



An Evaluation of Reproductive Health Service Provision in Maban County, Upper Nile State, South Sudan

July 31 - August 8, 2013

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This report was written by Josep Vargas, Sarah Chynoweth, and Satvinder Kaur Dhaliwal for the 2012-2014 IAWG Global Review on Reproductive Health in Crises. It was reviewed by Monica Adhiambo Onyango of Boston University and Erin Wheeler of Columbia University.

With funding provided by the:

US Department of State, Bureau of Population, Refugees and Migration and John D. and Catherine T. MacArthur Foundation

Contact: IAWG at info@iawg.net.

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Acronyms

AIDS	Acquired immune deficiency syndrome
ARC	American Refugee Committee
ART	Antiretroviral therapy
ARV	Antiretroviral
ARH	Adolescent reproductive health
BEmONC	Basic emergency obstetric and newborn care
BPHS	Basic package of health services
CEmONC	Comprehensive obstetric and newborn care
CMoR	Clinical management of rape
EC	Emergency contraception
EmONC	Emergency obstetric and newborn care
FEWS-NET	Famine Early Warning Systems Network
FGD	Focus group discussion
FP	Family planning
GBV	Gender-based violence
HIV	Human immune deficiency virus
IAWG	Inter-agency Working Group on Reproductive Health in Crises
IDP	Internally displaced person
IEC	Information, education, and communication
IMC	International Medical Corps
IUD	Intrauterine device
MoH	Ministry Of Health
MSF	Médecins Sans Frontières
MVA	Manual vacuum aspiration
NBHS	National Baseline Household Survey
ND	No data
NGO	Nongovernmental organization
PEP	Post-exposure prophylaxis
PHCC	Primary health care center
PHCU	Primary health care unit
PI	Principal investigator
PLHIV	Person(s) living with HIV
PMTCT	Prevention of mother-to-child transmission (of HIV)
RH	Reproductive health
RI	Relief International
SIM	Service In Mission
SSCCSE	Southern Sudan Centre for Census, Statistics and Evaluation
STI	Sexually transmitted infection
TBA	Traditional birth attendant
UN	United Nations

UNAIDS	United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary counseling and testing (for HIV)
WFP	World Food Programme
WHO	World Health Organization

Executive summary

Introduction

South Sudan, the world's newest country, has been subjected to more than twenty years of war. Since gaining independence in 2011, it continues to struggle with internal conflict and displacement. Years of war have decimated the health infrastructure and few reproductive health (RH) services are available, particularly in rural areas. In 2012, fighting in the Blue Nile State of Sudan forced thousands women, men, and children to flee into South Sudan. As of May 2013, 116,000 Sudanese refugees resided in UNHCR-managed camps in Maban County, a remote county in northeast South Sudan.¹ This report documents findings from a RH service provision assessment for Sudanese refugees in Maban County.

Purpose

The Inter-Agency Working Group on Reproductive Health in Crises (IAWG) undertook a global review of RH in emergencies from 2012 to 2014. As part of this review, assessments were conducted in three different humanitarian settings to evaluate availability, quality, and utilization of comprehensive RH services for populations affected by conflict. This study describes a mixed methods assessment of RH service provision in Maban County, South Sudan conducted from July 31 to August 8, 2013. The purpose of this study is to inform policy and programming to help meet the RH needs of the refugees in Maban County.

Methods

The assessment team employed a mixed methods approach with both qualitative and quantitative methods including: desk research, key informant interviews, focus group discussions, health facility assessments, and questionnaires on provider knowledge and attitudes. Eighteen health facilities in Maban County were assessed. Facilities included one hospital, eight health centers, and nine primary health care units. Key informant interviews were conducted with 22 representatives from the Ministry of Health, UN agencies, and international and national non-governmental organizations (NGOs) to examine the integration of RH into the humanitarian health response. Focus group discussions were held with refugees from two camps and 10 host women from Bunj town to assess their knowledge of and attitudes towards RH and identify barriers to accessing RH services. Questionnaires were completed by 18 providers to assess their knowledge of and attitudes towards RH service provision.

¹ IOM, *South Sudan Refugee Response Update*, May 2013.
<http://www.iom.int/files/live/sites/iom/files/Country/docs/IOM-South-Sudan-Refugee-Response-Update-May-2013.pdf>.

Key Findings

- Informants reported that RH had been neglected since the beginning of the refugee crisis, although progress was being made. Specifically, an RH Working Group had recently been established in Maban County, and UNFPA and UNHCR had signed a memorandum of understanding to scale up implementation of the Minimum Initial Service Package (MISP) for RH. UNHCR and implementing partners had developed a roadmap to expand RH service provision.
- The assessment found critical gaps in RH service provision at the Maban County hospital. While the hospital met the assessment criteria for a functioning post-abortion care (PAC) service delivery point, it did not adequately provide any other RH services assessed including: comprehensive emergency obstetric and newborn care (EmONC), essential newborn care, family planning services, clinical management of rape, or any services for HIV or other sexually transmitted infections (STIs). It did not have condoms available.
- Provision of RH services across health centers and health posts was variable, with facilities managed by MSF-Holland and MSF-Belgium providing the broadest range of RH services.
- Services for safe abortion, clinical management of rape, prevention of mother-to-child transmission of HIV (PMTCT), and antiretroviral therapy (ART) for people with HIV were not available at any health facility assessed.
- Only one facility met the criteria to adequately provide basic EmONC, although MSF-Holland and MSF-Belgium had achieved wide coverage of maternal health services in two major camps.
- In addition to the hospital, one health center and one health post met the criteria to adequately provide PAC. Two health centers adequately provided selected elements of essential newborn care.
- Few family planning services were provided and long-acting methods were particularly scarce. Permanent family planning methods were not available. Negative provider attitudes and behaviors toward family planning undercut quality of care.
- Condom availability was ad hoc.
- The majority of health facilities had provided care for STIs in the previous three months, but few had antibiotics available at the time of the assessment.
- Drug stock-outs were a primary barrier to providing good quality care. Lack of equipment, a dearth of skilled staff, negative provider attitudes, as well as policy barriers also undermined RH service provision.
- Focus group discussions revealed significant socio-cultural barriers to accessing services, and many were not aware of the few RH services available. However, remarkable changes were documented in refugees accessing facility-based delivery services whereas they had previously given birth at home.
- Adolescents, particularly unmarried women and girls, had low knowledge of RH and faced additional barriers to accessing care.

Key Recommendations

Health and RH actors should:

- Build on current efforts to ensure an effective, sustained RH coordination mechanism. Ensure operationalization of the RH roadmap and implementation of plans for expanding RH service provision.
- Scale up RH service provision in all areas: family planning, EmONC, comprehensive abortion care, HIV and other STIs, and clinical management of rape. Ensure systematic implementation of the MISPP and expand to comprehensive services as soon as possible.
- Support the Maban County hospital to expand RH service provision and ensure good quality, comprehensive RH care is in place.
- Immediately address barriers to providing PMTCT and ARVs and implement services. Establish treatment points, including at least one treatment point for children.
- Prioritize implementation of good quality care for rape survivors, including referral to psychosocial care, at the hospital as well as health centers. Establish and/or strengthen a referral pathway for comprehensive care. Train/re-train staff in clinical management of rape.
- Expand family planning service delivery points to ensure facilities adequately provide a minimum method mix including oral contraceptive pills, injectables, IUDs, implants, emergency contraception, and condoms. Conduct outreach on family planning to dispel myths, raise awareness, and educate communities (including men) about the benefits of family planning.
- Implement safe abortion services to the extent of the law and expand PAC service delivery points.
- Increase condom distribution points.
- Develop community engagement strategies for each RH area to increase access and demand for services. Ground efforts in an evidence-informed, locally contextualized, rights-based approach. Involve women, community leaders, and local groups in designing outreach strategies. Make locally-adapted information, education, and communication material on all RH areas available at health facilities.
- Undertake logistical audits to review protocols, forecast accuracy, budgetary constraints, storage conditions, and staff capacity. Establish or strengthen contingency stocks of RH supplies to prevent supply shortages.
- Strengthen staff capacity through competency-based training and refresher courses on RH and provide consistent coaching. Ground trainings in a rights-based approach to RH and address negative provider attitudes.
- Develop strategies to ensure RH services are adolescent-friendly and adolescents are accessing care.
- In addition, donors should support NGO, UN, and MoH efforts to ensure the RH needs of the communities are met.

See section 6 for further recommendations.

1. Introduction

The Inter-agency Working Group on Reproductive Health in Crises (IAWG), formed in 1995, is a broad-based coalition committed to advancing reproductive health (RH) of communities affected by natural disasters and conflict. IAWG is made up of 1,500 members representing 450 agencies, including the United Nations (UN), governments, nongovernmental organizations (NGOs), academic institutions, and donors.² A decade ago, from 2002 to 2004, IAWG conducted a global evaluation on RH in humanitarian crises.³ From 2012 to 2014, IAWG undertook a second review to assess the state of the field.

Comprehensive RH care includes family planning services, maternal and newborn health care, comprehensive abortion care, services for HIV and other sexually transmitted infections (STIs), and response to gender-based violence (GBV). This assessment evaluated the availability, quality, and utilization of comprehensive RH services for Sudanese refugees in Maban County, Upper Nile State, South Sudan. Additional components were also assessed, including health facilities' financial support, infrastructure, and human resources. This report documents these findings and offers recommendations to help inform RH planning and implementation to meet the RH needs of the refugees in Maban County.

2. Background

2.1 General

South Sudan lies in east-central Africa and has a population of approximately 11.5 million people; it is the third fastest growing country in the world.⁴ After more than twenty years of civil war, South Sudan achieved independence from Sudan and became the world's newest country in July 2011. Despite a wealth of natural resources, including an abundance of oil⁵ and one of the richest agricultural areas in Africa,⁶ instability, poor governance, violence, large population movements, and underdeveloped infrastructure have challenged progress.

The country remains in flux, with refugees from Sudan, displaced communities within South Sudan, and South Sudanese returning from Sudan all in need of assistance including adequate shelter, security, and access to healthcare. The country's National

² Inter-Agency Working Group (IAWG) on Reproductive Health in Crisis, About IAWG (2013): <http://iawg.net/about-iawg/>.

³ Inter-Agency Working Group on Reproductive Health in Refugee Situations, *Report of an inter-agency global evaluation of reproductive health services for refugees and internally displaced persons*, 2004.

⁴ CIA, "The World Factbook," Central Intelligence Agency, May 2014, <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>.

⁵ Revenue Watch Institute, *The 2013 Resource Governance Index: South Sudan*, 2013.

⁶ Central Intelligence Agency, *The World Factbook*, May 2014, <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>.

Baseline Household Survey (NBHS) conducted in 2009 found that poverty is widespread with approximately half of the population living below the official poverty line.⁷ South Sudan has one of the highest maternal mortality rates in the world at 2,054 deaths per 100,000 live births,⁸ which translates to a one in seven lifetime chance of dying during childbirth or pregnancy.⁹ Under-five mortality is the highest in the world, at 135 deaths per 100,000 live births;¹⁰ 30% of children under five are underweight.¹¹ As of 2012, life expectancy was estimated at 55 years.¹² Prevalence of infectious diseases and lack of resources exacerbate these challenges: the majority of people in South Sudan do not have access to clean water and all 17 of the neglected tropical diseases recognized by the WHO exist in South Sudan.¹³



Source: United Nations, Map No. 2250 Rev. 1, October 2011

⁷ National Bureau of Statistics, *National Baseline Household Survey 2009 Report for South Sudan*, 2012, http://ssnbs.org/storage/NBHS_Final_website.pdf.

⁸ Ibid.

⁹ Richard Downie, *The State of Public Health in South Sudan* (CSIS. November 2012). http://csis.org/files/publication/121114_Downie_HealthSudan_Web.pdf.

¹⁰ Ibid.

¹¹ South Sudan Ministry of Health, *Health Sector Development Plan, 2012-16: Final Draft*, January 2012, p. 35.

¹² World Bank, *Data: South Sudan*, 2014, <http://data.worldbank.org/country/south-sudan>.

¹³ Richard Downie, *The State of Public Health in South Sudan* (CSIS. November 2012). http://csis.org/files/publication/121114_Downie_HealthSudan_Web.pdf.

2.2 Health system

South Sudan's provision of health care services is based on the World Health Organization's (WHO) principle of a 'Continuum of Care' and structured into community, primary, secondary, and specialized care levels linked by a referral system. Community health care is provided by community health workers, maternal and child health workers, and home health promoters. At the village level, care is provided by home health promoters and maternal and child health workers, under the direct supervision of community midwives and senior community health workers and periodic supervision of community health extension workers. Home health promoters are elected by the community members and trained as community health workers for a minimum of nine months.¹⁴

Primary health care is implemented through the Basic Package of Health Service (BPHS). The BPHS articulates a package of high impact health care services for communities at the primary and secondary health care level. It covers curative, preventative, and managerial activities. Developed as both affordable and sustainable, the BPHS aims to increase access to primary health care for a large portion of the population.¹⁵

The administrative structure of local government comprises three levels: the County (largest), followed by Payam, and finally Boma, the smallest administrative unit. Primary Health Care Units (PHCUs) are located at the Boma level and provide the first level of interaction between the formal health system and the communities. They are expected to provide basic preventive and curative care for a catchment population of 15,000. PHCUs should be staffed by two community health workers and a community midwife. Community health workers are not trained nurses, but can diagnosis and treat a few common problems such as malaria, diarrhoea, and respiratory infections. They are expected to promote family planning and distribute pills and condoms. In the long-term, the Ministry of Health (MoH) plans to replace community health workers in charge of curative aspects of the PHCUs with clinical officers. Their key functions include health education and promotion and dispensing of household level preventive health commodities including condoms.¹⁶

Primary Health Care Centers (PHCC) are the immediate level of referral for the PHCUs and are usually situated at the Payam level. PHCCs are expected to provide services for about 50,000 people and, in addition to services offered by PHCUs, to provide basic diagnostic laboratory services and maternity and in-patient care. They should provide treatment of simple cases and basic emergency obstetric and newborn care (BEmONC). PHCCs should have qualified health professionals, including clinical officers, fully trained nurses and midwives, community health workers, vaccinators, laboratory and pharmacy

¹⁴ South Sudan MoH, *Health Sector Development Plan 2010-2015-South Sudan*, September 2010, <http://www.who.int/workforcealliance/countries/ssd/en/>.

¹⁵ Ibid.

¹⁶ Ibid.

technicians, public health technicians, cleaners, and watchmen. They are expected to offer services 24-hours a day, seven days a week.¹⁷

Secondary care including comprehensive obstetric care, in-patient care, and surgery is to be provided by County and State Hospitals. County Hospitals are to serve a catchment area of about 300,000 people. Tertiary care is provided in the country's three teaching hospitals.¹⁸

However, decades of conflict have decimated the health care system, which remains hamstrung by poor infrastructure, limited financing, low staff wages, lack of provider supervision, and a critical shortage of professional health cadres at all levels. During the war, an estimated 80% of the health care was provided by NGOs and faith-based organizations.¹⁹ While the MoH has resumed responsibility for the health sector, it is struggling to strengthen the system. Health services are often provided by lower staff cadres who have not received adequate professional schooling or training. Roughly 10% of the civil service posts are filled by qualified health workers with approximately 1.5 physicians and 2 nurses/midwives for every 100,000 people.²⁰ These cadres are mainly based in urban areas whereas less skilled health workers are often located in rural areas.²¹

Access to healthcare is extremely poor for the majority of the population in South Sudan. As of 2011, annual outpatient utilization visits averaged 0.4 per person per year, and only an estimated 44% of the population resided within a five kilometer radius of a functional health facility.²² There are three functional teaching hospitals and thirty state or county hospitals in the country.²³ A regulatory framework for midwifery practice does not exist at the federal level, and nursing and midwifery practices at the state level lack a formal system for supervision and support as well.²⁴

The MoH views primary health care as a priority for health sector development and in theory offers it free of charge to the entire population.²⁵ Currently, the MoH receives 4.2% of the Government of South Sudan's budget.²⁶ The government's budget and contributions from development partners (bilateral, multi-lateral, international NGOs, and UN agencies) support the public health system. Neither a viable public finance

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ South Sudan Ministry of Health, *Health Sector Development Plan, 2012-16: Final Draft*, January 2012, p. 7.

²⁰ Ibid., p. 10-11.

²¹ Ibid., p.10-11.

²² Ibid., p. 35.

²³ Ibid., p. 10.

²⁴ Global Health Workforce Alliance, *South Sudan*, <http://www.who.int/workforcealliance/countries/ssd/en/>.

²⁵ Government of South Sudan, *The Interim Constitution of Southern Sudan*, 2005.

²⁶ United Nations, Sustainable Development Knowledge Platform, *The Republic of South Sudan Commits to Increase the Percentage of Government Budget Allocation to the Ministry of Health from 4.2% to 10% by 2015*.

<http://sustainabledevelopment.un.org/index.php?page=view&type=1006&menu=1348&nr=1084>.

management system nor a sound planning and budget cycle process in the health sector have yet been established.

With the support of international agencies and donors, the MoH has developed a number of policies, including related to RH. Three main policy documents on RH have been recently finalized and were awaiting dissemination at the time of the field visit:

- The National Reproductive Health Strategic Plan²⁷ provides the national framework for the promotion and implementation of RH programs and delivery of services in South Sudan. Its purpose is to provide guidance for strengthening RH interventions.
- The National Reproductive Health Policy²⁸ (November 2012) provides the appropriate framework and the necessary guidance for the promotion and implementation of RH programs and interventions in the country.
- The National Family Planning Policy²⁹ (November 2012) provides the framework and necessary guidance for the promotion and implementation of family planning programs and services in the country. The ultimate aim of this policy is to enhance the provision of comprehensive family planning services to all people in South Sudan and contribute to the reduction of maternal and infant mortality.

2.3 Reproductive health in South Sudan

Reproductive health services have been severely hindered or altogether denied because of war. In many places RH services are nonexistent; where they are available, they are often insufficient. The consequences of these gaps are reflected in South Sudan's poor RH indicators. According to the South Sudan Household Health Survey (SHHS 2006 and 2010), the country has some of the worst health status statistics in the world. Table 1 below provides a summary of some key indicators.

²⁷ South Sudan MoH, *National Reproductive Health Strategic Plan 2013 – 2016*, February 2013.

²⁸ Ibid.

²⁹ South Sudan MoH, *National Family Planning Policy 2012*, February 2013.

<http://www.southsudanembassydc.org/PDFs/others/South%20Sudan%20MOH%20FP%20Policy-FINAL%20-%20PROOFED.docx>.

Table 1. Key health indicators³⁰	
Indicators	2010
Maternal mortality ratio (per 100,000 live births)	2,054
% Women with births overseen by skilled birth attendants in health facility	14.7
Contraceptive prevalence (%)	4.5
Teenage pregnancies (aged 15-19 per 1,000)	300
At least one antenatal visit with skilled birth attendant (%)	30
% Women receiving 4 antenatal visits	9.3
Under-five mortality rate ³¹	121/1,000
Infant mortality rate ³² (deaths per 1000 live births)	75
Fully immunized children (children aged 12-23 months receiving BCG, DPT 1-3, OPV 1-3 and measles vaccines before their first birthday)	1.8%
Early childbearing (proportion of women pregnant by 19 years of age)	34.5%

In response to the current situation, the MoH has expressed its commitment to providing comprehensive and integrated RH services. Through the Department of Reproductive Health, the MoH has been establishing systems and mechanisms to coordinate the integration, implementation, monitoring, and evaluation of RH services at all levels. The Department of Reproductive Health is mandated to ensure effective coordination of the country's RH programs and service provision at all levels.³³

South Sudan has also developed a national RH contingency plan. As a result, RH supplies have been pre-positioned, RH focal points identified, and a mapping of skilled staff conducted. Despite successful preparedness measures unexpected circumstances presented challenges: for example, the plans were created for mass displacement, violence and insecurity, but the humanitarian situation primarily manifests as chronic low-level insecurity and gradual, massive population movements.³⁴

Some international donors have provided funding to scale up RH services. For example, with international support, the government has recently committed to construct 160 basic EmONC facilities and training of 1000 enrolled/registered midwives as well as establish six accredited midwifery schools or training facilities.³⁵ The Canadian International

³⁰ Unless noted otherwise, all indicators retrieved from: Southern Sudan Centre for Census, Statistics and Evaluation (SSCCSE) *Summary findings of household survey*, 2010.

³¹ WHO, *Countries: South Sudan*, 2014. <http://www.who.int/countries/ssd/en/>.

³² WHO, *Country Statistical Profile*, 2011, p. 103-111,

http://applications.emro.who.int/docs/RD_Annual_Report_2011_country_statistics_EN_14587.pdf.

³³ South Sudan MoH, *National Family Planning Policy 2012*, February 2013.

<http://www.southsudanembassydc.org/PDFs/others/South%20Sudan%20MOH%20FP%20Policy-FINAL%20-%20PROOFED.docx>.

³⁴ Women's Refugee Commission, *Incorporating Sexual and Reproductive Health into Emergency Preparedness and Planning*, February 2012. http://reliefweb.int/sites/reliefweb.int/files/resources/drr_report_2012_2-color_final.pdf.

³⁵ United Nations Department of Economic and Social Affairs, *The Republic of South Sudan commits to increase the percentage of government budget allocation to the Ministry of Health from 4.2% to 10% by 2015*, <http://sustainabledevelopment.un.org/index.php?page=view&type=1006&menu=1348&nr=1084#deliverables>.

Development Agency (CIDA) has also provided approximately USD 20 million to UNFPA to train 540 health workers, including 315 midwives.³⁶

2.4 Humanitarian context

Prior to gaining independence from Sudan on July 9, 2011, what is now South Sudan suffered from political and economic instability. Following independence, South Sudan's economic crisis worsened and tensions with Sudan remained. Insecurity continues to plague the new country with the presence of militias, ethnic conflicts, and threats by the army. Internal violence occurred in 2012 when a resurgence of fighting between members of the Lou Nuer and Murle ethnic groups led to the deaths of hundreds and prompted more than 170,000 people to flee their homes.³⁷ Violence spiked again in August 2013 after the president Salva Kiir dismissed the vice president, Riek Machar. Fighting broke out between the government's forces and Machar's supporters, resulting in more than 700,000 IDPs and 150,000 refugees who fled to Sudan.

As of April 2014, there were 923,001 IDPs in 178 locations in South Sudan, 97,243 refugees in Ethiopia, 34,301 refugees in Kenya, and 98,278 refugees in Uganda.³⁸ Consequently, the crisis in South Sudan has resulted in 4.9 million people who are in need of humanitarian assistance. Since January 2014, aid has reached 1.2 million people, with a goal of reaching 3.2 million by June 2014. However, it is estimated that 20% of the displaced population reside in inaccessible areas.³⁹

2.4.1 Assessment setting: Maban County

Maban County, in Upper Nile State, was selected for this assessment. Maban borders four South Sudan counties: Renk County to the North, Melut and Baliet counties to the West, and Longe Chuk County to the South. It shares its eastern border with the Blue Nile State of the Sudan. The county is one of the most remote in the country and is sparsely populated with small, poor villages. It suffers from a lack of communication systems as well as poor health infrastructure and a shortage of skilled health staff. Floods during the rainy season render many areas completely inaccessible.⁴⁰

In September 2011, intense fighting broke out in the Blue Nile State of Sudan between the Sudanese Armed Forces and the Sudan People's Liberation Army. Thousands of refugees fled across the border to Maban County and sought refuge in two UNHCR-managed camps. The refugees suffered greatly from their journey and health actors

³⁶ Foreign Affairs, Trade and Development Canada, *Strengthening Midwifery Services in South Sudan*, 2012, <http://www.acdi-cida.gc.ca/cidaweb/cpo.nsf/vWebProjSearchEn/05ED69C869161F4D852579C70035B075>.

³⁷ United Nations, Office for the Coordination of Humanitarian Affairs, *South Sudan Consolidated Appeal 2014-2016*, November 14, 2013. https://docs.unocha.org/sites/dms/CAP/CAP_2014-2016_South_Sudan.pdf.

³⁸ Humanitarian Response, *South Sudan Situation Map*, April 24, 2013. <http://southsudan.humanitarianresponse.info/visuals/south-sudan-situation-map-23-april-2014>.

³⁹ UNOCHA, *South Sudan Crisis Situation Report*, May 2, 2014, 34. <http://reliefweb.int/report/south-sudan/south-sudan-crisis-situation-report-no34-2-may-2014>.

⁴⁰ The Food Economy Group, Solidarites International, *Livelihood Baseline Profile: Maban County*, 2013.

struggled to meet their needs. By mid-2012 crude mortality rates in the camps were well above the emergency thresholds. According to MSF, crude mortality rates were 1.8/10,000/day and under-five mortality rates were 2.8/10,000/day at one camp (Jamam). At another camp (Batil), the crude mortality rate was 1.75 and the under-five rate was 4.2/10,000/day.⁴¹

Humanitarian actors were able to stabilize the situation, and more refugees continued to arrive. However, in early 2013, the camps suffered a mass Hepatitis E outbreak, fueled by poor sanitation. By the end of January, more than 5,000 cases of acute jaundice syndrome (AJS) due to Hepatitis E were recorded.⁴² In the three most affected camps (Jamam, Gendrassa, and Yusuf Batil), the mortality rate from AJS among pregnant women was estimated to be 4.8 times than their non-pregnant counterparts aged 18–59 years.⁴³ The outbreak was eventually brought under control.

As of May 2013, 116,000 Sudanese refugees resided in five UNHCR-managed camps: Doro (45,427 refugees), Yusuf Batil (37,867), Gendrassa (16,152), and Jamam/Kaya (16,994).⁴⁴ Kaya was a newly built camp and refugees from Jamam were in the process of being transferred. Apart from Jamam, which is an hour drive away, the camps are located relatively near (a drive of 20 minutes or less) to the county capital of Bunj.

⁴¹ Tiller, Sandrine and Healy, Sean, “Have we lost the ability to respond to crises?” The Maban response. *Humanitarian Exchange Magazine*, 57 (May 2013).

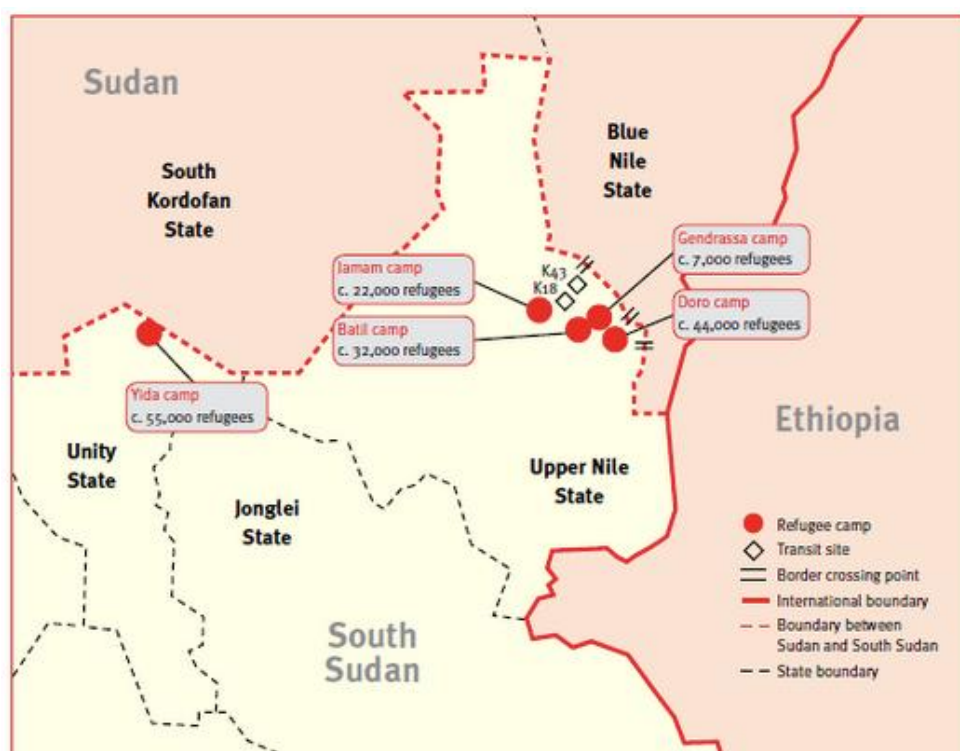
⁴² Centers for Disease Control and Prevention, *Investigation of Hepatitis E Outbreak Among Refugees — Upper Nile, South Sudan, 2012-2013*, 2013, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6229a2.htm>.

⁴³ Ibid.

⁴⁴ IOM, *South Sudan Refugee Response Update*, May 2013.

<http://www.iom.int/files/live/sites/iom/files/Country/docs/IOM-South-Sudan-Refugee-Response-Update-May-2013.pdf>.

Map 1: Upper Nile State, South Sudan



Source: Humanitarian Practice Network 2013

Since the arrival of the refugees, UNHCR and a number of implementing partners have provided significant humanitarian assistance to the existing health facilities near the camps and established new health facilities in the camps in order to meet the needs of the refugees. The main health partners in the refugee camps are MSF-Holland, MSF-Belgium, Medair, Service In Mission (SIM), and International Medical Corps (IMC) (Table A.) Goal has actively supported a few health centers but had recently handed over the health facilities they were supporting to Medair and left before the visit of the assessment team.

Table A. Refugee population per camp and NGOs supporting the health facilities

Refugee camp	Population	Health partners	Health facility
Doro	45,427	MSF-Belgium SIM	1 PHCC 2 PHCU 1 PHCC
Gendrassa	16,152	IMC	1 PHCC 2 PHCU
Yusuf Batil	37,867	Medair MSF-Holland MSF-Holland	2 PHCU 1 PHCU 1 PHCC (Gentil)
Kaya (formerly Jamam)	16,994	IMC MSF-H	2 PHCU 1 PHCC

Source: UNHCR 2013

In 2012, Maban County had two PHCC in Bunj. One of them was upgraded to a county hospital after receiving support to improve its capacities to provide medical care to the refugees. The MoH manages the out-patient department and Samaritan's Purse runs the in-patient department. Outside of the camps, Maban County has 11 PHCUs managed by the MoH with some support from Relief International (RI) for seven of them.

3. Objectives

The study's objectives were to:

- assess the availability, quality, and utilization of RH services of Sudanese refugees in Maban County
- identify access and implementation barriers
- propose recommendations to inform the humanitarian RH response.

4. Methods

4.1 Overview

The assessment took place in Maban County, South Sudan from July 31st to August 8th, 2013. The capital of Maban County (Bunj) as well as four refugee camps (Batil, Dora, Gedrassa, and Kaya camps) were included in the assessment.

Country and site selection

South Sudan four of the five selection criteria for inclusion in the IAWG Global Review:

1. It is defined as a low income country in the World Bank classification in 2012;
2. It is classified under 'Warning' in the Failed States Index (The Fund for Peace);
3. The country has experienced conflict from 2010-2012 (Uppsala University Conflict Database);
4. It is classified as being in 'Stressed', 'Crisis' or 'Emergency' Acute Food Security phases by the Famine Early Warning Systems Network (FEWS-NET);
5. It has experienced a major natural disaster during 2011 or 2012. 'Major' is defined as triggering the launch of a humanitarian appeal for international assistance.

Quantitative and qualitative assessments

This study was comprised of two components:

1. A quantitative approach that included assessments of health facilities purposively selected from those providing services to crisis-affected populations as well as an assessment of a convenience sample of providers' knowledge and attitudes; and
2. A qualitative approach using and key informant interview (KIIs) and focus group discussions (FGDs).

Assessment team

The assessment team was comprised of Dr. Josep Vargas as Principle Investigator (PI) and lead for qualitative component. The team also included:

1. Dr. Monica Adhiambo Onyango, Boston University, (co-investigator and lead for the health facility assessments)
2. Dr. Jattu Nano of International Medical Corp (IMC), (study coordinator for the health facility assessments).

IMC hosted the assessment team and provided logistical support.

Training and participation of facilitators

Ten facilitators, identified by IMC, supported the assessment. A two-day training was conducted at the IMC compound for four data collectors for the health facility assessments and six for the FGDs with refugees. A review of IAWG's mission, objectives of the global evaluation, and the assessment protocol was included. Data collection methods were discussed in detail.

The four facilitators for the health facility assessments were all male South Sudanese nurses.

The six facilitators who supported the FGDs with refugees included:

1. Two women from the refugee community who served as translators (from the Maban language to Arabic and to English)
2. Two male health workers with IMC
3. Two female health workers with IMC.

4.2 Methods and tools

Methods used included desk research, health facility assessments, KIIs, FGDs, and questionnaires.

The tools used included:

- Four-part quantitative facility assessment tool that covered:
 - Basic facility information (Method: interview)
 - Staffing and services provided (Method: interview)
 - Inventory of equipment and supplies (Method: observation)
 - Twelve months of service statistics (Method: record review)
- Key informant interview guides
- In-depth interview guides for community leaders
- Focus group discussion question guide for male and female community members and male and female unmarried young adults (ages 18-25)
- Questionnaire to assess provider knowledge and attitudes.

The four-part quantitative health facility assessment tool was used to assess RH service availability. The introduction collected basic facility information including the size, catchment population, services available, and existence of NGO support for RH. The staffing and services section gathered data on human resources and specific RH service provision. The inventory of equipment and supplies collected information on basic equipment and RH commodities for each RH service. Service statistics were collected through clinical register review over a 12-month time frame. However, many of these data were missing due to poor registers or lack of availability of key data points.

Desk research

A review of published and grey literature, including national RH policies, other humanitarian assessments and reports, and publications on national disaster preparedness and humanitarian funding for South Sudan, was undertaken.

Health facility assessments

A total of 18 health facilities were assessed using purposive sampling, including the county hospital, eight PHCCs, and nine PHCUs (Table 2). Three facilities were assessed in-depth, which included additional questions about services provided and discussions with providers: the Maban County Hospital, Gentil PHCC managed by MSF-Holland, and an RI/MoH PHCC in Bunj.

As noted previously, PHCC is equivalent to a health center and PHCU is equivalent to a health post. The original protocol was designed to assess PHCCs only. However, the assessment was conducted during rainy season and the team was not able to access facilities outside the Bunj area. Following this protocol would have limited the study only seven facilities. Hence, the team assessed all available health facilities—both PHCC and PHCUs—at the four refugee camps. The tables in the report disaggregate the data by health facility.

Table 2. Health facilities assessed (n = 18)		
Facility name & operating agency	Agency type	Location of operation
Referral Hospital		
Maban County Hospital*	Government	Regional Hospital - Maban
Primary Health Care Centers		
Jamam PHCC	Government	The only facility accessible outside of Bunj (~61km away) and the only facility not serving refugees
MSF-Belgium	NGO	Doro Refugee Camp
Service in Mission (SIM)	Faith-based org	Local community near Doro Camp
IMC Main Clinic	NGO	Gedrassa Refugee Camp
MSF-Holland	NGO	Kaya Refugee Camp
IMC Main Clinic	NGO	Kaya Refugee Camp
MSF-Holland Gentil*	NGO	Bunj
RI/MOH PHCC*	NGO/Government	Bunj
Primary Health Care Units		
Mayak PHCU MSF Belgium	NGO	Doro Refugee camp
MSF Belgium-Doro	NGO	Doro Refugee camp
Belicia PHCU - MSF-Belgium	NGO	Doro Camp
MSF-Holland	NGO	Batil Refugee camp
MedAir South Clinic	NGO	Batil Refugee camp
Med Air West Clinic	NGO	Batil Refugee camp
IMC HP 36	NGO	Gendrassa Refugee camp
IMC B 17	NGO	Gendrassa Refugee Camp
Kaya - F Clinic - IMC	NGO	Kaya Refugee Camp

Key informant interviews

A total of 22 key informants were interviewed from four UN agencies (UNOCHA, UNFPA, UNHCR, and WHO), three international NGOs (IMC, MSF, and Marie Stopes International), the national Red Cross, the MoH, and community leaders from Gendrassa camp and Bunj. Key informants were identified with the assistance of IMC in Juba as well as through snow-ball sampling in Maban. The objective of the KIIs was to explore integration of RH into humanitarian health response, challenges and successes in service delivery and planning for, or extension of, comprehensive RH services. Interviews were conducted in English by the PI and typed in Word.

Focus group discussions

A total of nine FGDs were held with 82 refugees from Batil and Gendrassa camps and 10 women from the host community in Bunj Town. (The FGDs in Doro and Kaya had to be cancelled due to logistical and timing issues.) Of the refugee FGDs, two were held with married men, two with married women, two with unmarried young men (aged 18-24), and two with unmarried women (aged 18-24). The one FGD with members of the host community of Bunj was comprised of married women. The number of participants in each focus group ranged from eight to 12.

The objective of the FGDs was to identify access barriers and understand participants' perceptions of the RH services provided. FGD participants were identified through

purposive sampling with the assistance of refugee community leaders from Batil, Gendrassa and Doro camps and a community leader from Bunj Town.

Before commencing the FGDs, each question was discussed by the facilitators and carefully translated into Arabic to ensure participants' understanding. The FGDs were conducted by two teams of facilitators. Two South Sudanese men and one refugee woman facilitated the men's groups and one South Sudanese woman, one South Sudanese man, and one refugee woman facilitated the women's groups. All FGDs were conducted in Arabic. Two members of each team took notes. At the end of the day, facilitators met to share the notes and agree on the findings, after which they separately met with the PI to discuss and clarify any issues. Notes were translated into English and transcribed within a day or two after the FGDs. At the end of the mission, notes were sent to team members for review and comments.

Provider questionnaires

A convenience sample of 18 health providers from 18 facilities filled out questionnaires to assess RH knowledge and attitudes. The majority of providers were midwives or nurse midwives (n=8). In addition, three clinical officers, two nurses, and one medical assistant, community health worker, midwife assistant, health officer, and medical doctor were interviewed. (See Table B1 in Appendix for select aspects of the questionnaire results.)

4.3 Analysis, ethics, and limitations

Analysis

Facility assessment data were entered into CS Pro version 5.0 and analyzed using SPSS version 21 (IBM Corp., Armonk, NY, USA); qualitative data were analyzed using thematic analysis.

Ethics

Ethical approval was obtained through the Columbia University Institutional Review Board and the South Sudan Ministry of Health Ethics Committee. Approval was also sought with local authorities and health facilities. Upon arrival in Bunj Town, the team met with the local MoH authorities to request approval for the study. The team also held a meeting with community leaders to explain the assessment objectives and obtain approval and support.

Verbal consent was received from all participants, and no incentives were provided for participating in the study. Confidentiality was maintained throughout the data collection process; data was handled appropriately in an ethical manner and privacy conditions were followed.

Limitations

This study faced a number of limitations, in particular time and travel constraints. The field research was originally scheduled to be undertaken from July 22 to August 4, 2013.

However, upon arrival in the capital of Juba, the team had to first secure approval from the MoH's Ethical Committee. This delayed the trip by one week. The team attempted to maximize its time in Juba by conducting KIs. Unfortunately, the security situation was volatile due to the reshuffling of the Cabinet on July 26 by President Salva Kiir, which significantly restricted travel.

The team was finally able to travel to Bunj Town on July 31, one week before the end of Ramadan. Although the team intended to stay until August 10, the public holidays reduced the humanitarian flight options to return to Juba and they took the last flight back before the holidays on August 8. Thus, fieldwork in Maban County had to be carried out within six days

Travel in Maban County was severely restricted due to the rainy season. Hence, the health facilities accessible were those within or close to Bunj town and those located in the refugee camps. Scheduling conflicts, Ramadan, and other issues limited the possibility of conducting FGDs in all camps.

Finally, translation error was a possibility, particularly with the FGDs, since the responses had to be translated from Arabic into English and some had to be translated from Maban to Arabic and then to English.

5. Findings

5.1 General

General findings include information on humanitarian coordination and the overall RH response as reported by key informants as well as broader concerns expressed by refugees in the FGDs. Data on general infrastructure from the health facility assessments are also presented.

5.1.1 Humanitarian coordination

The Cluster Approach has been implemented in South Sudan. WHO and IMC lead the Health Cluster, and an RH Working Group, led by the MoH and UNFPA, was in place under the Health Cluster. A GBV sub-cluster, led by UNFPA and the American Refugee Committee (ARC), was operating under the Protection Cluster. The GBV sub-cluster was very active with a wide variety of NGOs and UN agencies in attendance. In May 2013, UNFPA appointed an RH/GBV coordinator for Greater Upper Nile, Unity and Jonglei states, based in Malakal.

The MoH established an RH Working Group in Maban County in June 2013 with an RH focal point based in Bunj. At the time of the assessment, the first meeting had not yet been held and was planned for August.

According to several key informants, until February 2013, the coordination of health organizations in Bunj Town was weak and NGOs were implementing according to their own plans and priorities. They also reported that coordination between WHO and UNHCR had been initially difficult. By the time of the assessment, coordination had improved and benefited from the participation of local MoH representatives. Health coordination meetings were held bi-weekly.

5.1.2 RH service provision

The majority of key informants reported that the RH response in Maban County had been minimal, particularly at the beginning. Most NGOs, according to informants, focused on infectious diseases from the onset of the refugee crisis and did not prioritize RH. However, MSF-Holland and MSF-Belgium were highlighted as exceptions and were reported to provide the widest range of RH services among the implementing agencies.

According to key informants and a gap assessment conducted by UNHCR on RH and HIV and AIDS services in February 2013, except for MSF-Belgium, MSF-Holland, and the county hospital in Bunj, RH service provision was limited and fragmented and had not met minimum standards; HIV services were particularly lacking. Although UNFPA was providing RH kits, they were reportedly insufficient and, according to the gap assessment, poorly utilized. Informants also said that the adolescent pregnancy rate was very high, but no specific RH services were in place for adolescents.

Informants noted the refugee population lacked information and held misconceptions about health issues. For example, malaria was a main cause of death in the camps and though mosquito nets had been distributed, the refugee population did not use them and instead turned them into clothing and rope. Regarding RH, community health information, education and communication (IEC) was limited and IEC materials were not displayed in clinics or at community level.

Most NGOs active in the refugee camps stated that utilization of their limited RH services was very low, except for MSF-Holland and MSF-Belgium, which reported a satisfactory utilization rate of antenatal care, delivery, and post-natal care services. According to verbal information from staff at MSF-Holland, they had reached very good coverage in Batil Refugee Camp: 180 to 200 deliveries per month, representing 80% of pregnant women.

Other significant progress was also documented. UNFPA and UNHCR had signed a memorandum of understanding to scale up MISP implementation and address RH kit management. UNHCR and implementing partners had developed a roadmap to expand RH services, and every implementing partner had established a plan of action with detailed information about how they planned to improve RH service provision. UNFPA and UNHCR were also planning to identify existing RH IEC materials, and adapt them through

consultations with the refugees. Training on the RH kits was scheduled for August 2013, and UNFPA had recently held a BEmONC training for 22 providers working in health facilities in the camps.

MSF-Holland had also recently opened a new health facility, Gentil PHCC, which provided services to Gendrassa and Batil refugee camps. Gentil PHCC had five registered nurses/midwives and 16 midwives assistants. Services were available on a 24 hours per day, seven days a week. MSF-Belgium had expressed interest in partnering with the MoH to scale up out-patient department services at the referral hospital in Bunj.

5.1.3 General feedback from refugees

According to FGDs, refugees were satisfied with general health services. They mentioned that services are free, good quality, and easily accessible. Many facilities were in walking distance and ambulances were also widely available.

5.1.4 Summary of facilities

The 18 health facilities assessed included the referral hospital, eight PHCCs and nine PHCUs (Table 3). The referral hospital in Bunj had a mean catchment population of approximately 209,700 with approximately 60 beds. All six PHCCs in the camps were operated by NGOs; of the two outside of the camps, one was operated by the MoH and another by a faith-based organization (see Table 2 for details.) On average, a PHCC had 16 beds, but the number of beds in a PHCC ranged from two to 67. The nine PHCUs assessed were all located in the camps and were operated by NGOs with a mean of two beds per PHCU and a range of zero to six beds. Populations were too mobile to obtain robust data for the PHCC or PHCU catchment populations.

Table 3. Summary of facilities (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health post) (n=9)
Facility type	1	8	9
Operating agency	NGO=1	Gov =1 NGO=6 Religious=1	NGO=9
Mean catchment population	209,700	ND*	ND*
Mean number of beds	60	16 (range 2-67)	2 (range 0-6)

*No data

5.1.5 UN/NGO support

UN or NGO financial support for each health facility was assessed (Table 4). The hospital received funding through Samaritan's Purse and UNHCR for health service provision, but only two areas of RH were supported: EmONC and post-abortion care (PAC). Of the seven PHCCs assessed, the majority received UN/NGO funding for family planning (six), EmONC (five), and STIs/HIV (five). Two PHCCs received UN/NGO funding for PAC and gender-based violence (GBV) services. Among PHCUs, two received funding for family

planning, two received funding for GBV services, and three received funding for STIs/HIV care.

Table 4. Facilities that receive NGO/UN support for RH by topic (n=16)			
	Hospital (n=1)	PHCU (health center) (n=7*)	PHCU (health post) (n=8*)
Family planning	0	6	2
Emergency obstetric and newborn care	1	5	0
Post-abortion care	1	2	0
STIs/HIV	0	5	3
Gender-based violence	0	2	2

**1 health center and 1 PHCU were missing data*

5.1.6 General infrastructure

Data on power source and water supply were collected from each health facility (Table 5). While each facility had access to a functioning water source, only half of the PHCCs and two of the nine PHCUs had a functioning power supply.

Most health facilities accessed water from a pump or borehole. In addition to using a pump or borehole, the hospital also received delivered water. Of the remaining PHCCs, four obtained their water from a bladder tank and one has access to indoor plumbing. Three PHCUs had access to a protected well, rainwater catchment, or water tank.

Table 5. General infrastructure (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health post) (n=9)
Functioning power supply	1	4	2
Source of power	Solar and generator=1	Solar panels=1 Generator=2; Both solar and generator=1	Solar panels=2 Generator=2
Functioning water supply	1	8	9
Source of water	Pump/borehole and water delivery	Indoor plumbing =1 Pump/borehole=4 Bladder=4	Pump/borehole=6 Protected well, rainwater catchment, water tank=3

5.1.7 Infection prevention

Table 6 demonstrates that many health facilities assessed did not have all the minimum supplies to adequately prevent infection. Only four PHCCs and one PHCU had the all minimum infection prevention supplies available. Lack of plastic sheeting was the primary gap, including at the hospital. Half of PHCCs had aprons and two-thirds of PHCUs did not have an adequate means to sterilize equipment.

The sterilizing room at the county hospital was a tent with a mud floor, which was not well kept. Equipment was boiled in an autoclave using a charcoal burner. The PHCC Gentil run by MSF-Holland had a sterilization room, which also had an autoclave. However, neither room had running water, soap, nor sterilization protocols.

Table 6. Facilities with essential infection prevention supplies available (n=18)			
Infection prevention supplies	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health post) (n=9)
Washing station with soap	1	5	9
Plastic sheeting	0	4	2
Non-sterile gloves	1	5	9
Sterile gloves	1	5	7
Antiseptics	1	5	9
Apron	1	4	3
Autoclave (or other appropriate equipment for sterilization)	1	5	3
Incinerator	1	6	3
Sharps are separated from other waste and disposed of properly.	1	7	9
Facilities with minimum infection prevention supplies available	0	4	1

5.1.8 Human resources

The availability of staff to provide RH services was assessed at 15 facilities; some hospital and PHCC data were missing (Table 7). Most facilities were not able to provide care at all times: only one PHCC and one PHCU had at least one provider on call or on-site 24 hours per day, seven days per week. Gaps in trained RH personnel were also found. The hospital did not have a trained provider for long-acting family planning methods or to provide clinical management of rape (CMoR). Staff trained in CMoR were lacking at PHCCs with only one (MSF-Holland) having a trained provider in place; the trained provider had finalized plans to provide in-service training on CMoR to the other staff at their affiliated PHCCs and PHCUs in the camps. One PHCU and two PHCCs had at least one provider trained to provide adolescent-friendly care. Few facilities had providers trained to perform induced abortion.

Table 7. Human resources (n=15)			
	Hospital (n=1)	PHCC (health center) (n=5*)	PHCU (health post) (n=9)
At least one qualified provider on site during the night and on weekends	ND*	1	1
At least one qualified provider on site or on call during the night and on weekends	ND*	1	1
At least 1 provider trained to provide short-acting FP methods	1	3	6
At least 1 provider trained to provide long-acting FP methods	0	3	3
At least 1 provider trained to provide permanent FP methods (at least one of tubal ligation and/or vasectomy)	1	0	0
At least 1 provider trained to provide basic EmONC services	1	3	5
At least 1 provider trained to provide comprehensive EmONC	1	NA	NA
At least 1 provider trained to provide post-abortion care	1	3	6
At least 1 provider trained to provide induced abortions	ND*	2	3
At least 1 provider trained to provide adolescent-friendly services	ND*	2	1
At least 1 provider trained to provide clinical management of rape	0	1	4

*No data for 3 facilities

5.2 Family planning

5.2.1 Overview

Since signing the Comprehensive Peace Agreement in 2005, the Department of Reproductive Health, under the MoH, has been responsible for coordinating RH programming and planning in South Sudan.⁴⁵ The MoH has aligned the Family Planning Policy to the National RH Strategic Plan 2012-2016 with the goal of enhancing provision of comprehensive family planning services across the country and reducing maternal and infant mortality.⁴⁶ The Family Planning Policy aims to provide guidance on creation and management of family planning information and services at all levels, ensure access to quality family planning services by encouraging service providers to take up existing opportunities in RH, and support new family planning demand in RH.

Despite these supportive policies, family planning-related indicators are grim. South Sudan's total fertility rate is 6.7 children per woman, the 11th highest fertility rate in the world.⁴⁷ Modern contraceptive prevalence is 4.7% with contraceptives mainly accessible

⁴⁵ South Sudan MoH, *National Family Planning Policy 2012*, February 2013.
<http://www.southsudanembassydc.org/PDFs/others/South%20Sudan%20MOH%20FP%20Policy-FINAL%20-%20PROOFED.docx>.

⁴⁶ Ibid.

⁴⁷ Central Intelligence Agency, Country Comparison: Total Fertility Rate, *Central Intelligence Agency*, 2014,
<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2127rank.html>.

to urban and well-educated residents.⁴⁸ In 2010, South Sudan was one of only four countries in the world with a contraceptive prevalence below 10%.⁴⁹

5.2.2 Service delivery

Health facilities were assessed on whether they met the criteria as functioning family planning service delivery points, which included having provided family planning services in the previous three months, trained staff in place to provide the service, and equipment and supplies to provide a minimum method mix. A minimum method mix included intrauterine device (IUD), implants, oral contraceptive pills, and injectable contraceptives. Data on emergency contraception and permanent family planning methods were also collected.

As shown in Table 8, none of the facilities assessed met the criteria for a functional family planning service delivery point, including the referral hospital. One facility (the same facility) met the criteria to adequately provide both oral contraceptives pills and injectable contraceptives. None of the facilities provided IUDs or implants.

Table 8. Provision of family planning services to an acceptable standard (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health post) (n=9)
IUD	0	0	0
Implant	0	0	0
Oral contraceptive pill	0	1	1
Injectable contraceptive	0	1	1
Functioning family planning service delivery point	0	0	0

Tables 9 and 10 provide details on the availability of short-acting, long-acting, and permanent methods at the hospital and the PHCCs. Most facilities had supplies that are used in multiple procedures, such as stethoscopes, BP cuffs, antiseptics, and needles and syringes, but there was a dearth of supplies specific to provision of each family planning method (See Appendix 1, section A.)

Short-acting methods were more available than long-acting methods. Although only one facility met the criteria to sufficiently provide short-acting methods—both oral contraceptive pills and injectables—five reported having provided them in the previous three months. Emergency contraception had been provided by three facilities in the previous three months. Condoms were only available at MSF facilities, but, according to health staff,

⁴⁸ South Sudan MoH, *National Family Planning Policy 2012*, February 2013.

<http://www.southsudanembassydc.org/PDFs/others/South%20Sudan%20MOH%20FP%20Policy-FINAL%20-%20PROOFED.docx>.

⁴⁹ Leontine Alkema et al., “National, Regional, and Global Rates and Trends in Contraceptive Prevalence and Unmet Need for Family Planning between 1990 and 2015: A Systematic and Comprehensive Analysis,” *The Lancet* 381, no. 9878 (May 17, 2013): 1642–52. <http://www.sciencedirect.com/science/article/pii/S0140673612622041>.

utilization was low. Lack of authorization followed by lack of supplies and trained staff were cited as the main reasons for not providing short-acting methods.

Similarly, many facilities could not provide long-acting methods due to lack of authorization. Others reported insufficient supplies as well as lack of trained staff. As self-reported by health staff, implants were provided by one PHCC—Gentil—in the last three months, but it did not have all the necessary supplies at the time of the assessment. Most PHCCs did not have implants or trained staff, and none of the PHCCs or PHCUs had IUDs. Permanent methods were not available at the Maban county hospital, although it was authorized and they had trained staff, including a surgeon, an ob/gyn, as well as an operating theater. However, they stated that there was no demand.

Table 9. Short-acting family planning services provided and reasons not provided (n=9)				
Function	Daily Oral Contraceptive Pills (OCPs)	Injectable Contraceptive	Emergency Contraception	Condoms (male and female)
Provided in the past 3 months (self-report)	5	5	3	4
Provided in the past 3 months (clients noted in registers)	2 ND (7)	1 ND (7)	0 ND (8)	0 ND (8)
Main reason service not provided				
Lack of skilled staff/training	2	2	4	2
Lack of supplies / equipment	2	2	5	2
Not authorized to provide	3	3	5	3

Table 10. Long-acting and permanent family planning services provided and reasons not provided (n=9)				
Function	IUD	Implant	Tubal Ligation	Vasectomy
Provided in the past 3 months (self-report)	0	1	0	0
Provided in the past 3 months (clients noted in registers)	ND* (9)	0 ND* (8)	0 ND* (8)	0 ND* (8)
Main reason service not provided				
Lack of skilled staff/training	5	7	8	8
Lack of supplies / equipment	8	8	8	8
Not authorized to provide	6	7	8	7

*No data

Table 4 on funding for RH demonstrates that six PHCCs and two PHCUs received funding for family planning, yet none of the facilities met the criteria as a functioning family planning service delivery point.

5.2.3 Provider knowledge and attitudes⁵⁰

Information on provider knowledge and attitudes was obtained through questionnaires filled out by 18 health care providers: one medical doctor, one health officer, eight midwives, two nurses, and six other health care providers. Providers were given a list of statements and asked to mark whether they strongly agreed, agreed, disagreed or strongly disagreed with each statement. Each answer choice was assigned a score between 1 and 4, with higher scores reflecting attitudes that promote high quality family planning services. For the statement “Family planning should be available to all women who want to use a method,” providers’ mean score was 3.22. Regarding the statement, “Young unmarried men and women should be educated about sex and reproduction,” the mean score was 3.61. These reflect fairly positive attitudes that enable good quality care. However, with a mean score of 3, providers also agreed that “Young unmarried women should be required to get their parents’ consent in order to receive a family planning method.” Further, providers’ mean score was 3.28 regarding whether they agreed that “Men should be responsible for choosing how many children their wife/wives will have,” reflecting attitudes that can undermine good quality and access to care.

More than half of all providers had received instruction on provision of family planning methods; however, few had provided family planning services in the past three months. None of the providers inserted an IUD or a post-partum IUD in the past three months and providers did not have positive perceptions about IUDs. In comparison, four providers had inserted an implant in the last three months. On average, with a mean score of 2.06, providers did not agree that “IUDs can be a good method for women who have no children.”

Findings on RH knowledge revealed misconceptions about post-partum use of family planning methods: on average, providers only selected one appropriate method of family planning for women immediately after delivery and for women who are breastfeeding six weeks after delivery.

KII also highlighted that there were significant taboos regarding family planning among refugees and providers alike. Providers were uncomfortable addressing family planning and avoided the topic with clients unless the person specifically demanded it. They repeatedly cited the lack of demand from the refugees as a primary reason for not offering FP services. Many providers reported that they had not been sensitized to providing FP, although nurses and midwives at MSF-Holland’s Gentil PHCC were reportedly well-trained and knowledgeable about FP.

5.2.4 Focus group discussions

"It is important to have many children. A woman can have up to 10 or 12 children. If you have many children they will help the family to undertake heavy tasks, to take care of the

⁵⁰ See Appendix 2 for results of provider knowledge and attitudes questionnaire.

cattle, to look after the younger siblings. If you have many children, it is the God will!"
(Married man)

Socio-cultural norms about family planning greatly undermined use of family planning services. Both men and women believed that the number of children a woman bears was "God's will" and women should have their first child soon after marriage. Many children were seen as a sign of wealth as they will take on household duties, although some were also allowed to attend school. Only one group of married women associated large numbers of children with financial burdens and limited access to education. These women also identified advantages of delaying their first birth to take the time to mature and prepare for pregnancy.

Men and women agreed that married women should seek the husband's permission before using family planning; however, married women noted that it was acceptable to use family planning methods secretly if the husband does not consent. Women also reported that pregnancy was a greater priority than breastfeeding a child.

Focus groups participants reported that family planning was not acceptable for unmarried women. Focus groups with unmarried women found that they were not aware of any family planning methods and only reported abstinence as a way to prevent pregnancy. Pre-marital pregnancy did occur, but it was reportedly rare and perceived negatively. Focus groups said that, in instances of pregnancy out of wedlock, the woman's family and community would identify the father of the child and urge him to marry her. If the man refused, the focus groups reported he could be punished and sent to prison.

Focus groups with refugees revealed that they were not aware of any family planning services or information in the camps. Focus group discussions with women from the host community, however, identified the hospital as a source of contraceptive pills and injectables, and associated the hospital with qualified staff, a laboratory, and an ultrasound device.

5.3 Emergency Obstetric and Newborn Care

5.3.1 Overview

The maternal mortality rate in South Sudan is the worst in the world, at 2,054 deaths per 100,000 live births.⁵¹ More than half of all women in South Sudan do not receive skilled prenatal care and more than 80% of women are unattended during childbirth.⁵² Only an

⁵¹ IRIN, "South Sudan: The Biggest Threat to a Woman's Life," *IRINnews*, July 20, 2012.

<http://www.irinnews.org/Report/95900/SOUTH-SUDAN-The-biggest-threat-to-a-woman-s-life>.

⁵² Save the Children, *State of the World's Mothers 2013 Surviving the First Day*, (May 2013).

http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM-FULL-REPORT_2013.PDF.

estimated 9.4% of women attend four antenatal care sessions.⁵³ The infant mortality and under-five mortality rates are high with 84 deaths per 1000 live births and 120.5 deaths per 1000 live births, respectively.⁵⁴ Finally, South Sudan ranked 147th out of 176 countries in the 2013 State of the World's Mother's Index, which measures mothers' and children's health, educational, economic, and political status.⁵⁵

As part of the UN's Every Woman Every Child Campaign, South Sudan pledged to improve RH by 2015.⁵⁶ The government plans to increase funds allocated to the MoH from 4.2% to 10% and to increase the number of births with skilled birth attendants from 10% to 45%.⁵⁷ It plans to achieve these goals by constructing 160 basic emergency obstetric care facilities, training 1,000 enrolled or registered midwives by 2015, and establishing six accredited midwifery schools.⁵⁸ The government also plans to develop a policy for provision of free RH services, including emergency obstetric care services.⁵⁹

As noted in the section 5.1.2, UNFPA had recently held a BEmONC training for 22 providers working in health facilities in the camps in Maban County.

5.3.2 Service delivery

Emergency obstetric and newborn care (EmONC)

The hospital and eight PHCCs were assessed on whether they met the criteria as functioning comprehensive and basic emergency obstetric care (CEmONC and BEmONC) service delivery points respectively. Basic and comprehensive EmONC are based on nine signal functions, or life-saving obstetric interventions, as outlined in *Monitoring Emergency Obstetric Care: A Handbook*.⁶⁰ The basic EmOC signal functions are:

1. Administer parenteral antibiotics
2. Administer uterotonic drugs (e.g., parenteral oxytocin, parenteral ergometrine)
3. Administer parenteral anticonvulsants for pre-eclampsia and eclampsia (e.g., magnesium sulphate)
4. Perform manual removal of placenta

⁵³ South Sudan Ministry of Health, *Health Sector Development Plan, 2012-16: Final Draft*, January 2012, p. 35.

⁵⁴ United Nations, International Children's emergency Fund, *Children in South Sudan*, 2011.
[http://reliefweb.int/sites/reliefweb.int/files/resources/Children in Sudan summary sheet final.pdf](http://reliefweb.int/sites/reliefweb.int/files/resources/Children%20in%20Sudan%20summary%20sheet%20final.pdf).

⁵⁵ Save the Children, *State of the World's Mothers 2013 Surviving the First Day*, (May 2013).
http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM-FULL-REPORT_2013.PDF.

⁵⁶ Every Women Every Child, *Every Woman Every Child*, 2014.
<http://www.everywomaneverychild.org/component/content/article/1-about/310-ensuring-universal-access-to-reproductive-health>.

⁵⁷ United Nations, Sustainable Development Knowledge Platform, *The Republic of South Sudan Commits to Increase the Percentage of Government Budget Allocation to the Ministry of Health from 4.2% to 10% by 2015*.
<http://sustainabledevelopment.un.org/index.php?page=view&type=1006&menu=1348&nr=1084>.

⁵⁸ Ibid.

⁵⁹ Every Woman, Every Child, *Every Woman Every Child*, 2014.
<http://www.everywomaneverychild.org/component/content/article/1-about/310-ensuring-universal-access-to-reproductive-health>.

⁶⁰ Patsy Bailey, Samantha Lobis, Judith Fortney, Deborah Maine, *Monitoring emergency obstetric care: a handbook*. (WHO, UNFPA, UNICEF, AMDD. 2009). <http://site.ebrary.com/id/10363989>.

5. Perform removal of retained products of conception (e.g., manual vacuum aspiration, dilation and curettage)
6. Perform assisted vaginal delivery (e.g., vacuum extractor)
7. Perform newborn resuscitation (with bag and mask).

To be classified as a comprehensive EmOC facility, the above signal functions must be met as well as the following two:

8. Perform blood transfusion
9. Perform surgery (e.g., Caesarean section).⁶¹

Hospitals should be able to provide CEmONC and health centers should be able to provide BEmONC. A functional EmONC service delivery point was defined as having provided EmONC services in the last three months, skilled staff in place to provide the service, and equipment and supplies to provide all EmONC by signal function available at the time of the assessment. Availability of partographs, blood pressure cuff, and stethoscope, which are essential to provide good delivery care, were also required.

As shown in Table 11, only one facility qualified as a functioning BEmONC delivery point. The hospital did not qualify as a functioning BEmONC or CEmONC service delivery point due to lack of partograph and inability to adequately provide assisted vaginal delivery. (Data on parenteral antibiotics were missing.) The ability to provide parenteral anticonvulsants and removal of retained products were the largest gaps in signal function provision among PHCCs. (For further details on each signal function, see Appendix 1, section B.)

⁶¹ Ibid.

Table 11. Provision of EmONC to an acceptable standard (n=9)		
	Hospitals (n=1)	PHCC (health centers) (n=8)
At least one staff trained to provide BEmONC	1	3 ND* (3)
Parenteral antibiotics	ND*	3
Parenteral uterotonics	1	3
Parenteral anticonvulsants	1	2
Manual removal of placenta	1	5
Removal of retained products	1	2 ND* (1)
Assisted vaginal delivery	0	3
Newborn resuscitation with appropriate bag and mask	1	5
Partograph	0	4
Blood pressure cuff	1	8
Stethoscope	1	8
Functioning BEmOC service delivery point	0	1 ND* (1)
Blood transfusion	1	NA
Staff able to conduct blood transfusion	1	3 ND* (3)
Caesarean section	1	NA
Staff able to conduct caesarean section	1	NA
Functioning CEmOC service delivery point	0	NA

*No data

Table 12 reports whether the signal functions were provided in the three months prior to the assessment and the reasons for not doing so. Table B1 in Appendix A also provides details on other essential obstetric services assessed, including active management of third stage of labor, and prevention of mother to child transmission of HIV (PMTCT). (PMTCT data are presented and discussed in the HIV section.)

Findings demonstrate that the hospital provided all CEmONC signal functions in the last three months and had at least one provider trained to provide CEmONC services, yet it did not have necessary equipment and supplies to meet the criteria at the time of the assessment (Appendix 1, section B.) For example, it did not have a vacuum extractor for assisted vaginal delivery or scalpel blades for caesarean section, yet had reportedly provided these signal functions in the three months prior. The hospital was able to adequately provide safe blood transfusion, although did not have a blood bank; relatives were asked to donate. Lack of supplies was the greatest hindrance in the hospital's ability to adequately provide BEmONC and CEmONC services.

Per Table 11, only one PHCC (Gentil from MSF-Holland) qualified as a functional BEmONC service delivery point. Lack of supplies was also a main barrier for PHCCs as well as lack of trained staff. For example, although five PHCCs had provided parenteral antibiotics in the previous three months, only two met all criteria at the time of the assessment, mainly due to lack of ampicillin and injectable metronidazole (Appendix 1, section B). (Most of the facilities emphasized that they do not use ergometrine anymore

although they stocked it. Ergometrine was only used in an emergency if the other drugs were not available.) Parenteral anticonvulsants were the least provided signal function with only two PHCCs having provided this service in the previous three months. For provision of assisted vaginal delivery and removal of retained products, four facilities reported they were not authorized to provide these signal functions. One PHCC reported having performed a blood transfusion in the last three months.

Table 12. EmONC signal functions provided & main reasons for not providing (n=9)										
Function	Parenteral antibiotics		Parenteral uterotonics		Parenteral anticonvulsants		Manual Removal of Placenta		Removal of retained products	
	Hosp	HC	Hosp	HC	Hosp	HC	Hosp	HC	Hosp	HC
Provided in the last 3 months (self-reported)	1	5	1	3	1	2	1	5	1	3
Main reason service not provided										
Lack of skilled staff/training	1		2		2		2		3	
Lack of supplies / equipment	1		5		2		2		5	
Not authorized to provide	1		2		3		2		4	

Table 12 (continued). EmONC signal function provided & main reasons for not providing (n=9)								
Function	Assisted Vaginal Delivery		Newborn resuscitation with bag and mask		Blood Transfusion		Caesarean Section	
	Hosp	HC	Hosp	HC	Hosp	HC	Hosp	HC
Provided in the last 3 months (self-reported)	1	3	1	5	1	1	1	0
Main reason service not provided								
Lack of skilled staff/training	5		1		4		6	
Lack of supplies / equipment	5		2		7		7	
Not authorized to provide	4		1		5		5	

A functioning referral system was in place between health facilities in the refugee camps and the hospital. Health facilities were generally within walking distance for most refugees, and ambulances were also available across camps. At MSF-Holland's Gentil PHCC, registered nurse-midwives and assistant midwives were available 24 hours per day. The hospital had an operating theater, but did not have a separate theater for obstetric operations. Both the hospital and the Gentil PHCC had well equipped labor and delivery

rooms. The hospital had a concrete building while at the Gentil PHCC had a big tent that was clean, well-partitioned, and provided adequate privacy for the patients. Based on observation only, both delivery rooms appeared clean. The RI/MoH facility had a smaller labor and delivery room that also appeared clean.

According to staff at MSF-Holland, they performed 180 to 200 deliveries per month in Batil camp, representing 80% of pregnant women. MSF-Belgium reported 70% coverage for delivery care, including BEmONC, in Doro Camp.

Newborn care

Data on essential elements of newborn care were also collected. Criteria to adequately provide essential elements of newborn care included having provided neonatal resuscitation in the previous three months, having equipment and supplies for newborn resuscitation and infection management, and having staff trained in newborn resuscitation, breastfeeding support, newborn infection management, thermal care, cord care, kangaroo care, and delivery practices for PMTCT.

Of the nine facilities assessed, seven did not meet the criteria to provide these essential elements of newborn care, including the county hospital (Table 13.) Although some data from the hospital were missing, data that were collected demonstrated significant gaps in trained staff as well as the availability and use of partograph. It did, however, adequately provide newborn resuscitation with resuscitation bag and infant face mask. Of the six PHCCs that did not sufficiently provide essential elements of newborn care, most PHCCs did not have staff trained in special delivery care for PMTCT; four did not have a partograph, corticosteroids, or ampicillin injectables. Most facilities failed to provide newborn care due to lack of trained staff and lack of sufficient equipment and drugs.

Table 13. Facilities with essential elements of newborn care (n=9)		
	Hospitals (n=1)	PHCC (health centers) (n=8)
Neonatal resuscitation with appropriate bag and mask performed in last 3 months	1	5
At least one provider trained to provide		
Breastfeeding (early and exclusive)	0	7
Newborn infection management (including injectable antibiotics)	0	5
Thermal care (including immediate drying and skin-to-skin care)	0	6
Sterile cord cutting and appropriate cord care	1	6
Kangaroo care for low birth weight babies	0	6
Special delivery care practices to prevent mother-to-child transmission of HIV	1	3
Partograph	0	4
Resuscitation bag and infant face mask	1	5
Infant scale	1	5
Fetoscope	1	7
Corticosteroids (dexamethasone)	ND*	4 ND*(1)
Ampicillin injectable	ND*	4 ND*(1)
Gentamycin injectable	ND*	6 ND*(1)
Ceftriaxone injectable	ND*	6 ND*(1)
Facilities with all essential elements of newborn care	0	2

*No data

5.3.3 Provider knowledge and attitudes

Although more than two-thirds of the 18 providers had received instruction on provision of EmONC, less than half had provided EmONC services in the three months prior to the assessment. With a mean score of 3.94 out of 4, providers strongly believed it was beneficial for women to visit a health facility during pregnancy and it was safer to deliver a baby in a health facility than at home (Appendix 2). Yet other results from the questionnaires revealed low provider knowledge regarding EmONC. On average, providers were able to list five of the nine key observations for monitoring a woman in labor and three of eight essential activities when a woman develops heavy bleeding during delivery. Providers listed, on average, three of the ten important actions when a woman has not delivered the placenta. Further, findings revealed that, on average, providers identified less than half of the key activities for low-birth weight newborns and newborns with signs of infection.

5.3.4 Focus group discussions

“Go to the hospital because good medical services and midwives help during delivery. If you are sick, you will get treatment and your child will be vaccinated. When you have difficulties with delivery, you will get help at the hospital.” (Married woman)

Focus groups suggested that positive norms and behaviors for delivery had dramatically improved. All groups, including young unmarried women, reported that in their home

country, pregnant women would seek care from a traditional birth attendant. Home birth is also common among the host community in Maban County. However, due to awareness-raising and outreach by health actors, refugees were now aware of the benefits of facility births and sought care at camp health facilities. They reported the health facilities provided good quality services, free care, and were easy to access (in walking distance.) Additionally, married men believed that delivering at the health facility was beneficial because babies received a birth certificate and mothers were enrolled in the food assistance program. Focus groups knew that women who required caesarean sections were referred to the county hospital in Bunj.

Communities generally understood the importance of caring for a woman's health during pregnancy and the value of good quality care, although some misconceptions and gender barriers were reported. For example, focus groups noted that women must ask permission from their husbands prior to seeking antenatal care, although they would not be punished for accessing care without permission. Extended family and the community would talk to the husband to make him understand the importance of going to the health facility for care. Men and women, both married and unmarried, commented that pregnant women should not engage in strenuous activity and that men were responsible for helping their wives with tasks such as collecting firewood, fetching water, arranging food, and washing clothes. All FGDs emphasized the importance of large families and the relationship between a woman's status and the number of children she has.

There were mixed beliefs about sexual intercourse during pregnancy. Married refugee women said women avoided sex during the first three to six months of pregnancy, whereas married host women said women avoided sex for six months after delivery. It was mentioned that if a woman becomes pregnant during breastfeeding, she should stop breastfeeding and take care of the pregnancy. It was not clear whether the belief was dictated by the priority for pregnancy or a belief that breast milk was not good for a lactating child once the mother becomes pregnant.

5.4 Comprehensive abortion care

5.4.1 Overview

Unsafe abortion is the fourth leading cause of maternal death in South Sudan,⁶² and the 2013-2016 National Reproductive Health Policy recognizes hemorrhage due to unsafe abortion as one of the direct causes of high maternal mortality in the country.⁶³ The policy includes comprehensive post-abortion care (PAC) as part of services provided by EmONC. Per the policy, the MoH intends to train mid-level health providers in manual

⁶² Mandy Noonan, "Maternal Mortality in South Sudan," *Consultancy Africa Intelligence*, January 16, 2013. http://www.consultancyafrica.com/index.php?option=com_content&view=article&id=1192:maternal-mortality-in-south-sudan&catid=91:rights-in-focus&Itemid=296.

⁶³ South Sudan MoH, *National Reproductive Health Strategic Plan 2013 – 2016*, February 2013.

vacuum aspiration (MVA) for PAC.⁶⁴ One aspect of the policy focuses on improving availability of RH services at PHCCs in order to increase the proportion of PHCCs with improved management of obstructed labor and unsafe abortion.⁶⁵ The policy also addresses the need for PAC for adolescents. National law permits abortion to save a woman's life.⁶⁶

5.4.2 Service delivery

Comprehensive abortion care included PAC in addition to induced abortion. The facilities were assessed as PAC service delivery points (Table 14) and data on the availability of induced abortion were also collected (Table 15).

A health facility was designated as a functioning PAC service delivery point if it provided PAC services in the past three months, offered family planning to PAC clients before discharge, had trained staff providing services, and had equipment and supplies to provide MVA or misoprostol for PAC specifically. Based on these criteria, only two PHCCs, and one PHCU qualified as functioning PAC service delivery points (Table 14).

Table 14. Provision of PAC services to an acceptable standard (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health post) (n=9)
Family planning offered to all PAC clients	1	3	1
PAC with MVA	1	1	0
PAC with misoprostol (<i>optional</i>)	ND*	1	1
Functioning PAC service delivery point	1	1	1

Most PHCCs and PHCUs were not able to provide PAC due to lack of authorization (Table 15). Two PHCCs and one PHCU provided PAC in the last three months using MVA, but did not meet the criteria to adequately provide PAC mainly due to lack of supplies at the time of the assessment. Two PHCCs and one PHCU were able to adequately provide PAC with misoprostol (Appendix 1, section C).

Despite legal indications for its use to save the woman's life, induced abortion was not available at any of the health facilities assessed.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Center for Reproductive Rights, The World's Abortion Laws 2014, 2014, <http://worldabortionlaws.com/map/>.

Table 15. Comprehensive abortion care & reasons not provided (n=18)									
<i>Function</i>	PAC with MVA			PAC with misoprostol			Induced abortion		
	Hosp	HC	PHCU	Hosp	HC	PHCU	Hosp	HC	PHCU
Post-abortion care (PAC) provided in last 3 months (self-reported)	1	3	1 ND*(3)	1	3	1 ND*(3)	0	0	0 ND*(4)
Main reason service not provided									
Lack of skilled staff/training	6			8			7		
Lack of supplies / equipment	9			8			8		
Not authorized to provide	9			9			11		

*No data

5.4.3 Provider knowledge and attitudes

Although Table 15 shows that none of the facilities assessed have provided induced abortion in the previous three months, 11 (61%) of the 18 providers reported having been trained in providing induced abortion using misoprostol and MVA (Appendix Table 2.2). More than 70% had been trained in PAC with MVA as well as PAC with misoprostol. Almost one-fourth of the providers had provided PAC using misoprostol or MVA and post-abortion family planning counseling in the previous three months. On average, providers could identify three out of five immediate complications from unsafe abortion and four out of 10 key activities to manage complications from an unsafe or incomplete abortion. Providers reported giving PAC patients, on average, two out of six pieces of key information such as information on consequences of unsafe abortion and social support.

5.4.4 Focus group discussions

Focus groups reported negative attitudes towards abortion and said that a pregnancy should not be terminated. Refugees said that it was “the wish of all fathers and mothers to have many children.” Nonetheless, two groups of men said pregnancy can be terminated if it will improve the woman’s health. Another group of women mentioned that unwanted pregnancy can be terminated if a doctor determines that doing so will relieve a woman from disease or weakness.

Refugees reported that some women and girls resorted to unsafe abortion. Host women acknowledged (unsafe) abortion as a method for terminating an unwanted pregnancy if both husband and wife do not wish to be pregnant. Men and married women identified pills and injectable methods to terminate pregnancy. Unmarried women did not believe that anything could be done to manage unwanted pregnancies.

5.5 HIV and other sexually transmitted infections (STIs)

5.5.1 Overview

In South Sudan, HIV prevalence among adults is 2.7%.⁶⁷ Prevalence has decreased from 3.1% in 2007,⁶⁸ although 2.7% still places the country as having the 23rd highest HIV prevalence in the world.⁶⁹ HIV prevalence among women aged 15 to 24 years is 1.2% compared to 0.6% among their male counterparts.⁷⁰ Prevalence among military personnel is higher at 4.4%.⁷¹ Approximately 14,000 children—up to 14 years old—are living with HIV in the country,⁷² and ART coverage among children was just 5% in 2012.⁷³ An estimated 13,000 total deaths are due to AIDS-related illnesses each year. Only 13% of HIV-positive pregnant women receive ARVs for PMTCT.⁷⁴ Regarding STIs, in 2012, 8.3% of antenatal care attendees were positive for syphilis; data on the proportion treated for syphilis were lacking.⁷⁵

In 2006, South Sudan established the HIV/AIDS Commission to develop policies and implement national responses to HIV, strengthen partnerships to expand response among stakeholders, promote research, develop methods for monitoring the epidemic, and financially strengthen the HIV response.⁷⁶ Two years later, in 2008, South Sudan implemented an HIV/AIDS policy to support and strengthen the response to HIV and to mainstream this response into South Sudan's peace and development process.⁷⁷ In 2013, the first national HIV strategic plan (2013-2017) was established.

The government has received PEPFAR funding to strengthen the HIV/AIDS Commission as well as support HIV/AIDS prevention, care, and treatment.⁷⁸ Since 2012, PEPFAR South Sudan has worked to improve HIV-related governance and systems, prevention, and care and support for people living with HIV (PLHIV). The government supports antiretroviral therapy (ART) through the Global Fund to Fight AIDS, Tuberculosis and Malaria for patients that were already receiving treatment as of November 30, 2011. As of

⁶⁷ UNAIDS, South Sudan, *UNAIDS*, 2012, <http://www.unaids.org/en/regionscountries/countries/southsudan/>; UNAIDS, AIDSinfo Epidemiological Status, <http://www.unaids.org/en/dataanalysis/datatools/aidsinfo/>.

⁶⁸ Centers for Disease Control and Prevention, *HIV and AIDS in South Sudan*, 2010, <http://www.cdc.gov/globalaids/global-hiv-aids-at-cdc/countries/Sudan/>.

⁶⁹ UNAIDS, South Sudan, *UNAIDS*, 2012, <http://www.unaids.org/en/regionscountries/countries/southsudan/>; UNAIDS, AIDSinfo Epidemiological Status, <http://www.unaids.org/en/dataanalysis/datatools/aidsinfo/>.

⁷⁰ UNAIDS, AIDSinfo Epidemiological Status, 2012, <http://www.unaids.org/en/dataanalysis/datatools/aidsinfo/>.

⁷¹ Inter-agency Task Team to Address HIV in Humanitarian Emergencies, *IATT on Addressing HIV in Humanitarian Emergencies: South Sudan Advocacy Piece*, December 2013, <http://www.unhcr.org/52c6c1159.pdf>.

⁷² UNAIDS, AIDSinfo Epidemiological Status, 2012, <http://www.unaids.org/en/dataanalysis/datatools/aidsinfo/>.

⁷³ Inter-agency Task Team to Address HIV in Humanitarian Emergencies, *IATT on Addressing HIV in Humanitarian Emergencies: South Sudan Advocacy Piece*, December 2013, <http://www.unhcr.org/52c6c1159.pdf>.

⁷⁴ UNAIDS, AIDSinfo Epidemiological Status, 2012, <http://www.unaids.org/en/dataanalysis/datatools/aidsinfo/>.

⁷⁵ WHO, Data on Other STIs: Antenatal Care Attendees Who Were Positive for Syphilis, 2013, <http://apps.who.int/gho/data/node.main.A1359STI?lang=en>.

⁷⁶ South Sudan MoH, *Southern Sudan HIV/AIDS Policy 2008*, 2008. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_127607.pdf.

⁷⁷ Ibid.

⁷⁸ PEPFAR, *South Sudan Operational Plan Report FY 2012*, 2013. <http://www.pepfar.gov/documents/organization/212157.pdf>.

2012, no funding from the Global Fund was available for new HIV patients diagnosed after November 30, 2011 since South Sudan's application was rejected.⁷⁹

5.5.2 Service delivery

Facilities were considered fully functioning service delivery points for STI services (syndromic or laboratory testing and treatment) and PMTCT based on whether they had provided the service in the preceding three months and whether essential drugs were available on the day of the assessment. Data were collected on whether ART for people living with HIV (PLHIV), voluntary counseling and testing for HIV (VCT), and condoms had been provided in the previous three months.

Some adequate STI care was available, although HIV services were severely lacking (Table 16). Lack of supplies hindered adequate STI provision. For example, although almost all PHCCs and seven out of nine PHCUs had provided STI treatment in the previous three months, only three and one, respectively, had all essential antibiotics at the time of the assessment (Appendix 1, section D).

PMTCT and ART were not available at any health facilities including the hospital (see Appendix 1, section D for PMTCT details). Condoms were not available at the hospital and mainly available at MSF facilities only. One PHCC reported providing voluntary counseling and testing for HIV in the previous three months.

Table 16. HIV and STI services (self reported) (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health post) (n=9)
Performed syndromic or laboratory diagnosis and treatment of STIs*	0	3	1
Administered ARVs to HIV+ mothers and newborns in maternity (PMTCT)*	0	0	0
Provided ART for PLHIV	0	0	0
Provided voluntary HIV counseling and testing	0	1	0
Condom provision	0	4	6

*Provided in the last three months plus supplies available at the time of the assessment

Tables 17a and 17b outline reported reasons for the gaps in HIV service provision. The majority of PHCCs and PHCUs reported that they lacked authorization to provide ARVs for PMTCT and ART. Others reported lack of supplies followed by trained staff. ARVs for ART or PMTCT were not available at any health facility assessed.

Table 17a. HIV and other STI services provided & reasons not provided (n=18)

⁷⁹ Ibid.

<i>Function</i>	Perform syndromic or laboratory diagnosis and treatment of RTIs			Provide voluntary HIV counseling and testing			Provide ART for PLWHA		
	Hosp	HC	PHCU	Hosp	HC	PHCU	Hosp	HC	PHCU
Provided in last 3 months (self-reported)	1	7	7	0	1	0	0	0	0
Main reason service not provided									
Lack of skilled staff/training	Syndromic=1 Lab=3			3			4		
Lack of supplies / equipment	Syndromic=1 Lab=4			7			9		
Not authorized to provide	Syndromic=1 Lab=3			5			6		

Table 17b. HIV and other STI services provided & reasons not provided (n=18)						
<i>Function</i>	Administer ARVs to HIV+ mothers and newborns in maternity (PMTCT)			Condom provision		
	Hosp	HC	PHCU	Hosp	HC	PHCU
Provided in last 3 months (self-reported)	0	0	0	0	4	6
Provided in the past 3 months (clients noted in registers)	0			0 ND* (8)		
Main reason service not provided						
Lack of skilled staff/training	5			2		
Lack of supplies / equipment	9			4		
Not authorized to provide	6			5		

*No data

5.5.3 Provider knowledge and attitudes

Providers were asked about the actions they took when a client presented with symptoms of an STI (Appendix 2). On average, providers mentioned only half of the five key activities for STI diagnosis and treatment. Although health facility assessment data found that no facility had provided PMTCT in the previous three months, one provider reported administering ARVs for PMTCT in the previous three months on the questionnaire. This could not be clarified. Eleven providers had been trained in administering ARVs for PMTCT.

5.5.4 Focus group discussions

“One can get AIDS due to sex, drinking and eating together, and greetings [with an infected person].” (Married man)

All groups had heard about HIV or AIDS (they use the term AIDS to refer to both). Although some were knowledgeable about transmission and prevention, misconceptions

and stigma abounded. Refugees believed that HIV was very contagious and that treatment did not exist. Focus groups reported that abstinence and limiting sexual relations to one's marital partner were effective ways to prevent HIV transmission. Married men thought that "AIDS" could be transmitted through blood (on blades and knives), mosquito bites and flies, and sitting near or drinking and eating with an HIV positive person. They also reported that prevention efforts include isolating PLHIV in prison.

Unmarried women did not have any information about STIs, while both groups of men and married women mentioned gonorrhea (known as "*pagel*") and syphilis. Men mentioned hydrocele, or scrotal swelling. Syphilis was mentioned by a group of married women as a cause of infertility. Unmarried people with several sexual partners, traders, soldiers, sex workers, and widows were perceived to be at risk of HIV and STI transmission.

Lack of awareness and use of condoms was alarming. Both men and women had heard about condoms, but none had seen or used one. Married men said that condoms were used by unmarried men, but this was not confirmed by unmarried men (possibly due to stigma.) Men and married women said that condoms were available in the market from Ethiopian traders, which contributed to a negative perception of condoms; they did not mention availability at the health facilities. Host women mentioned that condoms were available at the hospital, although findings from this study demonstrated that they had not been provided in the three months prior to the assessment.

5.6 Sexual violence

5.6.1 Overview

Sexual violence in South Sudan is underreported, and conflict and displacement introduce additional barriers to reporting sexual violence.⁸⁰ Social norms stigmatize discussion about sexual violence, which undermines reporting.⁸¹ According to a report by Oxfam, accurate data on sexual violence or domestic violence is limited, but sexual violence appears widespread throughout the country.⁸² A 2009 study found that sexual violence was the fourth most common form of GBV reported among respondents who had experienced GBV (13%).⁸³ A 2011 Human Rights Watch report found that 59% of women interviewed reported GBV in the home, whereas 19% reported GBV in the community.⁸⁴ A GBV

⁸⁰ UNMISS, *Conflict in South Sudan: A Human Rights Report*, May 2014.

[http://unmiss.unmissions.org/Portals/unmiss/Human Rights Reports/UNMISS Conflict in South Sudan - A Human Rights Report.pdf](http://unmiss.unmissions.org/Portals/unmiss/Human%20Rights%20Reports/UNMISS%20Conflict%20in%20South%20Sudan%20-%20A%20Human%20Rights%20Report.pdf).

⁸¹ Danish Refugee Council, *A Sexual and Gender Based Violence Rapid Assessment*, July 2012.

<http://www.refworld.org/pdfid/52401d804.pdf>.

⁸² Oxfam Canada, *Country Profile: South Sudan*, February 2013. <http://www.oxfam.ca/sites/default/files/imce/country-profile-south-sudan.pdf>.

⁸³ Jennifer Scott, Sarah Averbach, Anna Merport Modest, Michele R. Hacker, Sarah Cornish, Danielle Spencer, Maureen Murphy, Parveen Parmer, "An Assessment of Gender Inequitable Norms and Gender-Based Violence in South Sudan," *Conflict and Health* 7, no. 4 (2013). <http://www.biomedcentral.com/content/pdf/1752-1505-7-4.pdf>.

⁸⁴ Ibid.

assessment in Doro Camp found that, according to a few FGDs, some rape had occurred, particularly during firewood collection.

South Sudan has a Penal Code Act, enacted in 2008, which criminalizes rape and physical assault, but excludes marital rape.⁸⁵ The government has made efforts to empower women and encourage women's participation in society since it gained independence in 2011.⁸⁶ The Transitional Constitution, which was instituted in 2011, gave women and girls the right to consent to and refuse marriage, and criminalized kidnapping or abducting women to force marriage.⁸⁷ Additionally, the Child Act of 2008 protects children under 18 years from forced marriage.⁸⁸ However, the Transitional Constitution and the Child Act do not enforce a minimum marriage age.⁸⁹ In 2013, the Ministry of Gender drafted a Gender Policy to address limitations in existing policies by implementing a National Plan of Action.⁹⁰ However, as of February 2013, the Gender Policy had not been implemented and much of the police force in the country had not been trained to handle reports of sexual violence.⁹¹ Women continue to predominately report sexual violence to traditional chiefs and heads of clans in their communities rather than to police.⁹² Community leaders tend to negotiate agreements with the offenders, rather than pursue legal recourse.⁹³

5.6.2 Service delivery

Essential elements of clinical management of rape (CMoR) include the provision of post-exposure prophylaxis (PEP) for HIV, emergency contraception (EC), and antibiotics for STIs as well as the availability of staff trained in CMoR. Comprehensive CMoR includes additional supplies and activities.⁹⁴ Table 19 outlines the number of facilities that had at least one trained staff person in place, had provided the essential CMoR drugs in the previous three months, and had these drugs available at the time of the assessment. None of the health facilities assessed were equipped to adequately provide these elements of CMoR, although data were not available for two PHCCs (Table 18).

Table 18. Selected elements of CMoR (n=18)			
	Hospital	PHCC (health	PHCU (health

⁸⁵ Oxfam Canada, *Country Profile: South Sudan*, February 2013. <http://www.oxfam.ca/sites/default/files/imce/country-profile-south-sudan.pdf>.

⁸⁶ Human Rights Watch, *Child Marriage in South Sudan*, February 2013. http://d3n8a8pro7vhmx.cloudfront.net/stoprapeinconflict/pages/292/attachments/original/1386282207/Survivors-Speak-Out-Sudan_web.pdf?1386282207.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ Ibid.; Oxfam Canada, *Country Profile: South Sudan*, February 2013. <http://www.oxfam.ca/sites/default/files/imce/country-profile-south-sudan.pdf>.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ For more information on CMoR, see: WHO, UNHCR, *Clinical management of rape survivors: developing protocols for use with refugees and internally displaced persons*, 2004.

	(n=1)	center) (n=8)	post) (n=9)
At least 1 provider trained to provide care for survivors of sexual assault	0	1 ND* (4)	4
Post-exposure prophylaxis (PEP)	0	1 ND* (1)	1
Emergency contraception (EC)	0	1 ND* (1)	1 ND (1)
Antibiotics to prevent sexually transmitted infections (STIs)	0	2 ND((1)	0
Facilities with essential drugs and ≥1 qualified staff for CMoR	0	0 ND*(2)	0

*No data

The hospital in Maban County had not provide any services to sexual assault survivors in the three months prior to the assessment (Table 19). It did not have a provider trained in CMoR nor any supplies to provide care at the time of the assessment (Appendix 1, section E).

Although two PHCCs had provided EC and PEP for CMoR in the previous three months, only one was able to adequately provide to EC and PEP at the time of the assessment due to lack of supplies (Appendix 1, section E). Similarly, four PHCCs had provided antibiotics for STIs for CMoR, but only two had them available when assessed. Among PHCUs, three had provided antibiotics in the previous three months, but none had these drugs in place at the time of the study. Stock outs of essential drugs for CMoR were a key barrier to service provision, although four facilities also reported that they were not authorized to provide PEP or EC. Trained staff were also lacking across facilities.

Table 19. Essential drugs for CMoR provided & reasons not provided (n=18)									
Function	Provide post-exposure prophylaxis (PEP)			Provide Emergency contraception (EC)			Provide antibiotics to prevent sexually transmitted infections (STIs)		
	Hosp	HC	PHCU	Hosp	HC	PHCU	Hosp	HC	PHCU
Provided in last 3 months (self-reported)	0	2	1	0	2	2	0	4	3
Provided in the past 3 months (clients noted in registers)	ND*			ND*					
Main reason service not provided									
Lack of skilled staff/training	4			4			4		
Lack of supplies / equipment	7			7			5		
Not authorized to provide	4			4			3		

A GBV Information Management System had been developed by UNHCR, UNFPA, and IRC to safely store, analyze and facilitate the sharing of GBV-related data. Its objective was to enable humanitarian agencies to obtain a reliable picture of reported GBV incidents and use the collected data to inform program decisions, but the information sharing protocol was not finalized at the time of the assessment. NGOs reported they were

reluctant to share information on their GBV cases. At the time of the assessment, community outreach programs on GBV were not in evidence.

According to a key informant in Juba, a Gender Capacity Expert (GenCap) had spent six months in Maban County in order to establish the GBV referral pathway and reinforce community sensitization and mobilization, although information on the outcome of these efforts was not available.

5.6.3 Provider knowledge and attitudes

None of the 18 providers who completed the questionnaire reported providing a post-rape exam or EC following sexual assault in the previous three months, although two PHCCs and two PHCUs indicated providing EC for CMoR within the last three months (Table 19). On average, providers identified fewer than half of eleven key activities for post-rape care, reflecting low knowledge about CMoR and a need for training.

An assessment by UNFPA also identified very low skill levels among health staff to provide CMoR as well as lack of awareness about sexual violence in the communities. As a result, UNFPA had planned to train health workers on CMoR, with an emphasis on counseling. The curriculum of the nursing/midwifery training centers supported by UNFPA also included CMoR.

Interviews with staff at the Gentil PHCC found that a training on CMoR had recently been held for providers, which included taking a confidential history and performing an examination, provision of antibiotics to prevent STIs, psychosocial counseling, and care for child survivors.

The GenCap expert had also reportedly trained 150 providers in Maban County in prevention and management of rape, as well as the use of the RH kits.

5.6.4 Focus group discussions

“YES! [Sexual assault] happens when men beat a woman if she refuses to have sex. Some men have women by force.” (Married woman)

Groups reported that sexual violence did occur, although was very rare outside of marriage. According to FGDs, some men use rape as a strategy for marriage since communities often resolve rape through forcing the victim to marry the rapist. Within marriage, married women said that the man chooses when to have sexual intercourse with his wife. A woman’s refusal without “valuable reason” will not be accepted, and some women mentioned that it can lead to fighting until the man forces the woman into sexual intercourse. Women blamed men for sexual violence.

Of the male FGDs, only one group of unmarried men recognized the existence of sexual violence, whereas all other groups denied it. One group said sexual violence occurred in the Blue Nile State (their home state in Sudan) and was perpetrated “only by Arabs.” Unmarried girls, widows alone at home, and women with many sexual partners were thought to be at increased risk of sexual violence.

Commercial sex was occurring in the camps, but was not socially accepted. According to men’s groups, women selling sex should be punished, but both women and “irresponsible husbands” were blamed for commercial sex. Focus groups said that widows living alone and unmarried women were likely to engage in commercial sex. Groups commented that “men do not fear doing anything to women” when they are alone; therefore, having a husband was good protection. Women did not identify specific unsafe places, but most married men indicated that all places within refugee camps were generally safe. One group of married men identified latrines, the camp office, the security office, and places to collect firewood as unsafe.

Regarding sexual violence against men, all groups reported that men were not at risk of rape, although they did report that Arab men in their home state (Blue Nile) raped other men. If a man forced another man (or a boy) to have sex, focus groups believed that he should be killed immediately.

Focus groups said there was no information regarding services for survivors of sexual violence. Women’s groups did not identify any facilities that provided post-rape treatment, but some men’s groups said that the survivor would be referred to the hospital. The groups also identified shame as a barrier to seeking care.

Focus groups also reported other forms of GBV, particularly intimate partner violence. All focus groups said that some women were beaten by their husbands, especially while drinking alcohol. A community leader of the host community in Bunj reported a recent case of a man who “married a girl of 11 years” without consent of the girl’s family. He was sent to jail—not due to the child’s age—but because there was no economic agreement between the families. Another community leader reported, “Some women are beaten by their husband if they quarrel or refuse to do what their husbands ask them to.”

6. Discussion

6.1 General

6.1.1 Health coverage

Like most health facilities across South Sudan, the health facilities in Maban County struggled to adequately meet the needs of the population. The WHO recommends at least one basic health unit or health post per 10,000 people, one health center per 50,000

people, and one district or rural hospital per 250,000 people.⁹⁵ Based on these standards alone, the county hospital should be able to adequately serve the catchment population of 209,700, yet it did not have the capacity. With only 2.9 beds per 10,000 people, the hospital fell far short of the WHO benchmark of at least 10 inpatient and maternity beds per 10,000 people, reflecting a severe shortage of resources.⁹⁶ It was also well below the average of 9 beds per 10,000 people for Africa as a whole.⁹⁷

At the same time, the health structures in Maban have benefited from the presence of international humanitarian actors that are scaling up health services in the poor, remote county. For example, in 2012, Maban County did not have a hospital; the capital of Bunj had just two PHCCs. As a result of the refugee influx, one PHCC received international funding and support to upgrade to a hospital. Service provision at the hospital as well as other health facilities continues to be strengthened by international partners and the MoH.

6.1.2 UN/NGO support

Findings show that the hospital received funding for two of the five RH areas assessed, whereas health centers, collectively, received funding for all areas of RH care. Funding for PHCUs—which provide fewer RH services—covered fewer RH areas, although more areas than the hospital.

Funding did not guarantee adequate service availability in all health facilities. Comparison of funding and functionality of health facilities revealed that, of the six facilities that received funding for EmONC, only one health center met the criteria for a functioning BEmONC service delivery point. Six PHCCs and two PHCUs received funding for family planning, but none qualified as functioning family planning service delivery points. Two PHCCs received funding for PAC, although one met the criteria for a functioning PAC service delivery point. In contrast, one PHCU, that did not receive PAC funding, was a functional PAC service delivery point. The hospital was only a functioning service delivery point in one of the RH areas—PAC—for which it received funding. Five PHCCs and three PHCUs received funding for STIs/HIV, but none were able to provide PMTCT or ART. Finally, two PHCCs and two PHCUs received funding for GBV care, but none had all CMoR drugs available.

6.1.3 General infrastructure and infection prevention

As described previously, health infrastructure in South Sudan remains extremely poor. Many health facilities are under-equipped, unhygienic one-roomed structures constructed with a thatched roof and a dirt floor. Facilities are difficult to access for much of the

⁹⁵ WHO, *Health Cluster Guide: A Practical Guide for Country-Level Implementation of the Health Cluster*, 2009. http://www.who.int/hac/global_health_cluster/guide/en/.

⁹⁶ Ibid.

⁹⁷ WHO, *Health Systems: Essential Health Technologies Data by WHO Region*, 2005, <http://apps.who.int/gho/data/view.main.1840?lang=en>.

population, with half of the population living more than five kilometers from a PHCU.⁹⁸ Conflict and displacement further aggravate access to services: as of March 2014, more than 75% of health facilities in the Upper Nile State—where Maban County lies—were closed due to insecurity.⁹⁹

Findings indicated that infrastructure varied among the assessed facilities. Although the hospital had access to power and water sources, it lacked plastic sheeting for infection prevention and control. Half of the PHCCs and almost all PHCUs did not have all the minimum supplies for infection prevention, and thereby risked exposing patients to preventable, life-threatening infections. Adequate infection prevention supplies and protocols are essential for safe, good quality RH care. Improper infection control during childbirth can lead to sepsis, which is one of the leading causes of maternal mortality in South Sudan.¹⁰⁰

A positive finding was that all facilities assessed had access to a functional water source; this is significant given the challenges of securing a sustainable water supply in the area. Yet many did not have access to a functioning power supply. While the hospital had consistent power—which is essential—half of PHCCs and seven of PHCUs did not. Lack of a functioning power source can prevent facilities from providing emergency care at night, including BEmONC. Facilities that do provide care at night without adequate or consistent power put their patients at unnecessary risks. Loss of power can also result in damages to essential medical and laboratory equipment, undermining a facility's ability to provide good quality RH care.¹⁰¹ Further, people may choose not to seek care at a health facility that has shortages of water, electricity, or supplies.¹⁰² These findings indicate that health facilities need support to strengthen their infrastructure.

6.2 Family planning

In South Sudan, modern contraceptive prevalence is below 10% and contraceptives are rarely available to poor communities.¹⁰³ One in five women between the ages of 15 and 49 has an unmet need for birth spacing and preventing childbirth.¹⁰⁴ South Sudan also has

⁹⁸ Richard Downie, *The State of Public Health in South Sudan* (CSIS, November 2012).
http://csis.org/files/publication/121114_Downie_HealthSudan_Web.pdf.

⁹⁹ WHO, *Republic of South Sudan: Emergency Risk and Crisis Management Fact Sheet*, March 2014,
http://www.who.int/hac/crises/ssd/sitreps/south_sudan_country_fact_sheet_March2014.pdf.

¹⁰⁰ Mandy Noonan, "Maternal Mortality in South Sudan," *Consultancy Africa Intelligence*, January 16, 2013.
http://www.consultancyafrica.com/index.php?option=com_content&view=article&id=1192:maternal-mortality-in-south-sudan&catid=91:rights-in-focus&Itemid=296.

¹⁰¹ USAID, *Uninterruptible Power Supplies*,
<http://www.poweringhealth.org/index.php/topics/technology/uninterruptible-power-supplies>.

¹⁰² WHO, *Health through Safe Health Care: Safe Water, Basic Sanitation and Waste Management in Health-Care Settings*. http://www.who.int/water_sanitation_health/mdg3/en/.

¹⁰³ South Sudan MoH, *National Family Planning Policy 2012*, February 2013.
<http://www.southsudanembassydc.org/PDFs/others/South%20Sudan%20MOH%20FP%20Policy-FINAL%20-%20PROOFED.docx>.

¹⁰⁴ Government of the Republic of South Sudan Ministry of Health, "Family Planning Policy."

one of the world's highest fertility rates—6.7 children per woman¹⁰⁵—which is associated with poor maternal and child health and can impede economic growth. Although the National Family Planning Policy aims to expand provision of comprehensive family planning services, relatively little funding has been provided for family planning by the government or international donors.¹⁰⁶

This assessment found a significant and worrying gap in availability of family planning services. None of the assessed facilities qualified as a functioning family planning service delivery point. The hospital did not provide adequately any family planning services. Although one PHCC adequately provided short-acting methods, long-acting methods were not sufficiently available at any facility assessed. Permanent methods were also unavailable at the hospital although it technically had the capacity with trained staff and a theater. EC had been provided at only three facilities. Health facilities reported that they were not authorized to provide long-acting methods, and stock-outs hindered the adequate provision of short-acting methods. Limited, if any, family planning awareness-raising was conducted by health agencies, and questionnaires and KIIs found that socio-cultural norms and personal beliefs influenced some providers to avoid counseling clients about family planning options. Some providers maintained negative attitudes towards women utilizing family planning methods without their husbands' knowledge.

Good quality family planning services enable women and couples to decide the number and spacing of their children, which directly impacts the woman's health and outcome of each pregnancy.¹⁰⁷ Utilization of family planning methods can avert approximately 32% of maternal deaths and 10% of childhood deaths by preventing health risks of pregnancy, transmission of STIs and HIV, and unsafe abortion.¹⁰⁸ Family planning also encourages women's empowerment, education and economic growth.¹⁰⁹ In crisis settings, family planning allows couples to delay or cease having children in order to avoid exposing newborns to the risks of displacement.¹¹⁰

The findings highlight the need to address both policy barriers to provision of long-acting family planning methods as well as contraceptive security. Health facilities require reliable and sustainable availability of contraceptive supplies. This requires an effective supply chain, adequate financing, and staff trained in supply forecasting and procurement. Contraceptive security also requires supportive policy and social environments.

¹⁰⁵ CIA, "The World Factbook," *Central Intelligence Agency*, May 2014, <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>.

¹⁰⁶ Richard Downie, *The State of Public Health in South Sudan* (CSIS, November 2012), p. 11, http://csis.org/files/publication/121114_Downie_HealthSudan_Web.pdf.

¹⁰⁷ IAWG, Statement on Family Planning for Women and Girls as a Life-Saving Intervention in Humanitarian Settings, 2010, <http://www.iawg.net/fpstatement.html>.

¹⁰⁸ IAWG, *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, 2010, http://www.iawg.net/resources/field_manual.html.

¹⁰⁹ Ibid.

¹¹⁰ IAWG, Statement on Family Planning for Women and Girls as a Life-Saving Intervention in Humanitarian Settings, 2010, <http://www.iawg.net/fpstatement.html>.

Staff training on family planning is needed, particularly in long-acting methods, and provider attitudes and practices must also be addressed. Moral judgments, requirements of excessive follow-up visits, unwarranted restrictions (such as requiring spousal consent), and providing methods that are convenient for the provider rather than appropriate for the client all undermine access and utilization. Cultural barriers, including among providers, must be considered in any family planning program.

Focus group discussions revealed significant misinformation and stigma regarding use of family planning methods. Communities were also not aware of the few family planning services that were in place, and utilization was reportedly very low. These highlight the need for community outreach and education.

Eight of the facilities received funding for family planning yet none qualified as functioning service delivery points, indicating additional funding and support for capacity building and implementation are needed. The hospital needs particular attention to scale up family planning services. Family planning is not only a primary health service, and should be available hospitals as well (which is reinforced in the National Family Planning Policy.) Family planning services must be closely linked with delivery and other obstetric care to ensure access.

When successful, these efforts enable people to choose, obtain, and use the contraceptives they want.

6.3 Emergency obstetric and newborn care

South Sudan's maternal and infant mortality rates are among the worst in the world. More women die during pregnancy and childbirth in South Sudan than in any other country, and more than 80% of women are unattended during childbirth.¹¹¹ Infant mortality is the fourth highest in Africa.¹¹² Statistics from the refugees' home state—the Blue Nile State in Sudan—are also poor: maternal mortality is 515 per 100,000 and life-expectancy for women is 51.¹¹³

An estimated 4% of any displaced population will be pregnant and up to 15% of pregnant women will experience an obstetric complication such as obstructed or prolonged labor,

¹¹¹ Save the Children, *State of the World's Mothers 2013 Surviving the First Day*, (May 2013). http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM-FULL-REPORT_2013.PDF.

¹¹² John Snow, Inc., *South Sudan DFID Project*, 2013, <http://www.jsi.com/JSIInternet/IntlHealth/project/display.cfm?ctid=na&cid=na&tid=40&id=13121>.

¹¹³ Danish Deming Group, *Displacement, Disharmony and Disillusion: Understanding Host-Refugee Tensions in Maban County, South Sudan*, 2013 http://reliefweb.int/sites/reliefweb.int/files/resources/Displacement%20Disharmony%20and%20Disillusion_%20DDG%20South%20Sudan.pdf.

pre-eclampsia or eclampsia, sepsis, ectopic pregnancy, or complications of abortion.¹¹⁴ Furthermore, 5% to 15% of women who face complications require a life-saving cesarean section.¹¹⁵ Lack of EmONC services can lead to preventable maternal death or long-term health consequences.

The Minimum Initial Service Package (MISP) for Reproductive Health, which outlines the minimum RH services that should be implemented in an emergency, affirms that EmONC and newborn services should be available and accessible at health facilities seven days per week and 24 hours per day from the onset of a crisis response. Health facilities should have skilled birth attendants, supplies for normal births, and EmONC for management of obstetric and newborn complications.¹¹⁶ Health centers, or PHCCs, should be able to provide the seven signal functions for BEmONC; hospitals should be able to provide these seven plus an additional two—caesarean section and blood transfusion—for CEmONC.¹¹⁷

Findings demonstrate that most facilities in Maban County are under-equipped to provide adequate EmONC services. Only one health center met the criteria to qualify as a functional BEmOC service delivery point and the county hospital was not able to adequately provide BEmONC or CEmONC. Indeed, it had provided all nine signal functions in the previous three months but did not have all the necessary supplies at the time of the assessment; specifically, it lacked partographs and supplies for assisted vaginal delivery. Lack of supplies as well as lack of trained staff—only three of the eight PHCCs had a provider trained in BEmONC—were the primary reasons among all facilities assessed for inadequate EmONC. Some PHCCs also reported that they were not authorized to perform certain signal functions including removal of retained products and assisted vaginal delivery.

Obstetric emergencies occur at all times, and health facilities must be prepared to provide EmONC 24 hours a day, seven days a week. Yet only one PHCC (Gentil) and one PHCU had a provider available on-site or on-call throughout the night and on weekends. Waiting for care is not an option during an obstetric emergency: women suffering from postpartum hemorrhage often die within two hours without immediate, good quality care.¹¹⁸ Even minute delays can increase her risk of dying. Further, findings demonstrated that, even when trained providers were available, many lacked all the necessary knowledge to appropriately assist women experiencing complications.

¹¹⁴ IAWG, *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, 2010. http://www.iawg.net/resources/field_manual.html.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Patsy Bailey, Samantha Lobis, Judith Fortney, Deborah Maine, *Monitoring emergency obstetric care: a handbook*. (WHO, UNFPA, UNICEF, AMDD. 2009). <http://site.ebrary.com/id/10363989>.

¹¹⁸ Gynuity Health Projects and Family Care International, *Postpartum Hemorrhage: A Challenge for Safe Motherhood*, 2006. http://www.familycareintl.org/UserFiles/File/pdfs/Misoprostol/misopph_challenge_en.pdf.

Although the majority of the facilities assessed were able to adequately perform newborn resuscitation, many were not able to provide all the components of essential newborn care due to limited drugs and supplies such as lack of corticosteroids and resuscitation bag and mask. Staff training in newborn care was also needed, particularly in delivery practices for PMTCT. The WHO estimates that two-thirds of infant deaths occur within the first 28 days of life.¹¹⁹ Newborn complications can be prevented by ensuring health facilities have midwives and skilled birth attendants on staff who are trained in essential newborn care and adequate equipment and supplies are in place. The majority of all newborn deaths are preventable if health facilities are adequately equipped and health workers take appropriate actions.¹²⁰

Positive efforts to expand BEmONC care were ongoing, particularly by MSF and UNFPA. Notably, MSF-Holland and MSF-Belgium had reportedly achieved 80% and 70% delivery care coverage, respectively, in Batil and Doro camps, the two largest camps. MSF-Holland's Gentil PHCC was well-staffed and provided care 24 hours per day, seven days per week. UNFPA had recently held a BEmONC training and further training efforts were in the pipeline.

Notably, refugees reported that most women choose to give birth in a health facility and that facility-based births had become commonplace. Both men and women understood the benefits of delivering in a health facility and knew where to access care. This suggests remarkable behavioral changes in communities where women have historically given birth at home or with a traditional birth attendant. Refugees attributed these changes to awareness-raising efforts by health actors, which highlight the significant impact of culturally contextualized community engagement. Documenting these interventions and the lessons learned could be valuable to develop similar strategies to address other RH areas for the refugees in Maban County and explore applicability to other humanitarian settings.

6.4 Comprehensive abortion care

In South Sudan, unsafe abortion is one of the main causes of maternal mortality.¹²¹ The high fertility rate, limited access to contraceptives, and lack of comprehensive abortion care contribute to the high numbers of unsafe abortions in the country. Although national law permits abortion to save a woman's life,¹²² few facilities provide this service. Safe abortion and PAC are essential, life-saving RH services to assist women and girls with unwanted pregnancies or suffering from complications of unsafe abortion.

¹¹⁹ RHRC, *Minimum Initial Service Package (MISP) for Reproductive Health in Crisis Situations*, 2006. <http://misp.rhrc.org>.

¹²⁰ Ibid.

¹²¹ Mandy Noonan, "Maternal Mortality in South Sudan," *Consultancy Africa Intelligence*, January 16, 2013. http://www.consultancyafrica.com/index.php?option=com_content&view=article&id=1192:maternal-mortality-in-south-sudan&catid=91:rights-in-focus&Itemid=296.

¹²² Center for Reproductive Rights, *The World's Abortion Laws 2014*, 2014, <http://worldabortionlaws.com/map/>.

Safe abortion was not available at any health facility assessed, a significant gap in RH service provision. Post-abortion care was available at the hospital but at only two other health facilities. The majority reported that they were not authorized to provide PAC; others said stock-outs followed by lack of trained staff prevented them from providing this care. Questionnaires revealed that provider training in both PAC and induced abortion is needed.

Comprehensive abortion care, including PAC and induced abortion, is a component of comprehensive RH care as outlined in the 2010 version of the *Inter-agency Field Manual on Reproductive Health in Humanitarian Settings*.¹²³ Comprehensive abortion care prevents death and disability and is essential to ensure the health and well-being of refugee women and girls in Maban County. In addition to technical capacity development, providers would benefit from values clarification activities to address personal beliefs about abortion that may impact their professional conduct. Further, most providers reported that their facility was not authorized to provide induced abortion. This may require further exploration to ascertain if policy barriers are indeed in place. Outreach and awareness-raising would help inform communities about the benefits of family planning including emergency contraception and the dangers of unsafe abortion as well as dispel myths and address stigma.

6.5 HIV and other sexually transmitted infections (STIs)

South Sudan is currently undergoing a generalized HIV epidemic. ART coverage is very low: 9% of adults and 5% of children with HIV are on ART.¹²⁴ Fewer than half of all pregnant women have access to PMTCT; in 2012, only 13% of those who required ARVs for PMTCT received them.¹²⁵ HIV-positive women are eight times more likely than HIV-negative women to die during pregnancy, delivery, or the post-partum period.¹²⁶ HIV-positive women are also at increased risk of sepsis and opportunistic infections that could lead to complications or death.¹²⁷ However, there has been progress. HIV prevalence has decreased since 2007 and the first national strategic plan has been launched.

Resource-poor settings, such as humanitarian crises, exacerbate vulnerability to STI and HIV transmission. Factors that can contribute to the spread of STIs in crisis situations include population movements, social instability, poverty, commercial sex, presence of

¹²³ IAWG, *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, 2010.

http://www.iawg.net/resources/field_manual.html.

¹²⁴ Inter-agency Task Team to Address HIV in Humanitarian Emergencies, *IATT on Addressing HIV in Humanitarian Emergencies: South Sudan Advocacy Piece*, December 2013, <http://www.unhcr.org/52c6c1159.pdf>.

¹²⁵ Ibid.

¹²⁶ USAID, HIV and AIDS and Maternal Health Integration, October 9, 2013, <http://www.usaid.gov/what-we-do/global-health/hiv-and-aids/technical-areas/hiv-and-aids-and-maternal-health-integration>.

¹²⁷ Ibid.

military forces, and reduced access to health services;¹²⁸ South Sudan—including Maban County—struggles with all of these factors.

This assessment found striking gaps in HIV and STI services. The hospital did not provide any of the services assessed, including provision of condoms. Antiretrovirals for ART or PMTCT were not available and had not been provided by any health facility in the three months prior to the study, including facilities that had received funding for STIs and HIV. VCT was offered at only one facility and condom availability was low. Although 15 of the 18 facilities had provided STI treatment in the previous three months, just three facilities had adequate antibiotics at the time of the assessment. Further, FGDs revealed widespread misconceptions about HIV and stigma against PLHIV, and respondents reported limited condom use.

Services for HIV and STI care require substantial attention and expansion, in particular PMTCT and ART. As per the MISP, preventing HIV transmission is a minimum standard in humanitarian health care provision. This includes ensuring safe blood transfusion, adherence to standard precautions, and condom availability. Providing syndromic treatment of STIs and ART and implementing PMTCT services were also included as a RH minimum standard in the 2010 version of the *Inter-agency Field Manual on Reproductive Health in Humanitarian Settings*.¹²⁹ In order to ensure that these minimum services are in place, a systematic approach is required, including staff training, commodity security and management, policy clarification, and community outreach. Funding to support these efforts is essential to ensure sustainable and equitable scale up of services.

The crisis in Maban County has moved beyond the acute phase and implementation of comprehensive STI and HIV care, which require additional activities and services, should be initiated once the priority services of the MISP are in place. A complete package to prevent STI transmission in humanitarian crisis should include campaigns to raise awareness on STI prevention and early use of clinical services, comprehensive case management and specific services for at-risk populations, STI surveillance systems, and integration of STI prevention, treatment, and care into primary health care services.¹³⁰ Comprehensive HIV and AIDS care includes VCT, community awareness-raising, such as safe sex campaigns and education on HIV and AIDS, additional prevention strategies including for at-risk populations, and expanded treatment, including comprehensive care for PLHIV including children.¹³¹

¹²⁸ RHRC Consortium, *Guidelines for the Care of Sexually Transmitted Infections in Conflict-Affected Settings*, 2004. <http://www.rhrc.org/resources/index.cfm?sector=sti>.

¹²⁹ IAWG, *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, 2010. http://www.iawg.net/resources/field_manual.html.

¹³⁰ Ibid.

¹³¹ Ibid.

6.6 Clinical management of rape (CMoR)

Although robust data are scarce, sexual violence in South Sudan appears widespread.¹³² During significant social instability and conflict, sexual violence by partners, armed groups, or community members often increases. In addition to psychosocial morbidity, sexual violence can lead to short- and long-term health consequences including unwanted pregnancy, STIs including HIV, unsafe abortion, infertility, chronic pain, and death.¹³³

This study assessed selected key clinical components of CMoR, including availability of essential drugs and trained staff. Findings indicate that none of the assessed facilities met the criteria to provide these elements of CMoR. A few facilities had provided drugs for CMoR in the previous three months, yet provision was ad hoc. Similar to the other RH areas assessed, drug stock-outs require urgent attention. Without adequate care, rape survivors are put at risk of further trauma including transmission of HIV and other STIs and unwanted pregnancy.

Questionnaires revealed gaps in provider knowledge of CMoR, demonstrating need for training. FGDs highlighted widespread lack of knowledge and misconceptions, indicating the need for community education and engagement regarding where and why to seek services. Many refugees were not familiar with EC or PEP and reported that survivors would be too ashamed to come forward to seek care. Focus groups said that rape outside of marriage was rare, although it is unknown if this is an accurate reflection of the situation. Refugee women said marital rape was relatively commonplace; the practice of forcing a rape survivor to marry the perpetrator was also reported.

Some efforts to address sexual violence have been made, including the development of a GBV information management system as well as training at the Gentil-PHCC and by a GenCap expert. Yet much more attention and systematic effort is needed to expand good quality service provision and support survivors in accessing confidential care.

The study assessed only selected elements of CMoR. Health facilities must implement a full package of services to adequately provide care for survivors of sexual violence. Clinical post-rape care should include: supportive communication from providers, confidential treatment, documentation of history and examination, forensic evidence collection (when appropriate), EC, antibiotics for STIs, PEP for HIV prevention, care of wounds, prevention of tetanus, and referral for crisis intervention including psychosocial care. Health facilities must have the following in place to provide adequate CMoR: private consultation room, lockable filing cabinet, clear protocols, sufficient supplies and equipment, both male and female providers and/or translators, availability of referral mechanisms at all times, and awareness-raising efforts through culturally appropriate

¹³² Oxfam Canada, *Country Profile: South Sudan*, February 2013. <http://www.oxfam.ca/sites/default/files/imce/country-profile-south-sudan.pdf>.

¹³³ IAWG, *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, 2010. http://www.iawg.net/resources/field_manual.html.

channels.¹³⁴ Care for survivors of sexual violence is also included in South Sudan's National Gender Policy; guidance on operationalization is articulated in the national standard operating procedures on GBV. Health centers are mandated to have trained staff and adequately stock PEP, EC, and antibiotics for STI treatment.¹³⁵

6. Conclusions and recommendations

The following outlines key conclusions and suggestions for UNFPA, UNHCR, the MoH and other health actors to improve and expand RH programming.

1. Reproductive health service provision was neglected at the onset of the refugee crisis. However, since March 2013, UN agencies, the MoH, and NGOs have worked to scale up coordination and implementation. At the time of the assessment, a Reproductive Health Working Group was being established for Maban County. UNFPA and UNHCR had signed a memorandum of understanding to scale up MISP implementation and address RH kit management. UNHCR and implementing partners had developed a roadmap to expand RH services, and implementing partners had established a plan of action with detailed information about how they planned to improve RH service provision. Among NGOs, MSF-Holland and MSF-Belgium stood out as providing the broadest range of RH services, particularly maternal health services.

Recommendation: Build on current efforts to ensure an effective, sustained RH coordination mechanism. Ensure operationalization of the roadmap and implementation of plans for expanding RH service provision.

2. The assessment found critical gaps in RH service provision at the Maban County hospital. While the hospital met the assessment criteria for a functioning PAC service delivery point, it did not adequately provide any other RH services assessed including: CEmONC, essential newborn care, family planning services, CMoR, or any services for HIV or other STIs. It did not have condoms available.

Recommendation: Provide additional support to the hospital to expand RH service provision and ensure good quality, comprehensive RH care is in place.

3. Shortages of drugs and insufficient supplies were major barriers in all areas of RH service provision. Maban County experiences heavy rains including floods for up to six months of the year, which introduces significant challenges to logistical, systems and accessibility. Commodity security and management need urgent attention.

Recommendation: Undertake logistical audits to review protocols, forecast accuracy, budgetary constraints, storage conditions, and staff capacity, as well as

¹³⁴ Ibid.

¹³⁵ Ministry of Gender and Social Welfare and Religious Affairs, *Standard Operating Procedures for Prevention of and Response of Sexual and Gender Based Violence in Southern Sudan*; 2009, p. 14.

ensure availability of funding to implement recommendations. Establish or strengthen contingency stocks of RH supplies to prevent supply shortages.

4. Health facility assessments found a lack of trained staff across RH areas as well as for adolescent-friendly services. Questionnaires revealed many providers lacked essential knowledge and skills as well as maintained negative attitudes that undercut good quality care.

Recommendation: Undertake training of relevant staff to ensure an up-to-date skills and knowledge base in each RH area. Integrate non-technical skills such as situation awareness, critical decision-making, effective communication, and teamwork into trainings. Ensure trainings are grounded in a rights-based approach to RH and address negative provider attitudes. Establish capacity development systems that include supervision and support.

5. Most NGOs reported very low utilization of the limited RH services by the refugee population. Focus groups also revealed low knowledge of available services and socio-cultural barriers to accessing them. However, institutional delivery rates reached by MSF as well as focus group reports of uptake in facility-based deliveries indicate that the utilization of these services would increase if good quality services are offered and effective community outreach is in place.

Recommendation: Develop community engagement strategies for each RH area to increase access and demand for services. Ground efforts in an evidence-informed, locally contextualized, rights-based approach. Involve women, community leaders, and TBAs in designing outreach strategies. Make locally-adapted IEC material on all RH areas available at health facilities (which UNHCR and UNFPA have initiated.)

6. Young people, particularly young women, were the least knowledgeable about RH. Health facilities did not have user-friendly strategies in place to facilitate the utilization of RH services by adolescents. One of the barriers constraining the implementation of RH services for adolescents was the lack of trained staff and the reluctance of some service providers to offer these services to adolescents.

Recommendation: Develop a comprehensive, holistic strategy—beyond facility-based health service provision—to make RH services available to adolescents. Consider: a) instructing, sensitizing and training service providers on adolescent rights, their RH needs, and how to provide adolescent-friendly services; b) informing, educating and sensitizing the community to gain buy-in and trust from adults; c) ensuring meaningful participation of adolescents in RH programming; d) monitoring service usage through collection of sex-and age-disaggregated data; e) where possible, providing comprehensive RH services for adolescents at a single site (which can increase service utilization); f) engaging peer educators and ensuring structured supervision, recognition, and mentorship; g) ensuring adolescent-friendly RH services are responsive to needs of different sub-

populations, such as married/unmarried adolescents, adolescents with disabilities, and in-school/out-of-school adolescents.

7. Family planning: Few family planning services were available at health centers, and none were available at the hospital. Focus group discussions revealed significant misconceptions and cultural barriers against accessing family planning services. Further, many providers avoided discussing family planning and demonstrated negative attitudes that could prevent refugees from access care. A multi-pronged approach is needed to increase provision and utilization of good quality family planning services.

Recommendation: Expand family planning service delivery points to ensure facilities adequately provide a minimum method mix including OCPs, injectables, IUDs, implants, EC, and condoms. Train and re-train staff, particularly in long-acting methods, and ensure trainings include a values-clarification component and employ a rights-based approach. Ensure a full package of family planning methods is available at the hospital, including permanent methods. Explore and address policy barriers preventing health facilities from providing long-acting methods. Address contraceptive security through the suggestions outlined in Recommendation 2. Develop community engagement specifically focused on family planning to dispel myths, raise-awareness, and educate communities (including men) about the benefits of family planning methods.

8. Emergency obstetric and newborn care: Only one facility met the criteria to adequately provide BEmONC and none qualified as CEmONC service delivery points, including the hospital. MSF-Holland and MSF-Belgium are meeting the health needs of the majority of pregnant women in Batil and Doro camps, yet additional efforts are required in these camps as well as Kaya, Gendrassa, and Jamam. Effective referral systems appear to be in place between the camps and the referral hospital, and refugees reported most facilities were in walking distance and ambulances were also available. Refugees reported remarkable changes in seeking facility-based delivery care.

Recommendation: Scale up CEmONC at the hospital and expand adequate BEmONC service delivery points among PHCCs. Monitor services by the UN Process Indicators. Ensure refugees have access to care 24/7. Engage TBAs to address remaining barriers to accessing facility-based delivery care. Strengthen newborn care through home visits by TBAs and community health workers trained in standard newborn care practices.

9. Comprehensive abortion care: Comprehensive abortion care is a life-saving and essential component of RH care. Post-abortion care was available at the hospital but only two other health facilities. Safe abortion services were not available although abortion is allowed to save the life of a woman. Refugees reported that some women and girls resorted to unsafe abortion.

Recommendation: Expand PAC service delivery points among health centers. Train and re-train staff in PAC including PAC with misoprostol. Liaise with the Health Cluster and the MoH to develop a comprehensive strategy to address the implementation of safe abortion services, including dissemination of information on legal indications to health providers, staff training, and identifying and addressing authorization barriers

10. HIV and other STIs: HIV care was severely lacking among the health facilities assessed. In particular, PMTCT and ART were nonexistent. Condom availability was ad hoc, and stock-outs of antibiotics prevented consistent STI care. Discussions with refugees revealed a lot of fear, stigma, and misinformation related to HIV and its transmission. Many refugees were also not familiar with condoms, which were outright rejected by some of the men.

Recommendation: Immediately address barriers to providing PMTCT and ARVs and scale up service provision. Establish treatment points, including at least one treatment point for children. Address stock-outs to ensure consistent and adequate STI services. Ensure consistent availability of condoms at all health facilities and increase number of free distribution points including mobile clinics. Conduct culturally appropriate condom campaigns and reach out to vulnerable groups, such as sex workers. Address stigma, lack of awareness, and misconceptions among communities.

11. Clinical management of rape: None of the facilities adequately provided the selected elements of CMoR: EC, PEP, and antibiotics for presumptive treatment of STIs. This reveals a striking and concerning gap. Providers also lacked key knowledge about how to provide CMoR. Refugees were not informed about the benefits of post-rape treatment and reported that survivors generally do not seek care. They described marital rape as common.

Recommendation: Ensure availability of good quality care for rape survivors, including referral to psychosocial care, at the hospital as well as PHCCs. Establish and/or strengthen a referral pathway for comprehensive care. Train/re-train staff in CMoR as well as quality of care. Provide clear protocols on CMoR to health staff. Inform health workers, including community health workers, on the availability and location of CMoR. Identify and work with partners (such as the GBV Sub-Cluster) to implement successful strategies to a) address marital rape through engaging men (and explore other models), b) inform communities of the benefits of CMoR, c) conduct outreach to address stigma and dispel misconceptions among communities regarding accessing post-rape treatment.

Appendix 1: Detailed tables on RH service provision

A. Family planning

Table A1. Facilities with staff and supplies to provide daily oral contraceptive pills (OCPs) (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
OCPs provided in last 3 months	0	5	3
Staff trained provide OCPs	1	4 ND (3)	5
FP counseling available	1	6	4
BP cuff	1	8	9
Stethoscope	1	8	9
Daily oral contraceptive pills	ND*	3 ND (1)	3
Facilities with minimum essential supplies to provide OCPs (yes to all above)	0	1	1

*No data

Table A2. Facilities with staff and supplies to provide injectables (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
Injectables provided in last 3 months	1	4	2
Staff trained to provide injectables	1	4 ND (3)	5
FP counseling available	1	6	4
BP cuff	1	8	9
Stethoscope	1	8	9
Needles and syringes	1	7	9
Injectable contraceptive (progestin-only, i.e. Depo)	ND*	3 ND (1)	3
Facilities with minimum essential supplies to provide injectables (yes to all above)	Incomplete data	1	1

*No data

Table A3. Facilities with staff and supplies to provide IUDs (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
IUD insertion performed in last 3 months	0	0	0
Staff trained to insert/remove IUD	0	3	3
FP counseling available	1	6	4
Sterile gloves	1	8	6
Speculum	1	6	3
Uterine sound	1	4 ND (1)	1
Uterine tenaculum	1	4 ND (1)	2

Sponge forceps	1	4 ND* (1)	2
Antiseptics	1	8	9
IUD (specify copper or levonorgestrel)	ND*	0 ND* (1)	0
Facilities with minimum essential supplies to provide IUDs (yes to all above)	0	0	0

*No data

Table A4. Facilities with staff and supplies to provide implants (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
Implant insertion performed in last 3 months	0	1	0
Staff trained to insert/remove implant	0	3	3
FP counseling available	1	6	4
Sponge forceps	1	4 ND (1)	2
Scalpel handle (No. 3) and blade	0	5 ND (2)	2
Needles and syringes	1	7	9
Antiseptics	1	8	9
Implant	ND*	2 ND (1)	1
Facilities with minimum essential supplies to provide Implants (yes to all above)	0	0	0

*No data

B. EmONC

Table B1. Providing other essential obstetric services and main reasons for not providing (n=9)						
<i>Function</i>	Use partograph to manage labour		Active management of third stage of labour		Administer ARVs to HIV+ mothers and newborns in maternity	
	Hosp	HC	Hosp	HC	Hosp	HC
Provided in last 3 months (self-reported)	0	3	1	5	0	0
Provided in the past 3 months (clients noted in registers)					0	
Main reason service not provided						
Lack of skilled staff/training	5		2		5	
Lack of supplies / equipment	5		2		9	
Not authorized to provide	3		1		6	

Table B2. Parenteral antibiotics (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)

Parenteral antibiotics administered in last 3 months	1	5
Needles and syringes	1	7
Ampicillin	ND*	4 ND (1)
Gentamycin	ND*	6 ND (1)
Injectable Metronidazole	ND*	4 ND(1)
Facility able to provide parenteral antibiotics	Incomplete data	3

*No data

Table B3. Parenteral uterotronics (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)
Parenteral uterotronics administered in last 3 months	1	3
Needles and syringes	1	7
Oxytocin	1	5
Facility able to provide parenteral uterotronics	1	3

Table B4. Parenteral anticonvulsants (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)
Parenteral anticonvulsants administered in last 3 months	1	2
Needles and syringes	1	7
Magnesium sulfate	1	4
Facility able to provide parenteral anticonvulsants	1	2

Table B5. Manual removal of placenta (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)
Manual removal of placenta performed in last 3 months	1	5
Needles and syringes	1	7
Non-sterile gloves	1	8
Antiseptic solution	1	8
Apron	1	7
Oxytocin	1	5
Facility able to provide parenteral antibiotics	1	5

Table B6. Assisted vaginal delivery (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)
Assisted vaginal delivery performed in last 3 months	1	3
Vacuum extractor	0	4
Non-sterile gloves	1	8
Apron	1	7
Facility able to provide assisted vaginal delivery	0	3

Table B7. Newborn resuscitation with appropriate bag and mask (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)
Newborn resuscitation with appropriate bag and mask performed in last 3 months	1	5
resuscitation bag and infant face mask	1	5
Facility able to provide Newborn resuscitation	1	5

Table B8. Blood transfusion (n=9)		
	Hospitals (n=1)	PHCC (health center) (n=8)
Blood transfusion provided in last 3 months	1	
Staff able to conduct blood transfusion	1	3 ND* (3)
Airway needle for collecting/giving blood	1	0
Blood typing and cross-matching reagents	1	1
Blood collection bags	1	1
Hepatitis B Test	1	1
Hepatitis C Test	1	1
HIV Test	1	1
Syphilis Test	1	1
Canula/catheter for IV line (16-18)	1	1
Non-sterile gloves	1	1
Facility able to provide blood transfusion	1	0

Table B9. Caesarean section (n=1)	
	Maban County hospital
Caesarean section performed in last 3 months	1
Staff able to perform caesarean section	1

Table B9. Caesarean section (n=1)	
	Maban County hospital
Type of anesthesia used (<i>write in</i>)	<i>General, spinal, ketamine</i>
Sponge forceps	1
Straight artery forceps with teeth	1
Uterine haemostasis forceps	1
Needle holder	1
Scalpel blades	0
Round-bodied needles/No 12/size 6	1
Triangular point suture needles/7.3 cm/size 6	1
Abdominal retractor or double ended	1
Curved or straight operating scissors/blunt	1
Straight scissors, pointed	0
Dressing (non-toothed tissue) forceps	1
Sutures	1
Gauze swabs (sterile)	1
Suction nozzle	1
Ampicillin OR Cefazolin	ND*
Oxytocin	1
Ringer's Lactate OR Normal Saline	1
Needles and syringes	1
Apron	ND*
Boots	1
Mask	1
Gown	1
Able to provide surgery for caesarean section	0

Table B10. Facilities have supplies for at least one type of anesthesia (n=1)	
Anesthesia	Maban County hospital
Spinal	
Ringer's Lactate OR Normal Saline	1
Lidocaine 2% or 1%	ND
Adrenaline (Epinephrine)	1
Spinal needles (18-gauge to 25-gauge)	1
Ketamine	
Ketamine	ND
Atropine sulfate	1
Diazepam	1
Oxygen	1
Dextrose OR Glucose	1

Table B11. Anesthesia (n=1)*	
Facility able to provide caesarean section – surgery, complications and at least one type of anesthesia	NO

*Facility must have all items for Tables B9 and all items for at least one type of anesthesia in B10 to be able to do caesareans.

C. Comprehensive abortion care

Table C1. Post-Abortion Care (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
PAC counseling is available	1	4	2 ND (1)
Family planning is offered to all clients who receive abortion services before they are discharged from the facility	1	3	1 ND (4)
If no, why?		Lack of training=3 Lack of supplies=4 Not authorized=5	Lack of training=3 Lack of supplies=3 Not authorized=3
Facilities with minimum essential elements to provide counseling and family planning for clients who receive abortion services	1	3	1

*No data

Table C2. Removal of retained products of conception using MVA or misoprostol (n=18)			
	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
PAC performed in last 3 months using MVA	1	3	1 ND (3)
At least one provider trained to provide PAC	1	3 ND (3)	6
Vaginal speculum	1	6	3
Sponge forceps	1	4 ND (1)	2
Uterine tenaculum	1	4 ND (1)	2
MVA syringe, adapters and cannulae	1	4	0
Antiseptic solution	1	8	8
Non-sterile Gloves	1	8	8
Oxytocin	1	5	2
Needles and syringes	1	7	9
Facilities with minimum essential supplies to provide PAC with MVA (yes to all above)	1	1	0
PAC performed in last 3 months using misoprostol	1	3	1 ND (3)
At least one provider trained to provide PAC	1	3 ND (3)	6
Misoprostol	ND*	3 ND (1)	1
Facilities with minimum essential supplies to provide PAC using misoprostol (yes to all above + C1)	Incomplete data	2	1

*No data

D. HIV and other STIs

Table D1. STI services (n=18)			
	Hospitals (n=1)	PHCC (Health centers) (n=8)	PHCU (Health centers) (n=9)
Performed syndromic or laboratory diagnosis and treatment of STIs in last 3 months	1 (100%)	7 (88%)	7 (78%)
Gentamycin	0	6 (86%) ND (1)	3 (33%)
Ceftriaxone	0	6 (86%) ND (1)	4 (44%)
Injectable metronidazole	0	4 (57%) ND (1)	2 (25%) ND (1)
Facilities able to provide STI treatment	0	3 (38%)	1 (11%)

Table D2. Facilities with essential drugs to provide PMTCT (n=18)			
PMTCT	Hospital (n=1)	PHCC (health center) (n=8)	PHCU (health unit) (n=9)
Administered ARVs to HIV+ mothers in maternity in the last 3 months	0	0	0
Administered ARVs to newborns born to HIV+ mothers in maternity in the last 3 months	0	0	0
ARVs for the mother	ND*	0 ND* (1)	0
ARVs for the infant	ND*	0 ND* (1)	0
Facilities with PMTCT drugs available	0	0	0

*No data

E. Clinical management of rape (CMoR)

Table E 1. Facilities able to provide selected elements of clinical management of rape (n=9)		
	Hospital (n=1)	PHCC (n=8)
POST-EXPOSURE PROPHYLAXIS (PEP)		
Provision of PEP for CMoR in last 3 months	0	2
PEP	0	1 ND* (1)
Facilities with minimum elements to provide PEP	0	1 ND* (1)
EMERGENCY CONTRACEPTION		
Provision of EC for CMoR in last 3 months	0	2
EC	ND* (1)	2 ND* (2)
Facilities with minimum elements to	0	1 ND* (1)

provide EC		
ANTIBIOTICS FOR SEXUALLY TRANSMITTED INFECTIONS (STIs)		
Provision of antibiotics for presumptive treatment of STIs for CMoR	0	4
Gentamycin	0	6 ND* (1)
Ceftriaxone	0	6 ND* (1)
Injectable metronidazole	0	4 ND* (1)
Facilities with minimum elements to provide antibiotics for STIs	0	2

*No data

Appendix 2: Provider knowledge and attitudes questionnaire results

Table 2.1. Professional classification and years of experience		
		%(n)
What is your professional classification?	Medical doctor	5.56 (1)
	Health officer (non-physician clinician)	5.56 (1)
	Midwife or nurse-midwife	44.44 (8)
	Nurse	11.11 (2)
	Other (<i>specify</i>)	33.33 (6)
How many years has it been since you received your professional qualification?	Mean no. of years: 7.07	

Table 2.2. Provider practice and training		
Service	a. Have you provided (read service) in the past 3 months?	b. Have you ever received instruction on how to provide this service?
	%(n)	%(n)
1. Counsel women and girls about family planning and contraception	50.00 (9)	83.33 (15)
2. Insert an IUD	0	55.56 (10)
3. Insert an implant (e.g. Implanon, Jadelle)	22.22 (4)	77.78 (14)
4. Perform manual vacuum aspiration (MVA) for post-abortion care	22.22 (4)	77.78 (14)
5. Provide post-abortion care using misoprostol	27.78 (5)	72.22 (13)
6. Perform an induced abortion using MVA	0	61.11 (11)
7. Perform an induced abortion using misoprostol	0	61.11 (11)
8. Provide post-abortion family planning counselling	27.78 (5)	72.22 (13)
9. Use the partograph	22.22 (4)	72.22 (13)
10. Do active management of the third stage of labor	33.33 (6)	77.78 (14)
11. Insert a post-partum IUD	0	55.56 (10)
12. Perform manual removal of the placenta	22.22 (4)	83.33 (15)
13. Administer IM or IV magnesium sulfate for the treatment of severe pre-eclampsia or eclampsia	16.67 (3)	72.22 (13)
14. Use the vacuum extractor for assisted vaginal delivery	16.67 (3)	61.11 (11)
15. Resuscitate a newborn with bag and mask	27.78 (5)	83.33 (15)
16. Administer corticosteroids to a mother with preterm labour	16.67 (3)	66.67 (12)
17. Manage newborn infections, including use of injectable antibiotics	22.22 (4)	77.78 (14)
18. Administer antiretrovirals to prevent mother-to-child transmission of HIV	5.56 (1)	61.11 (11)

Table 2.2. Provider practice and training		
Service	a. Have you provided (read service) in the past 3 months?	b. Have you ever received instruction on how to provide this service?
	%(n)	%(n)
19. Conduct a post-rape exam	0	55.56 (10)
20. Provide emergency contraception following sexual violence	0	66.67 (12)

Table 2.3. Staff knowledge of key RH actions and services			
No.	Question		Mean score
1.	For a woman in labor, what observations do you make as you monitor her progress? <i>(circle all spontaneous answers and ask: Anything else?)</i>	a. Fetal heartbeat b. Color of amniotic fluid c. Degree of molding d. Dilatation of the cervix e. Descent of the head f. Uterine contractions g. Maternal blood pressure h. Maternal temperature i. Maternal pulse	6.33 Total=9
2.	Where do you write down these observations? <i>(circle all spontaneous answers and ask: Anything else?)</i>	a. On a partograph b. In the patient's clinical record c. On the partograph in the prenatal card d. In the delivery (or other) register e. On a piece of paper	2.17 Total=5
3.	When a woman arrives at the facility with heavy bleeding or develops severe bleeding after giving birth, what do you look for? <i>(circle all spontaneous answers and ask: Anything else?)</i>	a. Signs of shock (dizziness, low blood pressure) b. Amount of external blood c. Signs of anemia d. Damage to the genital tract e. Whether the uterus is contracted f. Retained products or retained placenta g. Full bladder	3.44 Total=7

Table 2.3. Staff knowledge of key RH actions and services		
No.	Question	Mean score
4.	<p>When a woman develops heavy bleeding after delivery, what do you do?</p> <p><i>(circle all spontaneous answers and ask: Anything else?)</i></p>	<p>a. Massage the fundus</p> <p>b. Give ergometrine or oxytocin (IV or IM)</p> <p>c. Begin IV fluids</p> <p>d. Empty full bladder</p> <p>e. Take blood for hemoglobin and cross-matching</p> <p>f. Examine woman for lacerations</p> <p>g. Manually remove retained products</p> <p>h. Refer</p> <p>3.5</p> <p>Total=8</p>
5.	<p>When a woman who just gave birth has not delivered the placenta, what do you do?</p> <p><i>(circle all spontaneous answers and ask: Anything else?)</i></p>	<p>a. Empty the bladder</p> <p>b. Check for signs of separation of placenta before controlled cord traction</p> <p>c. Give or repeat oxytocin</p> <p>d. Do manual removal of the placenta</p> <p>e. Administer IV fluids</p> <p>f. Monitor vital signs for shock and act</p> <p>g. Check that uterus is well contracted</p> <p>h. Determine blood type and cross-match</p> <p>i. Prepare operating theater</p> <p>j. Refer</p> <p>2.44</p> <p>Total=10</p>
6.	<p>The last time you delivered a baby, what immediate care did you give the newborn?</p> <p><i>(circle all spontaneous answers and ask: Anything else?)</i></p>	<p>a. Clean the baby's mouth before the shoulder comes out</p> <p>b. Clean the baby's mouth, face, and nose</p> <p>c. Ensure the baby is breathing</p> <p>d. Ensure the baby is dry</p> <p>e. Observe for color</p> <p>f. Ensure baby is kept warm (skin-to-skin)</p> <p>g. Administer prophylaxis for the eyes</p> <p>h. Weigh the baby</p> <p>i. Care for the umbilical cord</p> <p>j. Initiate breastfeeding within the first 30 minutes</p> <p>k. Evaluate/examine the newborn within the first hour</p> <p>6.78</p> <p>Total=11</p>

Table 2.3. Staff knowledge of key RH actions and services

No.	Question		Mean score
7.	What are the signs and symptoms of infection, or sepsis, in the newborn? (circle all spontaneous answers and ask: Anything else?)	a. Less movement (poor muscle tone) b. Poor or no breastfeeding c. Hypothermia or hyperthermia d. Restlessness or irritability e. Difficulty breathing or fast breathing f. Deep jaundice g. Severe abdominal distention	2.89 Total=7
8.	When a newborn weighs less than 2.5kgs, what special care do you provide? (circle all spontaneous answers and ask: Anything else?)	a. Make sure the baby is warm (skin-to-skin/kangaroo technique) b. Provide extra support to the mother to establish breastfeeding c. Monitor ability to breastfeed d. Monitor baby for the first 24 hours e. Ensure infection prevention	3.17 Total=5
9.	Which family planning methods can a woman use immediately post-partum?	a. IUD b. Tubal ligation c. Condoms d. Lactational Amenorrhea Method(LAM)	1 Total=4
10.	Which FP methods can a woman who is breastfeeding begin using 6 weeks after delivery?	a. IUD b. Tubal ligation c. Condoms d. Progestin only pills	1.39 Total=4
11.	When you counsel a woman for family planning, what do you do/discuss?	a. Ask whether she has used FP before b. Ask about her reproductive goals c. Check for medical complications d. Tell her about dual protection e. Tell her about all FP methods	2.17 Total=5
12.	What are the immediate complications of an unsafe abortion? (circle all spontaneous answers and ask: Anything else?)	a. Sepsis b. Bleeding c. Genital injuries d. Abdominal injuries e. Shock	3 Total=5

Table 2.3. Staff knowledge of key RH actions and services		
No.	Question	Mean score
13.	<p>When you see a woman with complications from an unsafe or incomplete abortion, what do you do?</p> <p><i>(circle all spontaneous answers and ask: Anything else?)</i></p>	<p>a. Do a vaginal exam b. Assess vaginal bleeding c. Assess vital signs d. Begin IV fluids e. Begin antibiotics f. Do (manual/electric) vacuum aspiration g. Do dilatation with curettage or evacuation h. Provide misoprostol i. Provide counseling j. Refer</p> <p>4.06</p> <p>Total=10</p>
14.	<p>What information do you give patients who were treated for an incomplete or unsafe abortion?</p> <p><i>(circle all spontaneous answers and ask: Anything else?)</i></p>	<p>a. Information on how to prevent reproductive tract infection/HIV b. Information about when a woman can conceive again c. Counseling on family planning and services d. Refer for family planning or provide FP methods e. Information on social support f. Information about the consequences of an unsafe abortion</p> <p>2.39</p> <p>Total=6</p>
15.	<p>What do you do when someone presents with signs of a reproductive tract infection (RTI)?</p>	<p>a. Diagnose and provide antibiotics according to the syndromic approach b. Counsel on contact tracing c. Explain how to use condoms and provide condoms d. Counsel on HIV and offer VCT e. Refer</p> <p>2.83</p> <p>Total=5</p>
16.	<p>When a woman presents after a rape, what do you do?</p> <p><i>(circle all spontaneous answers and ask: Anything else?)</i></p>	<p>a. Encourage her to report to police b. Facilitate filling out the police report c. Take history and do an examination d. Take forensic evidence e. Counsel for pre and post HIV testing f. Counsel about pregnancy prevention g. Provide emergency contraception h. Provide post-exposure prophylaxis for HIV i. Provide antibiotics to prevent STIs j. Request that she do urine, vaginal smear/swabs, and/or blood exams k. Refer</p> <p>4.28</p> <p>Total=11</p>

Table 2.4. Provider attitudes about opinions*		
		Mean score
1.	Visiting a health facility to check on a pregnancy's progress is a good idea for a pregnant woman.	3.94
2.	Delivering a baby at a health facility is safer than delivering a baby at home.	3.89
3.	Within the couple, both the wife and the husband should have equal say in important decisions.	3.61
4.	The more children a mother has, the more respected she is in the community.	3.28
5.	Men should be responsible for choosing how many children their wife/wives will have.	3.28
6.	Family planning should be available to every woman who wants to use a method.	3.67
7.	A woman should be able to obtain a family planning method without her husband's presence.	2.72
8.	IUDs can be a good method for women who have no children.	2.06
9.	Adolescent, unmarried girls should be allowed to obtain family planning if they want.	3.22
10.	Young unmarried men and women need to know how to prevent pregnancies.	3.61
11.	Young unmarried women should be required to get their parents' consent in order to receive a family planning method.	3
12.	Young unmarried men and women should be educated about sex and reproduction	3.61

*All scores are based on Likert scale responses to each statement: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Statements 4, 5, and 11 were reverse coded. All items are scored out of a total possible score of 4 with higher means signalling attitudes that promote equitable and good quality RH care.