MOMENTUM

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SOUTH SUDAN COMMUNITY HEALTH FORMATIVE ASSESSMENT

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Table of Contents

Tables

Figure

ACRONYMS AND ABBREVIATIONS

ANC	Antenatal care
BHI	Boma Health Initiative
BHT	Boma Health Team
BHW	Boma Health Worker
CHW	Community health worker
FGD	Focus group discussion
FP	Voluntary family planning
GBV	Gender-based violence
ICCM	Integrated Community Case Management
HPF	Health Pooled Fund
ICAP	International Centre for Aids Care and Treatment Program
IDI	In-depth interview
IDP	Internally displaced person
KI	Key informant
KII	Key informant interview
MOH	Ministry of Health
MIHR	MOMENTUM Integrated Health Resilience
MNCHN	Maternal, newborn, and child health and nutrition
MUAC	Mid-upper arm circumference
NGO	Nongovernmental organization
ORS	Oral rehydration salts
PHC	Primary health care
PHCC	Primary health care center
PHCU	Primary health care units
PNC	Postnatal care
RH	Reproductive health
SBC	Social and behavior change
SRH	Sexual and reproductive health
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WASH	Water, sanitation, and hygiene
WHO	World Health Organization
WVI	World Vision International

EXECUTIVE SUMMARY

INTRODUCTION AND PURPOSE

MOMENTUM Integrated Health Resilience (MIHR), using funding provided by the U.S. Agency for International Development (USAID) South Sudan Mission, conducted an assessment on community health services in South Sudan in 2022. The assessment provided an in-depth understanding of the strengths, gaps, and opportunities within the existing community health programs implemented under the Boma Health Initiative (BHI). Findings from this assessment will provide information for planning effective health interventions on voluntary family planning (FP), reproductive health (RH); maternal, newborn, and child health and nutrition (MNCHN); and water, sanitation, and hygiene (WASH). They will also set the baseline data for monitoring the program's performance and identifying best practices.

METHODS

This was a cross-sectional, descriptive assessment that utilized qualitative methods to promote an in-depth understanding on the governance and policy environment of the Boma Health Worker (BHW) program, including the current structure, compensation, scopes of work, accessibility, and community acceptability, to improve access to and use of FP/RH/MNCHN services and strengthen linkages between the community and health facilities. Data collection included stakeholder key informant interviews (KIIs) and in-depth interviews (IDIs) with the study population. The assessment was conducted in five counties of South Sudan that were identified in collaboration with USAID/South Sudan: Budi, Wau, Bor, Kajo-Keji, and Yambio.

FINDINGS

The management structures of the BHI in the five-study site are well established and understood by the various community health stakeholders. While the appropriate policy and guidelines are in place, they are not well disseminated nor understood by some subnational stakeholders, such as the BHWs.

The role of BHWs includes treatment of children under 5; screening for malnutrition; maternal health services including facility referrals for FP; antenatal care (ANC); deliveries at health facilities; emergency response and referral to health facilities; health education/promotion through home visits; and recording and reporting of vital statistics, such as family size, births, and deaths.

The eligibility criteria for becoming a BHW include being a resident of the area, ability to read and write, willingness to work as a volunteer, being trainable, being 18 to 45 years, being well-behaved and having a good track record in the community, and being approved by the community. The most-often mentioned recruitment tools were nomination by the village chief/community, application to an advertised position, and screening by the village health committee at the health facilities. All of these eligibility and recruitment processes follow the national BHI guidelines.

All BHWs received training on their expected roles and responsibilities. However, the frequency and duration of trainings need improvement. The key target population currently served by BHWs are children under 5 and expectant mothers, with a geographical scope of 40 to 50 households. However, in some locations, BHWs are challenged with having to serve a higher number of households; as a result, they only provide health education.

Oversight and monitoring of BHWs occur through community meetings, the local chiefs, BHW supervisors, implementing partners, health facilities in charge, and county health departments.

Study participants highlighted several challenges to implementing the community health program under the BHI, including frequent stockouts of medicines and supplies; too few BHWs given the geographical scope; inadequate incentives; limited supplies of tools such as bicycles, motorcycles, raincoats, and flashlights; inadequate coordination between national and local departments; low acceptance of the FP/RH services; lack of a clear sustainability plan from implementing partners; and limited number of female BHWs.

FP/RH services were reported as available, although there were concerns that it is primarily short-term FP methods like Sayana Press that were available, compared to long-acting reversible contraceptive and permanent methods. WASH services were in demand but not adequately available in the communities.

Adolescent-friendly services for RH were reported as less available in most locations and sometimes nonexistent at the community and health facility levels, except in areas where implementing partners like the United Nations Population Fund (UNFPA) operate. MNCHN services provided by BHWs, such as mobilization, awareness creation, identification, and referrals, were perceived as available except for structural health system barriers at the facility level, such as stockouts of medicines and health supplies, and unavailability of health workers/providers.

Basic ANC services during pregnancy were reported as available and mothers are encouraged by health workers to seek ANC. Efforts have been made to educate and promote the use of mosquito nets.

While delivery under skilled care is available at health facilities, there is often an inadequate supply of midwives.

Immunization services are available, particularly in primary health care centers (PHCCs), and some facilities have integrated them with other MNCHN services, including ANC and postnatal care (PNC). However, there are gaps in awareness and overall acceptability of immunization as a result of communities' myths and beliefs that discourage immunization of babies and children. Access to WASH services, especially clean drinking water, is a challenge across the study sites due to the limited number of WASH partners and poor sustainability mechanisms. Schools that have health clubs provide information about adolescent RH services.

Social and behavior change (SBC) and health promotion are carried out by BHWs through health education, home visits, and outreaches and are integrated to cover practices such as exclusive breast feeding and child spacing.

Implementing partners supporting the BHI pay BHWs between US$25–50 per month and BHW supervisors US$100 per month. Many study participants considered these payments too low, demotivating, and not sustainable, given that payments were made by the implementing partners.

SELECTED RECOMMENDATIONS

STRATEGIC

1. Improve the availability of medicines and supplies for BHWs

2. Improve on the incentive package for BHWs
3. Operationalize the training package for all BHWs with a clear training frequency, duration, and course content
4. Promote recruitment and retention of females as BHWs into BHI

OPERATIONAL

1. Advocate for improvement of BHWs coverage and community health services
2. Scale up investment in social behavior change to break barriers associated with FP/RH and MNCH and improve female engagement in community activities
3. Increase engagement and provision of adolescent-friendly services in areas with limited supply
4. Improve the nature of nutritional-related services offered beyond awareness through linkage with nutrition implementing partners
5. Consider improving availability, operations, and maintenance of working tools and equipment provided to BHWs
6. Increase support to BHW engagement on case management, drug management, gender-based violence, and emergency preparedness and response
7. Develop innovative community referral mechanisms in areas with limited ambulances

1. INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This South Sudan Community Health Formative Assessment was designed to assess the effectiveness of the community health program under the Boma Health Initiative (BHI), which was launched in 2017 by the Ministry of Health (MOH) of the Republic of South Sudan. The assessment's aim is to provide an in-depth understanding of the strengths, gaps, and opportunities of the existing community health programs by looking at quality of care during times of stability versus times of crisis, as well as fragility, resilience, and the basic structure and functionality of boma health workers (BHWs) and contexts. It will provide information for MIHR programming to plan effective health interventions for voluntary family planning and reproductive health (FP/RH); maternal, newborn, and child health and nutrition (MNCHN); and water, sanitation, and hygiene (WASH). It will also set baseline data for monitoring performance of programs and identifying best practices.

1.2 BACKGROUND AND RATIONALE

South Sudan is one of the most fragile contexts in the world,[1] having experienced close to a half-century of conflict and violence that has destroyed its infrastructure and negatively affected health service delivery. Most of its population has limited access to basic health services, with women and children being the most affected. The maternal mortality ratio stands at 1,223 per 100,000 live births, with a newborn mortality rate of 39.3 per 1,000 live births and an under-5 mortality rate of 99.2 per 1,000 live births (2014).[2] The health system is underdeveloped, with less than 4 percent of financing coming from government—this is far below the 15 percent commitment under the Abuja declaration. It is estimated that 80 percent of the health services are provided by nongovernmental organizations (NGOs),[3] which at times are limited in some locations. Where the health systems are functional, they are particularly constrained, poorly aligned, and lacking in coordination, meaning access by the community is limited.[4] Communities often have deeply entrenched negative social norms around FP that have limited women's access to FP and utilization of modern contraceptives.[5]

The South Sudan National Health Policy includes sections on improving health service delivery through: strengthening health service organization and infrastructure development for effective and equitable delivery of the Basic Package of Health and Nutrition Services and Universal Health Coverage; strengthening leadership and management of the health system and increasing health system resources

[1] Fund for Peace. 2021. *Fragile States Index 2021*. Washington, DC: Country Dashboard – South Sudan https://fragilestatesindex.org/country-data/, accessed on 2nd November 2021.
[2] Ibid.
[3] Lutwama, George William, Maryse Kok, and Eelco Jacobs. 2021. "An exploratory study of the barriers and facilitators to the implementation of community health worker programmes in conflict-affected South Sudan." BioMed Central, 15:82. https://doi.org/10.1186/s13031-021-00422-0, accessed 6 May 2022.
[4] KIT Royal Tropical Institute. 2021. "Policy Brief: Community Health Interventions in South Sudan." https://www.kit.nl/wp-content/uploads/2021/09/Brief-CHW-South_Sudan.pdf?msclkid=c407f1d8ced911ec82ebc46a24b6e00c.
[5] Bukuluki, P., M. Okwii, K. Hoffmann, and M. Pavin. 2021. "South Sudan Social Norms Assessment." Washington, DC: USAID/MOMENTUM Integrated Health Resilience.

for improved health sector performance; and strengthening partnerships for healthcare delivery and health systems development.[6]

The National Health Sector Strategic Plan 2017–2022, emphasizes establishing the community health system as a formal structure of the national health system.[7] These policies provide a foundation for continual service delivery at community and facility levels.

South Sudan's health care system comprises the BHI and primary health care units (PHCUs), with each PCHU serving an estimated 15,000 persons. Community health is the first level of primary care service that is often provided by BHWs,[8] volunteers, and other community groups. Three BHWs form a Boma Health Team (BHT), serving 20 to 40 households in a community. Above the PHCUs, the primary health care centers (PHCCs) serve as the immediate referral sites for the PHCUs, each serving an estimated 50,000 persons.[9]

The BHI was envisioned as a community health system strengthening initiative to bridge the gap between health facilities and communities and so reduce preventable diseases.[10] It is designed to increase equitable access to community health services and encourage the participation of communities in promoting ownership and sustainability of the country's health services. The objectives of the BHI are to 1) develop community health structures as a formal component of the national health system at the boma level; 2) increase access to quality health promotion, disease prevention, and selected curative services through community engagement; and 3) provide leadership for the implementation of the BHI through intersectoral collaboration and community participation.

The structure of the BHI is guided by the BHI implementation guidance (2016), which is embedded in the overall framework and structure of the Government of South Sudan. According to the BHI guidelines, the national and state MOHs provide overall stewardship, governance, planning, supervision, monitoring and evaluation, and epidemiological surveillance to ensure efficient and cost-effective use of resources.[11]

At the county level, the BHI is spearheaded by the County Commissioner, the Executive Director, and the County Health Department. They are mandated to conduct planning, program implementation, monitoring and reporting, promotion of community participation in health activities, intersectoral collaboration, and ensuring appropriate staffing and resource allocation.[12]

The Payam Health Department is the major stakeholder at payam level supported by the Payam Council, Payam Administration, Paramount Chiefs, and Payam Administrator. It is mandated to provide technical

[6] The South Sudan Ministry of Health (2016) National Health Policy, 2016–2026.
[7] South Sudan Ministry of Health (2018) "National health sector strategic plan 2017–2022." Juba: Republic of South Sudan; Lutwama, George William, Maryse Kok, and Eelco Jacobs. 2021. "An exploratory study of the barriers and facilitators to the implementation of community health worker programmes in conflict-affected South Sudan." *BioMed Central,* 15:82. https://doi.org/10.1186/s13031-021-00422-0, accessed 06 May 2022.
[8] Boma health workers (BHWs) are also known as community health workers (CHWs) in South Sudan, and as village health teams (VHTs) in other counties. The abbreviations "BHW" and "CHW" are used in this report without distinction.
[9] Gilmartin, Colin, David Collins, and Alfred Driwale. 2019. "South Sudan Boma Health Initiative Costing and Investment Case Analysis." Management Sciences for Health. Arlington, USA. https://www.unicef.org/southsudan/reports/boma-health-initiative, accessed 06 December 2021.
[10] KIT Royal Tropical Institute. 2021. "Policy Brief: Community Health Interventions in South Sudan." https://www.kit.nl/wp-content/uploads/2021/09/Brief-CHW-South_Sudan.pdf?msclkid=c407f1d8ced911ec82ebc46a24b6e00c.
[11] The South Sudan Ministry of Health. 2016. "The Community Health Systems in South Sudan: The Boma Health Initiative."
[12] Ibid.

guidance to boma health committees through training, supervision of BHTs, reporting on and ensuring availability of the necessary supplies, and logistics for the BHI.[13]

A Boma Health Initiative is designed to run within the governance administrative structures from the National, State, County, Payam, and Boma. These levels have government appointed administrative leaderships. Below the Boma are informal leaders for the villages and households.

At the Boma level, the BHI administration is overseen by the Boma Chief and the boma health committees. On BHI health issues the oversight is with the Payam Health Office and the nearby health facilities. The health implementing partners work with the Boma Health Committees in designing community-based interventions that will include the participation of the home health promoters, or Boma Health workers, households, and individuals.

The BHTs are composed of BHWs (three in MIHR-supported Bomas), who are expected to provide BHI's holistic health packages such as child health education; treatment and control of malaria, pneumonia, and diarrhea; child nutrition; child immunization; safe motherhood through health education and referrals for antenatal care (ANC) and postnatal care (PNC); family planning and health education and referrals; gender-based violence (GBV) awareness and referrals; first aid for communicable diseases as well as community-based disease surveillance; and recording of vital statistics, among others.[14] BHWs are expected to conduct home visits at the community level and are deployed to work within their communities, with an expectation to cover a radius of at least 5 kms from the health facility.

The launch of the BHI was expected to help address the health service delivery challenges in South Sudan by training, equipping, and hiring competent BHWs. In addition, the initiative aims to standardize all community health cadres nationally, including formalizing the role of BHWs. This is expected to lead to improved access to community health services throughout the country by establishing a formal health system structure at the boma level.[15]

Since its inception in 2017, the BHI has registered several achievements, including improving access to health care services through BHWs, especially in remote and hard-to-reach places, and contributed to an overall reduction in the workload at medical institutions. The program has reportedly been widely accepted by the communities, with 96 percent of households in implementation areas indicated knowing their BHWs and 95 percent citing accessing health care services through the BHW.[16]

Little evidence is available to measure the effectiveness and efficiency of the BHI. However, a couple of reviews on programs implemented using the BHI strategy have indicated mixed views for success. For example, findings of a study conducted by Health Pooled Fund (HPF) and MOH to explore the characteristics, barriers, and facilitators to implementation of community health interventions in 8 out of the 10 states of South Sudan indicated that, where integrated Community Case Management (iCCM) has been implemented, there has been improved access to malaria, pneumonia, and diarrhea treatments for children under 5. It further indicated that boma health committees contributed to improved WASH

[13] Ibid.
[14] Leonardo, M., and D. Deng. 2021. "Mapping Exercise Report on BHI & ICMN Activities and capacities in South Sudan." The South Sudan Ministry of Health. 2016. "The Community Health Systems in South Sudan: The Boma Health Initiative."
[15] Gilmartin et al. 2021 Op. Cit.
[16] South Sudan Ministry of Health and UNICEF. 2022. Mid-term Evaluation of Boma Health Initiative (BHI) in South Sudan (2019-2021) Final Report, 30th November 2022.

activities and supported health campaigns, such as the construction of pit latrines and the organization of national immunization days.[17]

Lutwama et al.[18] have additionally noted that BHI has expanded its focus on community health at the policy level, which has translated into a variety of BHW programs in practice, such as iCCM immunization outreaches, WASH promotion, neglected tropical diseases (e.g., preventive chemotherapy and guinea worm disease surveillance), HIV/AIDS, behavior change communication (BCC), pregnancy-related services, referrals of patients, among others.

Despite this success, South Sudan's community health programs face a multitude of challenges, including but not limited to frequent stockouts of medicines and supplies, lack of equipment, lack of qualified BHW candidates, low acceptance of FP methods, lack of buy-in from community leaders, limited capacity of the MOH to supervise and support BHWs, limited links between BHWs and health facilities, complicated remuneration, inadequate funding for the BHI initiative, high turnover of BHWs, absence of well-established referral systems, and lack of gender balance, as the majority of BHWs are men due to high illiteracy among women.[19]

Some programs have documented best practices that can be used in the delivery of the BHI. These include use of simple pictorial training materials and reporting tools to facilitate learning and reporting, sensitization meetings with various BHI stakeholders before introduction of services in the communities, holding quarterly review meetings with stakeholders and implementing partners, on-the-job mentoring, and the provision of incentives to BHWs.[20]

Other recommendations include working closely with the county health department and local authorities to validate the existing boma health committees, lowering the education requirements of women to reduce gender disparities among the BHWs, given low literacy levels of women, and strengthening linkages between BHWs and the nearest health facilities.[21]

Considering the challenges faced by the BHI, it is timely and appropriate to conduct a formative assessment and identify the challenges and best practices in community health community and the BHI. This assessment provides an overview of strengths and challenges of the BHI as well as additional information on perceived performance of the BHWs and CHWs. The assessment will also aid in the design, implementation, and monitoring of tailored solutions over time for community health programming and as a source of information for establishing a baseline for BHW and CHW performance.

The assessment will explore the use of quality and respectful care and people-centered, community-based FP/RH/MNCHN services beyond iCCM. Findings will be used to inform the design and implementation of community health interventions that are expected to strengthen linkages between

[17] KIT Royal Tropical Institute. 2021. "Policy Brief: Community Health Interventions In South Sudan." https://www.kit.nl/wp-content/uploads/2021/09/Brief-CHW-South_Sudan.pdf?msclkid=c407f1d8ced911ec82ebc46a24b6e00c, accessed on 04 May 2022.
[18] Lutwama et al. 2021 Op. Cit.
[19] Leonardo et al. 2021 Op. Cit.; Gilmartin et al. 2021 Op. Cit.; Lutwama et al. 2021 Op. Cit.; Malaria Consortium. 2019. "Learning Brief: Pioneering the Boma Health Initiative, Improving child survival in South Sudan." https://www.malariaconsortium.org/media-downloads/1265/Pioneering%20the%20Boma%20Health%20Initiative, accessed 05 May 2022.
[20] KIT Royal Tropical Institute 2021 Op. Cit.
[21] Ibid.

the community and facilities and ultimately improve access to and use of FP/RH/MNCHN services. The assessment findings will also inform interventions to strengthen community-based surveillance platforms for FP/RH/MNCHN, and WASH, and improve preparedness for and responses to shocks and stresses in fragile settings by focusing on areas supported by MIHR. Findings will also complement the planned UNICEF-led mid-term evaluation of the BHI.

Implementing an effective BHI program at scale would not only contribute toward achieving Sustainable Development Goals, including reducing maternal and child mortality and supporting women's empowerment and gender equality, but would lead to universal health coverage.

1.3 ASSESSMENT OBJECTIVES

The assessment objectives included efforts to:

- Understand the governance and policy environment of the BHW/CHW program, including the BHI, compensation, scopes of work, etc.
- Assess accessibility and acceptability of community-based FP/RH and MNCHN services.
- Explore the key BHW support systems.
- Assess the effect of shocks and stresses on BHWs and the work they do.

1.4 PRIMARY ASSESSMENT QUESTIONS

1. What are the existing governing and policy guidelines regarding BHWs' compensation and scopes of work?

2. How are accessibility and acceptability of the health services provided by BHWs perceived?

3. What are the key support systems for BHWs?

4. What major effects have shocks and stresses had on BHWs and the work they do? What measures have they taken to cope with these shocks and stresses?

5. What forms of gender discrimination do BHWs face, especially GBV and gender conservative norms?

2. STUDY METHODOLOGY

2.1 STUDY DESIGN

The study adopted a cross-sectional and descriptive study design utilizing qualitative methods to understand the governance and policy environment of the BHW program, including the BHI. It assessed the current structure, compensation, scopes of work, accessibility, and acceptability of the community to improve access to and use of FP/RH/MNCHN services and strengthening linkages between the community and facilities. Data collection included desk reviews of national and subnational frameworks that govern community health programs and any related literature. The main methods of primary data collection included in-depth interviews (IDIs), key informant interviews (KIIs), and focus group discussions (FGDs) with the study population.

2.2 STUDY SITES

The sites for the assessment were selected based on contemporary MIHR program implementation areas. Additionally, the sites were selected for proper representation of the geographical and cultural diversity of South Sudan. See Table 1 for the five counties chosen.

Table 1. List of Study Sites

	State	County	Payam
1	Jonglei	Bor	1. Bor 2. Kolnyang 3. Makuach
2	Western Bahr El Gazal	Wau	1. Wau North 2. Wau South
3	Western Equatoria	Yambio	1. Yambio Town 2. Gangura 3. Bazungua
4	Central Equatoria	Kajo-Keji	1. Kangapo 1 2. Kangapo 2 3. Liwolo
5	Eastern Equatoria	Budi	1. Kimotong 2. Komori 3. Luodo 4. Lotukei

2.3 STUDY POPULATION, SAMPLE SIZE, AND DESIGN

The study population for IDIs within each study location involved a diverse group of stakeholders including BHWs, BHW supervisors, public health facility workers, the county executive director, boma chiefs, village chiefs, boma administrators, Payam Health Department, Payam administrators, county health department, and NGOs implementing related programs at the county level.

Participants for the KIIs included staff from the national MOH, Health and Nutrition Clusters, MIHR, and partners. Study participants for both IDIs and KIIs were purposively selected from national, state, county, and local community levels based on a sampling frame that included diverse representation regarding gender, age, ethnicity, religion, leadership, and respective roles.

The FGD participants in each study site included adult women and men aged 18–24 years and 25–50 years. They provided vital information related to accessibility of the BHWs and the nature of the information/training provided at the household level. They were selected through visits to locations that community members frequent, such as markets, hospitals, community centers, and churches, and also through referrals from other key informants. Separate group interviews were conducted for males and females and all interviews were conducted in local languages. Overall, a total of 279 respondents were reached. Fourteen KIIs were conducted with NGOs, 64 KIIs with governments, 62 IDIs with BHI stakeholders, and with 68 BHW FGD respondents, as shown in Table 2. The concept of saturation,[22]

[22] Guest, G., A. Bunce, and L. Johnson. 2006. "How many interviews are enough? An experiment with data saturation and variability." *Field Methods*,18(1):59–82. doi: 10.1177/1525822X05279903.

commonly used in qualitative research, guided the number of KIIs and IDIs ultimately conducted, considering time and financial resources available. Table 2 provides a summary of interviews conducted per location.

Table 2. Sample Size by Location

	Bor		Wau		Yambio		Kajo-Keji		Budi		Juba		Total
Interview Type	M	F	M	F	M	F	M	F	M	F	M	F	
KIIs - NGOs	3	0	1	1	2	0	2	0	2	0	1	2	14
KIIs - Government	16	2	10	2	12	1	9	0	10	1	1	0	64
IDIs	9	4	6	9	9	3	8	3	5	6			62
FGDs													0
25-49 Years	7	7	7	6	7	7	6	7	7	7			68
18 – 24 Years	7	8	7	8	6	7	7	7	7	7			71
Total	42	21	31	26	36	18	32	17	31	21	2	2	279

2.4 DATA COLLECTION

Primary data collection for the assessment was conducted in October 2022. Prior to field-level data collection, a review of relevant national and international literature about community health services and the BHI was conducted. All data collection tools were approved by the MIHR team and subsequently translated into the major local languages/dialects of the five sites. A four-day training was conducted for the research team, comprising research assistants and supervisors, and included orientation on the assessment protocol and tools, BHI, and research ethics, among other topics. Data collection tools were piloted in Juba County and primary data were collected through FGDs and KIIs in local languages.

All interviews were audio recorded on Android tablets with informed consent from study participants, and uploaded to an online storage platform (Kobo Toolbox) in real time, except in locations where internet connectivity was unavailable.

Separate FGDs were conducted for men, women, and youth according to their respective age categories, with female FGDs being conducted by female research assistants and male FGDs by males. Overall, all interviews were conducted following WHO ethical guidelines for managing ethical research issues in infectious disease outbreaks[23] and MOH ethical guidelines for conducting research with human subjects.

[23] WHO. 2020. "Ethical standards for research during public health emergencies: Distilling existing guidance to support COVID-19 R&D." Found at https://www.who.int/blueprint/priority-diseases/key-action/liverecovery-save-of-ethical-standards-for-research-during-public-health-emergencies.pdf?ua=1, and WHO. 2016. "Guidance for Managing Ethical Issues In Infectious Disease Outbreaks." Geneva. Found at https://apps.who.int/iris/bitstream/handle/10665/250580/9789241549837-eng.pdf?sequence=1&isAllowed=y.

2.5 DATA ANALYSIS

Data analysis began with daily end-of-day debriefs with the field teams and identification of key themes discovered during the day. These were captured in notes and on MS Excel spreadsheets for later sorting as analysis continued iteratively throughout data collection. This was followed by translation and verbatim transcription of the interviews. All data from KIIs and FGDs were analyzed using content and thematic techniques. The team developed a preliminary codebook using thematic coding derived from questions in the data collection tools for the various respondent categories. Selected members of the team continued to contribute to data analysis through open and axial coding and analysis of data using Dedoose (www.dedoose.com), an online, low-cost, qualitative data analysis software package. Dedoose allows multiple coders to work collaboratively from remote locations, promoting triangulation of findings.

Query reports/excerpts for transcripts were generated. The team then reflected on the query outputs and held discussions about preliminary findings that were emerging from the data. Further analysis was guided by the assessment questions for an in-depth exploration of the information emerging from the various codes. Additionally, data analysis explored potential differences in responses among participants of different genders, age groups, and locations. Following data analysis, information under related codes was merged into larger themes and subthemes, which are presented in subsequent sections of this report.

2.6 DATA MANAGEMENT

Data were managed in password-protected cloud platforms (Kobo Toolbox and Dedoose) that are encrypted for data security. Password access was limited to the principal investigators and coding team who needed access to the data during data analysis and reporting. Information on each study participant was stored with a discrete individual code in a password-protected MS Excel spreadsheet to which only those doing data analysis had access.

During data collection, data were recorded on an electronic tablet used by each research assistant. After transcription of the recordings, the team cleaned the transcripts to ensure all personal information was protected by replacing names and personal identifying information with the discrete code assigned to each individual study participant.

2.7 ETHICAL CONSIDERATIONS

Human subject protection for this assessment was based on principles of the Belmont Report, which is the basis of the U.S. Federal Policy for the Protection of Human Subjects, also referred to as the "Common Rule."[24] The protocol for this assessment was reviewed and approved by a United States-based institutional review board through JSI Research & Training Institute, Inc., and the national MOH.

All research assistants and supervisors were trained on research ethics. As part of the informed consent process, prior to every interview, the interviewer introduced him/herself and described the purpose of the study and interview, read a statement on confidentiality and on voluntary participation, and

[24] The Belmont Report: https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html. Common Rule. Available at https://www.hhs.gov/ohrp/regulations-and-policy/regulations/common-rule/index.html.

provided contact information for any concerns about the study. Participants were asked to consent to be interviewed by providing written consent or a thumbprint if the person could not read or write. Each research participant was given an opportunity to ask questions (both before and after providing informed consent) and make comments at the end of each interview.

3. FINDINGS

3.1 GOVERNANCE AND POLICY ENVIRONMENT OF BHW PROGRAM

3.1.1 UNDERSTANDING OF BHI POLICY FRAMEWORKS

The BHI is guided by the initiative's implementation guidelines (2016) and subsequent amendments. It is supplemented by other policy provisions such as the South Sudan National Health Policy, 2016–2026, and the South Sudan National Health Sector Strategic Plan 2017–2022. The BHI framework was initiated to harness integration of the various community health structures operated by various implementing partners.

Study participants at subnational and national levels clearly demonstrated being knowledgeable of the BHI operational frameworks, including the existing management structures, recruitment and selection procedures, and roles and responsibilities of BHTs. Despite this, the majority of BHWs were not able to cite specific policy frameworks or guidelines that guide the BHI operations. This could be attributed to the limited educational attainment of BHWs; as indicated above, just over 5 percent had progressed beyond secondary education.

> "There were many community structures, such as the community-based network, as well as community nutritional volunteers, health promoters, community-based drug distributors. But these community structures are fragmented." Male, Juba County

> "The known policy is the Boma Health Initiative guidelines." Male, Wau County

> "From my understanding, we have the policy from the Ministry of Health, for example there are guidelines for primary healthcare and there are guidelines for the national hospital, which is for us in the community, and there are also guidelines for the BHI. For example, it mentions the roles of the boma health committee and the BHWs and how they do their work." Male, Wau County

> "Anyway, currently I think there are no structures or policies in support of the program that I know." Female, Budi County

> "Well, since I got in this role, I only attended one training course, so things concerning policies, I have not come across." Male, Kajo-Keji County

> "Anyway, I didn't know any policy because we are not informed of any policy from any NGO or government. What I have seen is that IMA and Tearfund are the organizations operating here in this facility." Male, Kajo-Keji County

> "Ok, well, there are policies which are not effective, starting from the top health officials, because their policies are lacking motivation. It is happening all over the South. You find

policies but no one to implement them because they lack the capacity to motivate the people on the ground." Male, Bor County

The relative knowledge of BHI among key stakeholders provides opportunities for deeper engagement and community mobilization with, participation in, and acceptance of community health programs.

3.1.2 BHI MANAGEMENT STRUCTURES

The BHI is managed under the national MOH with a BHI secretariat that is responsible for planning, policy formulation, and coordinating with the various stakeholders. At the state level, the MOH provides stewardship and governance in the health service delivery of BHI through planning, evaluation, and coordination in relevant forums such as the state-level clusters like health and nutrition. At the county level, BHI activities are guided by the county health departments and coordinated by their respective health facilities.

Study participants echoed that at payam level, the BHI stakeholders are responsible for planning, policy, and programs implementation, as well as monitoring, supervising, and reporting of activities. The stakeholders at payam level include the Payam administrators, Payam Health Department, paramount chiefs, BHW supervisors, and boma health committee members, who provide mentorship, monitoring, and supervision support to the BHWs. Each BHW supervisor is expected to supervise at least 20 BHWs. Each boma is supposed to have three BHWs, who constitute the BHT.

Study participants indicated that all implementing bomas have established boma health committees consisting of 7 to 11 persons, comprising boma administrators, the chiefs, church and school representatives, and other influential members of the community, including women. The committees act as watch dogs to ensure the implementation of BHI is working.

Discussions with the study participants in the five study sites reaffirmed their knowledge of these structures.

> "Boma health workers' supervisors are at the payam level, they supervise the BHWs. One supervisor takes on and is responsible for 20 health workers, who form about 7 boma health teams in that Payam." Male, Juba County

> "The Boma health committee consists of the Boma administrator, the chief, the church, the school representative, and other influential members in the community including women." Male, Juba County

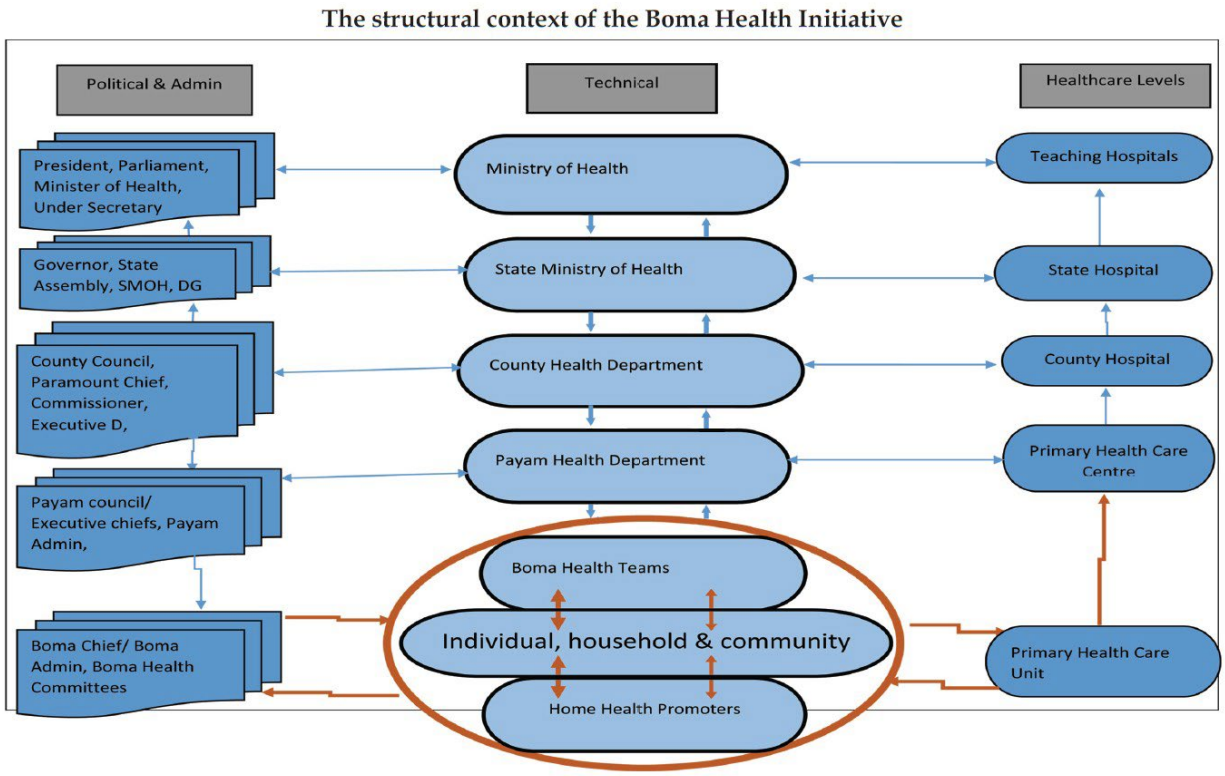
> "The national level is where you find the National Ministry of Health. When you come to the state level, you find the State Ministry of Health. When you come to the county level, this is where you find the county health department. When you come to the payam, you find the payam health committee. And when you come to boma, you find boma health committee. This is how the system is organized." Male, Bor County

During the validation workshop, study participants described how the BHI structure is weak at the national level to efficiently coordinate and monitor BHI program activities at sub-national levels. This is attributed to existence of few technical and less-experienced personnel at the secretariat. At the sub-national level, participants indicated that there are no BHI focal persons in some counties, and this additionally weakens coordination and reporting.

"The BHI office is small and ill-equipped to inform the Ministry what is happening everywhere – we need to equip the office with technical people." Male, validation workshop

"There are no focal persons in some counties, this is true. That's why the work with IPs." Female, Validation Workshop

Figure 1. Boma Health Initiative Strategy



Source: Adopted from South Sudan Ministry of Health, 2016, "The Community Health Systems in South Sudan, The Boma Health Initiative."

3.1.3 BHI IMPLEMENTING PARTNERS

There are currently close to 15 BHI implementing partners (IPs) in the country, including: MOMENTUM Integrated Health Resilience (MIHR), Catholic Medical Mission Board (CMMB), Health Pooled Fund (HPF), Global Funds Malaria Program, UNICEF Boma Health Initiative–Community Mobilizers (UNICEF/BHI-CMs), Amref Health Africa, Organization for People Empowerment and Needs (Open), Malaria Consortium, World Vision, International Center for AIDs Care and Treatment Program. (ICAP), Health Link, CARE International, Action Africa Help (AAH), and UNFPA, among others.

These partners are spread across the country and implement different BHI packages, including child health, safe motherhood, voluntary family planning, GBV, and communicable diseases. Data on the specific geographical locations is limited at the national secretariat, however specific BHI packages implemented by each IP is provided in Appendix One. Each BHI partner implements the package of their choice based on the available resources and as guided by the Ministry of Health. Fragmentation in

the type of BHI package implemented by the partners therefore creates lack of uniformity in the services ultimately received by the communities in the different locations.

3.2 DEMOGRAPHIC CHARACTERISTICS OF BOMA HEALTH WORKERS

More than half (61.1 percent) of BHWs were male, while 38.9 percent were female, as shown in Table 3 below. The majority of BHWs (75.9 percent) were aged 25–49 years, as recommended in the BHI strategy, and 24.1 percent were aged 18–24 years. A majority (77.8 percent) of BHWs were married, 18.5 percent were single, and 1.9 percent stated being divorced/separated or widowed. More than half (59.3 percent) of BHWs reported having completed secondary school, 16.7 percent had attained basic secondary, 14.8 percent basic primary, 5.6 percent completed primary, and only 1.9 percent completed university or tertiary education). The low educational attainment among BHWs was equally reported as a concern in the MOH/UNICEF midterm BHI evaluation report of 2022. During the stakeholders' validation workshop, it was noted that the low education attainment among BHWs varied from state to state, with some states such as Central Equatoria and Western Bahr el Ghazal, having relatively better performance than others.

Table 3. Demographic Characteristics of Boma Health Workers

Variable	Bor (n=12)	Budi (n=11)	Kajo-Keji (n=11)	Wau (n=8)	Yambio (n=12)	Overall (N=54)
Gender						
Female	25.0%	54.5%	27.3%	75.0%	25.0%	38.9%
Male	75.0%	45.5%	72.7%	25.0%	75.0%	61.1%
Age						
18–24 years	25.0%	36.4%	18.2%	25.0%	16.7%	24.1%
25–49 years	75.0%	63.6%	81.8%	75.0%	83.3%	75.9%
Marital Status						
Divorced/separated	0.0%	0.0%	0.0%	12.5%	0.0%	1.9%
Married	83.3%	72.7%	90.9%	37.5%	91.7%	77.8%
Single	16.7%	18.2%	9.1%	50.0%	8.3%	18.5%
Widow	0.0%	9.1%	0.0%	0.0%	0.0%	1.9%
Education						
Basic primary	8.3%	18.2%	0.0%	12.5%	33.3%	14.8%
Basic secondary	8.3%	18.2%	27.3%	0.0%	25.0%	16.7%
Completed primary	0.0%	18.2%	0.0%	0.0%	8.3%	5.6%
Completed secondary	83.3%	45.5%	63.6%	75.0%	33.3%	59.3%
Completed tertiary vocational	0.0%	0.0%	0.0%	12.5%	0.0%	1.9%
Completed university	0.0%	0.0%	9.1%	0.0%	0.0%	1.9%

3.2.1 ROLES OF BHWs,

Discussions with study participants indicated that the roles of BHWs are diverse. They include child health, which entails diagnosis and treatment of malaria, diarrhea, and pneumonia, and screening for malnutrition using mid-upper arm circumference (MUAC) tapes; maternal health through referrals for service accessibility on FP and ANC; health facility deliveries; birth registration; tracking defaulters of the Expanded Program on Immunizations program and unvaccinated children under 5 years; referrals to the nearest health facilities; mobilization for vaccination outreach; campaigns during disease outbreaks such

as Ebola Virus Disease and COVID-19; and health promotion and demand generation, including hygiene and sanitation. These roles are in line with those stipulated in the BHI guidelines. Discussions with the various study participants brought further details on the roles and responsibilities of BHWs.

a) Treatment of children under 5, malnutrition screening

Study participants across the study sites indicated management of children under 5 years as one of the core roles of the BHTs. In-depth interviews with BHWs indicated that they only treat children from 2 months to 5 years. The major services offered in child health include diagnosis and treatment of malaria, diarrhea, pneumonia, cough, and screening for malnutrition. For children with critical conditions, BHWs indicated that they provide referrals to the nearest health facilities. These roles are in line with the expected roles of BHWs as described in the BHI strategy.

> "Our work is treating children under 5 years, screening malnourished children, referrals for critically sick children to the facility for services, and educating mothers on family planning methods." Female, Budi County

> "Their role is to give drugs to children under 5 years, advise women of productive age on family planning, screen malnourished children and refer them to the health facility for nutrition services, provide health education, hygiene and sanitation awareness." Male, Budi County

> "For a child having diarrhea, we ask for how long the diarrhea has been with the child, and we ask how often the child is having a running stomach. If we find the frequency is more than 3 days, we confirm the child is having diarrhea. And since not all running stomach is diarrhea, this we refer to the health facility for more tests." Female, Wau County

> "My mandate is to see children for malaria, pneumonia, and diarrhea. We have been shown how to know the signs of malaria, diarrhea, and pneumonia." Female, Kajo-Keji County

> "I visit homes and treat children under 5 years with malaria drugs, screen malnourished children, refer critical sick children to the facility for services, and educate mothers on family planning methods." Male, Budi County

> "My roles as BHW are to help children in the area, especially children who are sick from a number of days. Secondly, pregnant mothers, because it is necessary that they receive antenatal care, so I talk to them so that they come for checkups in the antenatal facility. Third, for FP/RH, we educate the people in the community on the importance of FP/RH and its disadvantages. Those who look at its importance and choose a method of FP/RH, I refer them to the health facility to get more advice from the facility." Female, Kajo- Keji County

> "On the maternal child health services such as immunization, I as boma health worker go and see the mother and the newborn child and encourage them to seek immunization upon delivery and I also ask if other children have been immunized. If not, I do a referral to the health facilities for immediate action and conduct follow up to ensure they received the immunization. as some women could dodge and not take the child for immunization. However, with the awareness campaign conducted in the community of Hai Bazia Jedid, all women are well informed of the importance of immunization, and they are embracing and

immunizing their newborn children in great numbers, as opposed to previous years when they were avoiding it. We confirm immunization by asking the mother to show us their child immunization card." Female, Wau County

"There used to be people who gave vaccinations to our children at home—and also gave us drugs. But this year, these people have not come to our homes." Male, Bor County

b) Maternal health

Across the five study sites, maternal health was among the most mentioned roles of BHWs. Discussions with study participants revealed that some of the maternal health services include facility referrals for FP, ANC, and health facility deliveries; conducting screening for malnutrition using MUAC tapes; and provision of nutritional advice.

"For expectant women we do conduct awareness, so they keep eating good food, attend antenatal care to check their health and the health of their unborn babies. For food it should be balanced including carbohydrates for energy, protein for bodybuilding, and vegetables for body protection." Female, Wau County

"When the women become pregnant, we have to go and visit and make sure the woman is in the good health, and we take the MUAC. If she is malnourished, we send her to a health facility and make her aware of the need for her to go every month for ANC check-up. As a boma worker I can visit two to three times to look for have danger signs of malnutrition and send her to the health facility for follow up." Male, Wau County

"In my home, they have come like twice. They deal with pregnant mothers and tell them to go to the hospital so that they can be given antenatal cards and deliver in the hospital. In my village there is a lady who works. Every day I see her asking how the children are doing whether they are sick or not. If she finds that they are sick, she will tell the mothers to take them to the hospital so that are given treatment because they don't do treatment in the community level." Male, Kajo-Keji County

"Yes, they talk to us about these services. They tell us that family planning helps you to keep your man from going to another woman. You can sleep with your husband even when you are breastfeeding, and you will not become pregnant when the other child is still breastfeeding. So, they talk to us about these family planning services." Female, Bor County

c) Emergency response and referrals to health facilities

Discussions with study participants showed that BHWs are involved in the provision of first aid and emergency response in communities. BHWs indicated that because of their proximity to the communities, they are always the most-sought option in cases of sudden illness even when they are not skilled enough in the specific illness. According to BHWs, when the illness is major, they make referrals to the nearest health facilities. The role is in line with the BHI guidelines of BHTs.

"Most of the work we do is to refer people to receive medicines at home unless it's a major case. If we can't treat at home, we sometimes write a referral letter for the patient to go to the health facility." Female, Yambio County

"Their roles are to give some medical emergency services to the community at night as the health facility operates during the daytime. The boma health worker will treat children under 5 years, support pregnant women during child delivery to make sure the newborn baby does not have complications. They advise women of reproductive age on family planning, screen malnourished children, and refer them to the health facility for nutrition services, provide health education and hygiene and sanitation awareness." Male, Budi County

"We work in the community as soldiers in emergency preparedness disseminating awareness." Female, Wau County

"When they get medicine in case of emergency they treat well, the good thing is they even do Para check, like the one close to me whenever I have an issue with the kids, I usually call him on phone." Male, Budi County

"These people are working well because all minor cases of malaria and diarrhea are handled by them unless it's an emergency, when they refer them to the facility." Male, Yambio County

"Well, they give feed back to the health facility of the services that we are rendering. We also work collaboratively with them to ensure all the communities are aware of their rights to access health services." Male, Yambio County

d) Health education

In-depth interviews with BHWs and supervisors showed that BHWs are engaged in health education in the communities through home visits. Some of the mentioned areas of health education include WASH, maternal and child health, malaria, GBV, adolescent health, and pandemics, such as COVID-19.

"Yes, we give health education, telling them to use family planning so that they have enough spacing, and I show them the pictures of mothers who give birth with no proper spacing. When they see it they say, 'no spacing is bad' and they take family planning." Male, Budi County

"Community health workers sensitize the community about the hygiene, sensitize the community about the importance of visiting the health centers with their children to access treatment or immunization, and especially, for pregnant mothers to have the routine health checks. The boma health workers act as the link between the community and the health centers or the hospital." Male, Bor County

"I provide education on hygiene and sanitation, telling households to dig latrines to avoid open defecation, to bury children's feces and wash their hands with soap after cleaning children bottoms and after defecation." Male, Budi County

"The BHWs are doing good work. They have helped people on health so much and also teach people how to lead a healthy life so that they don't get diseases." Male, Kajo-Keji County

> "Ok, our role is to give services to the community services like FP/RH and personal hygiene. We also treat children under 5 years. Another program is preventing GBV." Male, Kajo-Keji County

e) Recording and reporting of vital statistics

Discussions with study participants indicated that BHWs are engaged in the recording and reporting of vital statistics such as family size, births, and deaths. However, BHWs spend most of their time promoting child and maternal health, leaving little time to collect these statistics.

> "You know, one thing they do is they have statistics of newborn and death cases. For every 40 households, they know who are the members in that particular home and their ages, how many are sick and what kind of sickness and the treatment. They also report on new births, and they follow them to make sure the family completes the vaccination and has the vaccination card." Male, Juba County

> "The idea was that at the end of the day if we are to have boma health workers in every boma there would be no need to do population census, because the data is already there. But since now, we are only covering a few bomas it takes us long to cover all the areas to have the statistics." Male, Juba County

Other expected roles not currently covered by BHWs in the assessment locations: Notwithstanding that the above-mentioned BHW roles align with the BHI stipulated roles and responsibilities of BHTs, there was no evidence indicating involvement of BHTs in other activities stipulated in the BHI strategy, such as communicable diseases and preventive therapy for neglected tropical diseases. There is, therefore, a need to coordinate with relevant stakeholders to achieve their integration into the BHI.

3.2.2 RECRUITMENT AND SELECTION CRITERIA OF BHWs

Eligibility criteria: Across the five study sites, nearly all BHWs and key informants indicated they understood that for one to become a BHW he or she must meet the following requirements: being a resident of the area, having the ability to read and write, being willing to work as a volunteer, being trainable, being aged 18–45 years, being well-behaved and with a good track record in the community, and being approved by the community.

A couple of participants mentioned that there was preference for less-educated people (secondary school and below) than for those with more education (achieved tertiary education), as they were perceived to be more stable in the community.

> "BHWs should be 18 years and above because he/she should be a mature person that will be able to work with the community. A person under that age is not needed. Secondly, he/she should have basic education because there are some forms that need to be filled out. If you have completed secondary then you are qualified to be a BHW." Male, Wau North County

> "So you must be living in the boma and liked by the community, not have a bad record, and you must be between 20–45 years because within that age range you are able to ride a bicycle and walk and still be energetic. You should be a person who has finished primary

level of education because you need to be able to read and write and document some reports." Male, Juba County

"From 18 years and above that is what is considered. The work of the hospital needs a mature person because a young person cannot manage the hospital work, especially with critically ill patients. It's voluntary work, they receive no salary, they're just helping." Male, Wau County

"They look for someone who is based in the community and is well known to the boma and you must be a mature person." Male, Budi County

"You need to be a resident who lives in the community and is tolerant and listens to all the problems of the community. The person has to be able to read and write either English or Arabic." Female, Wau County

"In selection procedure they are asked to provide documents and they have to be people who can read and write after completing at least secondary level education." Male, Kajo-Keji County

"Yes, the requirement for a boma health worker is someone who is basically literate, knows how to read and read, and is active member in the community." Female, Wau County

"A BHW is supposed to be within the boma all the time and that's why they recruit residents. Sometime recruits desert the boma and are here in Juba. If that is brought to the attention of the committees, they will talk to recruit and replace them. If you're not within the boma and you're not complying they will replace you." Male, Juba County

"You must be selected by the community, but you must be able to write and talk in English and relevant languages within the community. Having finished another level of primary or from S.1 - S.4 is also an added advantage." Female, Kajo-Keji County

Notwithstanding the above requirements, in-depth discussions with BHWs and supervisors alluded to the requirement of total commitment to delivering their services to the community, yet they are volunteers with limited financial incentives that are not commensurate with the cost of living.

"Not engaging in other activities but only committed to the boma health work was one of the requirements. This is why I was selected and with others and we went for training and given the job in the community." Male, Yambio County

"They wanted people who are not doing anything else but committed to giving their services. How do we commit only to BHI when they are not paying us well? Things are expensive in the market." Male, Wau County

Recruitment process: The BHI guidelines require a BHW to be nominated by the community and recommended by the boma health committee. BHWs participating in this assessment were asked about the process they underwent to become a BHW. The most-mentioned recruitment process entailed being nominated/appointed by the chief, nominated by community members, through an application to an advertised position and screening by the village health committee at the health facilities, being selected

by the implementing partners in the area or by the County Health Department. Some of the BHWs noted the various ways in which they were recruited into the BHI:

> "It was some officials from the Ministry of Health who came to the community requesting volunteers to work as health workers. They do not want highly trained community members with certificates as they do not work and stay in the community but keep moving out. So I have little education and I was encouraged to join the boma health work." Female, Wau County

> "It was in the month of May this year when there was an inception meeting that was called by IMA, and they introduced the BHI program. So at that meeting I was able to learn about the BHI and I was identified there and then to be the BHWs supervisor. That was how I came into the system." Male, Kajo-Keji County

> "The people who selected me were the boma health committee, they are the ones who are mandated by the county authority to come and select people who know something and who are also people of respect in the community." Male, Yambio County

Selected by the chief

> "I was recruited by the community, the information came to the community through the sub-chief and the sub-chief received the information from the boma chief, and then the community called for a meeting and selected me." Male, Budi County

> "I was selected by the community through the headman. They brought my name to the facility here and then they called me." Male, Kajo-Keji County

> "The selection of BHWs is done by the area chief and the community because the work you are going to do is community work. If the community agreed that someone is fit to be a BHW, immediately you are a BHW. The chief doesn't select alone but with all the community." Male, Wau County

> "I was selected by the community through a community meeting." Female, Budi County

> "Well for someone to become a BHW we ask the community, who are the ones who select their BHW. What we do is we ask the county that we need a community health worker at a certain boma and this person has to undergo training under a certain package." Male, Yambio County

Committee vetting

> "The BHW is selected through a team that we have at the facility here called the village health committee and facility health committee. They are the eyes of the facility so if they need a BHW the health facility will meet with the health committee and pass it to the county health director, who will enroll the and give the person to the facility to be trained." Male, Yambio County

> "They are selected by the committee that oversees the activities of the hospital. In this committee there are the boma, village chiefs, and facility." Male, Yambio County

3.2.3 OPPORTUNITIES FOR TRAINING/CAPACITY BUILDING

Given that BHWs are not professionally trained health workers, the BHI guidelines provide for regular and effective training to empower them to deliver on their mandate. BHWs are expected to be trained based on the Basic Package of Health and Nutrition Services of health promotion, maternal and child health, communicable diseases, noncommunicable diseases, epidemics, emergencies, and disasters. BHTs are additionally expected to have basic principles and skills in health education, selected curative services, health management information systems, and vital statistics and communication, which can only be acquired by training.

Discussions with BHTs across the five study sites showed that at least all the BHWs have received some training on how to perform their duties in the past (see Table 4). Sixty-one percent indicated having been trained once or twice, 26 percent indicated they had been trained three to five times, and 13 percent indicated having received training six or more times.

The majority of BHWs (81.5 percent) reported having received training less than a year before the assessment was conducted (in October 2022); 11.1 percent received training two to three years before the training, and 7.4 percent indicated having received training four or more years before the training. Most trainings (66.7 percent) lasted for four days, while 20.4 percent ranged between two and three days. Given the limited educational attainment of BHWs and the short duration of BHWs trainings, it is important to have regular refresher trainings for BHWs for effective service delivery.

Table 4. Access to Training Opportunities

Trainings Received	Bor (n=12)	Budi (n=11)	Kajo-Keji (n=11)	Wau (n=8)	Yambio (n=12)	Overall (N=54)
Have you received any training on your work as a BHW? (Yes)	100%	100%	100%	100%	100%	100%
How many times did you receive the training?						
1 to 2 times	83%	91%	64%	50%	17%	61%
3 to 5 times	17%	9%	27%	25%	50%	26%
6 or more	0%	0%	9%	25%	33%	13%
Last trained						
Less than a year	75.0%	81.8%	100.0%	50.0%	91.7%	81.5%
2–3 years ago	0.0%	9.1%	0.0%	50.0%	8.3%	11.1%
4 or more years ago	25.0%	9.1%	0.0%	0.0%	0.0%	7.4%
Duration of trainings						
4 or more days	100.0%	100.0%	45.5%	75.0%	16.7%	66.6%
2 to 3 days	0.0%	0.0%	54.5%	12.5%	33.3%	20.4%
One day or less	0.0%	0.0%	0.0%	12.5%	50.0%	13.0%

Discussions with study participants revealed that differences in the duration and content of training sessions could be attributed to the targets of the different partners as well as available resources to carry out such activities. Some participants noted that refresher training sessions are irregular, either due to lack of funds or the neglect by the implementing NGOs.

> "Training takes place, we have two categories of these people. As I said before, those under World Vision, they get training all the time, they have been given bicycles and even bags.

But those under Amref only get training once per year, which can't be beneficial, so there is need to add training days. And let them at least give them bags and provide them with mobility." Male, Yambio County

"There are trainings done only we do not know when and how, but the trainees were given T-shirts. The recent training took them one week and it was about challenges they face and what can be done to solve them." Male, Bor County

"The training is not frequent as the NRC [Norwegian Refugee Council] trained only some members and so far no other training has been done. The training ranges from one day or two days, depending on the program and support from the organization." Male, Wau County

"It depends on our implementing partner. If he says there is training of anything or refresher training for these BHWs so that they can do what can make them improve on their services they offer to the community, it can happen. The last time they did the training was in 2019, which was for family planning. Since then, we haven't done it again." Male, Wau County

Types of trainings received

BHWs indicated that most trainings provided were for MNCHN, FP/RH, WASH, case management and referral, gender discriminations associated with FP, and RH for women and girls.

As shown in Table 5 below, most BHWs had received training on MNCHN and FP/RH, with the exception of 17 percent of BHWs from Bor County, who did not receive MNCHN training, and 33 percent of BHWs from Yambio who did not receive training on FP/RH.

Only in Wau County did all the BHWs indicate they had received training on nutrition (a key component of the BHI package). Other counties had a relative percentage that received nutrition training, except for Yambio. where only 58 percent of BHWs indicated having received the training.

Seventy-eight percent of BHWs from all study sites indicated having received a training on WASH, with the highest positive response rate in Yambio county of 92 percent; only 58 percent of BHWs in Bor County received WASH training.

Only 56 percent of all BHWs in the study sites mentioned having received training on gender discrimination associated with FP and RH for women and girls. Only 36 and 25 percent of BHWs in Kajo-Keji and Yambio received training, respectively.

In Yambio County, no BHW indicated having received training on SBC approaches for managing shocks and crises, and other topics, including COVID-19 and GBV.

When asked who provided their training, most respondents indicated having received training from implementing partners such as UNICEF, IMA World Health, CARE International, World Vision, HPF, and Amref, among others.

Table 5. Type of Trainings Received by Boma Health Workers

Topic trained on:	Bor (n=12)	Budi (n=11)	Kajo-Keji (n=11)	Wau (n=8)	Yambio (n=12)	Overall (n=54)
MNCH	83%	100%	100%	100%	100%	96%
FP/RH	83%	100%	100%	100%	67%	89%
Nutrition	92%	82%	73%	100%	58%	80%
WASH	58%	82%	73%	88%	92%	78%
Case management and referral for children under 5	67%	82%	36%	88%	33%	59%
Gender discrimination associated with FP and RH for women and girls	67%	73%	36%	88%	25%	56%
Social and behavior change	8%	55%	55%	88%		37%
Approaches for managing shocks and crises	17%	27%	9%	25%		15%
Other topics (COVID-19 and GBV)		9%	9%	63%		13%

Below are a few excerpts that substantiate the findings related to the trainings.

> "I was trained by IMA and CARE International. We were brought from the community for training and in that training, we were told what to do when we were to go back to the community. Our roles as the community health workers involved community awareness, treatment of children who are age 5 years and below, and diseases such as malaria, pneumonia, and diarrhea. We were trained on nutrition but were told to refer the cases to the hospital. Even for cases of malaria, pneumonia, and diarrhea, we advised not to manage the severe cases in the community but to refer them immediately to the hospital." Female, Bor County

> "There are training opportunities available for BHWs through the implementing agencies. Recently the BHWs were taken for a one-week training by IMA after they started work there." Male, Yambio County

> "It was done to us twice; we did phase one and phase two training. And the refresher training was for phases one and two. In phase two, we had refresher training for pregnant women and breastfeeding mothers. And training on GBV and FP." Female, Wau County

> "Yes. As I said, we have trained boma health workers in three phases, phase 1 one was on child health, phase 2 was on safe motherhood, phase 3 was on communicable diseases. During our supervisions we also give on job trainings; if they have any problem in a certain area, we take our time to train them." Male, Yambio County

> "There were some refresher trainings on the services we deliver. I think the first one was conducted last year, then after that one, we were also called for review training, then for this year, we were also called for it. I think probably three times." Female, Kajo-Keji County

Stakeholders during the validation workshop revealed one of the factors affecting trainings is that the type of trainings received by BHWs is dependent on the BHI service packages selected by each implementing partner, as not all the BHI service packages are implemented as a whole. They noted that

for example if a partner has chosen the child health package, the BHWs will only receive training on the child health package.

> "The type of training received by the BHWs is based on the type of initial BHI package the implementing partner chooses … some partners for example are not implementing safe motherhood" Female, validation workshop

3.2.4 DEPLOYMENT AND CATCHMENT POPULATION FOR COMMUNITY HEALTH SERVICES

Target population: Across the five study sites, the most-mentioned targeted population for community health services provided by the BHWs are children under 5 and expectant mothers. This, according to the study participants, is guided by the BHI strategy that prioritizes these groups. However, a few BHWs indicated providing their services such as health promotion, RH education, and GBV to other categories, such as adult males and females, including adolescent girls in schools.

> "I target children from 2 months to 5 years of age and pregnant women. Yes, we consider women of reproductive age and adolescent girls." Male, Budi County

> "We treat children from 2 months to 5 years for checking malaria, diarrhea, and pneumonia. And for expectant mothers, we advise them to receive maternal and antenatal service in the PHCU or health facility." Female, Wau County

> "I mostly deal with children and mothers to monitor their health and refer them." Female, Yambio County

> "Pregnant mothers and children who are vulnerable to diseases and anemia are the ones boma health workers help the most. But the community health workers do help the vulnerable adults by giving them some nutritional advise and encouraging them to go to the hospital for more support." Male, Bor County

> "Boma health workers help children under 5 years, pregnant mothers, and children with malnutrition to make sure children are fully immunized. They also send pregnant mothers to the health facility for antenatal services and family planning education." Female, Kajo-Keji County

Ratio of BHWs to a population and geographical distribution: The BHI strategy provides that each county is assigned 80 BHWs with a maximum of three BHWs in each boma. The guidelines also provide that each BHW is expected to cover at least 40 households with a radius of at least 5 kilometers from the health facility. Discussions with the various KIs and BHWs revealed that in some locations, these operational targets have been met. The majority of BHWs confirmed that they are currently covering between 40 and 50 households.

> "According to the criteria used to select this they started with 80 BHWs plus four supervisors to make a total of 84 health workers. Each BHW should cover 40 households in the area." Male, Yambio County

> "The boma health workers cover areas 5 kilometers away from the nearest health facility. One health worker is supposed to be responsible for 40 households, but you find that some

bomas are so large to the extent that the three workers are not enough for the whole boma." Male, Juba County

"Each boma is assigned three boma health workers. If you estimate that population, it is huge for only three health workers to cover the community in that boma where the population is largely scattered, and the distances are far from each settlement. If the community could have been in one place, it would have been easy for the three community health workers to cover that population. The payam is large with a huge population and you are to walk on foot to visit the bomas and other populated centers and the time could not be enough to cover them because you are walking on foot." Male, Bor County

"They can be many, but you have to serve the 40 households and the extra household, you can just help them, but you don't put them in your file folder." Female, Wau County

"The homes we cover are very many, it is mandated for each BHW to cover 40 households. Each boma health worker visits 40 household to give health education. For example, if people are always falling sick of malaria you need to keep on visiting that home to give health education on prevention and practice to help them. It is said prevention is better than treatment." Male, Yambio County

"The area assigned to me is big but what I got is 45 households. We look at the household that have women of reproductive age and those having many children, then we consider them because other families sometimes have old women who are not of reproductive age and have no children." Male, Kajo-Keji County

Whereas the operational targets of BHI have been met in some locations (i.e., one BHW serving 40 households), some BHWs indicated covering more than the stipulated 40 households. Study participants noted the limited supply of BHWs compared to the required geographical scope for service delivery. In scenarios where there are more than the assignment households, the BHWs indicated providing only health education to the extra households. The provision of community health services by three-member BHTs will limit access to services in communities that are in large bomas. Additionally, the strategy may also prove challenging for mobile and semi-nomadic communities in search of water and pasture, as well as in urban bomas with larger populations. Also, during the rainy season, many communities are inaccessible and therefore are at risk of going without care.

"The BHI policy allows the boma health worker to only work in 45 households, but due to scarcity of boma health workers they may cover more." Female, Budi County

"If the households are more than 40, you keep checking the households to see who has conceived, is there a child who is sick, and if there is a sick child, they will even be the one to bring the child to you." Female, Wau County

"The households are more than 45, because the village is big with about 80 households." Male, Budi County

"Currently the population I do not know off hand, but the number is beyond 45. We are supposed to deliver services to only population of 45 households but it's now beyond this number." Male, Kajo-Keji County

"In the beginning, I was told to take care of 40 households in the community. Okay, I am concerned with pregnant mothers and children from 2 months to 5 years as well as youth and GBV. I do these activities daily. We were assigned as per the number households in the community from village to village." Male, Wau County

"One person can treat around 50 households because for us there in the community the population is going too high. You can get a BHW treating up to 40 to 50 households, though in the BHI program, one person is responsible for 40 households. When the community population goes high, then they can increase for you the family folders and increase for you the households." Female, Budi County

Allocation of catchment population: Discussions with study respondents revealed that it is the responsibility of the village chiefs to assign the BHW their respective households, given their understanding of the geographical boundaries of villages and bomas as well their inhabitants.

"It's the responsibility of the boma chiefs to divide them to the villages and assigned into different bomas for everyone to carry out his duties. Also, as each boma has a number of villages, the assigned BHW will have to move in all those villages." Male, Kajo-Keji County

"The boma chief assigns the households to the boma health worker and boma health supervisor because the chief knows the actual number of households in a particular village." Female, Budi County

"You move from home to home because they gave us 40 households. Then you have to check those households to see if there are any pregnant women, then you can register the woman." Female, Wau County

"We always use the boma map and its boundaries, also the chiefs and headmen do provide us with basic boma information while they do mobilization to the community whenever there are community visits." Male, Kajo-Keji County

"This is the work of BHWs teams, they will go with the chief or the youth to check the boundary of the area and see how many households can be within a specific catchment." Male, Wau County

"The executive chiefs or the village chiefs assign them to those locations and also the county government or the county health director." Male, Yambio County

3.2.5 OVERSIGHT, MONITORING, AND SUPERVISION OF BHTs

Effective supervision and monitoring are important factors for the success of any community health program. Discussions with study participants across the five study locations revealed several media for and levels of monitoring including the community through community meetings, the local chiefs, BHW supervisors, implementing partners through BHI officers, health facilities in charge, and county health departments.

The roles of these diverse stakeholders in the monitoring process are different from ensuring quality and effective service delivery to provision of required performance data through weekly monthly reports.

Implementing partners: Study findings revealed that some implementing partners have BHI focal persons who are responsible for coordination, supervision, and monitoring of BHTs. Given that BHI interventions are partner-based regarding financing, the implementing partners maintain oversight of supplies and monitor the project's specific targets.

> "When we were called for training, it was the government but later on we were given a health partner which is responsible for our work. The partner supplies us with things to help us do the work. The partner is supervising our work too. What we do not know—and I cannot predict—is when their support or project ends and who will take us to another." Male, Bor County

> "We do report to the health partner which is supporting our program so that they know how we account for the support they give to the Boma health workers. So, we do submit the report to the implementing partner and then it is forwarded to the government." Male, Bor County

> "I think these people are monitored by the community liaison officer who is based at IMA office. He's the one handling the BHWs and is normally the one who goes to monitor them or sometimes calls them here at the center so that he monitors the performance of each BHW." Male, Kajo-Keji County

> "What our BHW supervisor does is look through our reports when we bring them at the end of every month. In case of any mistakes, he corrects us. He goes to monitor us in the community every Friday and looks into our report tools and corrects us where there's a mistake. Since we started our work in July, he has been monitoring us every Friday in the community level and at the facility level where sometimes BHW supervisor attends, it's every end of month or twice in a month." Male, Kajo-Keji County

> "Well, these BHWs are monitored through supervision which is done once per month. We normally call it support supervision. So, if you go and visit them you should be able to go through their checklist if you realize some gap/mistake, you will be able to provide support. It is not only me doing the supervision but sometimes we go as a team to give that support to them. So at least every month we make sure we visit each of these BHWs." Male, Kajo-Keji County

> "The policy that guides us is that IMA, who gave us the work in the community, selected for us a leader/supervisor that moves in all the area to see how we are doing our work and sometimes if he does not go to supervise us, he delegates the headmen to see whether we are working well." Male, Kajo-Keji County

> "The boma health workers' services are being supervised in segments. First is the organization that brings the planning and resources with support from the Ministry of Health. For example, we have the boma health workers who are getting material support from CARE and technical oversight monitoring from the County Health Department. We also have the boma health workers who are under the support of the Wau Teaching Hospital, and this is not in our supervision." Male, Wau County

BHW supervisors: BHI guidelines provide that the BHW supervisors maintain oversight and supervision of BHWs. One BHW is expected to supervise at least seven BHTs. Discussions with study participants across the five study sites revealed that the BHW supervisors are maintaining their mandate of supervision and monitoring of BHWs. The nature of support and checks provided by BHW supervisors include on-the-job training, management of medicines and supplies and ensuring availability of BHWs on duty. BHW supervisors indicated that monitoring is conducted through on-site visits to the villages or through telephone calls. However, in some locations, BHW supervisors raised the challenges of lack of mobility and mobile connectivity and the very wide geographical scope that ultimately affects the quality of oversight and supervision of BHWs.

> "It is our supervisor who moves to monitor us at least twice per month." Female, Yambio County

> "Ah, the support I give them is on-the-job training. If there are some challenges, then I can help them. I even organized a refresher training." Male, Wau County

> "The boma health workers are monitored during community meetings, their services are evaluated through the community members and also monitored by the boma health supervisor." Female, Budi County

> "I do my supervision in two ways. I can have telephone supervision to find out whether there are gaps or areas where someone has not understood because most of the BHWs are still new to humanitarian work. Then there is also this technical supervision where I go to the headman of the area to check on the work of the BHWs. The headman will explain how a person is doing. For example, if the person is a drunkard, does not work, or goes to work late, how that person manages distributing medicine or dealing with an emergency, like when a child who is ill. So, this is one type of technical supervision that I do. Also, we have weekly meetings at the facility where we go through their work one by one to see whether the person is really doing the right work." Male, Kajo-Keji County

> "The BHWs usually have supervisors. These supervisors each look after and report on 20. The supervisor makes sure they submit their monthly reports on time. They are given tools for supervising the work of the BHWs to make sure they improve on the quality of work they are doing for monitoring their activities making sure they are giving correct information. And in case there is a stockout, the supervisor should be able to alert us so that we supply according to what the supervisor has requested from the boma health supervisor." Male, Kajo-Keji County

Chiefs: Chiefs are directly involved in BHW selection and the allocation of population and geographical catchment areas. Study participants emphasized their role in monitoring and supervising the activities of BHWs. While the monitoring of BHWs by chiefs is less structured and relatively weak in some locations, their involvement is a good practice that should be strengthened given their level of proximity to the community and BHWs.

> "Their supervisor monitors them and the chief of area because he is within the community. The chief is the one who knows everything and if he says those people are not doing well then, he reports the concerns to authority. If the person is not doing his or her work well, a

new person is selected as a replacement. The person monitoring them is a chief." Male, Wau County

"I think being a BHW, the first supervisor of mine is the chief or the headman, then from there the youths because there is what we call a youth leader who usually monitors what I am doing and then our supervisor. Also BHWs supervisor also monitors our work. So, within the community it is the chief and the entire community then perhaps the villages." Female, Kajo-Keji County

"I think their performance is well because sometimes we get their reports through the chief of the area where they are operating." Male, Wau County

"We do monitor it ourselves as a community, and I can also monitor them as a chief and we also call for the youths to go and monitor it. I have my own office and I can call them all there to see how their work is moving." Male, Wau County

Health facilities in-charge: In some locations, such as Kajo-Keji County, a health facility in-charge takes on the role of monitoring the BHWs.

"For the organization, the in-charge of the facility does the monitoring, and they can also get some advice from the boma health committee on how the work should be done because the boma health committees are also given trainings on their roles." Male, Wau County

"I use a bicycle or motorcycle to reach there to see for myself whether they are working." Male, Wau County

Community: Study participants highlighted the community as one of the stakeholders involved in monitoring community health service delivery provided by BHTs. According to study participants, monitoring is done through community meeting forums where well-performing and underperforming BHWs are identified. Participants reiterated that they are ones who select BHWs and as such have a role in their monitoring. These arguments are in line with the provisions of the BHI regarding the role of the community in providing supervision and monitoring of BHWs.

"The same people who selected them monitor their work to see if they are really doing the right work or they are just sitting at home and not doing the right by the community. They give the report to the county health director." Male, Yambio County

"The boma health workers are monitored during community meetings, their services are evaluated through the community members and also monitored by the village chiefs." Male, Budi County

"If the BHW are not doing the work as expected, we in the community will report him or her to the headmen of the villages who will ask why he or she is not doing the work to ensure the community receives health services." Male, Kajo-Keji County

"The community even monitors us, because if we are not working well, you will hear complaints from them." Male, Yambio County

3.2.6 CHALLENGES IN IMPLEMENTATION OF THE BHI PROGRAM

Despite relative success in the implementation of the BHI, the study observed bottlenecks, some inherent to the health system. Some of the notable challenges include frequent stockouts of medicines and supplies, limited number of BHWs, inadequate incentives provided to BHTs, limited supply of working tools, low acceptance of FP/RH services, and weak coordination between subnational and national stakeholders. These challenges have limited the access, demand, and overall quality of community health services and may be relevant and applicable to other locations where the BHI is currently implemented.

Frequent stockouts of medicines and supplies

Discussions with BHWs and key informants indicated how frequent stock outs and irregular supply of essential medicines, supplies, and commodities affect the community health system. Stock outs and irregular supplies were attributed to weak supply chains, including long lead times and limited storage facilities, both of which are characteristics of the country's health service delivery. The stock outs and irregular supplies were mentioned as a bottleneck in the South Sudan Boma Health Initiative Costing and Investment Case Analysis by Gilmartin, et al.[25] The analysis indicated that while the projected costs for the BHI include sufficient funding to procure the necessary medicines, commodities, and supplies, they do not cover the high distribution costs or the costs of resolving the other supply chain bottlenecks.[26]

> "The BHI is helping people. The only thing is that when there are no drugs it becomes difficult for them to offer their service and especially here in the state, we do not have drugs." Male, Wau County

> "I will talk basically about our area of operation. We are under MNCH, so I don't see many challenges except with supplies of essential supplies of drugs—the procurement process takes a lot of time." Male, Yambio County

> "What I have seen is the issue of drugs for the young ones, for children drugs are not there, generally the working materials are inadequate. At times they are provided to us but get finished very fast since the number of people needing them keeps on increasing. Then things to do with FP/RH and other materials are not there and even the male condoms are limited." Female, Kajo-Keji County

> "Major issue we face here is insufficient drug supply, few drugs were supplied since February until now, there are no drugs. Sometimes the body temperature of a child is high that would require immediate help before referral but there is nothing available to give." Male, Kajo-Keji County

Low number of Boma Health Workers given the geographical scope

The geographical and population coverage expected of a BHW is a radius of at least 5 kilometers from the health facility, with a household target of 40. Discussions with study participants revealed that some bomas are geographically wider with a dense population and with fewer BHWs recruited. This affected

[25] Gilmartin et al. 2019, Op Cit.
[26] Gilmartin C., Collins D., and Driwale A. 2019. South Sudan Boma Health Initiative Costing and Investment Case Analysis. Management Sciences for Health. Arlington, VA.

the overall coverage and quality of services provided by the BHWs. In such locations, there is a need to increase the number of BHWs that are recruited.

> "Yeah, in Kajo-Keji, we are in all the payams. However, we are not in all the bomas. Like in Kangapo 1, we only took two bomas and most of the bomas are not catered to. Like when you go to this side of Kiju, Liri, Litoba, we don't have BHWs there due to the insecurity. These were insecure places during the war. When you go to Litoba, there's a health facility but the population was very small. So we feel that it was not necessary because according to the policy at least the population should be 5 kilometers away from the health facility. So we preferred places like Liwolo payam where we took around five bomas because there were no health facilities in the whole of Liwolo." Male, Kajo-Keji County

> "One health worker is supposed to be responsible for 40 households, but you find that some bomas are so large that three workers are not enough, so it means you need to have more boma health workers. We are limited by resources and also the BHI strategy says three per boma, so some workers end up taking care of more than 40 households, others even take care of 700–1,000 households, so they are really overloaded." Male, Juba County

> "Well, for us in the community, each boma is assigned three community health workers. If you estimate that population, it's huge for only three health workers to cover the community in that boma where the population is largely scattered, and the distances are far from each settlement. If the community could have been in one place, it would have been easy for the three community health workers to cover that population. The payam is large with a huge population and you are to walk on foot to visit the bomas and other populated centers. You don't have the time to cover them because you are walking on foot." Male, Bor County

> "Another challenge we are facing is in term of population. For example, I am working in two villages where the population has grown and the number of households is beyond what we are supposed to cover, so there is limited number of BHWs. In the time to come I think if it is possible, I want the number of the BHWs to be increased so that the BHWs are strictly assigned 45 households." Female, Kajo-Keji County

> "The number of trained health workers is too little to cover the areas in which they are to provide health information and treatment, and they don't reach them simply because they are too few. Also, these services are not up to date because of poor motivation from concerned authorities and so they work reluctantly. It is one of the weaknesses and it is a challenge to them. They are lacking financial support and so can't meet the expectations of the community." Male, Bor County

Inadequate incentives

Across all study sites, study participants alluded to the inadequacy of incentives provided by implementing partners and this affects the overall motivation of the BHTs. Some of the FGD respondents indicated that due to inadequate pay, some of the BHWs sell the medicines and supplies, an assertion the study team could not verify.

"They are so many, the incentives provided are really inadequate, many boma health workers complain, they actually quit the job but the community leaders talk to them and they come back for the purpose of serving the community, so that is already a weakness." Male, Juba County

"What they're doing is good but they are not paid well and that is why they normally take the drugs and sell. Let the government look into it and support those people but sometimes they can wait for over three months to receive their salary." Female, Yambio County

"The challenges that are facing the BHI at the personal level is that the government has to intervene on the issues of incentives. You find that a boma health worker is doing the daily work and is only receiving US$25 per month, which cannot sustain them for two weeks. And they are busy working during the day and night hours throughout without getting something for themselves." Male, Wau County

Limited supply of working tools

Study findings reveal that the supply of various tools such bicycles, motorcycles, raincoats, and flashlights vary from one location to another. These tools are provided by the various implementing partners depending on the resource availability. In some locations, like Wau County, some of the BHWs revealed having received bicycles to facilitate their movement while BHWs in counties like Kajo-Keji indicated having difficulties in transportation and in executing their duties during rainy seasons and at night.

Feedback from BHW supervisors across the study sites indicated that the lack of adequate working tools such as bicycles or motorcycles affects their ability to timely monitor and supervise the activities of BHWs as provided in their responsibilities. Some respondents in Bor County indicated not having register books or other types of needed documentation.

"There is no policy on mobility and so we do not have the bicycles. We don't have register books for reporting and other documentation. We are doing this work with a lot of challenges due to the lack of policies in place." Female, Bor County

"We really do not have anything to use during our work, no gumboots, no raincoats, it's really hard. We even need bags to carry our record books in." Female, Yambio County

"Yeah, the first challenge we have is the issue of long distance to deliver the health services from 3 to 5 kilometers which may need transport, but we have to find our own transport. Second, lack of gumboots with no raincoats during rainy season always interrupts us from delivering health services." Male, Kajo-Keji County

"The challenges they will get in the case of moving from home to home on foot is distance but if IMA can give assistance to facilitate their movements, I think it is better. So the idea of gathering people together to get the service is also good, it can minimize the challenges of covering long distance moving from home to home delivering these services." Female, Kajo-Keji County

> "There are challenges, for example transport, because some of them have no bicycles, they move on foot and so covering all the areas delivering the services becomes a problem. I think if they are given bicycles for movement, it will enable them to move and cover all the areas. This is biggest challenge I have seen." Male, Kajo-Keji County

> "Our major challenge is the lack of essential services to enable us deliver our health services, items like raincoats, gumboots, and umbrella to protect us during rainy seasons." Female, Budi County

> "One of the challenges is the mobility from health center to the community and from the community to the health center. At the institutional level, yes, what is given to us is not enough for the community. So, it's a challenge that the institutions need to improve. This is giving us a lot of talk with the community, and this goes back to the partners who are supporting us." Male, Bor County

> "The challenges are many. First is distance because we move from home to home, for example, I move long distances which sometimes makes me not able to give the services at right time. So I think if there is means of transport like bicycle, it will be fine. Again, in our village we have bad roads, rivers, busy areas, so if gumboots are provided, it can ease our movement. Raincoats in times of rain." Male, Kajo-Keji County

> "The challenges facing us in our work is lack of mobility. Secondly, we do not have torches or lights for night duty calls to attend." Male, Wau County

Even in locations where some working tools like bicycles were distributed in the past, such as in Wau and Yambio counties, maintenance of these tools are lacking. Some of the respondents indicated that these tools are no longer working.

> "The first challenge is that all the bicycles have spoiled. For these men under me to move from house to house it's difficult because the settlement in the rural areas is scattered." Male, Yambio County

> "The challenges are shortages in transport because most of them use bicycles and most of these bicycles are all worn out or broken down and this question is mostly answered by the BHI focal person, as they know very much the challenges from the boma health workers. Sometimes, there may be shortages of drugs." Male, Wau County

> "So you may have 20 BHWs and they are not located in one payam. They may move to two payams and on bicycle. Also the road network—there is difficulty accessing these other locations and there is also insecurity in some locations." Male, Kajo-Keji County

Weak coordination between national and local-level structures

The BHI strategy stipulates the reporting and coordination mechanisms required for effective BHI implementation. However, discussions with study participants indicated that there is a weak link between subnational and national actors, including intersectoral coordination such as health and nutrition.

"So you find there is a weak coordination and networking between the BHI and secretariat and these others know this weakness at national level comes down to state, county and down to community level. Everyone looks at themselves as different so working together in terms of nutrition and FP is lacking. Some coordination has been initiated by different partners, so they think we are not reporting to BHI or the ministry, creating differences and competition and duplication. Doing different things in the same area looks like a duplication." Male, Juba County

Low acceptance of FP and RH services

Despite overall community appreciation of services provided by the BHT, study participants indicated community resistance to some services, such as use of contraceptives as a FP option. BHWs told of misconceptions and myths on the use of contraception, such as being associated with infertility and miscarriage, and that they sometimes attract GBV.

"I will begin with a FP because when you do a FP, there are people that reject that. The awareness you're doing is good, but FP is not good. When you give an invitation to men to attend FP awareness sessions they don't attend." Male, Wau County

"Other people say oh! The medicine for family planning stops them from producing others and say its causes miscarriage, so most people don't want this." Male, Yambio County

"The challenges facing the BHW is when you reach one household and you are about to deliver the awareness in the case of family planning, in case you find a woman at home alone, it will be rare for you to conduct awareness sessions because if you tell her the importance of family planning, her husband will be a problem to you. Because he may think that you are spoiling his wife as they do not want their women to be given family planning services." Male, Wau County

"Regarding the service of FP, that's where a lot of challenges arise because they have that assumption that if the person takes this FP, the person will not produce again or else it will cause a lot of bleeding to the woman. Those are the challenges facing the BHWs in the community." Male, Wau County

"When you go to a lactating mother with awareness or you just wanted to take the MUAC, there is a challenge if the owner of the home isn't there because the owner of the home will think you have a problem with his wife. And if the woman isn't home, but the man is, she might think you have an issue with her husband." Male, Budi County

"The challenge is that the community does not understand very well about FP and most people are not educated. Some people in the community told them FP will finish our tribe But with the teaching we give them now people are so welcoming in using condoms and contraceptives. When we explain FP to them and they get to understand all this, it will work very well." Female, Yambio County

Lack of a clear sustainability plan from implementing partners

Despite the BHI being a government-founded initiative, the program predominantly relies on implementing partners to finance its activities, such as incentives for BHTs, which are largely project-

based with defined timelines. However, the program lacks a clearly defined exit strategy from implementing partners and this cripples sustainability since resources from the government are meager.

> "Yes, there are so many weaknesses. First of all, there is no exit strategy for the initiative. The BHI is a government strategy and we started it as government and later because of funding fatigue, it was given to partners like UNICEF and HPF. If HPF funding is coming to an end, or UNICEF, what happens? How do we move on? How do we transition? So that is one thing that is missing and that has to be put in place." Male, Juba County

> "When we were called for training, it was the government, but later on we were given a health partner which is responsible for our work. The partner supplies us with things to help us do the work. The partner is supervising our work too. What we do not know—and I cannot predict—is when their support or project ends and who will take us to another level." Male, Bor County

> "On the side of health, there was a group formed by IOM in 2019 who had been doing awareness about hygiene promotion, like how to cover food and wash utensils. They also talked about open defecation by children and how flies carry those pieces on to food. But when the contract for IOM ended then there was no support to the team, and they couldn't continue and that was 2019." Male, Wau County

Limited number of female BHWs

The BHI strategy provides for gender considerations in the recruitment of BHTs, whereby at least one of the three BHWs in a boma should be female. However, an analysis of BHW profiles shows that there are some BHTs without a female member. The limited number of female BHWs in the BHI negatively affects equality in representation and ultimately the acceptability of services provided.

> "There are some challenges affecting us, especially the supervisors, because we normally make routine supervision to the boma health worker and you find that the boma health worker is a married woman and when you normally go to her, the husband may get annoyed and ask why are you always coming to his home. He may be suspecting you have an intimate link with his wife while it is only the work-related visits." Male, Wau County

3.3 ACCESSIBILITY AND ACCEPTABILITY OF COMMUNITY-BASED FP/RH AND MNCHN AND WASH SERVICES

3.3.1 AVAILABILITY OF FP/RH, MNCHN, AND WASH SERVICES

Study results show variations in perceived availability of FP/RH, MNCHN, and WASH services in the five sites. The perception across study sites was that WASH services were on demand but not adequately available in the communities. Although FP/RH services were reported as available, there were concerns that they are largely the short-term FP methods like Sayana Press rather than the long-acting reversible contraceptive and permanent methods. However, stakeholders at the validation meeting emphasized that the safe motherhood package only entails provision of awareness by BHWs but MIHR took an additional step in the provision of short term planning methods such as the Sayana Press. They indicated that the distribution of short-term family planning methods (Sayana Press) was initiated and endorsed by the Ministry of Health in 2020.

The excerpts below also show that BHWs are involved in awareness raising and in making referrals for FP/RH services, but the focus tends to be more on short-term methods.

> "Yes, they talk to us about family planning. They tell us that if you have given birth a lot, you take a rest. When you come to the PHCC here, you are provided with those services." Female, Bor County

> "We do give them what is available like Sayana Press. The first thing we do is to give them awareness for them to choose which family planning type they need then for those chosen we explain the side effects, and that in case anything happens, they need to contact us to refer them to the nearest health center." Male, Kajo-Keji County

> "They only administer Sayana Press, but are out of stock. For other methods they refer the client to the health facility to access the family planning services." Female, Budi County

> "We always do awareness and if there's someone that needs FP then we referral them to the health facility. What we give are male condoms." Male, Wau County

> "Actually, currently in FP the gap that I have seen is other methods not being available, like IUCD. A client needs to choose a method of his or her choice. So, all the methods need to available from the government. Also, the BHW do not provide drugs or the methods, but they only give information to the community." Male, Kajo-Keji County

3.3.2 AVAILABILITY OF ADOLESCENT-FRIENDLY SERVICES

Within the RH domain, it was noted that adolescent-friendly services are less available and sometimes nonexistent at the community and health facility level. However, these are more often available in communities that are supported by implementing partners, such as UNFPA. For example, interactions with KIIs revealed that some critical services for adolescent health, such as emergency contraceptives for GBV survivors and information are available and accessible at some health facilities. They also noted that sensitization and awareness creation on adolescent reproductive health services occurs in some schools that have school health clubs, especially with support from partners.

> "Yes, I do educate adolescent girls on family planning, too." Female, Budi County

> "We are looking into mechanisms for delivering friendly adolescent services, but we have not started yet. Adolescents are free to come and express their feelings, including about reproductive issues, so that they can be aware that when you do, ABCD things like this may happen. For adolescents we are also planning to do things like visiting clubs in schools when they are open to make awareness." Female, Kajo-Keji County

> "To access family planning services like condoms, we buy them from pharmacies at the counter. Others might get them from a friend who might have attended an awareness session in one of the BHI health facilities, or during a Youth Day celebration or a youth campaign session where healthy living messages for adolescent are interactively emphasized and passed to them." Male, Wau County

"There are emergency pills available that are given out especially during or when GBV cases like rape happens. We also give them testing and counseling services." Male, Kajo-Keji County

"Actually, these emergency pills are there. Let me talk of the units that we are supporting. We have them and the door is open for every adolescent girl who is in need and there are also trained personnel in those facilities to administer the pills." Male, Kajo-Keji County

"First, awareness is being done to the girls and parents to make them aware that a girl of 15 years can go for these services because some parents do not understand. Secondly, in our schools we have what are called school health clubs. So, some of these topics are always discussed, for example management of menstruation, personal hygiene, and many others." Female, Kajo-Keji County

"In some facilities, some implementing partners are the one supporting this area, like especially the UNFPA was leading this program in the Yambio state hospital. They even created Friendly Space there for the youth, but with their withdrawal it died. It is challenging because the adolescents need to be talked to about sexually transmitted diseases. Now they really have not much knowledge on sexual behaviors." Male, Yambio County

3.3.3 AVAILABILITY OF SELF-CARE SERVICES

In relation to MNCHN services, services provided by BHWs such as community mobilization, creation of awareness, identification, and referral for MNCHN services were perceived as available. However, at the facility level, there were concerns about irregular availability of the MNCHN services due to structural health system barriers including stock outs of medicines and health supplies, and unavailability of health workers/providers. In terms of nutrition, for example, it was noted that nutritional services are available in several PHCCs. Health workers are able to identify malnourished children, their mothers are encouraged to feed the children with the right foods, and at times they are given supplementary food or oral rehydration salts for their children and a referral to the health facility in instances when they cannot manage. However, it was noted that in some facilities and communities, especially in Budi, only awareness raising about nutrition is provided. Similarly, services for promotion of nutrition during pregnancy are provided, but this is largely related to raising awareness for nutrition for pregnant mother during their visits to the health facilities.

"These people talk to us about nutrition services. They measure children with MUAC. The MUAC is marked with white, red, and yellow signs. A child with white sign is normal. A child with yellow sign has moderate malnutrition, and red sign is a danger or acute malnutrition sign." Female, Bor County

"If your child is sick and taken to the health facility and checked, and found to be sick, then they are examined, and treatment begins immediately. And that is when they take the MUAC. If the child is found malnourished they begin the registration process to be given groundnut paste; even a pregnant mother is given porridge." Male, Wau County

"Currently we examine the infants and found three that were malnourished and required feeding. Only ALITE has a center near when we do refer the malnourished to them. We

encourage the mothers to cook greens and kitchen garden things like small fish (Kije)." Male, Kajo-Keji County

"Yes, I do move from home to home to screen malnourished children and mothers." Female, Budi County

"I educate mothers with malnourished children to give their children enough food and they should have enough spacing, because when they conceive when the child is very young the one in the womb will be eating and there is not enough food then the child will be malnourished." Male, Budi County

Antenatal Care

Basic ANC services during pregnancy are available and several participants noted that mothers are encouraged by health workers to seek ANC as soon as they discover that they are pregnant. Mothers are encouraged to sleep under a mosquito net during pregnancy and many were happy to receive the nets. Interactions with health workers and mothers also demonstrate that there have been efforts to educate and promote the use of mosquito nets. Some participants, especially in Wau County, noted that although they received education on using mosquito nets, they were not supplied to them.

"We always tell them from the date we discover they have conceived to visit in the hospital until the date of birth. We will also be checking on the woman and the child's health to see how they are doing." Female, Wau County

"Yes, they do go for maternity in the health facility once their periods stop coming. They're always given a card for follow up and checking on monthly basis." Male, Wau County

"We had been telling them because when you are pregnant sometimes you have malaria, we advise them to have mosquito nets. We also monitor them frequently." Female, Kajo-Keji County

"We offer health education to pregnant mothers and all mothers to make sure their children under 5 years sleep under mosquito nets to prevent malaria. I used to tell them to sleep under mosquito nets and they asked where are the mosquito nets—you need to provide us with mosquito nets." Male, Budi County

"They don't give us nets, but they encourage us to sleep under mosquito net." Female, Wau County

"We used to see these things and our women were very happy to receive them but these days even mosquito nets aren't there." Female, Yambio County

Skilled care for childbirth

Our results show that although there is demand for delivery under skilled care, its availability is affected by the lack of midwives in many facilities. In some facilities, participants noted that midwives are available only for a few days. It was noted that although these services are free of charge, they are not regularly available and, in some cases, facilities have closed the maternity services that were run by NGOs due to limited funding for their activities. Under these circumstances, referrals to facilities that are more equipped with the skilled human resources to offer delivery under skilled care is quite a common practice.

"Yeah, the services are available but there is only limited number of midwives in the facility and we do receive a lot of patients. The Sokare PHCC is busy place and it's the only functional facility." Male, Kajo-Keji County

"At the health center they only work for two days a week. This means they can only help 100 a week in the area and our population is almost 4,000." Male, Wau County

"Those services are not available because it was NGO giving MNCH support. When their contract ended then it was handed to the government. After two to three months no midwives were available at the health facility." Male, Wau County

"Doctors do not ask for any help from us because they make every delivery in the hospital." Female, Yambio County

Immunization Services

It was noted that immunization services tend to be available in the PHCC facilities, especially in terms of health education and checking to verify that a child has completed all relevant vaccinations for his or her age. In some facilities, immunization services are integrated with other MNCHN services including ANC and PNC. Mothers receive health education on immunization and its importance to the health of the children. But participants emphasized that there are still a lot of gaps in awareness of immunization. There are several myths and beliefs in the communities that discourage immunization of babies and children.

"For immunization, many people do not want their children to be vaccinated saying oh! The vaccine kills children. We tell them no they should bring the children to access medicines to be safe from the six killer diseases." Male, Yambio County

"We also screen children for malnutrition. We send them to a health facility for treatment. We also check for immunization of the child, and if they haven't completed their vaccinations then we send them to the hospital." Male, Yambio County

WASH Services

The results show glaring gaps in availability of WASH services in most study sites. Several participants noted that many people do not have access to clean drinking water. For the most part these services are only available where there are implementing partners working on WASH.

"The only problem is that there is no water in one of the villages I am working in, women go to fetch water from a far river, it delays my services as in the morning most of women are not at home during my visit time. They also told me that you told us to drink clean water, but we do not have water, so why are you not bringing for us water to this village?" Male, Budi County

"There is no clean drinking water around this area. We drink from our muddy boreholes apart from the school Donkey water. There is no way for us here to get water, sometimes the church helps its people with their donkey water." Male, Yambio County

"There are other partners who employ some workers on WASH services. IMA, TEARFUND, and ALITE send to implement the WASH program in the community." Male, Kajo-Keji County

"So basically, what is there to consume is not enough. Facilities to implement WASH are not enough and many people don't have good nutrition compared to those with the balanced feeding. The number of people with knowledge of WASH are few and therefore there is a gap there." Male, Bor County

3.3.4 SOCIAL AND BEHAVIOR CHANGE AND HEALTH PROMOTION ACTIVITIES BEING CARRIED OUT BY BHWs

Results show that SBC and health promotion are carried out by BHWs through health education, home visits, and outreaches that they organize. SBC activities tend to be integrated to cover several aspects in the community including exclusive breast feeding and child spacing. The major forms of SBC tend to largely use interpersonal communication approaches to pass on messages and engage the target audiences. During fieldwork, we observed that this mechanism of communication tends to resonate

well given the context and the target audiences. Since BHWs are known to the community members and live within the community, they are trusted and also have the cultural competence to pass on information in ways acceptable to the community. Relationships BHWs have with the various stakeholders in the community were also contributing to the effectiveness of reaching out to the target audiences with information and messages on the various services.

"Yes, give health education telling them to have family planning so that they have enough spacing, and I show them the pictures of mothers who give birth with no proper spacing and when they see it, they said no, spacing is bad, and they take family planning." Male, Budi County

"They are doing very good work—they visit homes and teach people about the signs of disease and also tell them if there are issues like a disease outbreak." Male, Yambio County

"What we are telling them is to let the child feed on the mother's milk until after six months, then you can give the child extra food like tilapia soup and goat meat soup and other food such as fruits, so they are more resistant to diseases." Female, Bor County

"We do promote activities through our boma health workers because they are trained on the services we provide. They normally do health education and awareness with the help of the community liaison officer." Female, Kajo-Keji County

"During our awareness training all the categories of people turn up, young and old. One team concentrates on the adolescent group and the other attends to the adult group." Male, Wau County

"I always alert them early enough to prepare for the community meeting so that they do not go for cultivation on that day. The meeting must be early in the morning before the men take something that change their minds (hot drinks/drugs)." Male, Budi County

3.3.5 FACTORS INFLUENCING THE ACCESSIBILITY AND ACCEPTABILITY OF COMMUNITY-BASED SERVICES

Limited knowledge about the available services: Several participants noted that awareness about available services is quite limited in the community, and this affects access to and use of these services.

It was also pointed out that the BHWs are not adequately equipped with knowledge and skills to effectively educate and promote the use of MNCHN services in the community. Notwithstanding this, participants acknowledged the role of BHWs in encouraging people to seek MNCHN services and that their engagement with mothers at the community level has created awareness and increased acceptability and care seeking at facilities.

> "The challenges are the knowledge gap because currently we are using community health workers who are not educated and so lack the knowledge to convince the community." Male, Budi County

> "There are people in the area, at the beginning of the program, they were not accepting the services but as the BHWs continued offering the services, they are now accepting the services, like going for vaccination and taking the children for MUAC measurement, and following the instructions given to them by the health worker." Female, Wau County

Limited knowledge of sexual and reproductive health (SRH) issues, including HIV and AIDS, was also evident and affected acceptability of HIV testing and other HIV prevention and care services. Statements from study participants exhibited issues of fear, stigma, discrimination, and limited knowledge about the basics on HIV, including symptoms and how it is transmitted.

> "This one person I told them, you know there is something called HIV but they asked me how do you know this person has HIV. I told them to avoid using sharp objects like razorblades, needles, and having sex with someone you do not know his/her status. For us we do not have testing kits for HIV—only for malaria. I refer those who want to have a HIV test to the health facility." Male, Budi County

Social and gender norms: Our results show that acceptability of FP/RH is still a big challenge due to harmful social norms. It is a common belief in the community that women should have as many children as possible. These norms are reenforced by several negative social sanctions including the perception that women who have adopted FP are prostitutes. These social norms negatively affect demand for and acceptability of FP/RH services.

> "Most men have not accepted and understood the issues of FP so we advise any women who come for it to bring their husbands. We usually tell people FP needs couples to agree to space their children. I feel the name FP is not well understood and so we can call it child spacing. Some men at least are getting this well and accepting it." Male, Yambio County

> "They talk to us about family planning; the only issue is that we the people from the village do not accept this family planning issue." Female, Bor County

> "What I'm seeing as critical is the FP services because for us even if we do awareness, it's hard. Most people don't accept it, especially in our boma only a few people accept it. The reason is because men don't want their wives to go for FP, they just need them to produce." Male, Wau County

Perceived effects and myths related to FP services and limited capacity to manage and provide counseling about the side effects were reported as affecting access and acceptability of FP services. These, combined with the social and gender norms, negatively affect acceptability of FP/RH services.

> "I think the challenges of the program is that other people say when you take that FP/RH, you are not going to deliver anymore and others say FP is brought so that people fail to have more children in the community and to stop people completely. I think as they were saying that when you take them, you bleed too much." Male, Kajo-Keji County

Affordability of FP/RH, MNCHN, and WASH services: The findings related to affordability of services were mixed. While there was an appreciation of the availability of free services at the health facilities, medicines and health supplies were perceived as not being affordable. This meant that service users would be offered consultation but would not be able to pay for the medicines and other health supplies. Due to frequent stock outs of medicines and essential supplies, services have become expensive at the facilities. Some observed that health workers send clients to the clinic to buy drugs at a high cost. Participants also raised concerns about informal payments where health providers at a facility ask to be paid first and only then provide the drugs from where they have been stored. Some attributed informal payments to poor remuneration of health workers.

> "Yeah, it is affordable because you can go to any PHCC or PHCU you can get all the services." Female, Budi County

> "Sometimes when a doctor writes me prescription and recommends me to the clinic, he may take the form and tell me to give him 1,500 SSP, after which he goes to the secret place and brings me all the medicine. In the clinic these medicines can go for over 3,000 SSP." Male, Yambio County

> "I think these health workers are not paid well, that is why they take the medicine and put it in their clinics, because if they are not paid well, a proverb says, 'a goat eats where it is tied'— that is when drugs are supplied to the facility, health workers take it privately." Male, Yambio County

Frequent stock outs of medicines and supplies: The high stock out rates at health facilities have forced health workers to refer clients to other facilities where they can get the service. Several participants raised concerns about frequent stock outs of medicines, commodities, and other essential health supplies. This has affected the availability, access, and quality of services provided, especially at the health facilities. And it discourages potential service users from seeking care at the public health facilities.

> "There are no complete kits for my work. And there are no kits for cutting the newborn baby umbilicus, so women are using other objects for cutting, which is dangerous to the child. The far villages where I walk for a long distance to deliver services, time is wasted moving from one household to the other." Male, Budi County

> "When people run out of male condoms, they come and ask for injectable FP, but we were not trained to give them." Male, Yambio County

> "Family planning education to schoolgirls is a challenge. Adolescent girls fear to access the family planning methods because the services are not offered in private place. Therefore, there is need to put it in private place so that girls should not feel exposed." Female, Budi County

"The main issue why others are not coming is because there are no medical services available in our community. Our brothers would have returned from the camps if health services are provided for in this community." Male, Kajo-Keji County

"What happened is that we had contraceptives the other day, but then we run out and have to wait four months for another supply. Now even myself as health facility in charge is tired looking for medicines and when I get tired I just sit down and watch because I don't have transport to be moving up and down." Male, Yambio County

3.3.6 MODES OF DELIVERY OF COMMUNITY HEALTH SERVICES

Home visits

Discussions with participants revealed that home visits are among the common methods health workers use to reach out to the community with messages on MNCHN services. Home visits seem to be popular among community members. The health workers also believe home visits are more effective than outreaches, because not everyone will choose to attend.

"I prefer home visits because you can verify the number of households and how many people are staying in each one. Another reason is you give the information directly to those who are there, unlike community-based outreach, where some people may not come." Female, Kajo-Keji County

"During my health work, the community comes to my house for treatment. But during my scheduled outreach or household visits, I carry the medicines for checkup and treatment in the community." Female, Wau County

"Normally we move from home to home and also sometimes you may get people gathered together, so you can pass the message during this time. I think the home-based is the best because more especially in our community now, people have different work activities and so not everyone will come. So when you go home to home you will find them at home because you already know the time when people will come back home from farm work. So home-based is the best." Male, Kajo-Keji County

"So, what we are doing is, within the week, we spend three days moving in the areas to home screening children and people who don't show up for medication." Female, Yambio County

"Some of us are sometimes reluctant to come for ANC services because some of us hate standing in the queue for long. However, these people come to our homes to encourage us to go to the health facilities for ANC services. They tell us it is dangerous if you don't go to the health facility. You may get sick, and your child may die. When they find a malnourished child, they blame you for not taking the child to the health facility and then advise you to take your child to the health facility." Female, Bor County

"That one is hard because in one home you may find the man has more than three wives, so you have to call them one by one and talk to them and examine their kids. Sometimes we put all of them together and talk to them. Sometimes if our patients do not come, we must move to know what is happening to them." Female, Yambio County

Outreach

Outreaches, including community mobilizations, sensitizations, and awareness creation, were considered an important mechanism to deliver MNCHN services and were also popular in the community.

> "Yes, it's acceptable because of the awareness which is being carried out by the BHWs and even when these services were not available, they could come and ask for them and we used to tell them to wait. Now we have the services, and they are coming for them." Female, Kajo-Keji County

> "Indeed, we do sensitize all mothers to be healthy and to attend maternal antenatal services. We do advise women also to take their newborn child for immunization so as to reduce infectious disease as well as ensuring mothers keep their environment safe and clean." Female, Wau County

> "Sometimes they mobilize the people in public places like churches and marketplaces or even during the outreach programs where they talk to the people about FP, safe mother, and GBV issues." Female, Kajo-Keji County

> "The awareness that they are giving us about FP, MNCH, and safe mother is really very good to me because some of us don't know some of the signs of malaria or pneumonia. They move from home to home and sometimes they bring people in one place and talk about having and using latrine, hand washing after visiting latrine, and keeping our environment clean." Male, Kajo-Keji County

> "They used to move from home to home to deliver their services and sometimes they used to gather people at village square and talk to them about health education. However, these days, I have not seen these people gathering people or move home to home to deliver their health services." Female, Bor County

> "We do both services of home visits and outreach programs. Static is only for mobilized community for awareness sessions." Male, Wau County

> "We visit homes and also we do it through outreach. Sometimes we collect people into church and even in the market and we use microphones that were given to us to mobilize people for health education." Male, Yambio County

Outreaches were also heralded as crucial in taking services nearer to people living in remote and hard-to-reach areas and contexts. And so for pastoral communities and those communities that are far away from health facilities, health workers have organized outreaches and home visits to take services to such communities.

> "The community uses motorcycles and bicycles to reach the Catholic Comboni PHCC and it is very far from Sikka Haddid community. Emergency matters become complicated at night as there is no staff to attend to health and medical needs. Walking at night is also risky due to insecurity." Male, Wau County

> "They will go looking for displaced and pastoral groups, so they will use mobile clinics." Male, Budi County

"Municipalities like Khor Malang require transport facilities for health services provision. Jerusalem and Lokoloko B are further points to reach within the municipality. There is Hai Gum, which is not reachable with health services, with 350 households, and all these people desire services. They receive services through support from organizations and government." Male, Wau County

"BHWs use outreach and visits to bring medical services to the displaced because of the wars." Male, Yambio County

"So, what we are doing is within the week we spend three days moving home to home screening children and people who don't show up for medication." Male, Yambio County

"The mechanism is that we go to the schools to conduct health education including FH/RH and MNCHN because the female teachers are also health teachers. So, when the adolescent girls feel like taking the FP services, they know the benefits of the services. They go to the health facility because they are aware that we don't administer FP methods, we only deal with children younger than 5 years. Sometimes they ask about provision of sanitary towels in the school, and I normally tell them that it's a good question, but I will forward the question to my supervisor so that he will look into it." Male, Kajo-Keji County

3.3.7 MAJOR SERVICE GAPS IN RELATION TO COMMUNITY-BASED FP/RH, MNCHN, AND WASH SERVICES

Several gaps emerged related to the provision of community-based MNCHN services. These included health systems-related factors such as stock outs of medicines and other health supplies; lack of adequate and consistent numbers of critical cadres of health workers to provide community-based MNCHN services; long distances to health facilities; high cost of services that make them less affordable; and insufficient infrastructure in some of the PHCC. Acceptability of services was also affected by prevailing social norms that do not support the use of FP/RH and MNCHN services in the community.

3.4 SUPPLIES AND RESOURCES

3.4.1 INADEQUATE ESSENTIAL SUPPLIES AND RESOURCES FOR COMMUNITY HEALTH ACTIVITIES

Study results revealed that essential supplies are usually available but not adequate. Study participants indicated that the common sources of supplies are from the implementing partners like HPF, World Vision, UNFPA, IMA World Health, and ICRC. The common supplies include anti-malarial, ORS and zinc, metronidazole, Anadol, and condoms—especially male condoms. The supplies are kept at health facilities where distribution is done There are no nutrition supplies in most of the communities and WASH services are limited. The study further revealed that facilities only are supplied on a quarterly basis, thus causing frequent stock outs.

"The BHWs have promotion materials on FP which they use while sensitizing communities. The tools are in pictorial form which eases their work. They are also equipped with registers and other items like MAUC tapes and job aids." Unspecified, Wau County

"This one is the biggest challenge even if you go to the hospital, we are given written prescriptions to get in the clinic. If it's an injectable, we even buy our syringes. If you have no money, you can even die." Male, Yambio County

"The medicines we receive are normally Paracetamol 10 tins, Amoxicillin 10, ORS 5 boxes, metro 2 packets. When we receive this medicine then you will see that many people are coming to the facility, and we also provide the medicines to the BHW, which leave us with very few. After one month when they come back for drugs, they will find nothing because all the health facilities have been closed." Male, Yambio County

3.4.2 INCENTIVES AND REMUNERATION FOR BHWs

According to the BHI strategy, all members of the BHT are expected to enter the public service payroll at the grade of the current BHW (Grade 17). They are entitled to lunch allowance at the local rate for field work that takes more than three to four hours. All BHWs are recruited as volunteers and are given a cash incentive at the end of the month. Study participants at the national level indicated that the incentive given to BHWs is US$25 per month, according to the BHI strategy; it is silent on the incentives to be paid to BHW supervisors. In-depth interviews with stakeholders indicated that currently BHWs receive between US$25–50 per month and BHW supervisors receive US$100 per month and is dependent on the implementing partner. In accordance with the BHI, all of these cash payments are made by implementing partners including HPF and implementing partners like CARE International, World Vision, IMA World Health, Health Link, and HAA. The government is meant to payout a small salary to BHWs on a monthly basis, but its implementation has not been uniform and effective across the country.

Study participants alluded that the current cash incentive received by BHTs is very small and demotivating for the BHWs, but they continue to work to save the lives of their communities. One of the major challenges surrounding incentives is the expectation that all BHTs not be engaged in another job. Study participants indicated that they cannot sustain their households with only the meager resources provided under the BHI.

"They have challenges paying these incentives because in the system of BHI, they said a BHW should not do any other job apart from the work of BHI. But the incentives that they are giving is little, and isn't enough for the BHWs at all, the money is very small and can't even cover them for a month." Male, Wau County

"It is stipulated in the BHI strategy of 2017 that each BHW to be paid US$25 per month, so the salary from government is just a supplement. But you find that for the supervisors, it has not been captured in the BHI strategy, but it has been suggested that the BHW supervisors can also be paid like US$50 or US$100 per month so that has been suggested in consultation by the ministry. But you find that the US$25 for the health workers is not adequate because it was developed in 2017, so now it can't buy something, so partners who have resources decide to increase the US$25 and that's against the policy of the ministry." Male, Juba County

"This incentive is paid at the end of the month and the BHW receives US$25 per month and the BHW supervisor receives US$100." Male, Wau County

> "The incentives are paid by NGOs Care International and HPF, they're the one supporting the program. And from the government side they give something small in terms of salaries when you are recruited. All the BHWs take their certificates to the Ministry of Health for appointment and if it's not taken then we are given an allowance at the end of every month." Male, Wau County

> "Actually, according to my personal information, the boma health workers are only paid US$20 and they are saying the amount is not enough to manage for their families. And they want their incentives to be increased." Male, Wau County

> "The supervisors, ideally the boma health workers and the supervisors, are supposed to be on government payroll, so they are enrolled on grade 15 they get about 850 South Sudanese pounds for the health workers and the supervisors get about 200 when they are on the government payroll. Now our implementing partners like UNICEF for Greater Upper Nile provide incentives to these boma health workers. According to the BHI strategy, a health worker is supposed to be given incentives of US$25 per month and the supervisor US$50 s per month." Male, Juba County

During the validation meeting, study participants alluded to the variations in the amount of incentives paid out to BHWs and indicated that the amount of money paid to the BHWs, is dependent on the number of BHI packages being implemented by an IP. They for example pointed out that some IPs implementing three packages such as child health, safe motherhood and family planning are paying up to $50 per month while those implementing one or two packages are paying only $25. It was additional raised that whenever a new training package is added to BHWs, they often demand for an increase in payment. There is therefore a need to harmonize modalities for BHWs incentives increment along with the various BHI training packages.

> "Those who trained using the old package are still paying 25$ but those with new packages are paying $50" Male, Validation workshop

In addition to financial incentives, some BHWs receive nonfinancial incentives like raincoats, bicycles, gumboots, soap, and in some areas, food. This to some extent motivates the BHWs and eases their work. Appreciation from the community also motivates the BHWs to work.

> "I do give them moral support because as one of those working without salary, I am the best example to them, am working for the community. My advice to them is that getting training is a form of knowledge given to them." Male, Wau County

3.4.3 LINKAGES BETWEEN BHWs AND HEALTH FACILITIES (SUPPORT, REFERRALS)

According to the study results, there is an established referral system from the BHWs to the health facilities. IDIs with BHWs and BHW supervisors revealed that the BHWs complete a referral form prior to referral of very sick patients, malnourished children, pregnant women, and those who need FP services. Once the facility receives the form, the health facility worker completes the referral form and sends a back copy to the BHW.

Study findings reveal that the referral mechanism is functioning and there is a good relationship between the BHWs and the health facility workers. The relationship has been established by the boma

health committees that usually create the link between the BHWs and health facility workers through meetings. The BHWs also refill their drug prescriptions from the health facilities, and it is from here the BHW supervisors do their reporting. This has strengthened the relationship between the two cadres. The referred people are usually quickly attended to by the health facility workers.

> "The relationship between health facilities and boma health workers is really very good because we have boma health committee that monitors the PHCC and builds the relationship with hospital staff. Sometimes we take them with us to attend meetings with some of their staff." Male, Yambio County

> "In fact, our implementing partner gave us all types of forms. We are given referral forms so that if we find a malnourished child then we can write a referral and go to hospital or PHCC. If it is maternal, for example if a pregnant woman did not go for follow up, then we can send her to the hospital and be admitted." Male, Wau County

> "We have a referral form when we get a patient. The form is divided into two, one side for the BHW to fill in and the other for the health facility worker to fill in." Female, Bor County

> "The BHWs work with health facility workers during the outreaches in the BHW catchment area. This has built the confidence of the BHWs in the community." Male, Kajo-Keji County

> "The linkage is good. When I have an outreach in an area, I invite some of my BHWs and they join me to pass out information to the people." Male, Budi County

3.5 EFFECT OF SHOCKS AND STRESSES ON THE COMMUNITY HEALTH WORKER PROGRAM

3.5.1 SHOCKS AND STRESSORS AFFECTING COMMUNITIES

Shocks are sudden upsetting or surprising events or experiences, while stresses are slow onset events, changes, and longer-term dynamics that occur to individuals or community.[27] South Sudan has faced numerous shocks and stresses resulting from constant conflicts and intercommunal fighting that continuously affect the country's population across all states.

Type of shocks and stressors in study sites

Study participants were asked what types of shocks and stresses they have experienced in their community. The most mentioned across the five study locations were the wars/conflicts, especially in 2013 and in 2016, between the government forces and the SPLM-IO. These conflicts caused the current displacements and fear on the part of communities to return to their homes.

Cattle raiding, insecurity, land grabbing, diseases outbreaks, and flooding were additional stressors/shocks mentioned across the five study locations. For instance, study participants noted that Bor County experienced heavy floods in 2021 and 2022, which blocked access major routes. Some

[27] Sinha, S., M. Lipton, M., and S. Yaqub. 2002. "Poverty and Damaging Fluctuation": How do they Relate?" Journal of Asian and African Studies, 37(2), 186–243. https://doi.org/10.1177/002190960203700209.

bridges were destroyed, and roads were washed away, thus preventing some communities' access to essential services, including community-based health care.

Insufficient food supply, limited access to health services, poor education, theft/looting of property of the displaced persons, and lack of access to essential/basic life services were also mentioned as stresses experienced.

> "The truth is our communities sometimes do not have access to essential life items such as medicines, washing soap, salt, and education due to floods that covered most parts of Jonglei State. I feel bad when a person falls sick during the flooding time because it is very stressing and there is much suffering walking through floods to take a patient to a health facility." Male, Bor County

> "Can you imagine all our communities from Baidit and Jalle were affected by the floods, cutting off all the roads, since the commissioner and other security organs can no longer easily access these places. Even the insecurity has increased on the road because they know no security operative that can go there." Male, Bor County

> "In the Liwolo payam, we have people whose cattle were raided–combined it might reach a tune of 120, 130 heads of cattle. Due to this raiding, the community lost three people dying of having stolen their cattle resulting in too much unbearable stress." Male, Kajo-Keji County

> "I think the shocks and stresses that people have in some of our communities relates to the massive looting that happened during the war when all people's properties were taken by unknown gunmen who took advantage of the war in their areas. When you walk around villages of Kajo-Keji, you find all houses missing roofs, doors, and windows, which were taken by the looters to Uganda to sell." Male, Kajo-Keji County

Overall, shocks and stresses continue to occur in MIHR locations, and they bring about very unpredictable situations that make it difficult for organizations and government to establish strong community-based health services mechanisms, including the BHI.

Women are more affected by the shocks/stresses as most house issues are vested in a mother and her female children. A woman is not free to do anything without her husband's permission; even when a woman makes money, the husband has the strongest say. In most cases when a woman fails to agree to the husband's opinions, she is beaten, adding stress to her life. Husbands drinking alcohol indiscriminately is another problem.

Participants further revealed that populations found in the internally displaced persons (IDP) camps sometimes face a lot of humiliation and attacks from the refugees themselves as well as the host communities, resulting into psychological and mental stresses.

> "From the time I left my home and went to a camp is when I realized that I had lost everything for real this confirmed to me that loss of property due to war/conflict and leaving your homeland to (camps) is a big source of stress for most people including me. You can never be comfortable in a camp like being home." Male, Kajo-Keji County

"The only thing is that the community is living in complete poverty with no food as a result of war or floods that destroy their crops; it causes them a lot of stress." Female, Yambio County

"One of the shocks is the lack of medical supplies like the drugs. It has affected our work because when we were selected and trained, we were told that we will be treating the children and the community was expecting this—but in reality, we are not treating because of lack of drugs. Another issue is the poor road conditions, which sometime make me reach the community late." Male, Wau County

3.5.2 EFFECT OF SHOCKS/STRESSES ON DELIVERY OF COMMUNITY HEALTH SERVICES

The study participants at different levels confirmed that shocks/stresses have adverse effects on the community, the work of BHWs, and the delivery of community-based health services. Perpetual shocks and stresses including floods, civil conflicts, tribal conflicts, communal conflicts, cattle raids, home-based violence, and limited access to medical services have impacted health services. In some areas like Bor, floods cut off roads, increase insecurity, and scare boma health workers from their duties. Some BHWs have been revenge killed by other community members.

In-depth discussions with BHWs revealed that community health service delivery is currently operating in very complex environments, working under uncertainty and unpredictability. Some boma health workers say that this kind of environment negatively affects health service delivery. For instance, the recent cattle raids in Bor not only affected the community but also the BHWs who ran to Bor Town in fear of their lives. The recent civil conflict in Kajo-Keji disrupted not only people's movements, but also the availability of medical supplies. Because of insecurity, most people left their villages; it is only recently that Kajo-Keji people have started returning to their villages. Respondents noted that the damage to health facilities in Yei and Kajo-Keji will take a long time to get back to their original state, before the 2016 civil conflict.

The assessment further reveals that in some communities, some people have become aggressive and rude toward each other and BHWs, due to the constant mistrust and insecurity people feel. Women are the most affected since they have little voice, even though they shoulder a lot of home issues. Even in IDP camps, they face continued aggression and fierce fights erupt between South Sudanese of different tribes.

"Let me tell you, it is worse for BHWs to go to a home which has a barren woman and talk about family planning. If you are lucky, you are not beaten. This almost happened to me one day and I had to just run." Male, Bor County

"I can't believe that you go to Uganda as refugees, but then you start fighting among yourselves. This is a very high level of ignorance, because what do you expect those who hosted to do when they see you fighting?" Male, Kajo-Keji County

"There are no aged people in our community. Even when you go to the camps in Uganda, most of them died because of stress." Male, Kajo-Keji County

"Doctors are expected to go anywhere to save lives of the people." Male, Yambio County

> "The limited supplies of medicines make things difficult for the communities like Bazungua. Also, we all need mosquito nets, but some people cannot afford to buy them." Male, Yambio County

> "Despite the fact that war displaced a good number of people, even the resistant ones were greatly affected by the prolonged drought that left most of the communities with no food. As a result the majority have opted to run to the IDP camps to secure handouts and to look after their families." Male, Kajo-Keji County

Overall, these shocks and stresses can lead to misery, disease, and sometimes death. For women, it is worsened when losing a husband or children to war/conflict. It is important that the communities are helped with coping mechanisms to avoid or reverse the adverse effects of the shocks and stresses.

3.5.3 COMMUNITY COPING MECHANISMS FOR COMMUNITY-BASED HEALTH SERVICES USED DURING AND AFTER CRISES

According to WHO, coping mechanisms are counteractive actions undertaken by people whose survival and livelihoods are compromised or threatened.[28] The ability of communities to cope with and respond to shocks and stresses is key to becoming resilient. Discussions with study participants revealed several coping mechanisms to shocks and stresses, such relocation to the camps/IDPs, use of traditional herbs as opposed to western medicine, wild fruits and food, prayers, and social gatherings. Some communities that share border posts like Kajo-Keji find it is easier to cross to the neighboring country for treatment; for instance, some South Sudanese go to Uganda (Moyo District) for health services.

> "In very difficult situations where the communities are far from the health facilities, there is need to encourage the communities to use bitter herbs like Luguwo to treat diarrhea, and Dikoritimelo to treat malaria." Male, Wau County

> "Our survival is very hard, only God is the one helping us through this hard time, and we only struggle by our hands and keep praying." Male Yambio County

> "In a situation where we are not able to reach the health facilities as well as the BHWs, we cross to Moyo district in Uganda to get the services. The truth is a person like me because you cannot allow yourself to die, you go to health facilities in other places." Female, Kajo-Keji County

> "There was no miracle to survive, only to get back to our traditional ways of survival, looking to wild fruits and foods, traditional herbs for those who fell sick. To be honest you could hardly find services in the entire payam." Female, Yambio County

3.5.4 BHWs EMERGENCY PREPAREDNESS AND SUPPORT TO PROVIDE COMMUNITY-BASED HEALTH SERVICES DURING AND AFTER CRISES

Study findings revealed that BHWs play a major role in ensuring continuity of health services whenever a crisis/shock occurs. BHWs indicated that they are part and parcel of the community, and such, as they collectively move with the community when displacement occurs. During and after movement, BHWs

[28] 35 WHO. 1999. "Emergency Health Training Programme for Africa - Coping Mechanisms." https://apps.who.int/disasters/repo/5517.pdf.

continue with the provision of the necessary health services to the community which are within their mandate.

> "We as BHWs always run together with the community in case of a crisis, wherever they settle is where we settle as well, so as to allow us treat whenever a community member falls sick, and we continue giving our services to the community." Female, Wau County

> "If it is the flooding, we are relocated together with the community and could continue with our work and when it is conflict, then it comes with a lot of destruction." Male, Bor County

Despite the important role that BHWs play during crises, the assessment heightened the limited level of training and preparedness among BHWs to respond to the various shocks and stresses.

> "We have faced a number of crises in this county. What pains me is that our state/county leadership in most cases has not bothered to advise, train, or equip us with the right materials and tools to deal with the crisis. Instead, the leaders behave like they do not know." Male, Wau County

> "The difficulties as I had mentioned earlier include there being no drugs, or sometimes drugs are available but a long distance away. I am also seeing if we could be provided with something that can help us with mobility." Female, Budi County

> "If any emergency comes in our community, our health workers are not fully trained in such things of emergency. For instance, you can imagine we have never been trained on dealing with Ebola, COVID-19, etc." Male, Yambio County

3.6 GENDER CONCERNS

3.6.1 GENDER-BASED CONCERNS ASSOCIATED WITH HEALTH OF WOMEN AND GIRLS

Gender roles and norms: Gender roles and norms across all communities visited dictated specific roles for males and females. Women and girls are mainly confined to domestic chores including collecting water for domestic use, cooking, caring for children, house cleaning, and washing utensils. Given the increased awareness and sensitizations, however, some women are engaged in activities outside the home, especially those who are working and engaged in income-generating activities (IGAs). Discussions with study participants revealed that the high workload limits women and girls' opportunities to access services and information on many issues, including sexual reproductive health. For instance, discussions with BHWs in Budi revealed that challenges in accessing water for domestic use makes it difficult for them to find women in their households for health education.

The negative social norms by men toward the use of contraception by their spouses and cultural expectations for women to give birth were additional emerging gender concerns, especially for women. Some male respondents expressed that, "God said that we should go into the world and multiply." These norms increase risks for women involved in FP activities.

> "The only problem is that there is no water in one of the villages I am working in. Because women go to fetch water from a far river, it delays my services as in the morning most of women are not at home. I could not deliver the messages to the women and pregnant

mothers. They also said to me you are talking about health education and what about water." Male, Budi County

"Some of us have looked into this thing, it has a lot of side effects that is why we decided that we can protect our wives to avoid complications." Male Yambio County

"FP may be good, but I cannot allow it cause even God said we should go into the world and multiply, so this is a sin, I do tell my wife to sit and count on God for his plans for us on daily basis." Male Wau County

In addition, given the patriarchal nature of the communities visited, participants noted limited decision making among women. Male counterparts perceive the female as a weaker sex and so they are not given opportunities to express themselves or make decisions. One female BHW for Kajo-Keji noted that: ''The decision to seek health services rests on men, as most men look at the women as weaker sex. They are not given opportunity to express themselves." This could limit their agency in using their voices to advocate for themselves as well as having confidence in participating in decision-making on health concerns that impact them.

GBV: Study participants across the five study sites observed that GBV is a common concern and is mainly perpetuated by men. GBV mainly manifests through child negligence, economic violence, sexual abuse, and physical and emotional violence, especially fighting and quarrels among couples. However, despite noting that GBV is rampant, most GBV cases are rarely reported. The nonreporting of GBV is related to feelings of guilt, shame, and fear of being reprimanded. This has several consequences on the health of women and girls, including continued physical injury and fear to access to health services.

"There are a lot of GBV cases, we get them. At times the issue is upkeep, husband doesn't give feeding fee to the wife and husband doesn't registered kids at school." Female, Wau County

"Then the type of GBV discovered in the community is mostly domestic violence, the economic crisis, the economic violence. Sexual abuse and rape are the common violence happening in the community. So always what they do is to conduct awareness and the survivor can go to any clinic near and get services." Female, Wau County

"What is affecting ladies mostly is poverty. Sometimes GBV gets them and results in unwanted pregnancy. Sometimes a man is drinking, he does not want to take care of his family and leaves the woman alone. After a beating, wives rush to us for treatment and after the treatment we ask them to bring their husband for advice." Male, Yambio County

"GBV is too rampant here. I see couples fighting every time. If a man fought with the wife, then the brothers of the man are called to settle the issue. It is rare to find a woman beating a man— men are the ones beating their wives every time. They beat us badly to the extent of injuring our heads." Female, Bor County

"There are many problems. Sometimes GBV issues happen in the communities but go unreported because the abused person is afraid to express themselves and they end up without reaching the health facility." Female, Kajo-Keji County

> "There are many things happening to ladies. They say they have been abused by other community members, that's why they fear to turn up for the services." Female, Wau County

Several risk factors for GBV were reported: GBV risk factors include lack of FP, household financial stress/poverty, alcohol abuse, and weak institutional capacity to respond to violence. For instance, on FP use, it was noted that men often commit acts of GBV on their spouses who decided to use FP services, especially without their knowledge.

> "Before there were cases of gender-based violence, but because I tell women to decide as couples whenever they need to take a family planning, when a man wants to use condom, the wife must agree for him to use the condom and the same to the woman if she wants to take a contraceptive the husband should agree for the woman to have it." Male, Budi County

> "Some women fear to take the family planning because they are afraid of their husbands causing violence." Female, Budi County

> "Sometimes, a woman can go and have FP without telling the husband, she can be beaten." Female, Wau County

> "It happened in my village where the wife stayed for four years without conceiving yet the husband wants a child because the other child is big now. So when he realized that his wife took FP, he starts beating the wife until he forced her to remove it." Male, Kajo-Keji County

Perceptions about effects of FP use on women: Perceived effects of FP on women and girls include delayed infertility, changes in menstrual cycles, and frequent bleeding. This has limited their access to FP services. Discussions with participants further revealed that women have no voice when it comes to making decisions related to FP. In all the communities visited, it was noted that the decision on use of FP is male-dominated, making it very difficult for women to exercise their agency to use reproductive services.

> "Men say when their women take this medicine their periods fail to come or sometimes it comes too much with heavy flow, and it makes their wives not to deliver again." Male, Yambio County

> "I have seen a case for FP where a man decided that his wife should use it, then later, she never delivered again, so when the man wanted to divorce her for not giving birth, the wife summoned him to the court and said he was the one who said she should take FP. I almost lost my wife into divorce due to this—I cannot allow her to take FP, I cannot accept it again, I know how to control my wife. In fact, I can move out of the relationship by using a condom to keep my wife safe, but I totally disagree with family planning method." Male, Yambio County

> "Sometimes I think the doctors thought of reducing our tribes, because before we never had this many things we were depending on our local herbs, and there was not much complication like now." Male, Yambio County

3.6.2 ROLE OF BHWs IN IDENTIFYING, ADDRESSING, AND PROVIDING REFERRALS OF GBV CASES

South Sudan policy and program documents show that the GBV service package for BHWs, BHW supervisors, and other community structures include community sensitization and information dissemination against GBV; provision of basic psychosocial support; information on referrals; and promotion of SRH/FP services, including condom distribution.[29] Results show that BHWs are engaged in the provision of GBV prevention and response services. Most of the prevention services noted related to mobilization of community members and sensitization and awareness on GBV. Response services mainly included provision of psychosocial support, including community-based counseling and referral for medical services.

Informal (community based) counseling and mediation: Discussions show that BHWs across all the study areas are engaged in providing psychosocial support services to GBV survivors including counseling, mediation, and advising survivors to seek legal support.

> "Yeah, we actually bring them together and the talk to them and even to the community leader because that thing happens in the community." Male, Kajo-Keji County

> "If I find a GBV case between a husband and a wife, I call a close relative like a brother or sister and try to solve the issue with them. If it's easy to solve, we can handle it there and then. And if it's hard to solve I can call upon the area leader/chief to solve the issue." Male, Bor County

Findings show that most of the BHWs have limited skills and knowledge on GBV response, especially in counseling and in handling the various mental and psychosocial effects associated with it. One participant noted that:

> "They are not trained on GBV, but in cases of GBV, they can refer the cases to the health facilities and community leaders through traditional ways of settling the cases in the community." Male, Wau County

Identification, reporting, and referral of GBV cases: Discussions show that as the BHWs are executing their duties, they find many cases of GBV. Some of the cases are reported to the relevant authorities while others are referred for specialized services to social workers and health facilities for medical services.

> "We do report to the community chief and that is when we fail to address it at our level. It is not our role, but we identify it and refer it to the chief who could solve it or refer it." Female, Bor County

> "If these people happen to encounter a GBV case, they refer it to the nearby health facility and from there, the facility personnel will report it to the police. They don't have capacity to deal with GBV unless they report to the nearby health facility." Male, Bor County

> "When cases of rape occur, we do referrals and talk to the survivors and keep it secret from people. We normally take those survivors to the in-charge of the facility. We get to know

[29] Gilmartin 2019 Op Cit.

about GBV cases when there are fights. And we always call social workers to also handle those cases." Male, Yambio County

"Yeah, we do referrals, and we teach the community also by telling them if a woman is raped the survivor should be taken to the health facility to be given medication and sometimes if the perpetrator might be HIV positive this helps in saving the life of that person. And some police procedures have to take place." Male, Yambio County

Community mobilization for GBV services and sensitizations: BHWs were reported to be engaged in community mobilizations and sensitization about GBV by encouraging survivors to report cases of abuse, educating parents, and identifying women and families at risk. It was noted that these are mostly facilitated by civil society organizations or humanitarian agencies supporting GBV interventions.

"We do gather community people and talk to them about GBV issues. We tell them no man should beat his wife. Men should respect women because they are the main pillars of the families." Male, Bor County

"Yeah, as I said we have some specific things we are looking at in which we involve GBV, we involve the BHW to educate the community and take part in reporting any case to the hospital. Like during our awareness only women used to come till we had to involve more men, who are now well informed about GBV, and it's now reduced." Male, Yambio County

3.6.3 COMPLAINT MECHANISMS IN PLACE FOR THE COMMUNITY ON GBV AND SRH CASES

Formal and informal mechanisms: Formal mechanisms reported include police, boma administrators, and chiefs. Police are mandated to investigate cases of GBV and make arrests. Informal mechanisms include community leaders, such as clan leaders, village headmen/chiefs, religious leaders, and community structures, such as BHWs, social workers, and GBV monitors. These mechanisms play critical roles, especially in identification, mediation, and referral of GBV cases.

"Sometime back, there was a 21-year-old young man and a 19 years young lady who was already expectant and they were cohabiting. The young man came and forcefully raped his partner. The mother called the chief, and the chief mobilized the youth leader and health officer to rescue as they called the police to come and arrest the young man. After a thorough investigation, it was found that the boy was under the influence of alcohol." Male, Wau County

"Yes, there's a mechanism in place. Normally when the husband fights with the wife, the wife reports to the headman and then the headman reports to me so that we can go and give them advice. If we try and they don't listen to us, then the headman reports the case to the sub-chief who forwards the case the executive chief." Male, Kajo-Keji County

"When they report a GBV case from the community, our GBV monitor normally goes and investigates and brings the victim to the facility. Then clinical management does their assessment of the victim, who is then referred to other support like psychosocial social support." Female, Kajo-Keji County

> "This one is not too common in our area, but the fact is if it happened, we have an organized group called the community police who takes such cases to the facility." Male, Yambio County

> "Sometimes the head of the community youth groups is the one who takes this case to the hospital and after treatment he hands it to the family to take their actions." Female, Yambio County

Participants across all study areas acknowledged the availability of informal mechanisms for addressing GBV cases, especially through the clan leaders, chiefs, elders, and headmen. This could be attributed to their proximity to the survivors. Some studies have shown that formal mechanisms such as police are perceived to be among the perpetrators. However, a study found limited evidence on the effectiveness of these mechanisms in responding to GBV cases. It was noted that these mechanisms have very limited capacity to guarantee the safety of the survivors. Some studies have noted that neither the police nor any traditional mechanism recognize the specific needs or legal rights of GBV survivors. These tend to re-emphasize patriarchal and gender norms that may not be in accord with gender sensitivity, gender equality, and human rights for the victims and survivors.[30] In some communities, community structures such as BHWs, social workers, and GBV monitors are not available.

Health facilities: These are critical in meeting the health needs of GBV survivors. Discussions revealed that health facilities provide a range of services, including SRH and medical examination and treatment of GBV survivors.

> "Yeah, this year there was a case of rape, and the leader brought the victim directly to the facility and we actually carried out the examination and treatment." Male, Kajo-Keji County

> "I think for that one they used to report to the health department and from the health department the case is forwarded to the ministry concerned, like the ministry of gender, child, and social welfare, because there is a unit there for those cases to be resolved." Male, Wau County

> "GBV cases, when not referred, are a problem…like a woman who has been raped, there are some drugs here in the facility you have to give to them, because sometimes you may not know the status of that person, the person may have HIV." Male, Kajo-Keji County

> "These health workers do sometimes refer the GBV issues to the boma administration first and the case is filed then the issue can be handed to the health facility for further examination checkup." Male, Kajo-Keji County

Civil Society Organizations and Humanitarian Agencies: Agencies including IMA World Health, CARE International, and others were reported as key agencies in prevention of and responding to GBV at the community level. Particularly the civil society organizations assist in facilitating the medical check-up for the female survivors; setting up of safe spaces for GBV survivors; providing psychosocial support services; supporting survivors to access legal services; building capacity of GBV actors, especially police and health workers; referral; community mobilization; sanitation; and awareness of GBV.

[30] International Organization for Migration. 2019. Gender-Based Violence Knowledge, Attitudes and Practices Survey in South Sudan. International Organization for Migration, Geneva, Switzerland.

"On GBV cases, there are two people selected in the boma to handle GBV cases. So when the BHWs get GBV cases, they report to these two people. They were selected by IMA and are also working under IMA. If there are GBV cases that happened in the community, for example if I have issues with my wife, these two people will call the chief of my boma and the headman of my village then they go together to settle our issues." Male, Kajo-Keji County

"The community tends to shy away from reporting GBV cases. After a vigorous awareness campaign with support from CARE, we have advised women to report GBV cases to Wau Hospital within 72 hours. We also conduct awareness campaign on GBV." Female, Wau County

"Last time Health Link trained and employed some people on GBV issues, and these people were doing good job. They used to report on a daily basis to their office. However, the contract ended, so these people had no support. GBV cases are not being addressed by anyone now because they lack support." Male, Bor County

SRH and GBV interventions provided by civil society organizations and humanitarian agencies are limited in scope, especially geographical coverage, and are always dependent on donor funding. Interventions are also limited by such factors as safety and security and negative community perceptions about SRH services, especially FP services.

3.6.4 MAJOR GENDER DISCRIMINATION FACED BY BHWs

Sociocultural and gender norms: Based on the interviews with BHWs and CHWs, it was concluded that gender inequality is a crosscutting problem. This is more so with the unequal division of labor, power relations, and access to and control of resources. Female BHWs indicated that they were heavily absorbed by domestic chores and caring for children. Discussions revealed that domestic chores and reproductive roles associated with being a mother and a housewife greatly influence female BHWs involvement in community health work. Participants noted that it exposes the female BHW to risks of GBV if they fail to balance their performance of domestic chores and the responsibilities of community health work.

"The major challenge a female BHW can face is when there is misunderstanding with the husband because of the time spent in the community providing health services to the people and coming back home late and there is no time to do her home activities." Male, Kajo-Keji County

"One of the reasons is like for the women they are mostly taken off by domestic work, which is not always giving them time to attend to these kinds of work and also their men sometimes restrict because they have this mentality that women will not do the right thing. They are always pushy, and most women are in the IDP camps taking care of their children. They may not have access and time to do certain work." Male, Kajo-Keji County

"The challenges associated with a female BHW is when she has family because sometimes, she may take a long time delivering services to the community and come home late, then this will bring differences between the husband in the family. Also, when the BHW is pregnant and she has to deliver services a very long distance away and has no transport, it

will affect her work. Another challenge is that sometimes people may get her very busy with housework and the husband will not allow her to go and do her work." Male, Kajo-Keji County

"I have one challenge facing these people mostly female BHWs and CHWs which affect them both because when a health worker is a female, the community is going to face problem because she will not be able to go and deliver services. So she is given maternity leave and she is at home, but we also have to be treated, this affects the community." Male, Kajo-Keji County

Among male BHWs, gender roles of being bread winners was reported to affect the amount of time they devote to community health services delivery. For instance, a key informant from Wau observed that *"*…the challenges sometimes with men is they have other work to do or they can sometimes go hunting and then they may not be available every time to conduct health education."

Mobility and safety of BHWs: Participants noted that long distances to health facilities and limited access to transport affect the delivery of services by the female BHWs, because of gender roles. Female BHWs also face risks of physical and sexual harassment when carrying out their services. Both male and females are placed at risk of community backlash upon mobilization of community and sensitization about SRH/FP and addressing harmful practices within communities, such early marriage.

"We face issues from the community, especially via men, that we are obstructing their women from delivery. Men also say condom is not the best for their pleasure, some women talk of overflow and delayed periods. Adults say why can't we give them medicine, yet we give their children, yet they are the ones giving birth to the children." Female, Yambio County

"When you are teaching the young girls things like FP/RH, others may end up not coming to you. They will keep saying that you're coming to teach them those methods is like you are coming to stop them from giving birth because traditionally they are not using those methods or else you are coming to bury their families." Female, Kajo-Keji County

"There are challenges we go through as health workers. Health workers are abused and insulted most of the time. Especially female health workers are abused and insulted. They undermine women. However, there is a little bit of change." Male, Bor County

"Other challenges are that most women cannot be allowed to travel long distance away from their husbands because they have house responsibilities. The men take upper hand to say he is the role to make every decision about the family." Male, Kajo-Keji County

In Bor County, some community members expressed concerns of male BHWs talking to women, with some noting that this could lead to increased GBV. For instance, an FGD participant observed that, "Cases of GBV in our community are very sensitive, I will give an example of myself, like I am the wife and a male BHW comes to my house and talks to me about these services. Suddenly my husband comes and found me talking to him. He will definitely think negatively, which can cause a problem between me and him." This could imply that there is need for gender-sensitive services at the community level to avoid risks of GBV and harassment of BHWs.

4. CONCLUSION

Community health services provided by BHWs have been acknowledged as a vital component of primary care and are essential in the delivery of basic and essential life-saving health services. South Sudan has made substantial progress in creating an enabling environment for the promotion of community health services by establishing an appropriate policy and regulatory environment. This community health formative assessment revealed the existence of a well-established management structure for the BHI, which is a key ingredient in the success of community health care services. Like other countries where community health programs have been implemented, the assessment revealed that BHWs are currently engaged in the treatment of children under 5; screening for malnutrition; providing maternal health services, such as facility referrals for FP, ANC, and health facility deliveries; providing emergency response and referrals to health facilities; health education/promotion through home visits; and recording and reporting of vital statistics.

However, the system is challenged by several factors, including frequent stockout of medicines and supplies; low number of BHWs, given their geographical scope; inadequate incentives; limited supply of working tools such as bicycles, motorcycles, raincoats, and flashlights; weak coordination between national and local-level structures; low acceptance of FP and RH; lack of a clear sustainability plan from implementing partners; limited number of female BHWs; and limited human resources at the health facility level. These challenges are similar to those identified in other assessments, such as by UNICEF (2019),[31] Malaria Consortium (2019),[32] and Itto and Deng (2021).[33]

There is therefore a need to improve the supply of essential medicines and supplies; improve motivation and overall sustainability of BHWs incentives; and recruit, train, and deploy more BHWs in areas with high populations.

5. RECOMMENDATIONS

	Strategic	**Key Stakeholders**	**Timeline**
1.	Improve the availability of medicines and supplies for BHWs	BHI partners MOH	Medium - Long term
2.	Improve on the incentive package for BHWs	BHI partners MOH	Medium - Long term
3.	Operationalize the training package for all BHWs with a clear training frequency, duration, and course content	BHI partners MOH	Short term
4.	Promote recruitment and retention of females as BHWs and BHW supervisors into BHI	BHI partners MOH	Medium - Long term
	Operational	**Key Stakeholders**	**Timeline**

[31] UNICEF.2019. "Boma Health Initiative Costing and Investment Case Analysis."
[32] Malaria Consortium. 2019. "Pioneering the Boma Health Initiative in South Sudan, Malaria Consortium." Learning brief.
[33] Leonardo, M. and D. Deng. 2021. "Mapping Exercise Report on BHI & ICMN Activities and Capacities in South Sudan."

5.	Advocate for improvement of BHWs coverage and community health services	BHI partners MOH	Medium - Long term
6.	Scale up investment in social and behavior change to break barriers associated FP/RH and MNCH and female engagement in community activities	BHI partners	Medium - Long term
7.	Increase engagement and provision of adolescent-friendly services in areas with limited supply	BHI partners	Medium - Long term
8.	Improve nature of nutrition-related services offered beyond awareness through linkage with nutrition implementing partners	BHI partners	Medium - Long term
9.	Consider improving availability, operations, and maintenance of working tools and equipment provided to BHWs	BHI partners	Medium - Long term
10.	Increase support for BHWs engagement on; case management, drug management, GBV, and emergency preparedness and response	BHI partners	Medium - Long term
11.	Develop innovative community referral mechanisms in areas with limited ambulances	BHI partners	Medium - Long term
12.	Continue scaling up community social accountabilities activities for addressing GBV prevention and response	BHI partners	Medium - Long term

APPENDIX 1. FOCUS GROUP DISCUSSIONS BY AGE GROUP AND LOCATION

Number of Focus Groups Discussions by Age Group and Location

County	Male (18-24)	Male (25-49)	Female (18-24)	Female (25-49)
Bor	1	1	1	1
Budi	1	1	1	1
Kajo-Keji	1	1	1	1
Wau	1	1	1	1
Yambio	1	1	1	1
Total	5	5	5	5

Number of Participants per Focus Group Discussions by Age Group and Location

County	Male (18-24)	Male (25-49)	Female (18-24)	Female (25-49)
Bor	7	7	8	7
Budi	7	7	7	7
Kajo-Keji	7	6	7	7
Wau	7	7	8	6
Yambio	6	7	7	7
Total	34	34	37	34

APPENDIX 2. LIST OF BHI IMPLEMENTING PARTNERS

LN	Partner	BHI Activities Currently Implemented
1.	MOMENTUM Integrated Health Resilience	● Demand creation and awareness for Safe motherhood focused health services, ANC, nutrition in pregnancy, malaria prevention, skilled delivery and PNC, child spacing and FP. ● Child health—promotion of immunization, treatment of - malaria, diarrhea, and pneumonia for under 5 years, and malnutrition assessment at the community ● Short-term FP method distribution and referral for long-term method ● Health education and health promotion ● Vital statistics
2.	CMMB (self-funded)	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years; malnutrition ● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC ● Health education ● Community surveillance and first aid
3.	HPF Implementing Partners in HPF-Supported States	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years; malnutrition ● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC ● Tracking of EPI ● Health education ● Communicable diseases, disease surveillance ● Vital Statistics
4.	Global Funds Malaria Program	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years; malnutrition ● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC ● Tracking of EPI ● Health education ● Communicable diseases, disease surveillance
5.	UNICEF Implementing Partners	● Conduct demand generation for five thematic areas such as health-EPI, child protection, nutrition, education, and WASH ● Vital statistics ● Referrals
6.	AMREF	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years; malnutrition ● Health education ● Vital statistics ● Referrals
7.	Health Link	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years; malnutrition ● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC ● Tracking of EPI and promotion of EPI service attendance. ● Health education ● Communicable diseases, disease surveillance ● Vital Data collection and reporting

LN	Partner	BHI Activities Currently Implemented
8.	CARE International HPF-funded in WBG and World Bank-funded in Jonglei	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years; malnutrition ● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC ● Tracking of EPI ● Health education ● Communicable diseases, disease surveillance ● Vital Statistics
9.	HAA	● Child health—treatment of malaria, diarrhea, and pneumonia for under 5 years, malnutrition ● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC health education
10.	UNFPA	● Safe motherhood focused on awareness creation—FP, referrals, ANC and PNC ● Tracking of EPI ● Health education ● Communicable diseases, disease surveillance

APPENDIX 3. APPROVALS

REPUBLIC OF SOUTH SUDAN

Ministry of Health, Research Ethics Review Board (MOH-RERB), Juba.

RERB NO:27/07/2022- MOH/RERB/A36/2022 **Date: 18TH August 2022**

Principal Investigator (PI) Yvette Ribaira

MOMENTUM South Sudan- Juba

Research Approval Letter

Dear Ribaira,

Sub: " Community Health Formative Assessment. "

This is in response to the request for authorization of the study " **Community Health Formative Assessment**" As part of Community health promotion , management and response to integrated Health needs in South Sudan.

The Ministry of Health Research Ethics Review Board at its 9th meeting of 2022 reviewed your research proposal and has given a favorable ethical opinion for implementation.

The approval was based on the quality of your application form, protocol and supporting documents that complied with the conditions and principles established by the International and national guidelines for carrying out research involving humans as research participants.

This approval shall be valid until 30th/NOV /2022. In this regard, you are expected to commence implementation of this research. Please note that the annual report and the reques. for renewal, should be submitted to the MOH-RERB one month before the expiry of the approval time. The progress report should not exceed five pages.

In addition, any serious problem related to implementation of this research protocol should be promptly reported to the MOH-RERB, and any changes to the protocol should not be implemented without the MOH-RERB approval except in instances where such a change is necessary to eliminate or prevent an immediate hazard to the research participants. Note that any information generated from the study should not be published without the consen. of the MOH-RERB. I wish you all the best in implementing this research.

For/Amanya Jacob, MPH-SMUD

Director for Research, MOH Juba & D/Chairperson, Ministry of Health Research Ethics Review Board-Juba, (RERB-MOH)

Cc DG Jonglei ,NBG, WR, CE, & LE State Ministry of Health & Counties Health Department.

MOH-RERB 18 AUG 2022 JUBA - SOUTH SUDAN

Tel: +211920536030 Email: ministryofhealthrerb@gmail.com

APPENDIX 4. DATA COLLECTION TOOLS

IDI GUIDE FOR BHWs

Introduction

The interviewer will introduce himself/herself and an assistant (if present). The interviewer will then explain the purpose of the discussion to the participant, go over the consent form and ask the prospective participant to sign the consent form if he/she agrees to participate in the interview.

The interviewer will inform the participant that the discussion will be digitally recorded in order to accurately capture what is said. The interviewer, or an assistant, will operate the digital recording equipment and ensure all discussion points are clearly recorded.

Key Highlights for the participant:

- Stay for the duration of the discussion, but can ask to leave or for a pause if they feel uncomfortable during the discussion. Note that discussion will take up to one and a half hours.
- Should speak loudly and clearly towards the recorder
- Feel free to offer stories and examples, but note that the people involved should not be identified by name
- That you will be respectful of the time limitations of this discussion

Bio Data

1.01	Date	
1.02	Interviewer ID	
1.04	County	1. Bor 2. Yambio 3. Wau 4. Kajo-Keji 5. Budi
1.05	Payam	To be inserted as dropdown depending on the location
2.01	Gender of respondent	1 = Male 2 = Female
2.02	Age of respondent	1 = 18-24 2 = 25-49 3 = above 50
2.03	Marital status	1 = unmarried 2 = married

2.04	Highest Educational attainment	1 = None (Can't read/write) 2 = Basic Primary 3 = Completed Primary 4 = Basic Secondary 5 = Completed Secondary 6 = Completed tertiary (Vocational) 7 = Completed University
2.05	Type of Interview	1 Key Informant Interview 2 FGD 3 In-depth Interviews (IDIs) key BHI stakeholders
2.06	Position of respondent	
2.07	Institution/organization	

QUESTIONS

Instruction: Throughout the entire interview, probe for examples or stories to support points made

Section A: Understanding the governance and policy environment of BHW program

1. How did you become a Boma Health Worker (BHW)?
2. What are the requirements for one to become Boma Health Worker (BHW)? (Probe for; age, literacy abilities, volunteering, role of community)
3. What is the mandate/role of BHWs? Probe BHWs roles on the following:
    a) Family Planning (FP)/Reproductive Health (RH)
    b) Maternal, Neonatal and Child Health (MNCH)
    c) Water Hygiene and Sanitation (WASH)
    d) Nutrition services
4. What is the size of a BHW's catchment population? Probe for:
    a) How is it defined? Who assigns the catchment population?
    b) Describe your target population (youth, women of reproductive age, households etc).
    c) Do you have a daily or weekly time commitment to deliver the services?
    d) How are BHWs assigned to locations?
    e) How is the ratios of BHW to a population defined, and how is the geographic distribution managed?
5. What is the community's perceptions on the work you do?
6. How are the services of BHWs monitored? Probe for:
    a) Who provides oversight/supervises the BHWs?
    b) What is the frequency/time frame of monitoring?
    c) What support do they provide to BHW during supervision?
7. What are the existing policies and programs to support community health service delivery? Probe for:
    a) BHI policies and goals, current managing agency, emergency preparedness and response, among others

b) Training policy, strategy for BHWs fitting with their roles

8. What are the challenges related to the implementation of the BHI?

Section B: Accessibility and acceptability of community-based FP/RH and MNCH services

9. Let's now talk about availability, acceptability, affordability, accessibility, continuity, buy-in from community leaders) of FP/RH, MNCH, WASH and Nutrition services in this community in "calm" times as well as during crises. What is your view on: Availability, acceptability, affordability, accessibility of the following services in this community:
    a) Family Planning (FP)/Reproductive Health (RH)
    b) Maternal, Neonatal and Child Health (MNCH)
    c) Water Hygiene and Sanitation (WASH)
    d) Nutrition services
10. What factors influence the accessibility and acceptability of community-based:
    a) Family Planning (FP)/Reproductive Health (RH services
    b) Maternal, Neonatal and Child Health (MNCH) services
    c) Water Hygiene and Sanitation (WASH) services
    d) Nutrition services
11. Does your current job description/role include provision of self-care services? If yes, what aspects of self-care provision your current job description/role?
12. What components of self-care beyond DMPA-SC and FP do BHW teach to the community? Probe for; Promotion of; appropriate care-seeking behaviour and antenatal care during pregnancy, sleeping under insecticide-treated nets during pregnancy, skilled care for childbirth, adequate nutrition and iron and folate supplements during pregnancy, reproductive health and family planning, HIV testing, exclusive breastfeeding, postpartum, immunization etc
13. What is your view on community-based and home-based services?
14. How do you deliver health services to your clients? Probe for: Home visit, outreach, or static sites?
15. How do you conduct community engagement programs during "calm" times and in times of crisis?
16. How do you conduct social and behavior change (SBC)/health promotion activities in the community you serve?
17. What do you think are the major service gaps in relation to community-based FP/RH, MNCH, WASH and Nutrition services? Which critical services are unavailable through the community-based service platform?
18. What mechanisms are in place to ensure that you deliver adolescent health services? Probe for: Availability and access to services like emergency contraceptives, long-acting and reversible methods (IUDs and implants) and information including in fragile settings, utilization of services, use of mobile to reach them, etc.? What challenges are experienced? How do BHWs address these challenges?
19. What challenges do you face in delivering community-based FP/RH, MNCH, WASH and Nutrition services?

Section C: Key community health workers' support systems

20. What are the essential supplies and resources for your community health activities? Probe for:
    a) Availability of essential commodities and supplies for FP/RH, MNCH, Nutrition, and WASH services, human resources, geographic accessibility
    b) Do BHWs get the necessary supplies for FP/RH, MNCH, Nutrition, and WASH services?
    c) Which of the supplies are provided regularly and which ones are interrupted or missing?
    d) Who provides the supplies?
    e) Can BHWs get commodities and supplies in an alternative way if there are challenges securing supplies from regular government channels?
21. What are the existing arrangements for the remuneration of BHWs? Probe for:
    a) Is there a payment/incentive package for BHWs? If yes, explain?
    b) Does it go with the complexity and demanding nature of BHWs activities?
    c) Are there non-financial incentives for BHWs? If yes, explain?
    d) Who is contributing in remunerating/ financially motivating BHWs?
22. Do you have a referral mechanism in place for FP/RH, MNCH and Nutrition services? Probe for:
    a) If yes, is it functional, which institutions/facilities do you refer to
    b) What is the process/procedure of referring clients for services? How do you ensure that the service is provided?
    c) Under what circumstances do you refer clients for FP/RH, MNCH and Nutrition services?
    d) How are the linkages support BHWs in delivering on their role?
    e) How would you describe the relationship between the health facilities and the BHWs? What is the role of health facilities in the referral system?
23. Describe how you work with the community in the provision of community-based FP/RH, MNCH and Nutrition services? What role does the community play in supporting BHWs? Probe for:
    a) What is the role of the community in: recruiting, retention, motivation, productivity, accountability of BHWs?
    b) What is expected from the community in support of BHWs (expected versus reality)?
    c) How do deliver community-based service provided to difficult-to-reach populations?
24. Have you received any training on how to deliver on your work? If yes,
    a) How many times have you received training ever since you become a BHW?
    b) What was the scope of the training received (training courses, workshops, conferences)
        - FP/RH
        - MNCH
        - WASH
        - Nutrition
        - Approaches for managing Shock and crises
        - SBC
        - Gender discriminations associated with FP and RH for women and girls
        - Case management and referral (if referral, specify type of referral)

	• Other topics Please specify_____
c) When was the last time you received any training/ attended a workshop/meeting on how to deliver on your work	• Less than a year • 2-3 years ago • 4 or more years ago
d) What was the duration of the last training you received?	• One day • 2-3 days • 4 or days

Section D: Effects of shocks and stresses on BHWs and the work they do.

25. What type of shocks and stressors affect these communities?
26. How do shocks/stresses affect you in the delivery of services/execution of your mandate?
27. What community health services are provided to displaced and pastoral groups who may have relocated as a result of shocks and stresses? Probe of use of mobile clinics, setup temporary structures
28. What are community coping mechanisms for continuing to provide community-based services during and after crises?
29. To what extent are the BHWs prepared and supported to provide community-based services during and after crises (before stability has resumed)? What are the challenges experienced? For instance, referral to health facilities? access to commodities and supplies? Mentorship and support from facility supervisors?
30. What is the amount of time it takes for community health services to resume to normal during a crisis? And after a crisis?
31. What do BHWs do to prepare and support individuals and households in the community for self-care especially in anticipation of and/or during shocks and stresses?

Section E: Gender Issues

32. What gender-based issues are associated with health of women and girls especially in regard to access and utilization of:
    a) Family Planning (FP)/Reproductive Health (RH
    b) Maternal, Neonatal and Child Health (MNCH)
    c) Water Hygiene and Sanitation (WASH)
    d) Nutrition services
33. What is the role of BHWs in identifying, addressing and providing referrals of GBV cases?
34. What complaint mechanisms are in place for the community on GBV and SRHRs cases?
35. What are the major gender discrimination faced by BHWs, especially GBV and gender conservative norms?
36. How do you deal/ cope with the above needs and challenges linked to gender and culture?
37. How is the BHW program helping in supporting female BHWs?

Section E: Suggestions to design or improve existing interventions.

38. What can be done to strengthen BHWs including emergency preparedness?
39. We have discussed many topics related to BHWs, FP/RH, MNCH, WASH and Nutrition. Do you have anything to add or recommendations?

THANK THE PARTICIPANT FOR HIS/HER INPUT.

Note the importance of this information in contributing to delivery of community health services in future.

APPENDIX 5. IDI GUIDE WITH BHI STAKEHOLDERS

(National Ministry of Health, Health Cluster, Nutrition Cluster, MIHR staff, MIHR Partners, NGOs implementing related programs, Public Health Facility workers, County Executive Directors, Payam Health Department, Payam Administrators, County Health Department, Boma Administrators, Village Chiefs)

Introduction

The interviewer will introduce himself/herself and an assistant (if present). The interviewer will then explain the purpose of the discussion to the participant, go over the consent form and ask the prospective participant to sign the consent form if he/she agrees to participate in the interview.

The interviewer will inform the participant that the discussion will be digitally recorded in order to accurately capture what is said. The interviewer, or an assistant, will operate the digital recording equipment and ensure all discussion points are clearly recorded.

Key Highlights for the participant:

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- Should speak loudly and clearly towards the recorder
- Feel free to offer stories and examples, but note that the people involved should not be identified by name
- That you will be respectful of the time limitations of this discussion

Identification Particulars

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2.05	Type of Interview	1 Key Informant Interview 2 FGD 3 In-depth Interviews (IDIs) key BHI stakeholders
2.06	Position of respondent	
2.07	Institution/organization	

QUESTIONS

Instruction: Throughout the entire, probe for examples or stories to support points made

A. Understanding the governance and policy environment of BHW program

1. What is your understanding of the overall policy framework governing Community Health systems in South Sudan?
2. How successful has the Boma Health Initiatives been in championing community health systems?
3. How does one become a Boma Health Worker (BHW)?
4. What are the requirements for one to become a Boma Health Worker (BHW)? (Probe for; age, literacy abilities, volunteering, role of community)
5. What is the mandate/role of BHWs?
6. What is the size of a BHW's catchment population? Probe for:
   - How is it defined? Who assigns the catchment population?
   - Is the catchment population expected to be updated regularly? Has it been revised or updated over the past five years?
   - How are BHWs assigned to locations?
   - How is the ratio of BHW to a population defined, and how is the geographic distribution managed?
7. How are the services of BHWs monitored? Probe for: Who provides oversight/supervises the BHWs? What support do they provide to BHW during supervision?
8. How does the community participate in health system governance and oversight?
9. How is the Boma health initiative currently financed?
10. What are the major strengths of the BHI?
11. What are the major weaknesses/challenges of the BHI?
12. What policy improvements would you recommend for the BHI?
13. How does the introduction of social accountability and governance mechanisms into health systems influence BHW programs?

14. How does the government see the community health system regarding inter-sectoral collaborations?

B. Accessibility and availability of community-based FP/RH and MNCH services

15. What do you think are the major service gaps in relation to community-based FP/RH, MNCH, WASH and Nutrition services? Which critical services are unavailable?
16. What mechanisms are in place to ensure delivery of adolescent health services? Probe for: Availability and access to services like emergency contraceptives and information including in fragile settings, utilization of services, use of mobile to reach them, etc

C. Key community health workers' support systems

17. What are the essential supplies and resources required for community health activities?
18. How available are these essential supplies and resources for BHWs?
19. Which of the supplies are provided regularly and which ones are interrupted or missing?
20. How is the overall infrastructure and logistical arrangements for BHWs and community-based services?
21. What are the fragility contexts affecting BHWs performance? What is the coping mechanism?
22. What are the existing arrangements for the remuneration of BHWs? Probe for:
    a) Is there a payment/incentive package for BHWs? If yes, explain?
    b) Does it go with the complexity and demanding nature of BHWs activities?
    c) Are there non-financial incentives for BHWs? If yes, explain?
    d) Who is contributing in remunerating/ financially motivating BHWs?
23. What is the linkages between BHWs and health facilities (support, referrals)? Probe for:
    a) How do the linkages support BHWs in the delivering on their role?
    b) Is there a functional referral system for FP/RH, MNCH and Nutrition services?
    c) What is the relationship between the health facilities and the BHWs and the community?
24. What is the role of the community in supporting BHWs? Probe for:
    a) What is the role of the community in; recruitment, retention, motivation, productivity, accountability of BHWs?
    b) What is expected from the community in support of BHWs (expected versus reality)?
    c) Acceptability and uptake of community-based FP/RH, MNCH, Nutrition and WASH services by the community?
    d) How is community-based service provided to difficult-to-reach populations?
25. Are training opportunities available for BHWs to improve of delivery of their services? If yes Probe for:
    a) Availability of trainings on on FP/RH, MNCH, WASH and Nutrition
    b) How often the trainings are offered?
    c) What is the duration, frequency, content or delivery modalities of pre-service training?
    d) What mechanisms are applied to optimize BHW competencies?
    e) Is there a mechanism for accreditation of BHW training programs and certification of individual BHWs?

f) Are there professional growth opportunities for BHWs? If yes, explain.

g) What existing or expected and or enabling policies, strategies are in place or can be put in place to support and strengthen BHWs service delivery? Probe, training, remuneration/incentives, linkages and embeddedness to the national health system

D. Effects of shocks and stresses on BHWs and the work they do.

26. What type of shocks and stressors affect these communities? Probe for:
    a) How do shocks / stresses affect BHWs delivery of services?
    b) What community health services are provided to displaced and pastoral groups who may need to relocate as a result of shocks and stresses? Probe of use of mobile clinics, setup temporary structures
27. What are community coping mechanisms for community-based services during and after crises?
28. What are the gender concerns of BHWs? Probe for:
    a) What are the needs and challenges associated with male/female BHW?
    b) How do BHWs deal with Gender based violence (role of BHWs to identify, address and refer, if possible and ethical).
    c) How do BHWs deal/ cope with the above needs and challenges linked to gender and culture?
    d) How is the BHW program helping in supporting female BHWs?

E. Suggestions to design or improve existing interventions.

29. What are the potential interventions/solutions to strengthen CH, BHWs including emergency preparedness?
30. Are the national, subnational, district and local realities being considered in designing BHWs programs?
31. We have discussed many topics related to BHWs, FP/RH, MNCH, WASH and Nutrition. Do you have anything to add?

THANK THE PARTICIPANT FOR HIS/HER INPUT

Note the importance of this information in contributing to delivery of community health services in future.

APPENDIX 6. FGD GUIDE COMMUNITY INTERVIEWS (MALES AND FEMALES)

Introduction

The interviewer will introduce himself/herself and an assistant (if present). The interviewer will then explain the purpose of the discussion to the participant, go over the consent form and ask the prospective participant to sign the consent form if he/she agrees to participate in the interview.

The interviewer will inform the participant that the discussion will be digitally recorded in order to accurately capture what is said. The interviewer, or an assistant, will operate the digital recording equipment and ensure all discussion points are clearly recorded.

Key Highlights for the participant:

- Stay for the duration of the discussion, but can ask to leave or for a pause if they feel uncomfortable during the discussion. Note that discussion will take up to one and a half hours.
- Should speak loudly and clearly towards the recorder
- Feel free to offer stories and examples, but note that the people involved should not be identified by name
- That you will be respectful of the time limitations of this discussion

Identification Particulars

1.01	Date	
1.02	Interviewer ID	
1.04	County	1. Bor 2. Yambio 3. Wau 4. Kajo keji 5. Budi
1.05	Payam	To be inserted as dropdown depending on the location
2.01	Gender of respondents	1 = Male 2 = Female
2.05	Type of Interview	1. Key Informant 2. FGD 3. In-depth Interviews (IDIs) key BHI stakeholders

FGD RESPONDENTS DETAILS

LN	Respondent ID	Age	Marital status	Education level
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

QUESTIONS

Instruction: Probe for examples or stories to support points made

A. Accessibility and acceptability of community-based FP/RH and MNCH services

1) What services do BHWs provide at the community level? Probe for:
    a) Community-based FP/RH, MNCH, WASH and Nutrition services
    b) Which category of people do they target (children under five, youth, women of reproductive age, households etc).
    c) What is the community's perceptions of BHWs?
2) How do the BHWs deliver health services to their clients? Probe for: Home visit, outreach, or static sites?
3) What is your view on community-based and home-based services? Which one works best and why?
4) How is community engagement done during "calm" times and in times of crisis by BHWs?
5) Let's now talk about acceptability, affordability, accessibility, continuity, buy-in from community leaders) in "calm" times as well as during crises. What is your view on:
    a) Availability and accessibility of community-based FP/RH, MNCH, WASH and Nutrition services
    b) Acceptability of community-based FP/RH, MNCH, WASH and Nutrition services
    c) Affordability of community-based FP/RH, MNCH, WASH and Nutrition services
    d) Buy-in from community leaders on community-based FP/RH, MNCH, WASH and Nutrition services
    e) Continuity of community-based FP/RH, MNCH, WASH and Nutrition services
6) What do you think are the major service gaps in relation to community-based FP/RH, MNCH, WASH and Nutrition services? Which critical services are unavailable?
7) What factors influence the acceptability of community-based FP/RH and MNCH services?
8) How best can community-based FP/RH and MNCH services be made accessible?

9) What mechanisms are in place to ensure delivery of adolescent health services? Probe for: Availability and access to services like emergency contraceptives and information including in fragile settings, utilization of services, use of mobile to reach them, etc
10) What challenges do the BHWs face in delivery of services in this community?

B. Key community health workers' support systems

11) What are the essential supplies and resources for community health activities? Probe for:
    a) Availability of essential commodities and supplies for FP/RH, MNCH, Nutrition, and WASH services, human resources, geographic accessibility
    b) Do BHWs get the necessary supplies for FP/RH, MNCH, Nutrition, and WASH services?
    c) Which of the supplies are provided regularly and which are interrupted or missing?
12) How does the community support BHWs in their work?
13) What is expected from the community in support of BHWs (expected versus reality)?
14) What is the community attitude about acceptability and uptake of community-based FP/RH, MNCH, Nutrition and WASH services?
15) How do BHWs reach out to difficult-to-reach populations in this community?

C. Effects of shocks and stresses on BHWs and the work they do.

16) What type of shocks and stressors affect these communities? Probe for:
17) How do shocks / stresses affect BHWs delivery of services?
18) What community health services are provided to displaced and pastoral groups who may need to relocate as a result of shocks and stresses? Probe of use of mobile clinics, setup temporary structures
19) What are community coping mechanisms for community-based services during and after crises?
20) What are the gender concerns of the community towards BHWs?
21) What are the needs and challenges associated with male/female BHW?
22) How do BHWs deal with gender-based violence (role of BHWs to identify, address and refer, if possible and ethical).
23) How do BHWs deal/ cope with the above needs and challenges linked to gender and culture?

D. Suggestions to design or improve existing interventions.

24) What can be done to strengthen BHWs including emergency preparedness?
25) Do you have any recommendations on how to improve the services of BHWs in this community?

THANK THE PARTICIPANT FOR HIS/HER INPUT

Note the importance of this information in contributing to
delivery of community health services in future.