Final Report

Evaluation of Big Belly Business Program Pilot in Liberia

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List of Abbreviations

ANC  Antenatal Care
BBB  Big Belly Business
CU   Columbia University
DAC  Development Assistance Committee
ECD  Early Childhood Development
FGD  Focus Group Discussion
ICAB In-country Advisory Board
KAB  Knowledge, Attitudes, and Behaviors
M&E  Monitoring and Evaluation
MMR  Maternal Mortality Rate
MoGCSP  Ministry of Gender, Children and Social Protection
MOH  Ministry of Health
MSC  Most Significant Change
NGO  Non-Governmental Organization
NIPECD  National Inter-sectoral Policy for ECD
NMR  Newborn Mortality Rate
OECD  Organization for Economic Cooperation and Development
OSF  Open Society Foundations
OSIWA  Open Society Initiative for West Africa
PEMAT-P  Patient Education Materials Assessment Tool for Printable Materials
RMNCAH  Reproductive, Maternal, New-Born, Child, and Adolescent Health
SBA  Skilled Birth Attendant
SDG  Sustainable Development Goals
TBA  Trained Birth Attendant
TTM  Trained Traditional Midwife
USMR  Under-Five Mortality Rate
WHIP  Women’s Health Innovation Program
WHO  World Health Organization
Executive Summary

The Government of Liberia has rightly put much effort into strengthening a healthcare system that faces significant challenges. In its post-conflict, post-Ebola health strategy, Liberia has prioritized the Reproductive, Maternal, New-Born, Child, and Adolescent Health (RMNCAH) agenda. The primary goal of its current Health Investment Plan is “improved maternal health status of the Liberian population.”

In a setting beset with extreme challenges but also rays of hope, an impressive team of stakeholders conceived and implemented the Big Belly Business (BBB) pilot program to promote healthy pregnancies and to combat Liberia’s high maternal and neonatal mortality rates. In June 2012, the U.S. Department of State’s Secretary’s Office of Global Women’s Issues partnered with the What to Expect Foundation and Simply Put Media to launch the Women’s Health Innovation Database (WHIP), which funded pilot programs in Liberia and Bangladesh. OSF’s West African regional network and the Open Society Initiative for West Africa (OSIWA) provided technical leadership for the pilot program through its Liberia national office.

The BBB Program is rooted in two core components: a pregnancy-education book and community education model tailored to a low-literacy audience. Illustrated with sensitive drawings and written in simple Liberian English, the month-to-month book helps pregnant women to anticipate the various changes to their bodies and provides the knowledge and behaviors needed to ensure a healthy pregnancy and delivery. The book is accompanied by community education and ANC clubs that were designed to reach 500,000 families, women’s health providers, and health educators across Liberia. The first phase (2012-2014) included the materials development and dissemination. In phase 2, (2015-2017), 18 NGOs that offer a variety of services including ANC, women’s literacy, education and empowerment, received training, technical assistance and implementation support from the Open Society Initiative of West Africa (OSIWA) to use the materials and establish big belly clubs. Big Belly Sisters and Brothers have held more than 100 weekly clubs at pilot sites.

Pilot Program Evaluation

In August 2017, the Open Society Foundations (OSF) in London commissioned the Mailman School of Public Health at Columbia University to conduct an end-of-project evaluation. The evaluation had two major aims: 1) to learn about and reflect on program design and implementation and assess the processes used during each stage of program activities with a goal towards advising possible replication in another setting; and 2) to identify strategies and anticipated challenges with program scale-up in Liberia. In line with OECD/DAC evaluation guidelines (Chianca, 2008), the evaluation was designed to assess the relevance, effectiveness, efficiency, sustainability, and impact of the BBB pilot program in Liberia. The scope and methods of data collection were developed to maximize a breadth of learning from diverse stakeholders within a relatively short timeframe. An evaluation plan to generate learning from as many stakeholders as possible was created using a combination of purposive and convenience sampling. To assess the program design, implementation, and scale-ability of the
BBB Program in Liberia, the evaluation team collected data through five complementary, mixed methods tools including: i) desk review; ii) expert book/training curriculum review and club observations; iii) focus group discussions (FGDs); iv) semi-structured interviews; and v) a knowledge, attitudes, and behaviors (KAB) survey.

The evaluation team visited two counties where BBB partners were operating: Montserrado County and Bong County. At each site, we engaged with the program implementers, club facilitators (Big Brothers and Sisters), BBB club participants, and BBB book recipients. We additionally conducted short interviews with several BBB book recipients and ANC providers who had not taken part in the club activities or trainings. In considering the pilot phase’s achievements and challenges, it is crucial to note that the project’s objectives as per the original monitoring and evaluation plan focus almost entirely on process and not on impact. This focus on process-level indicators is a significant limitation of the current program and one that will need to be addressed through a more robust focus on outcome-level indicators for future iterations of the program.

Results and Discussion

Program Structure

The evaluation demonstrated that the project’s management structure was rather complex with six organizations reporting to the primary funder, the US State Department, with few in-country accountability lines. The US State Department contracted six organizations to support and implement the BBB Program in Liberia: OSIWA and five “major NGO grantees,” NGOs with relatively sophisticated reporting capacity. Some major NGO grantees also sub-granted to smaller NGOs. Program components included distribution of the BBB book and implementation of the BBB clubs.

In spite of this complexity, the WHIP program achieved the following results:

- A master training team was functioning;
- NGOs submitted program proposals;
- Big Brothers and Sisters were trained;
- BBB books were distributed;
- Community partnerships were formed between small and mid-level NGOs; and
- Community partnerships were formed between participants and local NGOs.

Many stakeholders reported feeling engaged in both the development and implementation of the BBB program in Liberia. Additionally, program participants’ reported positive interactions with the BBB book and positive interactions with BBB Big Brothers and Sisters. These strengths are related more to the program’s processes than to its outcomes, but they indicate that the program began to lay a foundation that, if systematized and strengthened, may develop into a strong community network that could be better connected to the health system in future iterations of the BBB program. Conversely, there were some objectives of the initial M&E framework that the BBB Program did not accomplish. Despite some initial steps, for example,
the program did not implement a strong media plan, not did it maintain an active advisory board and has not yet demonstrated that is has “become a sustainable and integral program.”

**BBB Book**

Stakeholders at all projects levels expressed enthusiasm for the book with many people noting its beautiful design and general attractiveness as well as its adaptation to simple English. The book itself can be considered a core “intervention” of the BBB Program, given its centrality to people’s understanding of and conceptualization of the project. Women who participated in FGDs were able to describe a number of favorable impressions that they had about the book, including its encouragement to change health behaviors (i.e. hospital attendance, appropriate food intake, usage of mosquito nets, personal cleanliness, and exclusive breastfeeding), its simplicity, and its focus on promoting solidarity among women and among family members.

Despite this enthusiasm, NGO heads, program facilitators, and experts noted two core concerns about the book: first, the choice of a written book in a country where less than one third of the adult female population is literate indicated that additional strategies for information dissemination are likely to be needed for broader coverage. Second, although their genesis is rooted in an attempt to capture Liberian storytelling culture, the multiple narrators and audiences who appear throughout the book served, for some users, to undermine its understandability.

**BBB Clubs**

The data indicated that the BBB clubs were one of the more challenged aspects of program implementation with club structure and functioning varying widely from one site to another. In some sites, the clubs revealed themselves to be welcome events while in others, the clubs were clearly not functioning. BBB Club sessions were designed around six key activities: (i) Welcome to the club; (ii) How do you feel?; (iii) Let’s talk about it; (iv) Let’s practice; (v) What’s the story?; and (vi) What’s the take away? These activities were intended to make participants feel welcome, give them an opportunity to ask and answer each other’s questions, delve into a topic from the book, identify what is needed to utilize the information learned, and make a plan of action.

BBB clubs fulfill a social and emotional need for women, but the program design might need to expand beyond clubs to calibrate more closely with health education as the primary intended outcome. While functioning clubs offer a positive setting for mothers to connect with each other, the data it is unclear if clubs function regularly across program sites and if they achieve the goal of providing access to quality health information. The BBB club structure is open and flexible to the desires of participants but not clearly defined. The purpose of the clubs was frequently described as primarily social rather than educational; while the evaluation team understands that club participants largely steered the functioning of their clubs to meet their own ends, participants sometimes described the social and economic aspects of the clubs—such as savings and loans programs—to be preeminent with health education serving a secondary role. The quality of clubs is reflective of training and follow-up. For future iterations
of the program, in-depth reflection on the appropriateness of the clubs as a program delivery mechanism should be undertaken across all program levels. Though the participants enjoyed the clubs, observations and interviews revealed that the Big Brothers and Sisters did not have adequate supervision, follow-up, and training. If the club model is retained, which the evaluation team would only recommend in conjunction with an expanded portfolio of activities, program quality and fidelity standards—coupled with a more systematic training process—may help to improve club outcomes.

Integration with Healthcare Providers
The evaluation demonstrated that the BBB Program is only partially integrated into the healthcare settings where it has been piloted with healthcare staff often requesting more training about delivering key messages. Clinic and hospital staff found the book relevant and easy to understand; however, nurses in the clinics explained that they would have preferred to receive formal training accompanying the book. One important, systemic change that the BBB Pilot Program brought about was the incorporation of the book into the curricula of a number of nursing and midwifery schools; sustaining this positive change and ensuring proper training will be a vital continued step. JHPIEGO and nursing and midwifery instructors plan to integrate the book into the clinical portion of their midwifery curriculum as a health education tool. One additional challenge to be addressed is the implication of the BBB program on the role of TBAs and TTMs who felt that they program would further deprive them of their livelihood. The most recent public policies in Liberia discourage home births and specifically target TBAs and TTMs as unqualified health personnel, impacting their livelihood.

Summary and Recommendations
In light of these findings, five key areas of recommendations about ways to improve, sustain, and scale up the BBB Program in Liberia are proposed: i) revise program structure to better ensure that the program is embedded in national, regional, and local health systems; ii) create a robust monitoring and evaluation framework; iii) enhance program quality and fidelity; iv) update the BBB book and materials; and v) expand beyond maternal health to link more explicitly to newborn health and to the first 1,000 days.

(i) Integration within national, regional, and local health systems. The overall goal of the BBB Program should focus on building care providers’ capacity to communicate a holistic approach to the care and development of pregnant women in order to ensure a healthy delivery and optimal development and care of the newborn. Given the program’s success in engaging at community level in the pilot phase, the next phase should focus on connecting the systems operating at community level with health care providers. Linking expectant mothers to the health system should be an essential component of the BBB Program. If the BBB Program hopes to expand strategically and efficiently, it will almost certainly require a new implementation structure that makes visible and clear the role of the Liberian Ministry of Health to achieve its goals and impact maternal and child health. Given that the current system does not encourage accountability to the Ministry of Health—or even to the lead technical
agency—but rather disperses learning across six key reporting agencies, the program will require a cohesive management and programmatic system to support scale-up of program activities. The current structure does not provide a sufficient supervision system to track program activities, to ensure program fidelity and quality, or to monitor outcomes among program recipients. We suggest that the structure that would best support sustainability would align with existing country plans of action.

(ii). Monitoring and evaluation framework. The BBB Program will not be able to assess its impact until it has established an information collection and management system that is able to track health outcomes, not simply process inputs and outputs. In keeping with the systems strengthening approach that we have outlined above, future iterations of the BBB program should track its progress against the objectives of the Community Health Road Map (The Ministry of Health and Social Welfare, 2014) and those laid out in Liberia’s Investment Case for Reproductive, Maternal, New-Born, Child, And Adolescent Health (Republic of Liberia Ministry of Health, 2016). Liberia’s Investment Case contains a detailed conceptual framework with set strategies and outputs (see annex), and moving forward, the BBB Program would do well to utilize existing structures and frameworks that the MOH is already investing in.

(iii). Enhance program quality and fidelity. To adequately prepare midwives, health personnel, and TBAs and TTMs to lead group sessions for expecting mothers, community health education classes, and home visiting activities, a clear and ongoing training curriculum and schedule must be implemented. Program implementers must be trained clinically and with the BBB curriculum to clearly explain the objectives to program participants because misunderstandings could lead to the rejection of the program. During interviews, facilitators frequently mentioned the desire for frequent trainings, at least every three months and professionalization of program materials. Moreover, a thorough facilitator guide, with learning objectives for each session, monitoring charts and vaccine schedules must be developed to ensure consistency across sites and clinics. Finally, additional opportunities to share experiences with others implementing the program and re-fresher trainings are essential for motivation.

(iv). Update and expand the BBB book and materials. Future BBB programs should ensure that a number of gaps identified in the current version of the book be addressed and future versions of the program should ensure the space for ongoing plans for updating the book and for ensuring diverse methods of dissemination. Greater attention need to be place on the integration of all approved MOH messages from conception until birth into the BBB material. Coordination of content and messaging with the MOE, and MOG will strengthen the effectiveness and efficiency of the program. While the current material includes a limited amount of information on the newborn, greater efforts need to be designed in order to ensure the healthy and post-delivery care of the mother and newborn. Future program development should consider opportunities to build on and extend the program to address the care, stimulation and protection of infants through the first 1000 days of life. Additional supportive
materials to complement the BBB program are recommended including for example, an adaptation and merging of the Women’s Health Card and an individual planning guide highlighting specific actions to be taken.

(v). Expanding to follow the newborn through the first 1,000 days of life. The health sector in countries has the capacity to play a unique role in the field of early child development because the most important window of opportunity for ensuring optimal development and prevention of risk of long-term damage is from pregnancy through the first 1,000 days of life. Therefore, health care encounters for women and young children are important opportunities to help strengthen families’ efforts to promote children’s early development and may represent a critical time when health professionals in developing countries can positively influence parents of young children to enable their development. The recommendations section provides specific strategies for expanding the program in this way.

Conclusion
Utilizing a community mobilization approach, the BBB Program galvanized a number of enthusiastic community partners to engage pregnant women across seven counties in Liberia. To have undertaken such a program in the aftermath of conflict and over the course of the Ebola outbreak was an achievement in and of itself, and the BBB Program has brought together a number of key constituents, especially at community level, who will be instrumental in moving the program forward in future phases.

To sustain positive impact in addressing maternal mortality, the BBB Program should link its community mobilization approach with a holistic systems approach that situates this first phase within a broader set of actors who have expanded, and complementary, roles. Key activities to strengthen the program’s systems approach will include: updating the program structure, creating a monitoring and evaluation framework, implementing a dynamic and ongoing training curriculum that addresses the core information gaps, and updating the BBB book. Building on the existing structure, the program should be expanded to provide skills and knowledge needed to ensure the optimal development of the newborn through the first 1,000 days of life.

To achieve these overarching goals and implement a high quality sustainable program, it is recommended that the BBB program collaborate strategically with the government, international, and national NGOs design a second rigorous pilot program that is accompanied by a robust M&E framework as well as plans for scale up and sustainability. The evaluation of that pilot should be guided by a framework that clearly articulates a realistic and measurable set of goals, inputs, outputs, outcomes, and impact. Combined with a greater understanding of costs, replicability, and capacity for integration within the existing health infrastructure, the BBB program offers an innovative approach to enhancing the health and wellbeing and development of Liberia’s women and young children.
1. Introduction

1. Background and Context

a. Pregnancy and Newborn Trends

Maternal and newborn health remains a serious challenge in Liberia, which has one of the highest maternal mortality rates (MMR) in the world at 1,072 per 100,000 live births. Rather than decreasing, this rate has continued to increase since 2000, when the rate was a much lower 578 per 100,000 live births. The majority of maternal and newborn deaths in Liberia are driven by preventable and treatable complications; these unfortunate realities are interlinked with a stubbornly high female illiteracy rate (63%) and poor health infrastructure. The major causes of maternal death are hemorrhage, hypertension, unsafe abortion, and sepsis; family planning coverage is low throughout the country, and teenage pregnancies are common (Republic of Liberia Ministry of Health, 2016). Adolescent girls are especially vulnerable and are at a higher risk for complications at birth and are more likely to give birth to premature babies. In Liberia, 37% of women ages 20-24 gave birth before age 18 (UNICEF, 2013), indicating a need for increased access to sexual and reproductive health services and education. Although the majority of pregnant women receive antenatal care (ANC) coverage for at least one visit (95%), this coverage drops significantly to 78% for at least four visits. The proportion of births attended by skilled health personnel is even lower at 66% (UNICEF, 2013). Additionally, only 29% of women exclusively breastfeed for six months (UNICEF, 2012).

In contrast, there is good news on the child survival front. Liberia’s infant and child mortality rate has dropped by about 70% since 1990, and its annual rate of reduction of this rate is the highest in Africa, indicating that significant progress has been made related to child survival (CIA, 2017). However, the under-five mortality rate (U5MR) and the neonatal mortality rate (NMR) remain high at 94 per 1,000 live births and 26 per 1,000 live births, respectively. The major causes of newborn deaths are preterm birth complications and intrapartum-related events such as asphyxia and sepsis, indicating a need for increased access to ANC and skilled birth attendance (Republic of Liberia Ministry of Health, 2016). On other measures of young child development Liberia also faces challenges. Nearly one out of every three children under the age of five (32%) are stunted, for example, and only 29% of children aged 3-5 have access to early childhood education.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2000</th>
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<tbody>
<tr>
<td>Maternal Mortality Rate per 1,000 Live Births</td>
<td>578</td>
<td>994</td>
<td>1,072</td>
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<tr>
<td>Neonatal Mortality Rate per 1,000 Live Births</td>
<td>68</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>Under-five Mortality Rate per 1,000 Live Births</td>
<td>222</td>
<td>110</td>
<td>94</td>
</tr>
</tbody>
</table>
b. Healthcare System and Policy

Liberia’s post-conflict healthcare system has been beset by structural weaknesses, including inadequate numbers of health workers who lack clear career incentives, insufficient and unsuitable infrastructure and equipment, weak supply chains, and poor quality of care. The recent Ebola virus outbreak revealed the system’s inability to respond effectively to the epidemic. Nearly 5,000 people lost their lives during the outbreak. The outbreak led to a significant decline in the utilization of health services, including ANC visits (Republic of Liberia Ministry of Health, 2016). The Government of Liberia has rightly put much effort into strengthening this extremely challenged healthcare system. Liberia has, for example, prioritized the Reproductive, Maternal, New-Born, Child, and Adolescent Health (RMNCAH) agenda. The primary goal of its current Health Investment Plan is “improved maternal health status of the Liberian population.” This goal is to be measured against four indicators that directly relate to maternal and newborn child health: NMR, infant mortality rate, U5MR, and MMR. The MOH has identified key priority areas for RMNCAH interventions:

1. Quality emergency obstetric and newborn care
2. Strengthening the civil registration and vital statistics system
3. Adolescent health
4. Emergency preparedness, surveillance, and response, especially maternal newborn death surveillance and response
5. Sustainable community engagement
6. Enabling environment leadership, governance, and management at all levels

Liberia signed the United Nations’ Sustainable Development Goals 2030 (SDGs), and through the Every Woman, Every Child initiative, it is committed to spend 10% of its health sector budget on RMNCAH. Some of Liberia’s greatest challenges to providing quality pregnancy care are a lack of medical supplies, limited availability of skilled birth attendants (SBA) (fewer than 1.15 SBA per 1,000 people), and inequitable distribution of health facilities (Republic of Liberia Ministry of Health, 2016). Over the next several years, the Liberian Ministry of Health (MOH) is committed to invest money and resources in the reduction of maternal and under-five mortality. They plan to renovate health facilities and providing comprehensive sexuality education for adolescents and youth, in addition to mobilizing community members to adopt healthy practices and shift social norms. According to meetings with MOH staff, six new maternal waiting homes were built to cut down on the number of women who give birth en route to a health facility. Additionally, the MOH plans to collaborate with other ministries, such as gender and education, on accomplishing the goals laid out in the Investment Case (Republic of Liberia Ministry of Health, 2016).

The Ministry of Health and Social Welfare also created a Community Health Road Map that provides guidance to coordinate and activate the existing community health structure and support systems at all levels (The Ministry of Health and Social Welfare, 2014). The framework includes four strategic objectives:
1. To build the capacity of communities to contribute to the reduction of maternal, newborn and child morbidity and mortality and to address issues of public health and social welfare concern
2. To ensure quality service delivery of a standardized package of community health and social welfare services
3. To strengthen support systems for implementation of community health and social welfare
4. To strengthen pre-service and in-service training for health workers (professional and CHVs)

The MOH also instituted new policies to discourage home births, specifically targeting traditional midwives. Traditional birth attendants (TBAs) and trained traditional midwives (TTMs) in Liberia often do not have the equipment or skills required in an obstructed or complicated labor case. To address this issue, punitive measures were introduced. Failure to bring a pregnant woman to a health center often results in fines, thereby discouraging and limiting the role of a TBA or TTM (Pattani, 2017).

2. Program History

The Big Belly Business (BBB) Program was developed to promote healthy pregnancies and combat Liberia’s high maternal and neonatal mortality rates. With roots in a feminist approach that is aimed to ensure women’s empowerment, the program is based on a pregnancy-education book and community education model tailored to a low-literate, Liberian audience. Illustrated with sensitive drawings and written in simple Liberian English, the month-to-month guide helps pregnant women to anticipate the various changes to their bodies and provides the knowledge and behaviors needed to ensure a healthy pregnancy and delivery. Through stories and concrete examples of healthy behaviors, the book provides advice to family members and to others in the community about how to provide care and support for expectant mothers.

The book is accompanied by community education and ANC clubs that were designed to reach 500,000 families, women’s health providers and health educators across Liberia. In the first phase (2012-2014) program materials were developed and disseminated. In phase 2, (2015-2017), 18 NGOs that offer a variety of services including ANC, women’s literacy, education and empowerment, received training, technical assistance and implementation support from the Open Society Initiative of West Africa (OSIWA) to use the materials and establish big belly clubs. Big Belly Sisters and Brothers have held more than 100 weekly clubs at pilot sites.

The recent, devastating outbreak of the Ebola virus created a severe paucity of progress within the Liberian healthcare system. This devastation is layered on to the country’s post-conflict environment and within a system that possesses limited financial and human capital. In spite of such extreme obstacles, an impressive team of stakeholders conceived and implemented the Big Belly Business pilot program. In June 2012, the U.S. Department of State’s Secretary’s Office of Global Women’s Issues partnered with the What to Expect Foundation and Simply Put Media to launch the Women’s Health Innovation Database (WHIP). The program was supported
through the Secretary of State’s International Fund for Women and Girls at the Office of Global Women’s Issues with pilot programs organized in Liberia and Bangladesh. The Big Belly Business (BBB) Liberia pilot program began in 2012 and ended in July 2017. This end-of-project evaluation was commissioned by the Open Society Foundations (OSF) in London; the OSF’s West African regional network, the Open Society Initiative for West Africa (OSIWA), provided technical leadership for the pilot program through its Liberia national office.

The program has four stated goals:

1. Provide evidence-based, culturally appropriate pregnancy and parenting materials that are attractive, comprehensive, and easy to read, and serve as a catalyst for life-long learning and family literacy to underserved families.
2. Create opportunities for low-income women, girls and families to develop critical thinking, planning and decision making skills, build supportive social networks and access healthy work and living situations for themselves, their families and their communities.
3. Teach healthcare providers, educators and communities how to use new tools and strategies to understand the needs of families and respectfully and effectively listen, communicate and support low-income women and their families during pregnancy, childbirth and parenting.
4. Bring communities together (including fathers, elders and leaders) to support pregnant women and mothers’ health learning and growth, and ensure families receive compassionate information, timely care and opportunities to thrive.

The BBB Program was launched in Liberia in 2012 and has gone through two distinct phases:

1. **Program Design (2012-2014):** The US based What to Expect Foundation/Simply Put Media worked with a team in Liberia to: i) create, print, and deliver 50,000 copies of a pregnancy guide called Big Belly Business and accompanying materials to the guide (journals/notebooks and pencils); ii) develop a program and training framework around the guide; iii) identify partner NGOs to implement the program and Open Society Initiative West Africa (OSIWA) to oversee the program; and iv) form a Liberian Advisory Board to support program implementation.

2. **Program Implementation (2015 – 2017):** OSIWA housed and supervised the BBB technical team, which received technical advice from Simply Put Media and supported implementation of the program. The technical team’s work included: i) distributing and tracking BBB materials; ii) providing support to NGOs implementing the program; iii) providing training and on-going support to BBB Sisters and Brothers as they implement BBB clubs; and iv) tracking and monitoring program implementation.

By July 2017, it was expected that:

- 7,500 women and men would benefit from the full program;
- 100 BBB clubs would be established, meeting weekly across 7 of Liberia’s 15 counties (Bomi, Bong, Grand Bassa, Grand Gedeh, Lofa, Margibi and Montserrado);
• 18 NGO partners would use the BBB book and implement the program in a planned way;
• 138 BBB Sisters and Brothers would run BBB clubs;
• 50,000 books would be distributed to partner NGOs in the 7 counties, all of whom would submit a plan of action for the use of those books to support women’s health and literacy during pregnancy;
• ≥10,000 women and men not attending BBB club would receive a free copy of the book and an introduction to the contents from a partner NGO;
• ≥500 ANC service providers and students of varied professional certifications and educational levels would receive BBB books from partner NGOs (but not attend BBB Sister/Brother training).

To provide a visual distillation of the BBB goals and objectives, we created the below theory of change diagram. It is important to note that lowering maternal and newborn mortality rates directly was not an explicit objective of the program as per the program’s original proposals and documents. Nonetheless, the program’s theory of change, as presented in Figure 1, would suggest that empowering pregnant women during and after their pregnancies and equipping them with the vital knowledge needed to ensure safe pregnancies and deliveries would positively impact mother and child survival rates.

Figure 1: BBB Theory of Change

3. Purpose and Scope of Evaluation
This evaluation had two major aims: 1) to learn about and reflect on program design and implementation and assess the processes used during each stage of program activities with a
goal towards advising possible replication in another setting; and 2) to identify strategies and anticipated challenges with program scale-up in Liberia.

In line with OECD/DAC evaluation guidelines (Chianca, 2008), this evaluation assessed the BBB program on its relevance, effectiveness, efficiency, sustainability, and impact. The evaluation aimed to meet these criteria with the following lines of inquiry:

<table>
<thead>
<tr>
<th>Relevance</th>
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<tbody>
<tr>
<td>How does the program fit in with national goals and priorities?</td>
</tr>
<tr>
<td>Does it address the needs of the main program beneficiaries; i.e. pregnant women and newborn children?</td>
</tr>
<tr>
<td>Who else has benefitted from the book and program?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the program met its goals?</td>
</tr>
<tr>
<td>Are the materials effective?</td>
</tr>
<tr>
<td>Of the various and diverse interventions that have used the book, what are the most effective?</td>
</tr>
<tr>
<td>In instances where the book has been distributed to:</td>
</tr>
<tr>
<td>i) expectant parents who do not attend BBB clubs or:</td>
</tr>
<tr>
<td>ii) health care workers who have not attended BBB Sister/Brother training, what has been the effect?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>How efficiently was the program delivered? Is the program cost-effective?</td>
</tr>
<tr>
<td>Were resources for the program developed and deployed efficiently?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>What steps were taken to embed program into national system? Has this been effective?</td>
</tr>
<tr>
<td>What is the likelihood of the program continuing after this initial pilot period?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have there been any positive or negative side effects of the program? What are they?</td>
</tr>
<tr>
<td>Has the behavior of program beneficiaries changed and in if so in what ways?</td>
</tr>
</tbody>
</table>

This evaluation was undertaken by a team of five from Columbia University (CU) Mailman School of Public Health, one faculty member from the University of Liberia, and seven locally recruited research assistants. The team spent one week designing the overall research methodology and another two weeks developing and refining the tools; these components of the evaluation are all detailed in the previously submitted inception report. We conducted data collection in several sites in Liberia over the course of 2.5 weeks (from Monday, May 29, through Wednesday, June 14, 2017).
2. Methodology

A. Site Selection and Sampling

The scope and methods of data collection were developed to maximize a breadth of learning from diverse stakeholders within a relatively short timeframe. Based on our preliminary review of the BBB program, we created an evaluation plan to generate learning from as many stakeholders as possible. We used a combination of purposive and convenience sampling to identify individuals involved with the program development and design.

We visited two counties with BBB partners during our field visits: Montserrado County and Bong County (Figure 3). In Montserrado County, we visited four official NGO partners: Traditional Women United for Peace (TWUP), Life Line Liberia, THINK Inc., and Tohde Resource Center. We also visited one non-WHIP partner in Montserrado: Peace Clinic. In Bong County, we visited an additional two NGO partners: Africare and Lutheran Church in Liberia. We selected these sites to demonstrate a variety of club settings (i.e. clinic, church, community center), performance levels, sizes, and days of the week club meetings are held.

At each site, we engaged with the program implementers, club facilitators (Big Brothers and Sisters), BBB club participants, and BBB book recipients. We additionally conducted short interviews with a couple of BBB book recipients and ANC providers who did not take part in the club activities or training.

Figure 3. Map of Counties Visited
B. Data Collection Methods and Tool Development

To assess the program design, implementation, and scale-ability of the BBB Program in Liberia, the evaluation team collected data through five complementary, mixed methods tools (Figure 4): i) desk review; ii) expert book/training curriculum review and club observations; iii) focus group discussions (FGDs); iv) semi-structured interviews; and v) a knowledge, attitudes, and behaviors (KAB) survey.

The field tools that we developed were the guides for FGDs and individual interviews as well as the KAB survey. The research team reviewed and revised the data collection tools both internally and in consultation with the BBB master trainers to ensure appropriate question content and language usage prior to finalization. The FGD guide and quantitative survey were translated into Liberian English, piloted with participants in Montserrado County, and further revised by the research team. We consulted over 265 people over the course of this evaluation.

Figure 4. Tools, Sample, and Objectives of the BBB Program Evaluation

<table>
<thead>
<tr>
<th>Tool</th>
<th>Sample</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desk Review</td>
<td>65 documents supplied by major and sub grantees, BBB master training team, and other key stakeholders reviewed</td>
<td>Key learning on implementation goals and efficiency of delivery; greater insights into the challenges and constraints to effective program implementation and scalability</td>
</tr>
<tr>
<td>Expert Book/Training Curriculum Review and Club Observations</td>
<td>5 sites observed in Montserrado County and 2 in Bong County</td>
<td>Understandability and operationalization of the BBB training and participant materials</td>
</tr>
<tr>
<td>FGDs</td>
<td>6 FGDs completed in Montserrado County and 2 in Bong County with a total of 70 participants (70 women)</td>
<td>Key learning on effectiveness and use of book; reflections on the scalability of program</td>
</tr>
<tr>
<td>Semi-Structured Interviews</td>
<td>84 interviews completed: 52 service providers; 17 high level stakeholders; and 15 additional respondents</td>
<td>Key learning on program implementation, integration with national goals, and scalability</td>
</tr>
<tr>
<td>KAB Survey</td>
<td>111 (102 women, 9 men) surveys completed</td>
<td>Validity of field-tested tools to be integrated into future M&amp;E processes</td>
</tr>
</tbody>
</table>
a. Desk review of program documents supplied by grantees and stakeholders
Throughout the evaluation process, we continuously requested all program-related documents from stakeholders involved in program design and implementation or corollary documents, such as national plans of action on themes related to maternal and newborn health. In sum, we received 65 documents and systematically reviewed all of them. We reviewed program documents from each implementing partner including the initial questionnaires that they completed about program implementation strategies, Big Belly Club forms, and Quarterly Reporting Forms. From these documents, we assessed the extent to which partners had met their implementation goals and, to the extent possible, the efficiency of program delivery by BBB Brothers and Sisters. In addition, we reviewed documents from the Liberian Ministry of Health featuring national goals and priorities to assess the program relevance against these goals. The desk review provided greater insights into the challenges and constraints to effective program implementation and scalability and also allowed us to ascertain the extent to which the BBB pilot program aligned with national maternal and newborn health strategies.

b. Expert review of the BBB book and curriculum and club observations
Two members of the research team, including the Principal Investigator, conducted a review of the BBB book concerning its educational content, its appropriateness for target audience, and its clarity of messaging. Adapting existing Health Education and Parenting Materials Assessment tools, the review systematically evaluated the understandability and actionability of the BBB training and participant materials (Shoemaker, Wolf, & Brach, 2016). The tool helped determine the degree to which the users are able to understand and act on the information provided. The review considered such aspects as: content quality, effectiveness and relevance of suggested actions, quality of instructions, as well as overall tone, word choice and style, layout and design. Additionally, the evaluation team used the Parenting Education Programs Evaluation Framework, developed by Dr. Cassie Landers at CU, to observe BBB Club activities and determine to what extent BBB Club participants understood and were able to take action on learning that they had received from program activities.

c. FGDs with program participants
We conducted eight FGDs with program participants to understand the effectiveness of the clubs and use of the book. The FGD guide was piloted and revised by the Liberian research team to ensure its appropriateness as a research tool. Every FGD ended with the Most Significant Change (MSC) technique developed by Rick Davies and Jess Dart as a form of participatory monitoring and evaluation. MSC involves the collection of stories from key stakeholders to understand program impact (Davies & Dart, 2005). The first round entailed asking participants about the biggest change that they experienced in their lives as a result of the BBB book and/or club. All women in the focus groups were asked to respond individually. In the second round, participants formed pairs and agreed on the most significant change that applied to both of them. This step was followed by the formation of a group of four with the same task. Finally, participants formed one large group to develop a consensus on their top response. FGDs with participants were recorded and transcribed by the Liberian research team.
d. Semi-structured interviews with decision-makers, implementers, and end users

We conducted semi-structured interviews with 84 stakeholders at every level of program implementation and participation. This included:

- Interviews with key informants involved with program design including members of the advisory board, Simply Put Media, and New Narratives;
- Interviews with key informants from relevant Ministries, such as a Health, Education, and Gender, Children and Social Protection;
- Interviews with the BBB team at OSIWA;
- Interviews with select NGO Small Grantee program managers and implementers;
- Interviews with select BBB Club facilitators (BBB Brothers and Sisters);
- Interviews with select BBB Club attendees;
- Interviews with select BBB book recipients (no club attendance);
- Interviews with select ANC providers who were given the book but no additional training;
- Interviews with Schools of Nursing and Midwifery instructors.

Research assistants recorded and transcribed interviews with BBB club participants; the CU research team recorded and transcribed interviews with additional interview respondents. Figure 5 provides background information about the 84 respondents to semi-structured interviews.

**Figure 5. Sample of Semi-Structured Interview Respondents**

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Method</th>
<th># Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>US State Department’s Office of Global Women’s Issues</td>
<td>Semi-structured interview</td>
<td>2</td>
</tr>
<tr>
<td>Liberian Ministry officials: MOH, MOE, MoGCSP</td>
<td>Semi-structured interview</td>
<td>6</td>
</tr>
<tr>
<td>OSIWA Director</td>
<td>Semi-structured interview</td>
<td>1</td>
</tr>
<tr>
<td>BBB Team at OSIWA</td>
<td>Semi-structured interview</td>
<td>4</td>
</tr>
<tr>
<td>Simply Put Media</td>
<td>Semi-structured interview</td>
<td>2</td>
</tr>
<tr>
<td>New Narratives</td>
<td>Semi-structured interview</td>
<td>2</td>
</tr>
<tr>
<td>Advisory Board</td>
<td>Semi-structured interview</td>
<td>2</td>
</tr>
<tr>
<td>NGO grantees/non-WHIP partners</td>
<td>Semi-structured interview</td>
<td>19</td>
</tr>
<tr>
<td>NGO BBB Brothers &amp; Sisters</td>
<td>Semi-structured interview</td>
<td>14</td>
</tr>
</tbody>
</table>
e. A KAB survey with program participants

We designed a Knowledge, Attitudes, Behaviors (KAB) survey for this evaluation to generate some quantitative about BBB participants’ understanding of key elements of the BBB curriculum. It is important to note that—since we had neither baseline data for the participants’ knowledge, attitudes, or behavior nor comparable data from a comparison group of people with similar characteristics who did not participate in a BBB club—we cannot attribute participants’ knowledge, attitudes, or behaviors to the program itself. Nonetheless, we felt that it was important to create a tool that would be integrated into future M&E processes.

We developed two fifteen-question surveys (one for women, another for men) as quantitative field tools to query BBB participants' knowledge of healthy habits during pregnancy and motherhood, attitudes toward pregnancy and parenting, and behaviors regarding healthy pregnancy habits. We included five questions querying knowledge, five questions querying attitudes, and five questions querying behaviors generated from content of the BBB Book. We presented a second draft to the Liberian research team, which generated a third draft that was more precise in its use of Liberian English. We piloted the third draft during a pilot data collection day with BBB participants at the Traditional Women’s United BBB club. Following the pilot survey, we developed a fourth draft to further streamline the questions' intents and word usages.

We used this fourth draft all data collection efforts and entered survey results into the online data collection software Survey Monkey. The research team conducted all surveys verbally and individually between one participant and one Liberian researcher in a semi-private location. We obtained verbal consent. The total response rate for the survey was 111 (102 women and 9 men). Of the 102 respondents, 42 reside in the rural Bong County, and 60 respondents reside in the urban Montserrado County. We performed frequency analysis to calculate findings from the KAB survey.
C. Enumerator Team Selection and Training

Ten enumerator candidates were invited to attend a three-day quantitative and qualitative evaluation training led by the CU research team. The first day of the three-day training included an introduction to the program and background of the BBB project, an overview, guidelines, and practice on leading FGDs, including ethical considerations and obtaining informed consent. Day two of the training continued practice with leading FGDs, proper note-taking, and discussed survey development and dissemination. Day three of the training reviewed note-taking and FGDs, and included a three-hour pilot data collection at the Traditional Women's United BBB Club in Montserrado County. During training activities, each research candidate had the opportunity to practice and demonstrate their understanding and skill with leading FGDs, taking notes during an FGD, and effectively understanding and delivering survey questions. As candidates demonstrated these skills, the lead evaluators chose seven candidates, including a researcher from the MOH, as the most adept researchers and solidified the evaluation team for the remaining two weeks.

D. Limitations

The findings should be interpreted in light of some limitations. The evaluation was conducted rapidly which means there was a limited geographic reach of the evaluation team during data collection and limited ability to speak with all decision-makers and tool developers. Only two counties were visited in-country; therefore, bias may arise based on unknown characteristics of the two counties selected. Second, the data collection methods are mostly qualitative. This is the best method given the breadth of respondents we sought to learn from and the nuanced reflection we sought on program implementation. The survey results are not meant to provide statistics of program impact because they are results of a single group post-test. Rather, the survey demonstrates feasibility of implementation of a similar tool in the Liberian context. The lack of vigorous quantitative data does limit the generalizability of findings and the ability to provide statistics of program impact. Third, although the research team communicated the types of participants this study was looking for, the program managers and club facilitators chose respondents, which introduced selection bias. Additionally, several participants who never attended a club session desired to be interviewed to receive the small token of appreciation although they were not the targets for the study. Fourth, the evaluation team was also unable to review budget and expenditure documents to assess the cost per BBB club and per family to provide feedback on the cost-effectiveness of the program. Given the initial program structure and apprehension, none of the agencies—including the donor—felt comfortable disclosing line-item budgets with the evaluation team. Finally, the team did not have sufficient time to learn from program stakeholders who are not directly involved in the decision-making, implementation, or direct receipt of the program. This limited the learning about community-level and spillover effects.
3. Results and Discussion

**Program Structure Key Findings:** The evaluation demonstrated that the project’s management structure mobilized a network of community partners to engage pregnant women but was rather complex with six organizations reporting to the primary funder, the US State Department, and few in-country accountability lines. The number of small, medium, and large NGOs willing to contribute to implementing this project and their overall enthusiasm in doing so indicate the potential for civil society to contribute proactively to such programs.

The US State Department contracted six organizations to support and implement the BBB Program in Liberia: OSIWA and five “major NGO grantees,” NGOs with relatively sophisticated reporting capacity. Program components included distribution of the BBB book and implementation of the BBB clubs. OSIWA was not involved in the first phase of the project but received a grant to provide leadership and technical assistance during phase two. Phase two of the project was intended to start in 2014, but due to Ebola, all grants were on hold and budgets and timelines had to be modified. Five NGOs applied to and received small grants directly from the U.S. State Department. Eight smaller NGOs with weaker reporting capacity partnered with the “major grantee” NGOs to become sub grantees. Once approved, sub grantees submitted quarterly reports to major grantees, who then compiled and sent the reports to the U.S. State Department (Figure 6). Overall, 18 partners implemented the BBB Program (5 major grantees, 8 sub grantees, and 5 non-WHIP partners), 138 (17 males, 121 females) Big Brothers and Sisters were trained, 48 clubs were established, and 51,840 books were distributed (Q1-Q6: 28,740, Q7: 21,900).

Five non-WHIP partners implemented components of the program independently with some technical support. Books without training were distributed to JHPIEGO as well as several hospitals and clinics such as Phebe, JFK, ELWA, and Redemption. BBB staff members at OSIWA indicated that they received some, but not all, of the quarterly reports that other recipients of the WHIP grants submitted to the State Department, a scenario that limited their understanding of program activities and expenditures. One NGO head explained that having a central team responsible for reporting and organizing would have been more effective.

The master training team, housed at OSIWA, reported meeting weekly with Simply Put Media and with the extended OSIWA staff. Additionally, this team is a part of a group co-chaired by the MOH and UNICEF that holds meetings twice a month as a way of strengthening government partnership with organizations and programs working on maternal and newborn health.

To demonstrate the delivery of the program, we have created the following diagram for book distribution, supervision and technical support, and overall program structure.
In many ways, the program accomplished what it set out to achieve as demonstrated in Figure 7 below. Based on the analysis of the materials we had access to, the WHIP program achieved success in the following areas:

- A master training team was functioning;
- NGOs submitted program proposals;
- Big Brothers and Sisters were trained;
- BBB books have been distributed;
- Community partnerships were formed between small and mid-level NGOs; and
- Community partnerships were formed between participants and local, implementing NGOs.

Many stakeholders reported feeling engaged in both the development and implementation of the BBB program in Liberia. Additionally, program participants' reported positive interactions with the BBB book and positive interactions with BBB Big Brothers and Sisters. These strengths are related more to the program’s processes more so than its outcomes, but they indicate that the program began to lay a foundation that, if systematized and strengthened, may develop into a strong community network that could be better connected to the health system in future iterations of the BBB program.

Conversely, there were some objectives of the initial M&E framework that the BBB Program did not accomplish. Despite some initial steps, the project did not implement a strong media plan, and the involvement of its advisory board waned with time. Most importantly, the program has not yet demonstrated that is has “become a sustainable and integral program.” Indeed, at
the time of the evaluation, there were more questions than answers about the future of the program.

**In considering the pilot phase’s achievements and challenges, it is crucial to note that the project’s objectives as per the original monitoring and evaluation plan focus almost entirely on process and not on impact.** This focus on process-level indicators is a significant limitation of the current program and one that will need to be addressed by more robust focus on outcome-level indicators for future iterations of the program.

**Figure 7. Progress on Project-Specific Monitoring and Evaluation Plan**

<table>
<thead>
<tr>
<th>Project Objective</th>
<th>Progress</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WHIP Program operated successfully and strategically by a trained team at OSIWA Liberia.</td>
<td>Completed</td>
<td>4 Master Trainers hired and operational</td>
</tr>
<tr>
<td><em>Ex. Indicator: OSIWA will have a BBB team in place to implement the program, consisting of a program coordinator, full-time midwife, and two part-time trainers.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualified NGOs in Liberia submit quality program proposals for the WHIP Small Grants Program.</td>
<td>Completed</td>
<td>18 NGOs submitted program proposals that were successfully funded by the WHIP Small Grants Program</td>
</tr>
<tr>
<td><em>Ex. Indicator: At least ten organizations will have established a variety of partnerships reaching Liberian women and will have submitted strong applications to the State Department to implement the WHIP programming.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementing organizations have been effectively trained by BBB team and have established and are running BBB clubs or meeting regularly with moms using the BBB book and curriculum.</td>
<td>Completed</td>
<td>138 Big Brothers and Big Sisters trained</td>
</tr>
<tr>
<td><em>Ex. Indicator: Implementing organizations will have staff trained on establishing and leading BBB clubs or working 1-1 with expecting women.</em></td>
<td>Partially completed</td>
<td>Although program documents note the creation of 48 clubs, field-level data indicated that these clubs were not necessarily sustainable or ongoing.</td>
</tr>
<tr>
<td>A media partner in Liberia, in partnership with OSIWA, creates a media plan for BBB.</td>
<td>Begun But Not Completed</td>
<td>The Division of Health Promotion halted airing of BBB audio materials produced by New Narratives Liberia until they conduct a BBB book review</td>
</tr>
<tr>
<td><em>Ex. Indicator: BBB radio programming is reaching women and their families throughout Liberia.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The BBB books and materials have been</td>
<td>Completed</td>
<td>51,840 books distributed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Successfully distributed to implementing organizations, who are using them in their work with pregnant women, and pregnant women throughout Liberia are being exposed to the BBB book’s content.

*Ex. Indicator: The Big Belly Business books and materials have been successfully distributed to the implementing organizations, who are using them in their work with pregnant women, and women throughout Liberia are being exposed to the Big Belly Business book’s contents.*

An in-country Advisory Board (ICAB) is actively participating in WHIP’s programming, helping to ensure WHIP is getting exposure and being used throughout the country.

*Ex. Indicator: ICAB members are attending ICAB meetings and actively engaging in the program.*

<table>
<thead>
<tr>
<th>Partially Completed</th>
<th>ICAB was represented at the BBB curriculum training and 2017 retreat, but the advisory board met infrequently during phase two of the BBB pilot</th>
</tr>
</thead>
</table>

The Big Belly Business Program has become an integral and sustainable program of the implementing organizations and the lead agency beyond the duration of the WHIP grant.

*Ex. Indicator: Programming will be expanded beyond 2 year duration.*

<table>
<thead>
<tr>
<th>Not Completed</th>
<th>OSF funded this evaluation to determine scalability and sustainability, and Simply Put Media has met with partners to discuss ongoing funding. Nonetheless, the program is not yet integrated into the Liberian healthcare system.</th>
</tr>
</thead>
</table>

As noted in the table above, the core data collected were process indicators. In addition to the above indicators, some grantees also collected basic information about the participants (name, sex, age) and club attendance data. In their quarterly reports, grantees also provided overall budget updates, summaries of achievements, statements about progress, and lessons learned. Nearly all of these forms of data were quite summary, and in no quarterly reports did we find evidence of documented outcome-level changes for pregnant women and their families. When asked about data collected for M&E purposes, most respondents spoke positively about the program but provided only anecdotal evidence. Statements shared frequently about the program’s success included basic statements like, “You can see the change of attitude in members of club” and “beneficiaries enjoy being a part of club.”

Concerning the evaluation questions about efficiency and cost-effectiveness, we were also unable to review budgetary and expenditure documents that would have allowed us to assess
the cost per BBB club to provide feedback on the cost-effectiveness of the program. We believe that this lack of transparency about budgetary expenditures is a reflection of the complex program structure, which hinders rather than enhances accountability. We do note that one NGO elaborated on their program expenditures, indicating that they spent their allocated funds on snacks for club meetings, salaries for Big Sisters and a Monitoring and Evaluation (M&E) coordinator, transportation for Big Sisters to follow up with participants, field monitoring, and generators.

**Monitoring and Evaluation Key Findings:** The BBB Pilot Program unfortunately did not benefit from a rigorous, tightly managed M&E plan. The M&E plan used for the pilot phase of the project included process-focused input and output indicators that did not connect to health outcomes for women and children. Although such an approach may be understandable for a pilot project, it limits the extent to which a program can be measured to be effective in promoting health outcomes or outcomes related to behavior change. The lack of financial data is also a serious limitation that must be overcome for future cost-effectiveness analyses; even our requests to the donor agency did not yield any analyzable data about expenditures, which were described to the research team as “proprietary information.”

Among implementing organizations, one outlier in terms of stronger monitoring and evaluation was Save the Children Liberia, which adopted the BBB approach for its own health program outside of the scope of the State Department-funded programs. Although they did not share full data with the evaluation team, Save the Children did share a summary set of indicators that they measured; the organization monitored a set of indicators that included the numbers of ANC households visited by a TTM, referrals made to a primary healthcare facility, and children under one-year-old who received immunization. To demonstrate the feasibility of collecting data on indicators regarding maternal and child health in Liberia, the list of indicators that Save the Children Liberia monitored monthly is included in the annexes as a starting point for future discussions.

### A. BBB Book

**Key Findings about the BBB Book:** Stakeholders at all projects levels expressed enthusiasm for the book with many people noting its beautiful design and general attractiveness as well as its adaptation to simple Liberian English. The book itself can be considered a core “intervention” of the BBB Program, given its centrality to people’s understanding of and conceptualization of the project. Women who participated in FGDs were able to describe a number of favorable impressions that they had about the book, including its encouragement to change health behaviors (i.e. hospital attendance, appropriate food intake, usage of mosquito nets, personal cleanliness, and exclusive breastfeeding), its simplicity, and its focus on promoting solidarity among women and among family members.

Despite this enthusiasm, NGO heads, program facilitators, and experts noted two core concerns about the book: first, the choice of a written book in a country where less than one third of the
adult female population is literate indicated that additional strategies for information dissemination are likely to be needed for broader coverage. Second, although their genesis is rooted in an attempt to capture Liberian storytelling culture, the multiple narrators and audiences who appear throughout the book served, for some users, to undermine its understandability.

a. Development, Distribution, and Content

Overall, participants and key stakeholders from both Montserrado and Bong Counties discussed the BBB book in favorable terms. The master trainers, NGO leaders, and JHPIEGO were involved in the writing and editing of the book; a full list of contributors is available on the book’s title page. Respondents explained that they did FGDs and interviews with nurses, midwives, TBAs, youth groups, women’s groups, and lab technicians. Those involved in writing the book felt ownership of the process and believed they significantly contributed to adapting the book for the “common man.” Though most Liberian participants felt connected to the writing process, it is worth noting that the BBB book was an adaptation of Baby Basics, originally written for expecting American mothers.

Major grantees and sub grantees varied in their book distribution strategies. One clinic staff member explained that they strived to give a book to every pregnant woman they saw, especially if it was her first pregnancy. They emphasized that they gave a book to expecting mothers even if the latter did not plan to return to the club. Other sites made an effort to retrieve the book from a woman after she had given birth to pass it on to another expecting mother. Retrieving the books proved to be difficult across multiple sites because mothers wanted to keep the books for future pregnancies, a finding that suggests that mothers attached intrinsic value to the books. Big Brothers and Sisters and NGO heads incentivized participants to return books in exchange for soap and rice or fined women if they refused to return the book.

Key stakeholders explained that the book content helped women enjoy their pregnancies because they were better able to understand what happened to their bodies. They also emphasized that the book is easy to read and the graphics are “beautiful,” the word that evaluation respondents used in the first instance in describing the book. Master trainers and NGO heads acknowledged that in addition to program participants, some of the Big Brothers and Sisters are illiterate, so the language in the book may need to be “diluted more” (NGO head). To address this issue, one club used the color of the tabs to locate chapters in the book.

b. Participants’ Perceptions about the Book

FGDs engaged 70 women, eight (11%) of whom went through their first pregnancy with the BBB Program. In presenting the below data, we note that the data are likely to have inherently high levels of social desirability bias and sponsor bias, which are common among retrospective data provided by program beneficiaries.

Most participants described a change in behavior after enrollment in the BBB Program. The changes that women who participated in BBB Clubs most frequently referenced were hospital
attendance, appropriate food intake, usage of mosquito nets, personal cleanliness, and exclusive breastfeeding.

Most participants found the BBB book simple and easy to understand. They valued the “simple Liberian English” (Montserrado County, Greater Monrovia). Some women who were illiterate explained that they had their partner, younger brother, or younger child read the book aloud to them. A few others who did not have someone to read to them explained that they understood the book through the pictures. As one woman shared, “This book is very good; it’s got pictures to show you everything. When you see the picture, it can explain to you. It be easy to understand” (Montserrado County, St. Paul River). Although many participants shared that the pictures were beneficial, one woman explained that “I understand the book by some pictures because I don’t read, but some pictures are not clear for my understanding” (Montserrado County, St. Paul River). A couple of women from both counties also described the utility of the monthly breakdown of a pregnancy in the book. As one participant articulated,

“When I was pregnant, I used the book according to status of my pregnancy. I got the book when I was in my two months, and I will read it on the month I will be pregnant…. Like in the third month, I only read all the portions that constitute three months of pregnancy. The book was easy to understand because I used to read it based upon the stages of my belly” (Montserrado County, Central Monrovia)

Overall, participants appeared to be pleased with the book and attributed changes to their own behavior and their partner’s behavior to it. Many participants described their aversion to hospitals but explained that the BBB Program encouraged regular visits. As one woman elaborated, “I never like hospital, but because of this book am encouraged to go to the hospital to get proper medical checkup and take my medicine on time and always” (Montserrado County, St. Paul River). If these assertions were proven true through additional empirical testing that compared program participants with a control group, they would indicate that the BBB might have a significant role to play in the Liberian approach to promoting maternal and newborn health and averting maternal death and disability. Without such testing, the statements nonetheless reveal that program participants appreciated the program and understood its health promotion aims.

In addition to encouraging healthy habits, some expecting mothers described feelings of comradery that they gained from the book and club participation. As one participant explained, “This book make me to understand when you are pregnant you are not alone. That is why it is call BBB is everybody business” (Montserrado, St. Paul River). Many women echoed this sentiment of solidarity and comradery as core values that the book promoted.

In addition to the book’s potential to change expectant mothers’ behaviors, participants also described an effect on their partner’s behavior. One woman shared that her husband had found the book in their home, read it, and became more encouraging to her. She explained that he started to understand that “what he was doing to [her] was not good” (Montserrado
County, St. Paul River) and began to feel remorse for getting into another relationship while she was pregnant.

One participant who simply read the book but never attended the club shared her experience with the book. Similar to those who concurrently attended the club and read the book, she found the book to be useful and learned to:

“Always go to the hospital, take in your medicine whenever the nurses give you medicine, you eat good to make the child healthy in your body. Whenever you healthy, the child too will be healthy. Time for delivering, you will receive safe delivery. Taking the medicine, it give you strength” (Montserrado County, Central Monrovia).

Participants who solely read the book and those who read the book and attended the club perceived the book to be a positive addition to their pregnancy. Both types of participants referenced changes in their attitudes about accessing services at a hospital or clinic, eating habits, and perceptions of proper medicine use.

The following list includes the content areas that participants and stakeholders felt were missing in the BBB book:

- Care for pregnancy in the case of Ebola
- Postnatal development
- Early childhood growth and development
- Giving birth to children with disabilities
- Family planning (beyond what is already currently available in the book)
- Section for adolescents that includes body changes and anatomy
- More anatomical pictures demonstrating how to breastfeed
- Description of medical procedures (C-Section)
- Responding to violence against pregnant women
- Income-generating activities

c. Expert Analysis

A review of the content of the Big Belly Business Book, supported many of the findings reported by program participants. Some of the strengths as well as recommendations for improvement are suggested below:

- **Language**: The BBB book makes its purpose evident and uses "clear Liberian English." It thoroughly incorporates Liberian culture and colloquialisms throughout its many concrete everyday situations. The book’s simplified and limited text, is supplemented by beautiful and engaging illustrations, making it accessible and attractive to readers across a spectrum of literacy levels.

- **Inclusion**: Many stakeholders interviewed during the BBB evaluation were involved in the creation of the book and reported feeling included in its process and ownership over its contents.
- **Holistic approach**: The BBB book integrates the health, social, and emotional aspects of the topics and issues introduced throughout the month to month of pregnancy. The inclusion of many topics related to pregnancy is perhaps both a strength and weakness. While the information underscores the influence of both personal, social factor on health and wellbeing, clear guidance on at least some key practices and skills needed to promote healthy delivery are perhaps lost within the wealth of information provided.

- **Family dynamics**: The BBB book incorporates an understanding of family dynamics and relationships and the need for communication into its messages. It promotes a positive perception of the role of fathers and other male figures in supporting and caring for pregnant women. Furthermore, the book addresses actionable tasks, such as financial planning and other ways that the baby can support the baby ma.

- **Fetal Development**: The BBB book is arranged chronologically alongside the stages of the developing fetus. Its presentation of fetal development is clear and conceptually correct. The graphics that characterize the size of the growing fetus give mothers a tangible comparison to their growing child. While it is true that the chronological layout introduces prenatal development in a structured way, placing the stages of fetal development sporadically between other topics may make such chronology more difficult to understand. It is possible that the plethora of topics and the toggling of chronological and topical content areas breaks up the continuum of concrete actions that a baby ma should follow throughout her pregnancy, diluting key time-bound messages.

While there is much to praise about the Big Belly Business book the review highlighted several areas for further design and development. The BBB book raises awareness and knowledge on key issues in promoting a positive pregnancy; however it is limited in its ability to transfer skills and how to follow up and carry out the “actionable tasks.” In this regard, several of the most critical behavior changes required for Liberian women should be covered in greater depth.

Although the overall goal of the Big Belly Business Book makes it clear and powerful, it includes information that may distract from providing expecting mothers with a clear and comprehensive pregnancy guide. It introduces an ambitious array of themes without fully conveying knowledge in any one topic area. Additionally, there are many characters and narratives, and—other than the opening section of each month—information is not presented in a logical sequence. The narrator and intended audience frequently change from one page to the next, a narrative device that can lead to misunderstandings about the target audience for specific messages in the book.

The desire to reduce anxiety surrounding labor and birth is a common motivator among women seeking pregnancy education. Particularly in a post-conflict state, anxiety about
delivery may exist alongside post-traumatic stress. Including more information about mental health and coupling it with information on how to seek support would be beneficial.

The club/group discussions designed to accompany the book could address some of these concerns by creating a series of theme-based sessions that focus specifically on a specific pregnancy and newborn related theme. Suggested themes for the group sessions could include topics such as: understanding and managing nutrition and care during pregnancy, emotions (including stress management and post-partum depression), breastfeeding and newborn care, the delivery process, including warning signs and complications, safety and security, relationships and communicating with your partner. Additional supportive material on each of these topics could be developed to support the learning objects of group sessions. A Planning Your Pregnancy Guide might include opportunities for participants to track personal measureable indicators, and basic information about the clinic or maternity home likely to be used for delivery. The planner could also include specific information on follow-up newborn care. Such supportive materials could enrich and support the information presented during the group/club meetings.

B. BBB Clubs

Key Findings about the BBB Clubs: The data indicated that the BBB clubs were one of the more challenged aspects of program implementation with club structure and functioning varying widely from one site to another. In some sites, the clubs revealed themselves to be welcome events while in others, the clubs were clearly not functioning. The purpose of the clubs was frequently described as primarily social rather than educational; while the evaluation team understands that club participants largely steered the functioning of their clubs to meet their own ends, participants sometimes described the social and economic aspects of the clubs—such as savings and loans programs—to be preeminent with health education serving a secondary role. For future iterations of the program, in-depth reflection on the appropriateness of the clubs as a program delivery mechanism should be undertaken across all program levels. Though the participants enjoyed the clubs, observations and interviews revealed that the Big Brothers and Sisters did not have adequate supervision, follow-up, and training. If the club model is retained, which the evaluation team would only recommend in conjunction with an expanded portfolio of activities, program quality and fidelity standards—coupled with a more systematic training process—may help to improve club outcomes.

The multimedia efforts to supplement book and club activities remain embryonic.

a. Content and Structure

BBB Club sessions were designed around six key activities: (i) Welcome to the club; (ii) How do you feel?; (iii) Let’s talk about it; (iv) Let’s practice; (v) What’s the story?; and (vi) What’s the take away? These activities were intended to make participants feel welcome, give them an opportunity to ask and answer each other’s questions, delve into a topic from the book, identify what is needed to utilize the information learned, and make a plan of action. The hope was that
these clubs would teach participants how to navigate the book, according to the Big Brothers and Sisters interviewed.

While master trainers utilized a standardized training curriculum, every BBB club was unique and developed their own methods to gather participants and disseminate information. Some BBB clubs formed or organized themselves around savings clubs while others integrated the BBB curriculum into their existing tailoring programs or coordinated the sessions with their malaria health programs. One club employed midwives to run the sessions while others employed former club participants to become Big Brothers and Sisters as the clubs progressed. Other clubs sold garments to fund club activities. All of the clubs provided some incentive for attendance, such as a snack, candy, or meal. One participant stated that when she attended the club, “they used to buy things like ground peas, candies, and things” (Montserrado County, St. Paul River). Facilitators explained that incentives influenced attendance rates. Many women complained of hunger, and they would attend club sessions only if their basic needs were attended to. As one participant explained,

The thing I coming talk you much not laugh because it is important. The food that the people can prepare for us after the meeting can encourage many of our friends to come to this meeting. Some of them can be hungry at home. Because of provision of those facilities, many of our friends have created passion for the program. (Montserrado County, Central Monrovia)

Additional incentives included free adult literacy classes, but the degree to which this was made available is unknown. Big Brothers and Sisters reported receiving a monthly allowance to run the clubs that ranged from $50 to $300 USD.

Overall, very few men attend the clubs even though stakeholders emphasized that the clubs strengthened their sense of community. One Big Brother explained that some men came to the club because they wanted to know where their wives were and what they were learning. However, most men were either busy working or only wished to attend if they received a “formal invitation” (NGO head). Some challenges to club attendance for both men and women were transportation and, for groups that met outdoors, weather.

b. Participants’ Perceptions about the Clubs

Many participants described the BBB clubs as fun, social gatherings. They explained that the BBB clubs are places for them to sing, dance, joke, and have fun with one another. Women come for advice from their friends and feel that “you can be able to ease your tension” during the club sessions (Montserrado County, Central Monrovia). Women also explained that they feel a sense of community with other women in the club. One participant elaborated on the unity the club brought: “The club made us united... When our friends deliver, we will walk from there to come and go speak to that woman” (Bong County, Salala District). Participants explained that they contribute money weekly in the club meetings to be given to their friends at the time of delivery. They perceived that the book “make [them] know how to save five-five
dollars. Sunday, we can meet to save our soap, rice, and small-small things” (Montserrado County, St. Paul River).

In addition to providing a social outlet, some participants described clubs as places to learn material from the book. One participant explained that the facilitators told them about eating on time, going to the hospital on time, and exercising. Another woman explained that the facilitator “used to explain all the things in the book to [them]”. When the participant asked questions, the facilitators could “answer [them] good and friendly with [them]” (Bong County, Salala District). Participants also appreciated facilitators that would follow up with them when they missed club sessions.

**Most Significant Change**

Participants were asked to come up with a consensus about the biggest change they experienced in their lives as a result of the BBB book and/or club (Figure 8). This methodology determines areas of key changes that program beneficiaries perceive in a consensus-building way.

**Figure 8. Group Consensus Responses**

<table>
<thead>
<tr>
<th>County</th>
<th>Biggest Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montserrado County</td>
<td>“How to be a responsible mother, how to take care of your child, how to take care of my home. I know my responsibility since then I feel very happy”</td>
</tr>
<tr>
<td>Montserrado County</td>
<td>“The big change that this book brought to us it make us to take care of our pregnancy. We never used to take care of ourselves when pregnant, but because of this club and book we can now take proper care of ourselves and belly”</td>
</tr>
<tr>
<td>Montserrado County</td>
<td>“To go to the hospital on time to avoid complications during pregnancy”</td>
</tr>
<tr>
<td>Montserrado County</td>
<td>“Big belly business is everybody’s business”</td>
</tr>
<tr>
<td>Montserrado County</td>
<td>“Care is one of the big factors in bearing and raising children”</td>
</tr>
<tr>
<td>Bong County</td>
<td>“This book makes us united. We all agreed to it da our great change it make us come together”</td>
</tr>
<tr>
<td>Bong County</td>
<td>“This makes us go to hospital from day one of belly till delivery because first some people will say when your belly is small no need to go to the hospital to waste your money. But this book helps us”</td>
</tr>
<tr>
<td>Bong County</td>
<td>“This book help us to know that pregnant women should drink 8 cups of water every day to help you and your baby time to deliver”</td>
</tr>
</tbody>
</table>

From the Most Significant Change exercise, we see three core themes that emerge from women who participated in the BBB clubs:
1. **Improved knowledge of care for self and children:** Three of the groups in Montserrado County and one of the groups in Bong County described self-care items and care of children as skills that had been enhanced through their participation in BBB;

2. **Encouragement of hospital delivery:** one group in Montserrado County and another in Bong County highlighted that participating in BBB would make them more likely to go to the hospital for antenatal care and delivery; and

3. **Promotion of intra-group solidarity:** one group in each of the two counties highlighted different kinds of solidarity as a key outcome of the BBB program.

Individual and small group responses further illuminated some of the important effects that BBB Program participants believed the program had brought into their lives. Participants emphasized that they learned the importance of self-care. They described exercising more frequently, reducing the amount of physical labor they do, eating more often, and taking baths regularly. Additionally, mothers described understanding the importance of taking medicine consistently and attending clinics and hospitals on time. Another theme that emerged was personal development. Mothers described learning that it is possible to return to school after giving birth and learning the importance of saving money. Participants also described a change in their understanding regarding the role of men. One woman explained that “this book make us to understand that when you get belly, your husband need to encourage you” (Montserrado County, St. Paul River).

**Survey Results**

A knowledge, attitudes and behaviors (KAB) survey was disseminated to 102 female participants of the BBB Program. Interestingly, the majority of respondents (72%) reported already having given birth, which may be a result of the BBB clubs starting in 2016 and women continuing on with the program since that time. 13% of women fell into the next most populated category, 7-9 months of pregnancy. Of the 102 respondents, 64% self-reported having seen a physician for antenatal care (ANC) visits six or more times during the course of the pregnancy and 16% reported 4-5 ANC visits. This is similar to the African Health Organization (AHO) and WHO 2007 Liberia country profile, which noted that 76% of urban mothers self-reported attending 4 or more ANC visits and 60% of rural mothers self-reported attending 4 or more ANC visits. However, this survey data is self-reported and therefore susceptible to social desirability or sponsor bias. Furthermore, we cannot attribute the rates or reported behavior changes from this evaluation survey to the BBB program, given that participants were receiving similar messaging from other outlets and that no baseline survey was conducted. A more robust pilot should seek to monitor these trends with quantifiable data.

Of the five questions in our evaluation survey intending to quantify participants' knowledge of prenatal health, per topics discussed in the BBB book, an average of 94% of participants gave correct responses to four out of five questions. The five questions discussed exclusive breastfeeding, intake of folic acid, personal hygiene, and malaria prevention. However, only 60% of mothers were familiar with maternal waiting homes as places women may stay near a
hospital in anticipation of delivery. This may reflect the large proportion of respondents who lived in an urban area and were therefore less likely to utilize a maternal waiting home.

The five attitudinal questions all addressed taboos and attitudes that were identified in the BBB book as being culturally upheld but could mislead a pregnant woman from healthy practices. For example, one attitudinal question was: "A woman must keep her pregnancy a secret so nobody can witch her. Do you agree, disagree or do you not know?" Of the five attitudinal questions, an average of 80% of respondents "disagreed" or were opposed to upholding cultural norms that potentially lead women away from healthy habits.

The five behavioral questions again addressed behaviors toward exclusive breastfeeding as well as addressed participant's comfort and behaviors toward healthcare practitioners versus traditional healers. On average, 90% of respondents felt comfortable with healthcare providers and stated that they would seek treatment from physicians when appropriate.

This survey lent insight into the themes delivered in the BBB program as well as participants' general perceptions of facility-based medical practitioners in Liberia. This survey was limited in that participants were existing program participants and may have answered in ways that were affected by social desirability or sponsor bias. Thus, participants may have replied based on what they believe to be the "correct" answer despite whether this is in accordance with their true attitudes or how their behavior might play out in real time. The survey also cannot demonstrate any causality attributable to the BBB program, given that there was no comparison group. We encourage the BBB Program to incorporate KAB surveys into their work in future iterations.
c. Expert Analysis

It was difficult for the evaluation team to ascertain the nature of the clubs despite several observations. Most clubs were either not held as planned during the evaluation period or had limited structure and functioning. Observations in a variety of club settings illuminated the differences between clubs. In one site, the Big Sister played a recording of the book for participants, which was followed by a song and welcome speech. During a club held in a community center, participants performed the Big Belly theme song and then assisted mothers with navigating the BBB book. When visiting a club...
located at a clinic, the Big Sister indicated they were unable to hold a session that day because participants were distracted by their appointments with the nurses. Another Big Sister felt that her club was disorganized and perceived the lack of funding to be the cause. The structure and consistency of the meetings remained unclear despite several instances of direct observation during the evaluation.

Though the participants enjoyed the clubs, observations and interviews revealed that the Big Brothers and Sisters did not have adequate supervision, follow-up, and training. High-quality programs rely on a robust and ongoing training and supervisory system. The master trainers provided free three-day trainings to prepare Big Brothers and Sisters to facilitate BBB clubs and additional support in an ongoing way although many participants noted that this ongoing support was *ad hoc* in nature. Activities were incorporated throughout each step of the training to demonstrate how to facilitate a club session that is “not boring” and to prepare Big Brothers and Sisters to lead independently (Master Trainer). In one of the rural sites, the Big Brothers and Sisters that were selected were illiterate, so master trainers paired them with facilitators who could read. Throughout the trainings, there were selected topics that were difficult for the Big Brothers and Sisters to master: understanding danger signs of pregnancy, knowing vaccination schedules, discussing family planning options, and explaining HIV/AIDS and other diseases. Because not all facilitators had a medical background, it was difficult for them to learn how to communicate medical information in three days. The master training team shared that they visited the major and sub grantees throughout the duration of the program to support the Big Brothers and Sisters. These site visits, however, appeared to be unpredictable and depended on distance and needs that arose. Most facilitators highlighted their desire for refresher trainings, for opportunities to learn from other sites and organizations, and for exposure to more training facilitation techniques.

d. Media Supplementation

New Narratives supports African news media to deliver independent news and joined the project as a sub-grantee to OSIWA to report on the BBB Program and its impact on maternal and child health and to develop new media materials. New Narratives produced an audio component that exists on chips and smart phones and was utilized by participants. Additionally, they created a [Facebook page](#) and published three articles: “*‘Big Belly Business’ Pregnancy Guide Launches in Monrovia*”, “*New Liberian Book Delivers Education to Pregnant Women*”, and *Liberia: ‘I Born Too Much’—First Big Belly Conference Held in Monrovia*. OSIWA shared that they desired additional media components beyond the audio recording and news articles. They had hoped to have a video that comprised of captivating testimonials from participants. Facebook posts were also intermittent. New Narratives explained that the leadership and reporting structures were not clearly defined, leading to misunderstandings. This lack of clarity was partially attributed to the range of players invested in the implementation of the program. There were opportunities for interesting applications of the book using media distribution technologies; however, this was an unfulfilled potential.
e. Unintended Consequences

Among the BBB Program participants, mothers described feeling tension and sadness regarding returning the book. As one participant shared, “I was feeling bad the time I deliver and they took the book from me” (Bong County, Salala District). Still another woman explained that when she was pregnant, her Big Sister stopped speaking to her because of the book:

[My Big Sister] wanted to take my book away because of the sweetness of the book, easy to read and its simplicity. But I refused because the book was helping me to understand everything I needed to know in the developmental stages of my big belly era (Montserrado County, Central Monrovia).

These quotes suggest that a number of mothers would have preferred to keep the books and were saddened when asked to return them.

Another tension described by Big Brothers and Sisters was the unmanageable expectations set by program participants. One Big Sister shared that sometimes when she gets to the club, women say “people give you minute, why don’t you do things for us?” If participants do not see snacks, they will choose to not return the following week. One Big Sister explained that the NGO director would often spend her own money to provide incentives for club attendance. Furthermore, one participant shared that a woman once accused the NGO of spending all of the project money:

It was on one occasion I was on my way to the club meeting a woman asked me about our meeting why trying to explaining she said wait, the meeting you’re always attending has no money because those leaders have eaten all the project money. I told her that we are not going there for money, we go there to seek knowledge from them concerning our BBB and how to take care of ourselves as big belly and baby ma...(Montserrado County, Central Monrovia)

While many participants articulated accurate information learned from the BBB book, some expecting mothers may have misinterpreted lessons. For example, one participant shared that the biggest change the program brought to her life was that she learned women should keep their pregnancies and not have abortions. Another woman stated that she learned it is not good to have a lot of sexual intercourse during pregnancy. Some misconceptions and beliefs may be difficult to change through a club format in a short amount of time.

C. Integration with Healthcare Providers

Key Findings about Integration with Healthcare Providers: The evaluation demonstrated that the BBB Program is only partially integrated into the healthcare settings where it has been piloted with healthcare staff often requesting more training about delivering key messages. One important, systemic change that the BBB Pilot Program brought about was the incorporation of the book into the curricula of a number of nursing and midwifery schools; sustaining this positive change and ensuring proper training will be a vital continued step.
a. Clinics
The data suggested that the program is not fully implemented in the clinics where it was piloted. Clinic and hospital staff found the book relevant and easy to understand; however, nurses in the clinics explained that they would have preferred to receive formal training accompanying the book. Without the training, some of the nurses in the clinics reported not utilizing the book with expecting mothers. One nurse shared that the hospital staff have full schedules and only a short amount of time with patients, so they are unable to learn the content of the book and translate it to expecting mothers. Some of the books in the clinics visited during the evaluation appeared to be untouched.

b. Nursing and Midwifery Training
One unanticipated application of the BBB Program that holds much potential is the integration of the BBB book in the nursing and midwifery training in Liberia. One nurse elaborated on her use of the book explaining that she used it to learn Liberian vernacular and as educational training material in her midwifery course. She emphasized that she used it to learn how to speak to patients across literacy levels because “there are not many Liberian-specific resources.” By February 2018, she expects to utilize the book with 20 nursing and 16 midwifery students. Additionally, JHPIEGO and nursing and midwifery instructors plan to integrate the book into the clinical portion of their midwifery curriculum as a health education tool. Instructors hope the BBB book will help practitioners assess patients’ literacy levels and build agency among their patients so that expecting mothers are better equipped to navigate the healthcare world and healthcare providers are more able to provide respectful maternal care.

c. TBAs and TTMs
One additional challenge included initial resistance to the BBB program from the TBAs and TTMs, who felt that they program would further deprive them of their livelihood. The most recent public policies in Liberia discourage home births and specifically target TBAs and TTMs as unqualified health personnel, impacting their livelihood. Against this backdrop, the BBB program was perceived to be contributing to this disempowerment. When one NGO visited the TTMs and TBAs in their community to sensitize them to the program, the traditional workers asked, “When did you become a doctor to bring these strange things?” After sensitization and inclusion of TTMs and TBAs in the clubs, the program was more accepted by the community. Even after inclusion in the program, however, one TBA explained the difficult situation she was in: “I want to appeal to the organization to provide soap money at the end of the month. The medical staff throw us outside after bringing the patient to them. They treat us as if we are not part of the health program.” BBB stakeholders who have connected TBAs, TTMs, community members, and health care providers are uniquely positioned to understand how to bring these constituencies together to improve maternal health, and their grounded knowledge should be further documented.
D. Structure and Management

Key Findings about Structure and Management: Of special note for considerations of expansion and sustainability, the BBB team has generally positive relationships with the Liberian Ministry of Health; however, the potential for government leadership of or support to the project has not been fully explored or realized.

a. Coordination across Ministries

The BBB Program is only minimally integrated with the MOH, MOE, and Ministry of Gender, Children and Social Protection (MoGCSP). Although some individual ministry representatives were involved in designing the BBB book and others, at least nominally, serve on the ICAB, trainings and implementation were not by and large executed in collaboration with these ministries. Nonetheless, all of these ministries did acknowledge their interest in the program and desire for partnership and expansion. As mentioned earlier, the BBB master training team was invited to attend biweekly meetings chaired by the MOH, along with the WHO, UNICEF, JHPIEGO, and AC3.

The BBB Program was not designed around the Liberian national health goals for maternal and newborn health; however, some of the national goals are relevant to the BBB Program’s underlying theory of change. Both desire to ensure safe pregnancies and deliveries and to impact mother and child survival rates. One of the MOH’s objectives is to increase the number of women who utilize health facilities for ANC visits and deliveries. The MOH approved the project and liked the idea of pregnant women coming together in groups but also desires to see the program link clubs to health facilities and vice versa to more closely align with their objectives. Furthermore, the MOH considers the messages in the BBB book to be beneficial but had wished to see the materials pre-tested in the field before large-scale printing and distribution.

Despite minimal integration, the MOE spoke positively about the program and desired to collaborate to lead outreach and communication. They consider the BBB Program relevant to the ECD department and have existing structures and reach to share appropriate maternal and child health messaging. The MOE also has a checklist on quality indicators in their early childhood programs, so they are equipped to monitor programming for newborns and young children and their parents and caregivers.

b. Advisory Board

The advisory board met nine times throughout the project, exceeding their original objective. The respondents indicated that they met regularly, every 1-3 months, during phase one of the project. They made contributions regarding the language used in the book and discussed the launch. However, members varied in their responses regarding frequency of meetings during the program implementation phase. Members reported meeting once every 3-6 months, unless there was a special circumstance. One respondent could not remember when the last meeting was held. Another member stated that during their most recent meeting they listened to
testimonials concerning participants who benefited from the program. Fundamentally, according to the respondents, the advisory board is not involved in implementation but rather in “light-touch” monitoring the progress of the BBB Program.

E. Summary of Findings
Participants and stakeholders were largely positive about the BBB Program and requested continued support. The results of this evaluation would highlight core program strengths in the program’s ability to mobilize and engage expecting mother in pilot communities. The evaluation also generate important findings that would indicate that the program requires some significant reworking before a second pilot is implemented. BBB clubs fulfill a social and emotional need for women, but the program design might need to expand beyond clubs to calibrate more closely with health education as the primary intended outcome. While functioning clubs offer a positive setting for mothers to connect with each other, the data it is unclear if clubs function regularly across program sites and if they achieve the goal of providing access to quality health information. The BBB club structure is open and flexible to the desires of participants but not clearly defined. The quality of clubs is reflective of training and follow-up. A Cochrane review of nine randomized controlled trials of antenatal education and pregnancy groups reveals that the effects of such programs remain unknown, even though group-based pregnancy classes are commonly recommended for pregnant women by healthcare professionals (Gagnon & Sandall, 2007). While successful at prompting community engagement, clubs may need to be one model among others to truly impact maternal and newborn health outcomes as demonstrated by past research.

The BBB Program is not yet fully relevant because it was not integrated with Liberia’s national goals and priorities from the design phase. The program has met its goals and objectives, but the project’s monitoring and evaluation goals were simple—perhaps overly simple—and focused almost entirely on process and not impact (refer to Figure 7). We are unable to determine whether the program is cost-effective. The likelihood of the program continuing after this initial pilot period is limited unless it becomes embedded in the national system by the MOH. We are unsure if in its current form there are other opportunities to supplement the book through channels that will reach more participants. Impact cannot currently be determined, but participants self-reported positive changes they made to their behavior, such as increased hospital attendance and self-care. Such assertions, in future, should be monitored and evaluated using robust information management systems that align with the national health system.
4. Recommendations: A Systems Approach

**Overarching Recommendation:** The overall goal of the BBB Program should focus on building care providers’ capacity to communicate a holistic approach to the care and development of pregnant women in order to ensure a healthy delivery and optimal development and care of the newborn. Given the program’s success in engaging at community level in the pilot phase, the next phase can focus on connecting the systems operating at community level with health care providers.

In future iterations, the Big Belly Business Program should adopt a health systems strengthening approach in which key BBB actors embed themselves in the national, regional, and community health systems and align their activities with these structures and processes. Although the BBB program is connected at various points to the national health system, such connection should become strategic, systematic, and planned. Finding the right landing spot within the national MOH will be one important consideration in taking this next step, but just as important will be working to strategically connect civil society and community groups to health service providers as well as those providing care services for newborns.

While the current material includes a limited amount of information on the newborn, greater efforts need to be designed in order to ensure the healthy and post-delivery care of the mother and newborn. Future program development should consider opportunities to build on and extend the program to address the care, stimulation and protection of infants through the first 1000 days of life. The capacity of health care providers, community health workers, child care providers and early educators to provide support young families should be designed and built into future program efforts. It is essential in moving forward within a health systems framework, to ensure that all capacity-building efforts are coordinated, planned, implemented, and monitored closely. Interventions must be closely aligned with national objectives for the care, development and protection of mothers and young children.

The pilot phase of the BBB Program operated on the hypothesis that appropriate pregnancy and parenting materials promoting health and literacy would equip pregnant women with the knowledge needed to ensure safe pregnancies and deliveries, thereby impacting mother and newborn survival rates. This evaluation, which assessed program design and implementation, proposed four key areas of recommendations about ways to improve, sustain, and scale up the BBB Program in Liberia: i) revise program structure to better ensure that the program is embedded in national, regional, and local health systems; ii) create a robust monitoring and evaluation framework; iii) enhance program quality and fidelity; iv) update the BBB book; and v) expand beyond maternal health to link more explicitly to newborn health and to the first 1,000 days.
A. Enhancing Pregnancy and Child Health: Program Structure

Linking expecting mothers to the health system should be an essential component of the BBB Program. If the BBB Program hopes to expand strategically and efficiently, it will almost certainly require a new implementation structure that makes visible and clear the role of the Liberian Ministry of Health to achieve its goals and impact maternal and child health. Given that the current system does not encourage accountability to the Ministry of Health—or even to the lead technical agency—but rather disperses learning across six key reporting agencies, the program will require a cohesive management and programmatic system to support scale-up of program activities. The current structure does not provide a sufficient supervision system to track program activities, to ensure program fidelity and quality, or to monitor outcomes among program recipients. We suggest that the structure that would best support sustainability would align with existing country plans of action. As one NGO director shared, “We need to continue BBB, but its issue is sustainability. We can overcome this [issue] with having external support, but only with the idea that BBB becomes integrated into the Ministry of Health.” Embedding the BBB Program in existing action plans and structures at the MOH would lead to a targeted, cohesive approach, not simply a stand-alone intervention. Directly aligning the BBB Program with specific strategies laid out by the ministries would ensure unified messaging and greater success scaling up. There are a variety of departments, divisions, and programs within the Ministry of Health who will need to be involved in the BBB to ensure ownership, accountability, and sustainability, and the alignment of the BBB program with existing plans and strategies should be the focus of concerted multi-stakeholder dialogues.

To be clear, we are not necessarily recommending that the MOH be the lead implementer of the program or take sole responsibility for leadership; consultative, multi-agency processes that were part of the first two phases of BBB should continue to be followed but with more explicit attention to and discussion about the MOH’s role in program implementation and evaluation. The focus on community health systems as the frontline where communities connect to service providers should remain central to the design of the next phase. Nonetheless, MOH engagement will need to become much more systematic and structured for such an ambitious program to adhere.

The proposed program structure (Figure 9), which we propose humbly as a starting point for discussion among the project stakeholders, includes the MOH, Liberia’s Board of Nursing and Midwifery and the country’s accredited schools of nursing and midwifery, a technical support agency or agencies, and community health centers.

There are many divisions within the MOH that might take on additional leadership and responsibilities related to BBB, such as Health Promotion, Family Health, Community Services,
and Research. Integrating the program into schools of nursing and midwifery would ensure that the core healthcare providers likely to interact with pregnant women are able to improve their capacity to provide respectful material care. Centralizing the integration of the program into community health centers and clinics would ensure a long-term setting for group sessions for expecting mothers, community health education classes, and the service providers undertaking home visitation programs. Additionally, those community-based organizations could integrate the BBB Program into their existing savings and loans groups, ECD centers, and adult literacy classes. The BBB Program should ensure alignment with the MOE and MoGCSP for support for children after birth, a facet of our recommendations that will be discussed in more detail below. Although early childhood development is an important lens through which to consider parenting programs, the BBB as it currently exists would be best placed within the MOH.

Finally, the advisory board (ICAB) was successful in their pilot phase obligations and in convening partners who were vested in the future of the BBB program; however, as time progressed, the ICAB became less active. To best utilize the ICAB during future phases, it will be important to define roles, responsibilities and membership of the advisory board. This cohort should be considered as natural group to spearhead integration of the BBB program with the MOH or at least alignment with the MOH current goals around maternal and neonatal health. As the majority of the ICAB is made up of high-level health practitioners and other national leaders who would be well-placed to influence policy.
At community level, he group sessions for expecting mothers and community health education classes should explicitly link to midwives, nurses, or other health professionals. These sessions should be theme-based and include in-depth facilitator guides. Organizing sessions by theme rather than by stage of pregnancy would allow a variety of participants to attend based on need and would not be affected by inconsistent attendance, which nearly all of the functioning BBB clubs evidenced. Moreover, bringing this type of content and programming more squarely into health centers should help to bolster the role of the clinics in community life and restore trust in a challenged medical system, both of which approaches would be consistent with a systems strengthening approach. Incorporating home visiting activities is also likely to be vital for linking communities to health centers. As one Big Sister shared, “Trust is not easy to test. You must visit them [big bellies] at home to get them to open up. Everybody has an idea.”

“When the hospital is fully empowered to carry on this type of program, you will see to it that most people will get to know about this program.” (Participant, Montserrado County)

Our data indicated that TBAs and TTM still play an essential role in the course of a pregnancy. Given that TBAs and TTM do not currently feature in national health plans, the BBB Program, which has operated at community level in seven countries throughout the country, could help in identifying appropriate new roles and simplified functions for TBAs and TTM in national, regional, and local health systems. TTM and TBAs could be integrated into referral pathways between health facilities and midwives because expecting mothers and families trust TTM and TBAs. As one NGO head in Montserrado County explained, “Big bellies do not feel free at the
hospital. They don’t take time. We must train the Big Sisters, the TTM, and the midwives in Big Belly Business. TTM must carry the big bellies to the hospital, so they are not alone.” Another NGO head from Bong County echoed this sentiment: “big sisters are more educated than TTM, but here TTM reach into the community. TTM have an advantage in the community to monitor progress, tell the big bellies to rest, talk to the husbands.”

Our proposed model links health facilities with expecting mothers resulting in effectiveness due to an increase in clinic visits, thereby impacting maternal mortality. Sustainability would be ensured if the Program is adopted by, or at least aligned with, the MOH because it would be relevant and fit in with national goals and priorities and the resources would be deployed by one governing body to ensure efficiency.

B. Monitoring and Evaluation Framework

The BBB Program will not be able to assess its impact until it has established an information collection and management system that is able to track health outcomes, not simply process inputs and outputs. In keeping with the systems strengthening approach that we have outlined above, future iterations of the BBB program should track its progress against the objectives of the Community Health Road Map (The Ministry of Health and Social Welfare, 2014) and those laid out in Liberia’s Investment Case for Reproductive, Maternal, New-Born, Child, And Adolescent Health (Republic of Liberia Ministry of Health, 2016). Liberia’s Investment Case contains a detailed conceptual framework with set strategies and outputs (see annex), and moving forward, the BBB Program would do well to utilize existing structures and frameworks that the MOH is already investing in.

The indicators that the Government of Liberia has laid out that are potential future indicators for the BBB program include:

- Percentage of pregnancies which receive at least four ANC visits
- Proportion of births attended by skilled health personnel
- Proportion of births delivered in a health facility
- Percentage of women with a postnatal checkup in the first two days after birth
- Percentage of births with a postnatal checkup in the first two days after birth

To adequately demonstrate the impact of the BBB Program, a mixed methods tracking system should be established that measures both delivery and quality of the program. Data needs to be collected from both the program sites and adjacent sites with similar demographics and health outcomes to allow for robust impact evaluations; planning for future randomized controlled trials or quasi-experimental studies should be undertaken before program implementation in collaboration with qualified research institutes. Qualitative and quantitative tools should be utilized to best understand how mothers interact with the health system and to track progress based on national health goals. An example of a quantitative survey that could be administered pre- and post- program enrollment to gauge participants’ knowledge, attitudes, and behaviors (KAB) can be found in the annex. Over the course of this evaluation, we determined that this
survey would be feasible to conduct in the Liberian context; however, this survey could be modified to highlight updated indicators or to measure additional areas of KAB of interest to the MOH or other BBB stakeholders.

Data should be collected at each level of program implementation.

- **Participant level:** examples of data to be collected at the participant level include demographics, dosage, ANC visits, facility delivery, healthy delivery, early identification of high risk pregnancies, birth outcomes, and self-esteem, confidence, and overall well-being outcomes.
- **Program level:** examples of data to be collected at the program level include: demographics, number of sessions, size of groups, quality of pregnancy education program, quality of program facilitators, and cost per participant. The program requires significantly more transparency around its budgets and expenditures if it hopes to be able to demonstrate efficiency and cost-effectiveness.
- **Monitoring and supervision level:** examples of data that should be collected at the monitoring and supervision level include: quality of supervision, quality of training, and fidelity of training.

To demonstrate impact robustly, the BBB Program will require a strong monitoring and evaluation system that aligns with, draws upon, and feeds into national health monitoring systems.

C. Enhancing Program Quality and Fidelity

To adequately prepare midwives, health personnel, and TBAs and TTMs to lead group sessions for expecting mothers, community health education classes, and home visiting activities, a clear and ongoing training curriculum and schedule must be implemented. Program implementers must be trained clinically and with the BBB curriculum to clearly explain the objectives to program participants. During interviews, facilitators frequently mentioned the desire for frequent trainings, at least every three months and professionalization of program materials. Moreover, a thorough facilitator guide, with learning objectives for each session, monitoring charts and vaccine schedules must be developed to ensure consistency across sites and clinics. Finally, additional opportunities to share experiences with others implementing the program and refresher trainings are essential for motivation.

According to the *Parenting Education Programs: Evaluation Framework*, the following are elements of effective parent education programs:

- The program includes a strong underlying theoretical model and a clearly articulated theory of change that can be used in the design, monitoring and evaluation of program effectiveness.
- A high-quality facilitator implementation guide is available.
- The program provides parents with guidance, affirmation, and access to resources.
The program provides knowledge, skills, and confidence to help parents and other caregivers and promote and facilitate their child’s health, development, and achievement.

The following are principles of effective curricula that should be kept in mind when revising the training:

- To what extent does the curriculum/materials address gender issues?
- Does the training include skills for working with adult learners?
- To what extent do the methods provide opportunities to relate the information to their life experiences?

Strategies for providing ongoing supervision and mentorship to community facilitators must be established, in addition to plans for program monitoring and evaluation to assess effectiveness and impact.

D. Updating the BBB Book

Future BBB programs should ensure that a number of gaps identified in the current version of the book be addressed and future versions of the program should ensure the space for ongoing plans for updating the book and for ensuring diverse methods of dissemination. Greater attention need to be placed on the integration of all approved MOH messages from conception until birth into the BBB material. Coordination of content and messaging with the MOE, and MOG will strengthen the effectiveness and efficiency of the program. Additional supportive materials to complement the BBB program are recommended including, for example, an adaptation and merging of the Women’s Health Card and an individual planning guide highlighting specific actions to be taken.

In reviewing the BBB book, many reviewers noted that mental health concerns were not adequately captured, specifically Postpartum Depression. The Liberian government recently committed to addressing mental health concerns by passing the Mental Health Act (Goitom, 2017). According to the World Health Organization (WHO), about 10% of pregnant women and 13% of women who had just given birth experience a mental health disorder (World Health Organization). The book should take this reality into account.

As per some experts, Liberians have long characterized mental illness as “voodoo” or “karma” and at times have blamed the family. Many women may not understand some of the feelings they experience during and after pregnancy. When detachment is observed between a mother and a newborn, the mother may be stigmatized for being indifferent and may even be referred to as an “evil witch.” Many negative effects could be avoided if pregnant and new mothers are appropriately screened by mental health professionals, and as the Mental Health Act rolls out, the BBB program should ensure that it is aligned with these efforts. It is important to dedicate a
section of the book to symptoms of mental health illnesses such as depression, psychosis, anxiety, and bipolar disorder, and to recommend visits to a mental health clinician. Basic symptoms of the aforementioned mental health illnesses should include screened via questions such as:

- Do you feel sad, happy, or angry and how long do these feelings last?
- Do you feel empty?
- Do you have thoughts of harming yourself or your baby?
- Do you feel that you have the support you need to care for your baby?

Additionally, mental illness among men in Liberia is rarely discussed. Men are one of the target groups in the BBB book and should be considered holistically as well. The book should recommend that fathers receive mental health screening for depression, sleeping habits, marital status, and overall mental health symptoms. Through conversations with 12 men about mental health illness in pregnant mothers and men, a Liberian Professor noted that some of the respondents shared that they have never experienced mental health issues themselves but have come across men who have reported feeling ill during the childbearing stage of their wives. Respondents explained that some men had no interest in the mother of their child after she had given birth. Import to note, little research has been done in Liberia regarding mental health illness in men and should be a priority topic in future studies.

Beyond mental health issues, key stakeholders and advisory board members should revisit and review the book in an ongoing way, perhaps in collaboration with the Liberian Board of Nursing and Midwifery, the Division of Health Promotion of the MOH, and other relevant technical bodies. Additional content areas suggested by participants and stakeholders to be considered for inclusion in an updated version of the book include: postnatal development, giving birth to children with disabilities, family planning, description of medical procedures (i.e. C-section), and responding to violence against pregnant women.

Many also agreed that the book and/or its audio format should be available in local tribal languages to be accessible to those who do not understand English. In addition to the book, other ways to disseminate information might include phone channels, social media sites (i.e. WhatsApp, Facebook), and radio programs. Participants specified that they often obtain information through radio dramas. Designing and updating such material should always be done in alignment with existing public health messages.

E. Beyond Maternal Health: Development in the first 1,000 days of Life

The health sector has the capacity to play a unique role in the field of early child development because the most important window of opportunity for ensuring optimal development and prevention of risk of long-term damage is from pregnancy through the first 1,000 days of life. Therefore, health care encounters for women and young children are important opportunities to help strengthen families’ efforts to promote children’s early development and may represent
a critical time when health professionals in developing countries can positively influence parents of young children to enable their development.

As indicated in the proposed program structure, the BBB program should be expanded to follow the newborn through the first 1,000 days of life.

Home Visits: Neonatal Period
Given that a high number of under-five deaths occur in the first 28 days of life, it is critical to ensure that the BBB make every effort to extend the program beyond the delivery and include a home-based newborn care intervention. UNICEF and WHO recommend home visits during the baby’s first week of life to improve newborn survival. Home visits should be introduced as a complementary strategy to facility based postnatal care to increase coverage of care and improve newborn health and survival. It is recommended that home visits on days 1, 3 and if possible day 7 (WHO/UNICEF Joint Statement, 2009).

Basic care for newborns should include promoting and supporting early and exclusive breastfeeding, keeping the baby warm, hand washing and providing hygienic umbilical cord and skin care, identifying conditions requiring additional care and counselling on when to take a newborn to a health facility and promote birth registration and timely vaccinations. The existing health workers and or community health workers can be trained to carry out home visits. Strengthening the health system to support heath worker to deliver postnatal newborn services and care and supporting communication efforts for community awareness and involvement in postnatal care.

First 1,000 Days of Life
Following the neonatal period, the health care system should be strengthened to help families support the growth development of their children during the critical 1,000 days. One such effort is the Care for Development program. Given the importance of the first 1,000 days the intervention should be expanded to include simple and concrete parent and provider materials on the growth and development of the child. Caregivers should have access to information regarding the basic child care information including breastfeeding and complementary foods, growth monitoring and immunizations, birth registrations, and creating stimulating learning environments. In keeping with the format and style of the BBB materials, the development and or adaptation of an existing child health card to complement the Women’s Pregnancy Card could be an important centerpiece of the program.

Building on the lessons learned from the BBB program, a strong training program and facilitators guide designed for health care providers and community health workers would need to be developed. The program could be implemented by providers during clinic visits and/or groups sessions facilitated by community health workers. Especially for higher-risk families, a community-based home visitor model could develop. Group-based parenting sessions based on specific themes would complement and support individual visits clinic visits. Efforts could also build on and be integrated within existing ECD services and programs.
In further developing this extended BBB program, efforts should be made to build on the efforts of past attempts to integrate child development information into the existing health care system. One such example is Care for Child Development (CCD), a landmark and holistic ECD intervention that was originally developed in the late 90s as part of the regular child health visits as specified in the WHO/UNICEF strategy of Integrated Management of Childhood Illnesses (IMCI). (WHO/UNICEF, 2012) The package can be adapted and integrated into the community health care system to support families to care for their children and help them not only to survive, but to grow and develop to their full potential. Interventions such as the Care for Child Development package, provides information and recommendations for cognitive stimulation and social support to young children through sensitive and responsive caregiver-child interactions.

Packages such as these can be used as a framework to guide health workers and other community workers as they help families build stronger relationships with their children and solve problems in caring for their children at home. These efforts recommend play and communication activities for families to stimulate the learning of their children. Also, through play and communication, adults learn how to be sensitive to the needs of children and respond appropriately to meet these needs. These basic care-giving skills contribute to the survival, as well as the healthy growth and development, of young children.

While the health sector can be seen as one strategic partner in providing services for families and children in the first 1,000 days, it is important to involve other Ministries as well as the NGOs responsible for enhancing the growth and well-being children and their families. The Ministry of Education and the Department of Early Childhood as well as the Ministry of Gender, Children, and Social Protection must be seen as critical partners in a coordinated and systematized effort to reach the most vulnerable families and young children with the skills and services they need to promote the overall survival growth and development of their young children.
Conclusion

Utilizing a community mobilization approach, the BBB Program galvanized a number of enthusiastic community partners to engage pregnant women across seven counties in Liberia. To have undertaken such a program in the aftermath of conflict and over the course of the Ebola outbreak was an achievement in and of itself, and the BBB Program has brought together a number of key constituents, especially at community level, who will be instrumental in moving the program forward in future phases.

To sustain positive impact in addressing maternal mortality, the BBB Program should link its community mobilization approach with a holistic systems approach that situates this first phase within a broader set of actors who have expanded, and complementary, roles. Key activities to strengthen the program’s systems approach will include: updating the program structure, creating a monitoring and evaluation framework, implementing a dynamic and ongoing training curriculum that addresses the core information gaps, and updating the BBB book. Building on the existing structure, the program should be expanded to provide skills and knowledge needed to ensure the optimal development of the newborn through the first 1,000 days of life.

Expectant mothers in Liberia continue to face extremely high risk of adverse maternal and child health outcomes and barriers to medical services. The BBB Program represents an effort to positively impact mother and neonatal survival rates through the empowerment of pregnant women during and after their pregnancies. Further transformation of the relationship between hospital/clinic staff and communities is likely to be a key step toward increasing ANC visits and facility deliveries.

To achieve these overarching goals and implement a high quality sustainable program, it is recommended that the BBB program collaborate strategically with the government, international, and national NGOs design a second rigorous pilot program that is accompanied by a robust M&E framework as well as plans for scale up and sustainability. The evaluation of that pilot should be guided by a framework that clearly articulates a realistic and measurable set of goals, inputs, outputs, outcomes, and impact. Combined with a greater understanding of costs, replicability, and capacity for integration within the existing health infrastructure, the BBB program offers an innovative approach to enhancing the health and wellbeing and development of Liberia’s women and young children.
5. References


6. Annexes

A. Qualitative and Quantitative Research Tools
   a. BBB Team Questions Interview Guide
   b. Advisory-Tech-Media Interview Guide
   c. Ministry Officials Interview Guide
   d. NGO Heads Interview Guide
   e. Facilitator Interview Guide
   f. ANC Providers and Mothers Not in Clubs Interview Guides
   g. BBB Female Participants KAB survey_6-4-17
   h. BBB Male Participants KAB survey_6-4-17
   i. BBB Participant FGD Guide_6-4-17

B. List of Reviewed Documents

Simply Put Media

- Big Belly Business book
- Baby Basics Liberia: Responses to student questions
- Baby Business Intro powerpoint
- Big Belly Business manual
- Initial concept note: March-September, 2017
- Media Training Big Belly Business Interviews
- Midwifery curriculum proposal
- Sample Baby Basics Expansion Plan

New Narratives

- https://www.facebook.com/Big-Belly-Business-514216368743659/

OSIWA BBB Team

- Launching of BBB Book & Program pamphlet: order of program August 5, 2016
- BBB Program flyer
- BBBB Sister Forms to be filled out after every club held (to be collected monthly)
- Information sheet for organizations holding BBB clubs (working tool)
- BBB Training Day 1, Day 2, Day 3 activities
- Number of trained big brothers and big sisters
- List of grantees assigned to each OSIWA staff member
- Background on the BBB program powerpoint
• WHIP partners database
  o Name of site, name of big brother or sister, location of club, meeting days, meeting time, and contact number
• US Department of State grant award letter
• Performance progress report for OGWI
• WHIP Program Proposal by OSIWA, January 2014
• BB Certificate template for males and females
• Big Belly Club Framework
  o Welcome, How do you feel?, Lets talk about it, Lets practice, What’s the story?, What’s the take away?
• Book Distribution
  o Distribution chart by organization
  o 9 Book Distribution sign-out sheets with signatures
  o Big Belly Books distributed by agency
• WHIP Small Grants Initiative Quarterly Report, Part A
• WHIP Small Grants Initiative Quarterly Report, Part B

MOH
• Pregnant Woman Health Record booklet
• Investment Case 2016-2020
• Liberia Community Health Worker Roadmap:
  http://pdf.usaid.gov/pdf_docs/PA00KBFN.pdf

Bureau of Early Childhood Education
• 2016-2017 Academic Calendar and other Basic Information
• Ministry of Education flyer for the “National Week of the Young Child”
• Checklist on Quality Indicators in Early Childhood Education Program

Save the Children
• Log frame
• Big Belly Business list of indicators
• Names of Contact persons for the Big Belly Clubs implemented by Save the Children

Tohde Resource Center
• October 2016: “Information sheet for organizations holding big belly business clubs”
  o Participant’s name, sex, age, comments
  o Club info
  o Criteria/rules for the clubs
• November 2016: “Information sheet for organizations holding big belly business clubs”
  o Same as above
• December 2016: “Information sheet for organizations holding big belly business clubs”
  o Same as above
• January 2017: “Information sheet for organizations holding big belly business clubs”
- Same as above
- February 2017: “Information sheet for organizations holding big belly business clubs”
  - Same as above
- April 2017: “Information sheet for organizations holding big belly business clubs”
  - Same as above
- May 2017: “Information sheet for organizations holding big belly business clubs”
  - Same as above
- July 2016
  - Participant’s name, sex, age, club attendance
- August 2016
  - Participant’s name, sex, age, club attendance
- September 2016
  - Participant’s name, sex, age, club attendance
- April-June, 2016: 1 page report
- April-May, 2016
  - Participant’s name, sex, age, club attendance
- June 27, 2016: Sisters Training Report—training objectives

**Hope for Women International**

  - Budget, project beneficiaries, summary of achievements, implementing partners, analysis of progress, implementation challenges, broader developments, lessons learned, additional data

**Sirleaf Market Women’s Fund**

  - Budget, project beneficiaries, summary of achievements, implementing partners, analysis of progress, implementation challenges, broader developments, lessons learned, additional data
- S/GWI Quarterly Report, Part B
  - Progress on project-specific monitoring and evaluation plan

**Dr. Garbers**

- Baby Basics Evaluation: Overview of Components
- Early Childhood Program: Portfolio review paper: Liberia: (re)building the Early Childhood System: 3rd October 2014

**Example tools**

- Roma Parenting Education Initiative: From Birth to Three; Nutrition and Feeding
- Roma Parenting Education Initiative: From Birth to Three; Home Visiting Tools
C. Project Schedule

<table>
<thead>
<tr>
<th>Months</th>
<th>May</th>
<th>Jun</th>
<th>July</th>
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<td>Activities</td>
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<td>Inception Report</td>
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<td>Tool development</td>
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<td>Columbia Team in Liberia</td>
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<td>BBB Team: Interviews, Desk Review, Create Schedule</td>
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<tr>
<td>Ministry Official(s): Interview, Desk Review</td>
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<tr>
<td>Interview key BBB partners (Montserrado)</td>
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<td>Hire and train national research team on tools</td>
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<td>NGO Grantee Visits (Montserrado County)</td>
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<td>NGO Grantee Visits (Bong County)</td>
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<td>Document collection for desk review</td>
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<td>FGIs with BBB Club participants</td>
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<td>Interview NGO program heads</td>
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<td>Interview BBB Club participants</td>
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<td>Interview BBB Brothers/Sisters</td>
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<td>Interview book-only recipients &amp; ANC providers</td>
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<td>Expert Review of Book and Curriculum</td>
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<td>Interview Simply Put Media (NY)</td>
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D. Save the Children’s List of Indicators

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<th>Save the Children, Liberia Indicators</th>
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<tr>
<td>1 # &amp; % of pregnant women referred to health facility by TTM/CHV for delivery</td>
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<td>2 # &amp; % of big belly mother clubs formed at community level</td>
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<td>3 # &amp; % of big belly mothers that attended the meeting during this month</td>
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<td>4 # &amp; % of big belly mother club meetings held in a month</td>
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<td>5 # &amp; % of Health care workers trained in BBB approach</td>
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<tr>
<td>6 # &amp; % of monthly supervised meetings held by Reproductive Health Community Mobilizer</td>
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<td>7 # &amp; % of ANC Households visit by a member of the TTM</td>
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<td>8 # &amp; % of Community Health Workers (CHWs) who received incentive/transportation reimbursement this month</td>
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<td>9 # &amp; % of referrals made to Primary Health Care facility by CHWs</td>
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<td>10 # &amp; % of Community Structure Meetings held during this month</td>
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<td>11 # &amp; % of Maternal &amp; Child Health District/HF committees formed</td>
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<td># &amp; % of Maternal &amp; Child Health District/HF Continuous Education Meetings held this month</td>
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<td>12 # &amp; % of facilities submitting a timely, accurate and complete HMIS report to the CHT during the quarter</td>
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<tr>
<td>13 # &amp; % of children under one year who received DPT3/pentavalent immunization</td>
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E. Liberia’s Investment Case Conceptual Framework

**Figure 5: Conceptual Framework**

**Situation Analysis**
- Key Bottlenecks
  - Decision making
  - Inadequate HR skills to meet demand
  - Inadequate infrastructure
- Current R+M/Child Implementation Platform
  - Facility/individual
  - Supply side
    - Institutionalize CHAs
    - Training and Mentorship
    - Institute surveillance systems
  - Demand Side
    - Conditional Cash Incentives
    - Enhance women rights/reduce gender bottlenecks
    - Maternity Waiting Homes
    - Increased community
    - Sanitation
- Human/Community
  - Procurement of Supplies and Equipment
  - Increase Human resource
  - Training, supervision and Mentorships

**Strategies and Interventions**
- Systemic capacity building along the hierarchy of needs
- Remuneration of Health workers
- Strengthen information and surveillance systems
- Institute CQI/G mechanisms
- Performance based financing to enhance service quality
- Seed Grants to fund initial phase of investment
- Ensure inclusive Service Provision
- Procure medical supplies, equipment and educational materials
- Task Shifting
- Infrastructure improvements to Health Facilities

**Outputs**
- Increased Access & Utilisation to quality Health Services
- Equipped health facilities:
  - Human resources
    - Infrastructure
  - Medicines & Other supplies
- Reduced engagement in harmful social practices
- Increased empowerment of adolescent and the girl-child
- Strong coordination and integration at different platforms:
  - MOH, county, district, health facility and community levels

**Results**
- Reduced maternal mortality rate
- Reduced neonatal mortality
- Reduction of stillbirth
- Improved Social Economic outcomes

**ENABLING ENVIRONMENT**
- Better Coordination of non-health actors that directly influence health outcomes (Education, Gender, etc)
- A Policy and Regulatory Framework that is cognizant of current bottlenecks
- Decentralization of administrative and financial management processes
- Institute Public Private Partnerships in Health Service Delivery

**Sustainable Development Goals 2030**

*Figure Image*