaging- only group with the control group. The second sample compared women in the incentive group with the control group. We controlled for age, education, religion, parity, whether or not she attended a woman's group or listened to a radio in the last week, and network size. We also controlled for time (baseline/endline) and study group. We included an interaction variable for time and study group to assess the statistical significance of the pilot result.



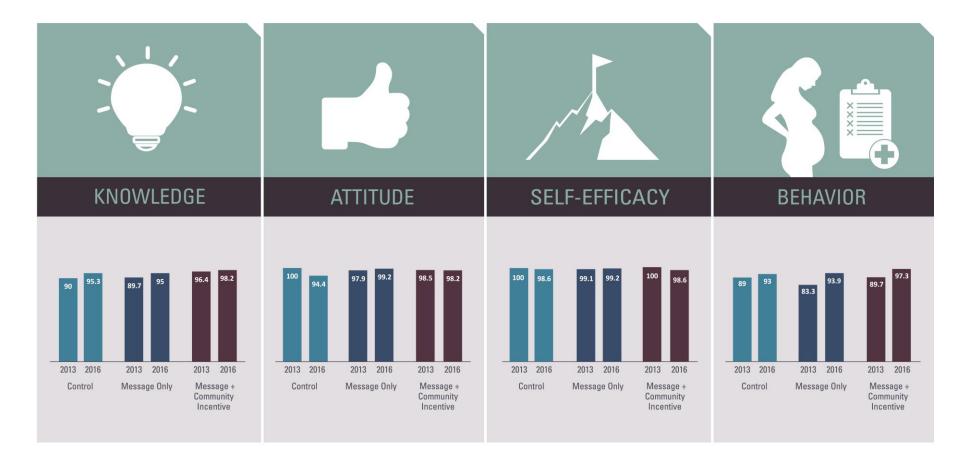
High levels of knowledge, attitudes, and self-efficacy for antenatal care in the first three months were sustained across study sites, and behaviors increased by over 14% in messaging communities.

### ANC in First 3 Months



Similar trends were noted for women who received four or more antenatal care visits during their most recent pregnancy, with behaviors increasing by over 7% in messaging and incentive communities compared with 4% in the control group.

ANC 4+ Visits



### The most significant improvements in knowledge, attitudes, self-efficacy, and receiving postpartum care in the first 48 hours was observed in the messaging-only sites.

Receive PPC within 48 hours



# Among both intervention arms, we found a significant increase in knowledge and behaviors related to early initiation of breastfeeding.

Initiate Breastfeeding Immediately



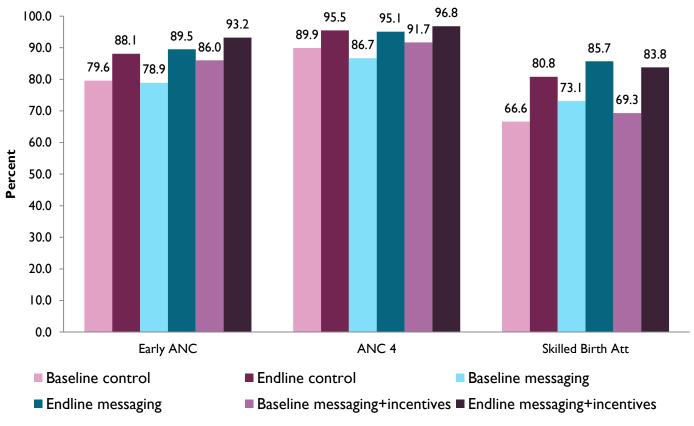
While knowledge, attitudes, and self-efficacy remained virtually unchanged over the study period, we did find a slight increase in women practicing exclusive breastfeeding in the messaging-only group.

Breastfeed Only, First 6 Months



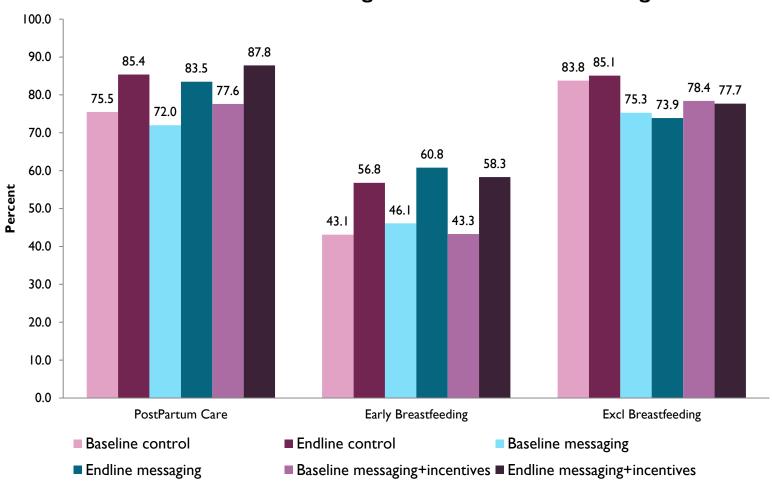
ANC4 increased by approximately 5 percentage points in the messaging-plus-incentive communities and the control and by 8 percentage points in the messaging only group. For SBA, the messaging-plus-incentive group increased from 70 percent at baseline to 83 percent at endline and a similar increase among the control communities from 67 percent at baseline to 80 percent at endline.





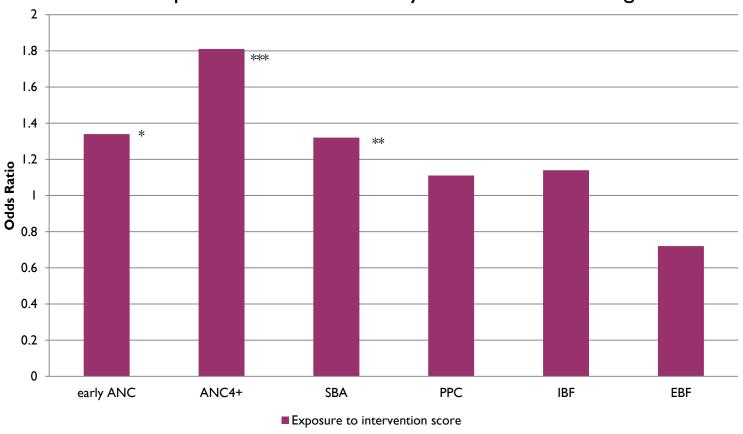
### Significant improvements were also made across study arms for IBF, but limited changes in EBF.

### Adjusted effect of the CBH program on postpartum care, early initiation of breastfeeding and exclusive breastfeeding



# Exposure to the CBH program significantly improved uptake of three of the six study outcomes

Odds ratio of exposure to intervention effect by maternal and breastfeeding outcomes



Signif: p=<0.05; p=<0.01; p=<0.01

Variables controlled for included education, religion, age and parity, women's group membership, and weekly radio listenership, intervention group and time period.

# Was the CBH project effective?

### **CBH** pilot effectiveness

- The pilot was successful in establishing relationships with communities at the start and working with and through community structures throughout implementation.
- The GHS was an active and engaged partner that enabled the pilot to leverage support from the CHOs. The pilot was also able to leverage resources from existing development partners, including UNICEF and JICA.
- By the end of the pilot, all incentive communities met their targets and received the promised nonmonetary incentive.
- We found a shift in whom women spoke with about pregnancy and breastfeeding in intervention communities indicating that women who prior to the intervention spoke primarily with health providers were increasingly speaking with family members and friends who lived in the same household and community.
- These shifts in whom women spoke with were supported through our qualitative research, where
  respondents said that the community was discussing issues related to pregnancy and breastfeeding
  more frequently.
- In particular, we found improvements in the types of support that men provided. We found that men were both more open to communicating about pregnancy and breastfeeding and offered more types of support to their wives.
- We found that levels of knowledge, positive attitudes, and self-efficacy regarding maternal and child health behaviors remained high throughout the pilot and that there were no significant improvements between the messaging and messaging plus incentive communities.
- Overall, we determined that exposure to the CBH program significantly improved uptake of three of the six study outcomes.
- Challenges with program implementation included interruptions due to resource flow constraints
  affecting the potential impact of the program; seasonal issues, including migration and farming,
  limiting involvement of some communities; the complexity of the program design impacting
  comprehension and implementation of the pilot; and the timing of the provision of the incentive
  challenging cultural norms.

### Recommendations

### **Recommendations**



#### **Collaboration & Coordination**

- It is important to establish relationships with communities at the start, and working with and through community structures is critical to program success.
- The support of the GHS in implementing the pilot, particularly in leveraging the support of the CHOs, was invaluable. Future efforts should ensure that activities are conducted in close collaboration with the government health system.

#### Messaging

- There was considerable interest in the community videos and dramas.
   Future efforts may want to consider producing videos in the communities to further tailor the messages and sharing the taped dramas for broader distribution by GHS.
- Using multiple communication channels helped to reinforce project messages. Future programs should consider using multiple communication channels at the community level.

#### Incentive

- Engaging GHS to provide the incentive and allowing the community to support maintenance may provide a sustainable way to maintain community engagement in addressing health issues while linking health and development goals.
- Awarding communities that have achieved targets with a celebration or a certificate may be a simpler way to motivate communities while still providing encouragement

