USAID | DELIVER PROJECT

South Sudan: Reproductive Health Commodity Security Situation Analysis



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UNFPA

As an integral part of its reproductive health commodity security strategy, UNFPA strives to improve access and use of RH products in developing countries. To this end, UNFPA provides support and assistance in the procurement of RH products and to develop capacity at the country level to manage health systems for RH products. UNFPA applies effective approaches to deliver services in priority RH areas, including availability and access to high quality RH products.

USAID | DELIVER PROJECT, Task Order 4

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Abstract

Reproductive health commodity security (RHCS) promotes the idea that every person should be able to choose, obtain, and use quality contraceptives and/or other reproductive health (RH) products every time he or she desires. The goal is to make sure that supply corresponds with demand. South Sudan is engaged through its RH and HIV and AIDS programs to ensure that the availability of RH products corresponds to demand.

In response to those needs, the USAID | DELIVER PROJECT and UNFPA carried out a situation analysis in 2013. This analysis of the RHCS situation will help strengthen interest in improving RHCS and will build consensus between the various stakeholders on the priorities to be taken into account to ensure RHCS for the RH commodities identified. The results from this situation analysis provide the information necessary for developing a national RHCS strategic plan.

Cover photo: Sumaya, surrounded by midwives, a birth attendant, and the clinic director, prepares to give birth to her second child in Lokoloko Primary Health Clinic, Wau, South Sudan. JSI 2012.

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Acronyms

AIDS	acquired immune deficiency syndrome
ANC	antenatal care
ARC	American Refugee Committee
ART	antiretroviral therapy
ARV	antiretroviral
BCC	behavior change communication
BPHS	Basic Package of Health Services
CH	county hospital
CHW	community health worker
CPR	contraceptive prevalence rate
CS	commodity security
DFID	Department for International Development
EDL	Essential Drugs List
EPI	Expanded Programme on Immunization
EmONC	Emergency Obstetric and Neonatal Care
FP	family planning
GoSS	Government of South Sudan
HIV	human immunodeficiency virus
IEC	information education and communication
ICRC	International Committee of the Red Cross
IDA	International Dispensary Association
JTH	Juba Teaching Hospital
MCH	maternal and child health
MDG	Millennium Development Goals
MDTF	Multi-Donor Trust Fund
MMR	maternal mortality ratio
MOF	Ministry of Finance
MOH	Ministry of Health
NGO	nongovernmental organization

ONC	obstetric and neonatal care
PHC	primary health care
PHCC	Primary Health Care Center
PHCU	Primary Health Care Unit
PMTCT	preventing mother-to-child transmission
RH	reproductive health
RHCF	Reproductive Health Coordination Forum
RHCS	Reproductive Health Commodity Security
RHWG	Reproductive Health Working Group
SHHS	Sudan Household Health Survey
STI	sexually transmitted infection
TB	tuberculosis
TBA	traditional birth attendant
UNFPA	United Nations Population Fund
UNICEF	United Nation's Children Fund
USAID	U.S. Agency for International Development
VCT	voluntary counseling and testing
WHO	World Health Organization

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The team takes this opportunity to also express sincere appreciation for the cooperation and support received from the field office of the United Nations Population Fund (UNFPA/South Sudan) during the course of the situation analysis process at the central- and state-levels. In this connection, our special thanks go to RHCS Specialist Dr. Michael Tekie, who traveled with the team throughout the assessment.

In addition, the authors would like to extend its appreciation for the collaboration and support received from a number of MOH officials at the central level. This includes Dr. Alexander Dimiti, Director General for Reproductive Health; Dr. Samson Paul Baba, Director General for Primary Health Care; and Dr. Moses Malual, Director General for Pharmaceutical Services and Medical Supplies Directorate. The team would like to thank all the people who contributed directly and indirectly at the central- and state-levels during the assessment.

The team takes this opportunity to wish success to all those who are participating in the planning and implementation of increased access to reproductive health services and increased RHCS in South Sudan.

Executive Summary

South Sudan is the newest country in the world; it was founded in 2011 after a long war with Sudan. The country is beginning to rebuild its health infrastructure and systems after many years of unrest and war. One proactive step being taken to ensure better health is to improve the availability of commodities by developing a reproductive health commodity security (RHCS) strategy. This situation analysis is meant to provide a better understanding of the RHCS situation in South Sudan. Reproductive health programming is in the early stages of development and will require advocacy to increase the resources for and awareness of reproductive health (RH) and RHCS, both within the Government of South Sudan (GoSS) and the population, in general. This is a unique opportunity to introduce the concept of RHCS early, while RH programs are being developed, prioritized, and shaped.

A weak health infrastructure, severely limited human resource capacity, and inadequate financial resources from the public sector pose a number of challenges to guaranteeing RHCS in South Sudan. Additionally, natural population growth and the return of internally displaced people will put even greater pressure on the health system and will increase the need for reproductive health commodities.

The contraceptive prevalence rate of South Sudan is among the lowest in the world—less than 2 percent for modern methods in 2010. The maternal mortality ratio is also among the highest in the world with 2,054/100,000 live births. HIV prevalence varies, with estimates showing rates from 0.4 percent to as high as 18 percent.

Access to functioning health facilities also puts constraints on RHCS. Nongovernmental organizations (NGOs) are currently the main providers of health services and RH-related commodities, with very few providing contraceptives or HIV testing or antiretroviral therapy (ART). Public sector facilities have shortages of RH drugs and rarely have contraceptives available. Family planning is not commonly practiced in either NGOs or public sector facilities. Essential RH commodities are in short supply and only mid- to highly-skilled staff can provide the services needed to treat complications of pregnancies. The introduction of voluntary counseling and testing (VCT) centers is just beginning and very few facilities are providing antiretroviral (ARVs).

The GoSS, with the support of development partners, has developed health policies and strategies that support the delivery of reproductive health services. These provide some promising signs of an enabling environment for RH and RHCS. Statements in these policies mention the availability of RH commodities; but, at this point, there is still a severe shortage of essential RH commodities. To ensure wider dissemination and roll out of the policies and strategies to all the county-based health facilities and communities, additional attention to guaranteeing RHCS will need to be incorporated and highlighted, as additional strategies are established.

The results of the situation analysis confirmed that reproductive health issues are discussed through the Reproductive Health Coordination Forum (RHCF) and the reproductive health working groups.

However, at this time, for providing health services, RHCS is just one issue competing with other priorities. An active working group focused on RHCS will be needed to achieve RHCS in South Sudan.

South Sudan has limited availability of good data and information. Currently, a comprehensive picture of the extent of RH commodity coverage, in terms of the geographic distribution of commodities and the quantity and type of commodities being provided at health facilities in the country, is not available. The Ministry of Health (MOH), NGOs, and the development partners are informally coordinated for RH commodity provision. A logistics management information system (LMIS) does not exist, nor is any reliable consumption data being comprehensively collected and reported by the providers of RH commodities to the GoSS. Inventory and dispensed-to-user data is not collected at public sector facilities. The setting up of a logistics management unit under the Directorate of Pharmaceuticals & Medical Supplies is in its early stages. The amount of funding being spent on RH commodities is also unknown, making it difficult to plan for and cover any financing gaps between the MOH/GoSS and development partners. A budget specifically for RH services and commodities does not exist.

South Sudan has an essential drug list (EDL). It was being reviewed or adapted at the time of this analysis. Contraceptives are on the EDL, but are not currently being procured under the Emergency Medicines Fund (EMF). Other essential RH drugs are being procured for 2014 by UNFPA and under the EMF.

The development of the RHCS strategy has begun and a technical person to champion RHCS within the MOH needs to be identified to ensure its implementation, monitoring, and revision. Given the many priorities with the MOH, this will be a challenge. However, with the support of the development partners and others within the GoSS—such as the Directorate of Pharmaceutical Services, the RH Directorate, and the Reproductive Health Working Group (RHWG)—South Sudan can improve its RHCS as it continues its development.

Major immediate recommendations have been developed as a result of the situation analysis for RHCS in South Sudan:

- Establish a technical working group (TWG) to monitor reproductive health commodity security (RHCS) strategy.
- Develop a national roll out for using misoprostol to prevent and treat post-partum hemorrhage (PPH).
- Institute a behavior change communications (BCC) campaign that focuses on women and men to increase the acceptance of contraception.
- Focus immediate family planning expansion on state capitals and other large cities where it is more likely for new concepts to be accepted.
- Strengthen the community health system to reach rural communities.
- Maintain distribution of reproductive health commodities through the existing vertical system managed by UNFPA.
- To ensure choice, focus on providing contraceptives—namely injectables and implants, which are in demand—while maintaining adequate supplies of other methods.

Introduction

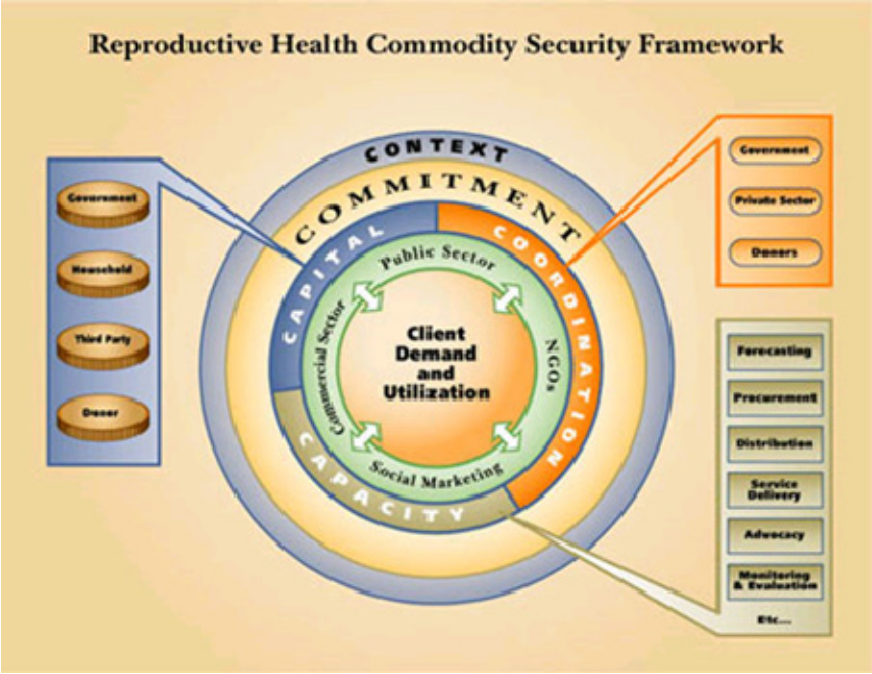
Reproductive health commodity security (RHCS) exists when every person is able to choose, obtain, and use quality contraceptives and other essential reproductive health products whenever she or he needs them. This means having commodities that are both available and accessible. To achieve RHCS a number of elements are essential to establish a supportive environment, including government and other development partner support, generating awareness and demand, mobilizing resources, and developing in-country capacity to ensure accessibility and availability.

As a key intervention in building and strengthening its reproductive health program, South Sudan is taking a proactive approach to ensure that reproductive health commodities are incorporated. This assessment will be used to spread awareness and develop a better understanding and familiarity for RHCS. It is one initial step to advocate for and create awareness, not only for RH, but also for RHCS.

Methodology

The methodology for this assessment is based on the Strategic Pathway to Reproductive Health Commodity Security (SPARHCS) framework (see figure 1), which UNFPA, the U.S. Agency for International Development (USAID), and other partners developed and adapted.

Figure 1: Strategic Pathway to Reproductive Health Commodity Security Framework



Source: SPARHCS: http://deliver.jsi.com/dhome/whatwedo/commsecurity/cssparhcs

Figure 1 shows how six essential RHCS elements impact client demand and utilization of commodities. In every country, certain situations affect the country's prospects for achieving RHCS, including national policies and regulations that affect reproductive health and, particularly, the availability of reproductive health supplies; and broader factors, like social and economic conditions, political and religious concerns, and competing priorities. Within this context, commitment, evidenced in part by supportive policies, government leadership, and focused advocacy, is a fundamental underpinning for RHCS. It is the basis from which stakeholders invest the necessary capital (financing), coordinate for commodity security (CS), and develop the necessary capacities to ensure CS. The boxes in the figure explain each of these three components. Coordination involves government, the private sector, and donors to ensure more effective allocation of resources. Households, third parties—e.g., employers and insurers—governments, and donors are all sources of capital. Additionally, capacities must exist for a range of functions, including policy; forecasting, procurement, and distribution; demand generation; service delivery; supervision, monitoring and evaluation; to name only a few. Clients (youth, women and men), shown in the center of the figure, are the ultimate beneficiaries of RHCS as product users; they are depicted as double-headed arrows, driving the system by their demand (SPARHCS).

Assessment Activities

The original RHCS assessment took place between June and July 2007, with a follow-up during October–November 2013. This report contains some information from the 2007 assessment, as well as updates (Government of the Republic of South Sudan June 2007). Because of the continued military strife in South Sudan, and the many competing needs for the emerging country, many aspects of RHCS did not advance during 2007–2013. Both assessments included the following activities:

- Reviewed background documents that relate to the orientation of policy and strategies in the field of RH.
- Met with the MOH at the central- and state-levels, national- and international- stakeholders in the field of RH, including donors and other development partners (selected NGOs).
- Made field visits to select health facilities, including an assessment of three state hospitals and their warehouses (2007) and one selected health facility in Juba and one state hospital and its warehouse (in Upper Nile state in 2013).
- Sponsored a one day-workshop at the end of the third week to validate of the results and recommendations of the situation analysis and to agree on activities to be implemented in the immediate term (two years). This will inform the finalization of the RHCS immediate term implementation plan, with the participation of the staff in charge of RH services and staff from the MOH and other local and international partners.

Objectives of the Situation Analysis

The general objective of the situation analysis is to provide information and recommendations to improve the RHCS situation by looking at family planning, maternal and neonatal care, and HIV and AIDS in the public sector. In addition, the situation analysis helps build consensus among the stakeholders on the priority actions that must be taken to ensure the effective delivery of RHCS and to develop the implementation plan for RHCS in the public sector.

Assessment Limitations

The assessment of the RHCS in South Sudan was limited to a review of the public sector's RHCS related issues, donors, and NGOs, given their significant involvement with providing reproductive health services and reproductive health commodities; and the social marketing program, PSI. Given the time allotted for the analysis and the fieldwork, attention on RH commodities focused on the availability of essential drugs and contraceptives at service delivery points, and a general overview on the availability of HIV and AIDS related services and drugs. Meetings with key informants were severely limited due to security in the country. The Ministry of Finance (MOF) and the Directorate of HIV/AIDS were unavailable during the assessment team's visit.

The RHCS situation analysis is a qualitative study; it does not provide information on the quantities of products surveyed during the study. The observations and comments in this report relate to the ongoing delivery of RH services at functioning health facilities. The time frame that was allocated for the assessment allowed the consultants to visit (in 2007) three of the 10 South Sudan states—Northern Bahr El Ghazal, Lakes, and Upper Nile—and a selected number of health facilities—state hospital pharmacies and maternity services, primary health care centers (PHCC), and medical stores. Because of security and transportation issues, only one field visit was made outside Juba (to Malakal) during the assessment in 2013; the visit was very short. At each facility visited, interviews were carried out with key informants and health officials. Therefore, the results of the situation analysis, including the recommendations presented in this report, are limited to the scope of the activities that were designed and carried out at the central level and one state. The assessment is not a representative sample of all facilities, but rather a qualitative and anecdotal picture of the supply situation, which depended heavily on the wisdom and knowledge of the stakeholders who attended the validation workshop.

Background

South Sudan is the newest country in the world, and covers an estimated 640,000 square kilometers, divided into 10 states with 80 administrative counties. The country's epidemiological profile is typical of tropical Africa with high rates of communicable and infectious disease. The major causes of illness and death include malaria, acute respiratory infections (tuberculosis, and pneumonia), malnutrition, measles, diarrhea, intestinal parasites and enteritis, meningitis, HIV and AIDS; including other sexually transmitted infections (STI), and complications from pregnancy and delivery.

The United Nations estimated the 2010 population at 9.9 million; they project an explosive growth by 2015 to 12.2 million. This growth is not only because of a very high birth rate, but because of the return of refugees after the cessation of active war. It is expected that the country will continue with a high growth rate of 4.2 percent per year. Most of the population (75 percent) lives in rural areas. The available health statistics indicate that the country's maternal mortality ratio (MMR) is the highest in the world, with an estimated 2,054/100,000 live births, caused mostly by hemorrhage and complications of pregnancy. It should be noted that the officials in the emerging new country of South Sudan mistrusted the MMR figure—some considered the reality to be worse—and the South Sudan Health Survey (SSHS) of 2010 did not report on this indicator. Infant mortality is reported at 90/1,000 live births, mostly from communicable diseases: measles, acute respiratory infections, diarrhea, and malnutrition. Additionally, the under-5 mortality rate is estimated at 143/1,000 live births. The modern contraceptive prevalence rate (CPR) is less than 2 percent, with a total fertility rate of 5.54. Finally, only 11 percent of women are delivered in health facilities; many facilities had serious infrastructure problems (Government of the Republic of South Sudan. Ministry of Health 2010).

The prolonged war and political instability that prevailed in South Sudan for 22 years resulted in a massive displacement of populations and the destruction of the country's economic and health infrastructure. The war also contributed to significant under-development, loss of lives, and widespread poverty and poor health. Most of South Sudan's socioeconomic and health indicators, including indicators of primary school enrollment and adult literacy, are among the lowest in the world.

The results of the 2006 and 2010 household surveys, and a 2013 facility survey, confirm the lack of RH services at most of the country's primary-level facilities and hospitals, primarily due to the destruction of the country's health infrastructure during the war and the lack of policy, effective strategy, and resources (financial and human) to support the delivery of RH services, including family planning. A shortage of trained and qualified health workers is the most critical factor that is contributing to the limited delivery of quality RH services. Most of the primary-level facilities are staffed with health workers that have not received adequate in-service training for years. With the exception of health facilities that are assisted by international NGOs, supervision of government-managed health services in rural areas is not regular and most of the facilities do not have the latest standard protocols to deliver quality RH services. There is no functioning supply chain system for drugs and medical supplies to support the delivery of essential health services.

The MOH has developed a reproductive health policy that is the basis for implementing RH program strategies and facilitating coordination among partners.

Achieving the country's Millennium Development Goals (MDGs) includes providing an essential maternal and reproductive health package of interventions through functioning primary healthcare centers (PHCCs), primary health care units (PHCU), and reference hospitals, which will also benefit from the implementation of the RH policy and the interim RH strategy. This coordinated RH program will require increased availability of essential RH products at functioning health facilities, as well as increased health worker capacity to manage and deliver quality reproductive health services.

RHCS for Family Planning, Maternal, and Neonatal Care, HIV and AIDS

Context

Family Planning Context

Family planning is neither widely supported nor practiced in South Sudan. In addition, family planning is not a regular part of health programs, to date. It remains a sensitive issue because of a lack of awareness and advocacy, and ingrained cultural and religious beliefs. Many people believe they need to replace those who were lost during the war (2 to 2.5 million) and to increase the population of South Sudan, as a whole. While cultural beliefs dictate that women should have several children, there are women who would like to practice family planning and space births. To do this, these women would like access to discrete forms of contraception, such as injectables, to avoid having to negotiate with their husbands. Project programming for family planning is just beginning to be implemented; it is not a priority in many programs within the MOH or NGOs.

Lack of availability for family planning commodities and services is a serious barrier to use. The national facility survey carried out 2013 showed that oral contraceptives were found in 30 percent of facilities, implants in 8 percent of facilities, while three-month injectables (the most popular method) were found in only 24 percent.[1] In addition, visits to the field yielded anecdotal information that "the health workers feel uncomfortable talking about contraception."

This context is illustrated in recent Sudan Household Health Survey (SHHS) results, which show very low contraceptive prevalence rates in South Sudan. Comparing the 2006 results with 2010, it appears that the modern CPR has decreased significantly. However, with the sample size of the surveys, the 95 percent confidence interval was +/- 0.28. Therefore, the confidence intervals overlap to the extent that the difference cannot be said to be statistically significant. So, the best that can be said is that CPR has been stagnant. However, the data show that the most popular methods are injectables, male condoms, and orals. Anecdotal data suggests increasing demand for injections and a strong demand for recently introduced implants.

A note on some of the reported use in 2006: Most South Sudanese public health professionals strongly doubted the reported use of tubal ligation and vasectomy (especially), saying that the question was not understood; for example, circumcision could have been confused with vasectomy.

1MOH-GoSS, October, 2013

Much of the data reported in the SHHSII report were also broken down by state. This can be accessed by going directly to that source. However, because the sample sizes for individual states were so small—approximately 1,000—confidence intervals widen and statistical significance decreases. Therefore, state-by-state comparisons from this data are not an accurate description of the real situation on the ground.

Table 1: Contraception Use Percentage of Women Age 15–49 Currently Married or in Union Using (or whose partner is using) a Contraceptive Method, South Sudan 2010

Method	SHHS 2006	SHHS II 2010
Tubal ligation	.64	.1
Vasectomy	.18	0
Injection	.13	.4
Orals	.12	.3
Implant	.05	0
Male condom	.56	.4
Female condom	.05	0
Total Modern	**1.73**	**1.2**
Traditional Methods	**2.47**	**2.8**
Total CPR	**4.2**	**4**

95% Confidence = +/- .28

Source: Government of the Republic of South Sudan. Ministry of Health. 2006 and 2010.

According to the World Health Organization (WHO), women with unmet need are those who are fecund and sexually active, but are not using any method of contraception, and report not wanting any more children (*limiting*) or want to delay the next child (*delaying*). The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior.[2]

Unmet need in South Sudan, according to the SHHS II, is 19.1 percent for delaying the birth of the next child, and 7.2 percent for limiting births, for a total of 26.3 percent unmet need. The total unmet need varied significantly between states, ranging from 18.7 percent in Warrap and Lake states to 32.9 percent in Central Equatorial state. Note that *unmet need* is not the same as *unmet demand*. Women do not use contraceptives for many reasons, such as fear of side effects, the husband opposes its use, or religious beliefs.

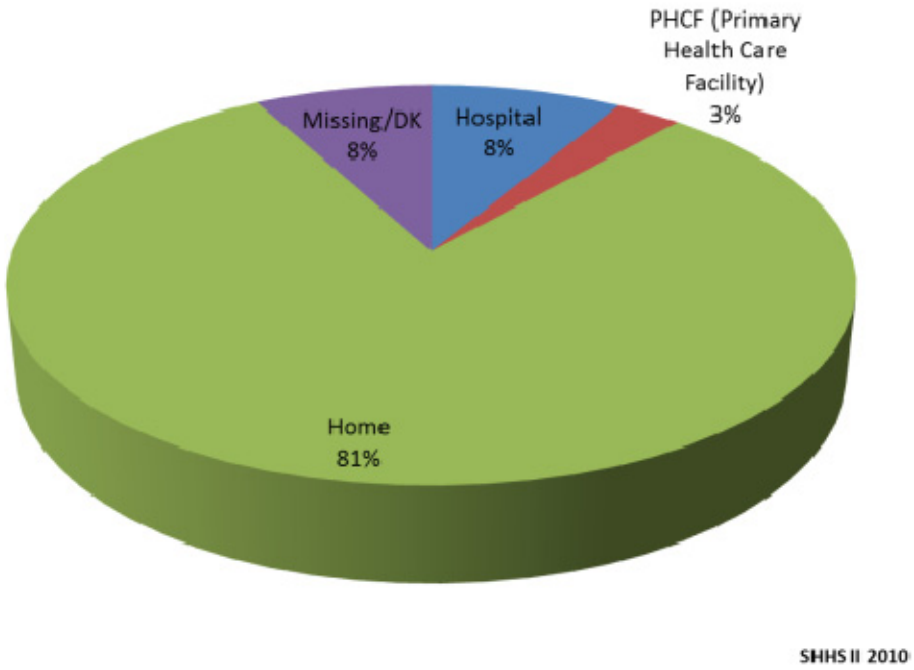
Obstetrics and Neonatal Care Context

Obstetric and neonatal care (ONC) services are very weak. Very few facilities, except hospitals, can provide emergency obstetric care (EmOC). Accessibility and cultural beliefs are the reasons most women deliver at home. Figure 2 shows that only 11 percent of women deliver at a health facility,

[2] http://www.who.int/reproductivehealth/topics/family_planning/unmet_need_fp/en/

and even many of these officially sanctioned public facilities have serious deficiencies, such as a lack of running water or cold storage.

Figure 2: Percentage of Women Ages 15–49 Who Gave Birth in the Two Years Preceding the Survey by Person Assisting at Delivery by Place of Delivery

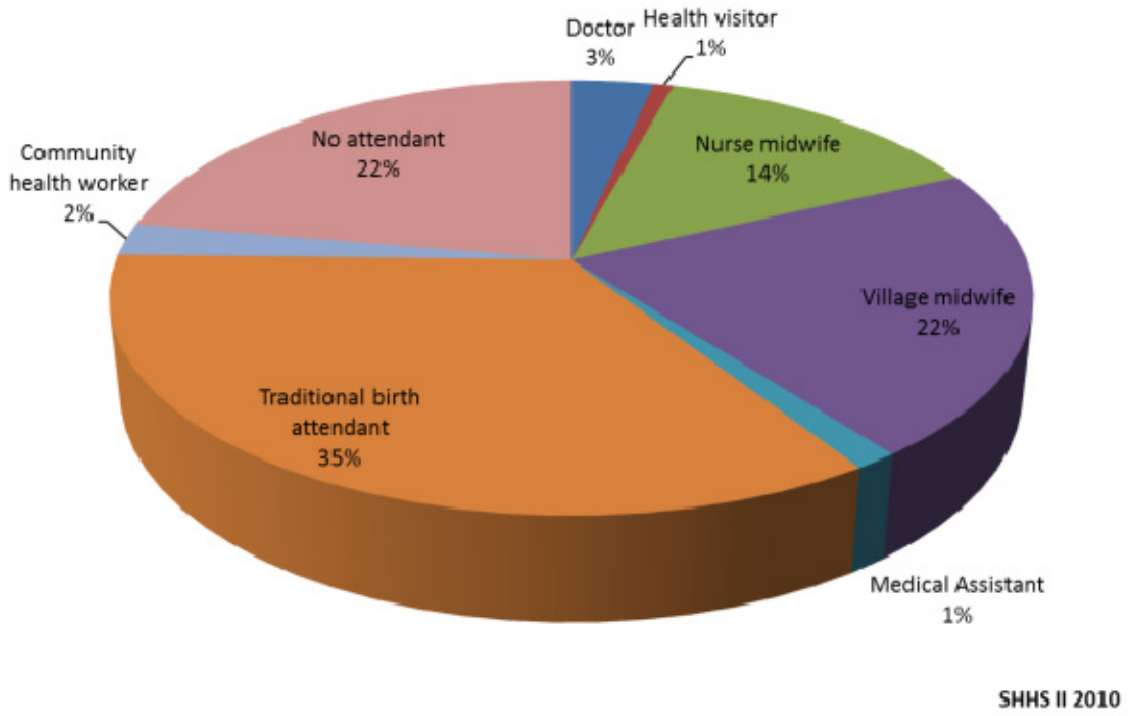


Source: Government of the Republic of South Sudan. Ministry of Health. 2010

As seen in figure 3, only 14 percent of births are attended by trained personnel: doctors, health visitors, and nurse midwives.[3] It is very common for women to present at a clinic (after trying a home delivery) because of prolonged labor and complications. Throughout the country, skilled staff that can provide RH services, including EmOC, are in short supply. Because of this staffing shortage, low-skilled personnel, such as traditional birth attendants (TBA) and village midwives, handle deliveries. Other issues related to treatment practices, including lack of standard protocols and guidelines, lack of equipment, and a poor referral system, all contribute to the high maternal mortality rate.

[3] MoH & BBS, 2011

Figure 3: Percentage of Women Ages 15–49 Who Gave Birth in the Two Years Preceding the Survey by Person Assisting at Delivery



Source: Government of the Republic of South Sudan. Ministry of Health. 2010.

The commodities needed for ONC, the essential drugs and equipment needed are unavailable or available only sporadically at health facilities. In 2007, most of the facilities visited were stocked out of the essential RH commodities–oxytocin, magnesium sulfate, clotrimazole, ergometrine, and ferrous sulfate. The 2013 Draft Emergency Obstetric and Neonatal Care (EmONC) Survey[4] indicated some improvement. Nationally, 96 percent of all facilities with a pharmacy or supply of drugs stocked antibiotics. Amoxicillin was the antibiotic most commonly stocked (89 percent of facilities). Eighty-three percent of facilities stocked anticonvulsants/sedatives, 33 percent stocked antihypertensives, and 58 percent reported having oxytocics or prostaglandins in stock. IV fluids were found in 91 percent of facilities. The lack of commodities, particularly oxytocics, contributes to South Sudan's current MMR rate of 2,049/100,000 live births—the highest in the world. A woman in South Sudan has a 16 percent lifetime risk of dying in pregnancy or childbirth.[5] The limited field visits carried out in the 2013 situation analysis update were in-line with the EmONC survey. For example, one large PHCC that had many deliveries was almost stocked out of oxytocin; a small PHCC was overstocked, with expirations likely unless the stocks were relocated; and one teaching hospital had oxytocin stored at ambient, high temperatures—calling into question its potency.

[4] MOH-GoSS, 2013
[5] SSCCSE, 2004

HIV and AIDS Context

The joint United Nations Programme on HIV/AIDS (UNAIDS) estimated HIV prevalence in South Sudan to be 2.7 percent in 2012, making it a generalized epidemic. Prevalence in military personnel is higher at 4.4 percent. An estimated 150,000 people are living with HIV in the country. An estimated 12,000 new infections happen every year and about 13,000 die from AIDS-related illness.[6]

South Sudan is one of the 38 high-priority countries for UNAIDS. According to the UNAIDS report on the global AIDS epidemic 2013, ART coverage in South Sudan at the end of 2012 stood at only 9 percent, based on WHO 2010 guidelines; for children, it drops to 5 percent. Fewer than 50 percent of pregnant women in South Sudan have access to preventing mother-to-child transmission (PMTCT) services and only 13 percent of those requiring ART for PMTCT received it in 2012. However, the country was making progress. In August 2013, the country's first national HIV strategic plan 2013–2017 was launched and the PMTCT scale up plan (2014–2018) with roll out of option B+[7] is in the pipeline.[8]

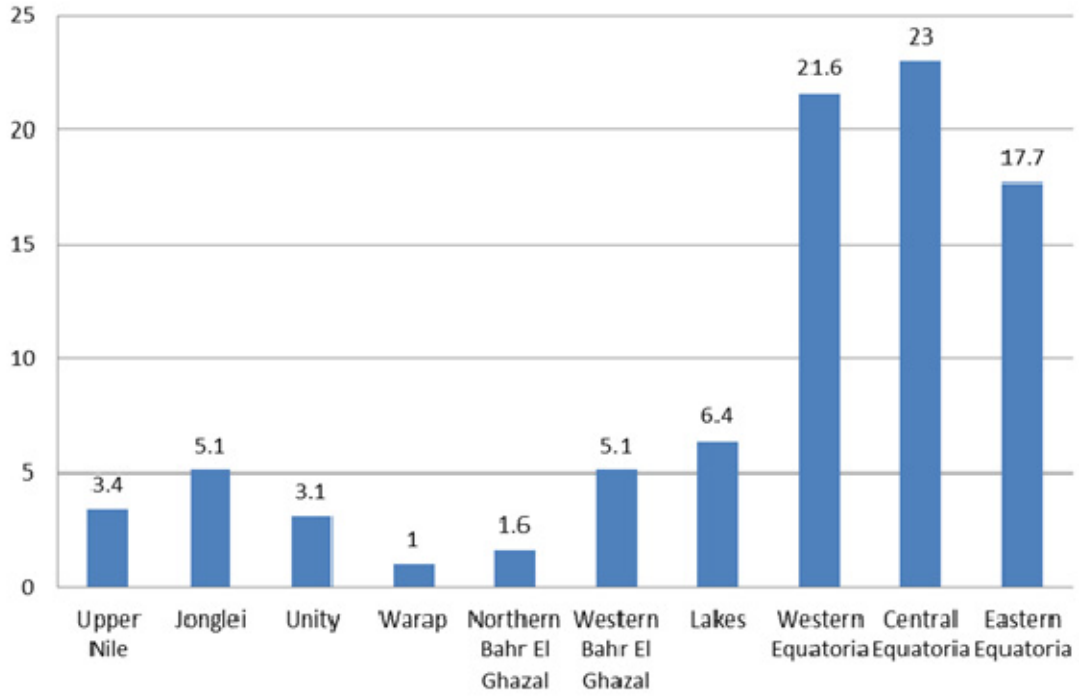
Figure 4 shows the very low knowledge about HIV transmission among young women in South Sudan, particularly in the more remote and rural states, such as Warrap and Northern Bahr El Ghazal.

[6] http://www.unaids.org/en/regionscountries/countries/southsudan/

[7] Option B+: For treatment and prophylaxis, women are given triple ARVs starting as soon as diagnosed, continued for life; infants are given daily NVP or AZT from birth through age 4–6 weeks, regardless of infant feeding method

[8] Relief Web International

Figure 4: HIV Prevention Knowledge: Comprehensive Knowledge About HIV Prevention among Young Women (percentage), South Sudan 2010



Source: Government of the Republic of South Sudan. Ministry of Health. 2010.

Table 2 shows not only the lack of information, but the disinformation surrounding HIV prevention. Only 14.7 percent of women rejected two of the three most common misconceptions about HIV transmission (mosquitos, supernatural, sharing food).

Table 2: Knowledge about HIV Transmission

Percentage Who Have Heard of AIDS		53.1
Percentage who know transmission can be prevented by:	Having only one partner	37.1
	Using a condom every time	22.1
Percentage of women who know both ways		19.2
Percentage who now that HIV cannot be transmitted by:	Mosquito bites	29.3
	Supernatural means	41.3

	Sharing food	36
Percentage who reject the two most common misconceptions		14.7
Percentage of women who know that a healthy looking person can have the AIDS virus		26.6
Percentage with comprehensive knowledge		8.6
Total Number of women		**9,069**

Source: Government of the Republic of South Sudan. Ministry of Health. 2010,

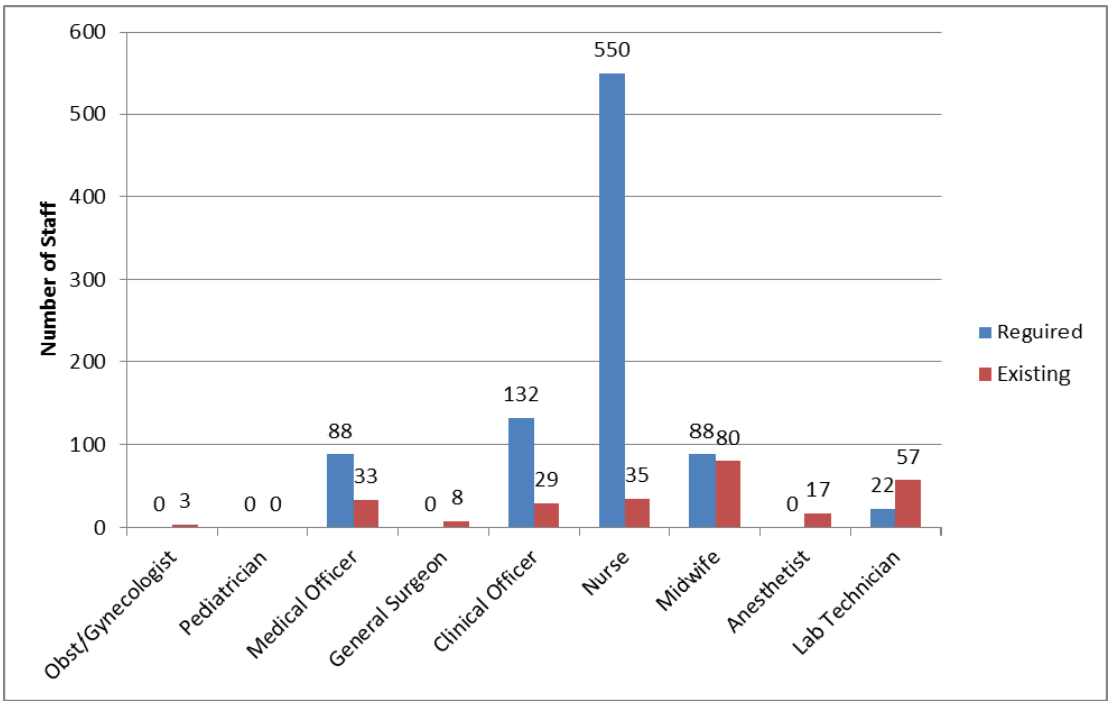
Human Resource Capacity Context

Human resource capacity is a major challenge in providing health services throughout South Sudan. The shortage of skilled, qualified health workers also includes reproductive health staff. The earlier *Draft RHCS Assessment* in 2007 found that there are only five obstetrician/gynecologists, seven surgeons (three are visiting), six pediatricians, three physicians, 24 general practitioners, and about 36 nurse-midwives (most are non-South Sudanese) who are actively or administratively involved in delivering RH services (Government of the Republic of South Sudan June 2007). Many RH providers are low-skilled workers, including village midwives, traditional birth attendants, and MCH workers. A baseline survey in 2005 estimated 0.4 percent health workers for every thousand people in the country. Additionally, 25 percent of all health personnel are in the urban centers of Juba, Malakal, and Wau. The actual number and type of RH staff figures are not formally known; nevertheless, the aforementioned statistics indicate the current human resource constraints on the health system. An increased number of mid- to high-level health professionals is urgently needed in South Sudan.

The protracted war is one major reason for the lack of qualified staff. During the war, many of the tertiary training facilities in Juba, Malakal, and Wau were relocated to Khartoum, while mid-level health institutions, such as nurse-midwife schools, were relocated or closed (Government of the Republic of South Sudan. Ministry of Health. October 2013). Of the few village midwife and nursing schools that were operational in the garrison towns none provided RH training, except for village midwives, TBAs, and some other MCH workers. Many of these health workers are older workers who have not had any refresher training (Government of the Republic of South Sudan June 2007).

The *EmONC Assessment Report* has significant details about the serious understaffing at all levels of the system. Figure 5 shows one example, which details needed staff versus existing staff at PHCCs. These facilities represent a major first line of facilities responsible for obstetric care and family planning services. The greatest shortage of staff—clinical officers, nurses, and nurse-midwives—also represent the first line of providers within these facilities. Figure 5 is only an example of staff shortages at PHCCs. In addition, teaching hospitals, state hospitals, county hospitals, and PHCUs are all drastically understaffed.

Figure 5: Staffing Requirements Versus Actual in PHCCs Surveyed during the EmONC Assessment



Source: Government of the Republic of South Sudan. Ministry of Health. October 2013.

One area where significant progress has been made is the increased number of facilities. In 2007, there were approximately 30 hospitals, 120 health centers, and 650 health units.[9] Targets set in the Health Sector Recovery Strategy aimed to increase the number of facilities by 2010 to—

- one hospital per 300,000 people (37, assuming 11,000.000 population)
- one primary health care (PHC) center for 50,000 people (220)
- one PHC unit for 15,000 people (730).

The targets above were exceeded. According to the EmONC report, there are now 63 hospitals, 344 PHCCs, and—according to the health facility mapping in 2011—780 PHCUs. However, the EmONC report also documented serious infrastructure and staffing deficiencies at many of these facilities, which brings into question their capacity to appropriately handle obstetric emergencies.

Coordination

The RH Coordination Forum at the GoSS level is a technical body responsible for developing standards and norms for RH programs. RHWG, led by UNFPA, includes other ministries, some international NGOs, and bilateral and multilateral agencies that only meet periodically. However, the

[9] MDTF FPP-Health, 2006

actual number of active members is a much smaller group. The discussions in the RHWG cover a broad range of RH-related issues. Commodities are discussed, but it is not a regular item on the agenda. The RHWG has terms of reference, but it is critical for the members of the RHWG to more closely monitor the status of RH commodities in South Sudan. Within the MOH, a Directorate of RH has been formalized and staffed, which helps centralize the coordination of RH services and commodities.

Multiple donors (further discussed in the Finance section), are notably involved in supplementing the efforts of the GoSS. They have taken responsibility for all 10 states; they work through implementing partners and both international and local NGOs. UNFPA informally collaborates with this structure to ensure the flow of commodities. NGOs frequently obtain supplies by requisition in a *come and get* it manner. Other supplies are pushed down by the Directorate of Pharmaceuticals & Medical Supplies (oxytocin, magnesium sulfate, and other essential drugs) and by UNFPA (contraceptives and essential drugs) to the state hospitals and distribution facilities at the state- and county–departments of health.

Furthermore, no formal report is available about the type and quantity of RH commodities or geographic coverage in rural and urban areas being provided by NGO-supported health facilities. Some NGOs do their own procurement, while others receive kits from multilateral organizations. It is not known if the NGOs who procure their own commodities carry all the UNFPA-priority RH drugs and contraceptives.

Commitment

The current rebuilding of South Sudan has put great demands on the already very limited resources in all sectors, including human resource capacity, financing, and the health workers' ability to provide health services. The health system is trying to provide just the basic services that will adequately address priority issues—such as malaria, infectious diseases—and providing immunizations and other essential medicines. While RHCS competes with many other priorities, with consistent advocacy, it will slowly become more prominent within the MOH and GoSS. The MOH or GoSS do not have a budget line item for RH or RH commodities. Several policy documents support the health sector; drafted within the last two years, they specifically address the improvement of reproductive health services and; indirectly, increase access, knowledge, and use of RH commodities, such as the 2013 Reproductive Health (RH) Policy, Health Policy, and Basic Package of Health Services.

The RH policy, published in February 2013, details the provision of a comprehensive package of RH services, following international public health practice, including family planning, maternal healthcare, and prevention of STIs and HIV and AIDS. The policy is a guide for anyone providing MRH services, including healthcare workers, NGOs, faith-based organizations, and the private sector; for planning, implementing, and monitoring RH activities. It is a framework to carry out strategies at all levels, from the community level, primary healthcare units, primary healthcare centers, and hospitals. The policy has specific targets—such as reducing the MMR to 425 per 100,000 for 2015.

To support enhanced RH interventions, the MOH raised reproductive health to a directorate level within the government, and they appointed an experienced reproductive health physician as the Director General. Furthermore, the three donor agencies that support the 10 states have RH fully integrated into their strategic plans.

Family Planning

The RH policy supports FP with a specific strategy that includes actions to increase the importance, awareness, and knowledge of FP; mandating healthcare facilities to provide FP services, and ensuring that both men and women have access to a range of FP methods. According to the MRH policy, initially, contraceptives will be integrated with the HIV and AIDS strategy by supplying socially marketed condoms at healthcare facilities. Drug availability and rational use are part of the policy. The RH policy does note the ministry will support all health facilities to provide access to a wide range of FP methods. The platform the MOH uses to promote FP will be for spacing rather than limiting births. The policy also promises to launch an IEC campaign to create awareness on the need for family sizes that a growing economy can support.

Obstetric and Neonatal Care

Obstetric and neonatal care are usually captured under the scope or purview of MCH services in several policies. The Interim Health Policy (2006–2011), financed by the Multi Donor Trust Fund (MDTF), tried to improve the delivery of maternal and child health interventions. One of the four priorities included RH with EmOC as one specific focus area. The Interim Constitution of South

Sudan (2005) states that maternity and child care and medical care for pregnant women should be provided by appropriate facilities, at all levels of government. The RH policy states the MOH will provide *Essential Maternal and Reproductive Health Kits* for each healthcare facility in South Sudan. It is also expected that kits for normal and complicated deliveries (including caesarean-section kits) will be provided as part of the UNFPA contribution to this program.[10] Additionally, one of the strategic actions will be to guarantee the consistent availability of drugs. Another goal comes from the Joint Assessment Mission, which has set indicators to increase births attended by skilled health staff from 6 percent to 90 percent and reducing MMR to 425/100,000 by 2015.

Other existing policies, which provide broad guidance on health, also reference RH as one of the components. The RH policies in the Basic Package of Health Services (BPHS) include clean delivery, early referral of risky and complicated deliveries at the hospital in emergency situations, prevention of early pregnancies, and antenatal care (ANC). Under the BPHS, the distribution of condoms will be available at the PHCU, PHCC, and county hospital (CH) facilities. Oral contraceptives will be provided at the PHCU, PHCC, and CH facilities. Injectables will be available at the PHCC and CH facility and IUDs will be accessible at the CH facility. Basic EmOC services will be offered at the PHCC and CH facility and comprehensive EmOC services at the CH.

HIV and AIDS

Since its formation, the government of South Sudan has shown its commitment to fight the HIV and AIDS epidemic. The current National Strategic Plan on HIV and AIDS (NSP 2013-2017) describes the national response under the stewardship of the government of South Sudan through the HIV and AIDS Commission; it stipulates strategic direction and actions on how the unique challenges that HIV and AIDS pose to the welfare of the South Sudanese population will be addressed.

Some strategies in the RH policy, both directly and indirectly, demonstrate the commitment to HIV and AIDS commodity availability and increasing capacity and availability to HIV and AIDS services. RHCS is important in several key strategies:

- preventing mother-to-child transmission
- supplying condoms (male and female) through social marketing, initially; and gradually through health facilities
- improving procurement procedures for ARVs to ensure a regular and continued supply of drugs.

Advocacy

RHCS is a new concept in South Sudan; additional time and advocacy will be needed if it is to become a familiar and common concept within the public sector and civil society.

Currently, very little advocacy is specifically for RH commodities, especially for contraceptives. The government understands the importance of RH as part of the effort to rebuild the health, and has responded by establishing a RH directorate, but it will take time to become a priority as the government is working toward just providing basic healthcare services and other essential medicines

[10]MOH,GoSS, 2013

to the population. As policies are disseminated, implemented, and operationalized the commitment for RHCS can be better measured. Additionally, the refugees returning from abroad who have been exposed to RH, FP, and HIV and AIDS messages will help create demand and awareness for RH services and commodities.

Advocacy should continue by implementing the RHCS strategic plan, which will support and complement the RH policy, BPHS, and interim health policy.

Capital (Financing)

Domestic Sources of Financing

Since 2008, the budget allocation for health has seen an average year-after-year increase of 15 percent. At the same time, the percentage of the government budget allocated to health has remained stable at about 4 percent, which is very low for the region. However, the MOF has not authorized spending of the total budget allocation. Actual spending approved by the MOF for health has also been low, at 55 percent in 2009 and 64 percent 2010. These rates are considerably lower than those for the government budget overall—111 percent and 73 percent, respectively—which suggests poor prioritization of the health sector, or perhaps weaknesses in financial management in health compared to other sectors.

Oil sales and general taxation are the main source of revenue for public (government) expenditure in the health sector. However, this only represented a small percentage of the total health expenditure in 2010/2011. Development Assistance for Health (DAH) continues to be a significant source of support for funding the health sector. In addition, anecdotal evidence suggests that out-of-pocket expenditure—especially among urban populations—also contributes a significant amount to the total health expenditure. All these sources of funding have been declining since 2006, to the extent that they are significantly insufficient to fund the MOH's Health Sector Development Plan. The emerging national health insurance system in South Sudan is only accessible to a small percentage of government civil servants (Government of the Republic of South Sudan. Ministry of Health. March 2011).

However, it is important to know that South Sudan has enormous needs for infrastructure development, and in the short- and intermediate-term, it is unrealistic to expect funding for a program with little public support, such as family planning. The standard indicator for family planning commodity security—a line item in the national budget—is likely to be far into the future. Life-saving obstetric commodities, on the other hand, are more likely to receive attention.

External Sources of Financing

External-sector financing is transitioning by moving away from humanitarian aid toward development assistance. Recently, a number of major health-focused programs have ended, including the Basic Health Fund (BHF), MDTF, which ended in 2012; the Sudan Health Transformation Project (SHTP II) and funding through the Office of U.S. Foreign Disaster Assistance (OFDA). To avoid duplication of effort going forward, donors have agreed to divide their efforts between the 10 states, by geographic area. The three major funders/implementing partners include USAID, which covers two states (Western and Central Equatorial); the Health Pooled Fund (HPF) will cover six states (Eastern Equatorial, Unity, Warrap, Lakes, Northern Bar el Ghazal, and Western Bar el Ghazal); and the World Bank will be responsible for two states (Jonglei and Upper Nile). The level of funding committed for these three implementing partners is shown below in table 3. The two other major sources of funding for health commodities are UNFPA and the Emergency Medical Fund (USAID, Department for International Development [DFID], and

Norway), which is implemented by the USAID | DELIVER PROJECT. South Sudan also receives funding from global health initiatives, such as GFATM and GAVI.[11]

The three implementing partners also have limited budgets for procurement of essential drugs. However, they generally depend on reproductive health commodities from UNFPA.

Table 3: Major Funding Sources Providing Health Assistance to South Sudan

Major Donors	Time Period	Total Funding (USD)
Health Pooled Fund	2013–2016	$191,448,000.00[12]
World Bank/IBRD/IDA	2012–2013	$23,000,000.00[13]
USAID/ISDP/MCHIP	2012–2017	$110,000,000.00[14]
UNFPA	2012–2013	$16,100,000.00[15]
Emergency Medical Fund (EMF)	2013–2014	$27,500,000.00[16]

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[11] Health Care Financing in South Sudan

[12] http://www.healthpartners-int.co.uk/our_projects/HPF.html (Health Pooled Fund)

[13] http://www.healthpartners-int.co.uk/our_projects/HPF.html (Health Pooled Fund)

[14] K. Hutton, pg.14

[15] UNFPA. "Final country programme document for South Sudan"

[16] EMF kits include a broad range of essential drugs, including drugs related to pregnancy and delivery, but do not include contraceptives. This figure represents funding for all drugs covered not just RH drugs.

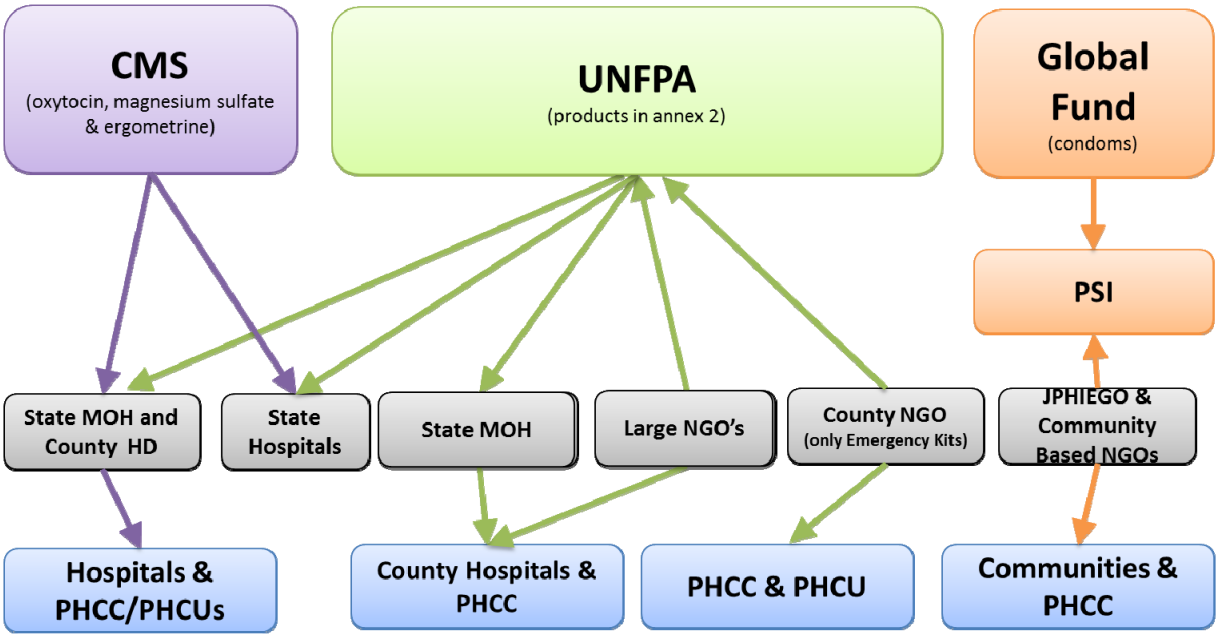
Commodities

Sources of Reproductive Healthcare and Family Planning Commodities

The major providers of reproductive healthcare and family planning commodities in South Sudan are UNFPA, USAID, and some international NGOs, such as MSI.

Figure 6 shows an overview of the current reproductive health and family planning commodity flow with the players, distribution channels, and commodities that are actively being pushed or pulled. Arrows pointing down represent distributed commodities. Arrows pointing up represent commodity that is picked up from the corresponding donor or facility.

Figure 6: Current RH Commodity Flow



UNFPA and the United Nation's Children Fund (UNICEF) are currently providing essential drugs as part of reproductive health kits, as well as individual reproductive health commodities for distribution (see annex 2). When data becomes available for other RH commodities, it would be useful to track spending by funding source to understand funding trends among the GoSS, development partners, NGOs; and, eventually, the private sector. For instance, it is known that oxytocin and condoms are procured as part of a kit provided by WHO; but those products are not tracked or included in the total RH spending.

The NGO-supported health facilities receive essential drugs, either from their own procurement system or from UNFPA and UNICEF, in the form of kits. UNFPA is a source of essential drugs for NGO-assisted primary-level facilities. By signing an MOU with UNPFA, county-based NGOs can

receive RH kits. A proposal submitted to UNFPA documents the number and type of facilities supported by NGOs. UNFPA then uses set assumptions to calculate the number of kits needed. Currently, UNFPA provides kits to IRC, TEAR Fund, GOAL, ARC, and World Relief. Other larger state-based NGOs, such as JPHEIGO and MSI, and government state hospitals, can submit requests for individual commodity orders for the products from UNFPA listed in annex 2.

In addition, throughout 2014, the Emergency Medical Fund will deliver more than $27.5 million in health commodities, including essential medicines and RH. UNFPA will continue procuring RH commodities, and USAID is likely to resume procuring contraceptives in 2014.

Table 4 represents the RH and FP agreed-upon commodity needs for consumption for upcoming 2014–2016, which were identified through a quantification exercise completed in November 2013 by the USAID | DELIVER PROJECT, with active participation from UNFPA, HPF, and JPHEIGO/MCHIP. For more information on the quantification and the results, please refer to the "South Sudan Maternal Health and Family Planning Commodity requirements and Financing Need 2014-2016" report on the USAID | DELIVER PROJECT website: deliver.jsi.com.

Table 4. Reproductive Health and Family Planning Product and Funding Requirements, 2014–2016

Product	Unit Pack	Product Unit Cost	2014 Product Requirements + 6 months Buffer	2014 Total Commitments as at Nov. 2013	2014 Product Gap	2014 Gap to be Funded	2015 Product Req.	2015 Funding Req.	2016 Product Req.	2016 Funding Req.
magnesium sulfate 100/vial INJ	10g/vial	$ 0.30	0.210	21,230	0	$ -				
oxytocin 10IU/ml INJ (PP)	10IU/ml	$ 0.30	100,000	100,000	0	$ -	87,210	$ 13,442.1	110,000	$ 20,130.0
Misoprostol 200MCG TAB (PP)	200mcg	$ 0.40	300,771	60,000	277,971	$ 100,429.0	700,512	$ 207,700.1	810,420	$ 301,800.0
Copper T (IUD)	Piece	$ 0.30	870	0	300	$ 90.0	877	$ 119.1	874	$ 114.0
Depo-Provera 150mg Inj.+syringe (injectable)	vial	$ 0.90	100,472	10,000	100,272	$ 134,444.0	107,491	$ 101,741.1	101,710	$ 172,000.0
Jadelle (implant)	Piece	$ 0.00	2,224	20,000	0	$ -				
Implanon (implant)	Piece	$ 0.00	7,000	10,000	0	$ -	10,074	$ 00,000.1	20,007	$ 200,000.0
Microlut Pill (POP)	Cycle	$ 0.30	00,000	0,000	20,000	$ 7,000.0	40,717	$ 14,010.1	00,011	$ 10,000.0
Microgynon Pill (COC)	Cycle	$ 0.27	100,000	20,000	100,000	$ 44,000.0	100,404	$ 01,007.1	100,210	$ 40,000.0
Condom Male	Piece	$ 0.03	0,077,000	0,000,000	1,100,000	$ 00,000.0	0,000,000	$ 100,100.1	0,014,700	$ 100,440.7
Condom Female	Piece	$ 0.27	0,071	00,000	0	$ -				
Levonorgestrel 1.5mg	2 Tabs	$ 0.20	0,021	10,000	0	$ -	0	$ -	2,700	$ 1,400.4
						$ 340,474.0		$ 010,101.2		$ 1,000,700.0

Sources of HIV and AIDS Commodities

UNFPA and GFATM are the main suppliers of condoms. Currently, condom distribution programs are few and limited in their scope and geographical reach. Only the following organizations—PSI, IntraHealth, FHI, International HIV and AIDS Alliance, and the MOH—distribute condoms, primarily as part of VCT, PMTCT, ART, or MCH services. Only PSI and IntraHealth have specific

standalone programs offered in conjunction with other HIV and STI services. PSI promoted condoms through a social marketing strategy; they developed a brand called Number One, which is being promoted through commercial outlets, down to the community level. IntraHealth focuses on the military as the most at-risk group.[17]

[17] "South Sudan Comprehensive Condoms Programming (CCP) Strategy", Pg. 3

Client Utilization and Demand

Utilization and Demand for Contraceptives

Utilization and demand for family planning continues is a continuing struggle because it is not a readily understood concept in South Sudan, with many people hostile to the idea.

The available estimates of modern CPR from the SHSS II 2010 indicate a rate of 1.2 percent (+/- .28) compared to 1.7 percent (+/- .28) from the SHSS in 2006. While this may suggest a decrease in CPR, due to the confidence intervals; statistically, there has been no significant decrease. CPR has probably remained stagnant. The continually low CPR figures are attributable to the prevailing traditions, cultural beliefs, misconceptions, and availability of FP (see table 5).

Table 5: Percentage of Women Age 15–49 Currently Married or in Union Who Are Using (or whose partner is using) a Contraceptive Method, South Sudan 2010

Method	SHHS 2006	SHHS II 2010
Tubal ligation	.64	.1
Vasectomy	.18	0
Injection	.13	.4
Orals	.12	.3
Implant	.05	0
Male condom	.56	.4
Female condom	.05	0
Total Modern	**1.73**	**1.2**
Traditional Methods	**2.47**	**2.8**
Total CPR	**4.2**	**4**

95% Confidence = +/- .28

Source: Government of the Republic of South Sudan. Ministry of Health. 2006 and 2010

The most recent and current information on unmet need in South Sudan comes from the SHSS II. It shows the total unmet need for South Sudan as an average of 26 percent, with high percentages for even the urban population and wealthiest quintiles. The lack of a programmatically significant difference between urban/rural and wealth quintiles underscores the deep distrust or fear of family planning. Usually, one would expect (from global data) that the rural areas and poorer quintiles would have significantly lower use, and a resulting higher unmet need. However, this was not the case in South Sudan.

Table 6: Percentage of Women 15–49 Years Currently Married or in Union With an Unmet Need for Family Planning

	Area		Wealth Index Quintiles					Total
	Urban	Rural	Poorest	Second	Middle	Fourth	Richest	
Unmet need for contraception - For spacing	20.1	18.8	16.1	18.3	18.3	22.2	20.6	**19.1**
Unmet need for contraception - For limiting	8	6.9	6.1	7.7	7	6.9	8.3	**7.2**
Unmet need for contraception - Total	28.2	25.7	22.2	26.1	25.3	29	28.9	**26.3**

Source: Government of the Republic of South Sudan. Ministry of Health. 2010.

The report, *Child Spacing and Family Planning in South Sudan*, published in 2011, describes numerous constraints to increasing the demand of contraceptives, including cultural barriers, political barriers, lack of education, and access (Pillsbury 2011).

Cultural Barriers

Men in South Sudan play a major role in the decision-making process for the frequency of childbirth at the household level; generally, they do not approve of family planning and contraception. Many women and men see family planning negatively for pregnancy prevention or a permanent method of preventing pregnancy. Even if women are interested, they cannot obtain FP services or use contraceptives without permission from their husbands or partners; they are fearful of doing so. In addition, most rural people see having as many children as possible as desirable and think that having many children will increase their chances of survival and success.

Political Barriers

After many years of war, many feel it is necessary to replace the population; FP is seen as an impediment to replacing those who were lost. Because of this and other issues, serious political commitment to support and promote the delivery of family planning services is still lacking.

Lack of Education

Married women and men are not aware of or do not understand the benefits of FP and, therefore, are fearful of using it. In addition, health worker capacity from lack of training on how to counsel and dispense contraceptives, and the severe shortage of contraceptives, also contribute to low demand for FP.

Access, Cost, and Availability Issues

Access to contraceptives throughout South Sudan is very limited, especially for the rural populations. While the cost of contraceptives is usually not an issue, for rural women the cost of traveling to areas where products are available is a major barrier. In addition, product availability is still not reliable, making the trip to the health clinic even less desirable.

Increasing demand for contraception among women in South Sudan is the key issue around increasing the CPR. Opportunities are available for carrying out BCC to increase demand.

Recommendations for action include—

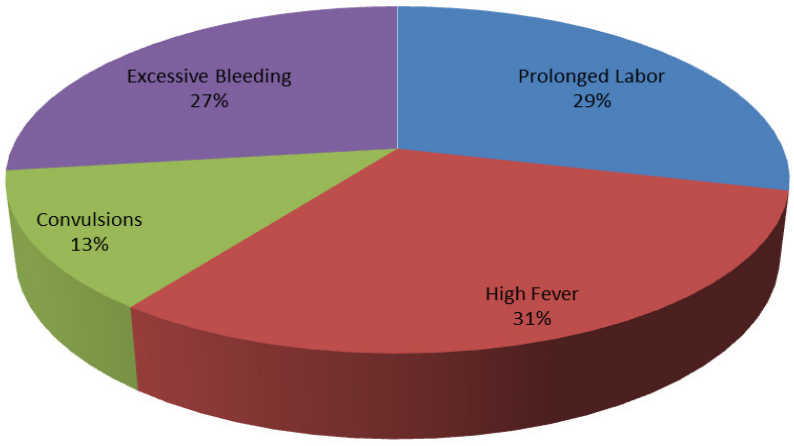
- Target the young, urban, and educated who are more likely to use contraception.
- Promote implants that are already seen, anecdotally, as being very popular and are an effective, safe, long-term method.
- Focus on *child spacing* instead of family planning.

According to the USAID report on child spacing, while most respondents from the assessment viewed family planning negatively, everyone believes that child spacing is good. Child spacing is a longstanding tradition in South Sudan; the practice of abstinence for two years after giving birth is a widespread practice. Most people generally believe that, for the health of the child and mother, children should be breastfeed until at least two years of age. Unfortunately, too many women continue to become pregnant less than one year after giving birth. The report goes on to describe that the unmet need for contraceptives is very high, especially in urban areas. To have more control over spacing the births of their children, many women were interested in using modern methods of contraception, but because the products are unavailable, they cannot do so.

Use of Life-saving Obstetric Drugs

The use of RH essential drugs continues to be very low in South Sudan. Figure 7 shows the high rates of prolonged labor, excessive bleeding, convulsions, and high fever during labor and delivery. It also demonstrates and supports the exceptional need for RH essential drugs, particularly products that can help reduce maternal mortality associated with obstetric care.

Figure 7: Complications during Labor and Delivery—Percentage of Women Ages 15-49 Who Gave Birth in the Previous Two Years



Source: Government of the Republic of South Sudan. Ministry of Health. 2010

According to the SHSS 2010 (see table 2), 81 percent of women in South Sudan give birth at home. By tradition, many women still prefer to give birth at home, plus the conditions at health facilities

and the lack of supplies and qualified health workers discourage women from delivering outside the home. This is exacerbated by the lack of antenatal and postnatal clinics in most hospitals and very few PHCCs and PHCUs with essential RH drugs and skilled attendants to provide basic RH services.

The number of health facilities offering RH services is very low compared to the population that needs these services. Table 7 shows the results of the MOH's 2013 nationwide assessment of EmONC for all states, including a census of all hospitals (teaching, state, and county) and all PHCCs. The census yielded a total of 407 facilities that should have performed deliveries in the previous year. All these facilities were visited for the assessment and it was found that only 231 of the 407 facilities had performed a delivery in the 12 months before the survey. This assessment found that only 12 percent of births in the country were attended by skilled birth attendants and that 4 percent took place in EmONC facilities.

UN guidelines recommend at least five EmONC facilities, including at least one comprehensive facility, for every 500,000 people. Applying these standards to South Sudan's 2012 projected population of 10,864,357, the country should have 109 EmONC facilities: 87basic EmONC facilities, and 22 Comprehensive EmONC facilities. According to the assessment it has 14 Comprehensive EmONC facilities and 10 Basic EmONC facilities. Therefore, there is a deficit of 77 Basic EmONC and 8 Comprehensive EmONC facilities.

Table 7: Distribution of Facilities by EmONC Status by Type of Facility and Location

		Total Number of Facilities	EmONC status*			
			Non-EmONC	Partial	Basic	Compre-hensive
Type of facility	Teaching hospital	3	0	1	0	2
	State hospital	11	2	5	1	3
	County hospital	36	13	13	2	8
	PHCC	181	129	44	7	1
	Totals	231	144	63	10	14
Location	Urban	72	35	23	5	9
	Rural	159	109	40	5	5

*Basic means 7 signal functions performed; comprehensive means 9 signal functions performed; partial means 1 or 2 signal functions not performed (relative to expected performance); non-EmONC means more than 2 signal functions not performed.

Source: Government of the Republic of South Sudan. Ministry of Health. October 2013.

The delivery rooms seen during the assessment were small and poorly equipped; the maternity wards were overcrowded. This is probably representative of the conditions in many other hospitals throughout South Sudan.

The demand for the essential drugs used to treat RH-related problems should increase when health facilities are managed well and are equipped to deliver a package of essential curative and preventive services to the target population. As RH essential drugs become more readily available, including the

provision of quality care at SDPs, the attendance of mothers and children at the facilities should increase and should increase demand for RH services.

Logistics System

Numerous issues and challenges face South Sudan, including the severely poor condition of the infrastructure, lack of funding, lack of trained resources, and unpredictable flooding, all of which contribute to a poorly functioning logistics system in the country. These challenges are not easily solved; it will take years of hard work and focus from the government and donor agencies. To properly manage health commodities, including RH commodities, a full logistics system needs to be designed and implemented in South Sudan. The system must evolve as South Sudan grows, both economically and educationally. The components of the system should include an LMIS, an inventory control system, and a current mapping of available warehousing and storage, transportation, and distribution.

Rainy Season in South Sudan

Before describing the current logistics system situation within South Sudan, it is especially important to understand South's Sudan rainy season to fully appreciate the true complexity of challenges the country faces. Generally, in South Sudan, the rainy season begins in April/May and continues through October. As with any weather pattern, it is not predictable and does not always fall within those dates. Many countries face intense rainy seasons, but few people outside South Sudan understand that the country is made up of the largest swamps in the world, the Sudd. Because of its low-lying topography, any rain means flooding in one part of the country or another. South Sudan constantly faces emergency humanitarian relief efforts because of flooding. According to OCHA, during the rainy season, more than 60 percent of the roads are impassable. Jonglei and Upper Nile states are two of the most inaccessible states—the few roads are flooded for half the year. Large portions of these two states make up the Sudd.[18] This issue alone affects all aspect of logistics, making forecasting and procurement difficult to assess, preventing reliable access of information, , and, of course, making transportation to large areas of the country during certain periods of the year almost impossible.

Forecasting and Procurement

Currently, UNFPA does most of the procurement forecasting and planning for most of the RH and FP products. UNFPA sends out requests for forecasts on the needed quantities of RH and FP commodities for the upcoming year from the major NGOs that pull product from the UNFPA warehouse in Juba. In 2013, UNFPA procured and distributed 20 RH products (see annex 2) for pickup by NGOs—MSI, JPHIEGO, and RHASS—and other UN agencies—UNHCR and UNMISS—and delivered them to 10 states and three teaching hospitals in South Sudan.

In addition, USAID is currently procuring and distributing a limited number of RH commodities through the EMF. To determine commodities and quantities for procurement, SIAPS completed a quantification exercise in 2012.

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[18] IMA World Health, http://www.imaworldhealth.org/health-system-development/suddhealth.html (November 2013)

While the development partners that provide essential drugs are informally coordinated, the forecasting and procurement of drugs and medical supplies is not coordinated; therefore, the total quantity of RH commodities being procured by all sources for South Sudan is not known. In addition, procurement or distribution plans are not coordinated. The content of some drug kits provided to PHCCs and PHCUs overlap; however, because health facilities receive RH commodities from different sources, it is not clear if the overlap is unintentional, or if the overlap is intentional to ensure an adequate amount of supplies.

South Sudan has an EDL and it is being updated for the first time since 2007. The updated EDL was not available for review, but it was noted during the validation workshop that misoprostol would be added to the EDL and ergometrine would be removed.

The procurement of condoms is based only on estimations because the level of supply and demand has not been determined because of the lack of data and other difficulties. Also, the level of condom consumption in South Sudan cannot be accurately determined because the HIV and AIDS Directorate and SSAC have no mechanism to collect and collate data from the different distributors.[19]

Logistics Management Information System

Little to no LMIS is in place, at any level of the supply chain in South Sudan. The Directorate of Pharmaceutical & Medical Supplies of the central MOH in Juba stated that while they agree the ultimate goal of the MOH is to fully integrate the management of pharmaceuticals in the county, they acknowledge that, at this time, the systems in place are not strong enough to take over. Currently, several vertical supply chains are operating, with UNFPA managing the largest RH and FP commodity supply chain.

The public sector health facilities visited during the situation analysis do not have a functioning LMIS. The store managers and health workers interviewed, who manage drugs and medical supplies at the health facilities, have not been trained in logistics for health commodities. They do not maintain stock-keeping records, such as registers and stock cards. Many of the storekeepers have a general idea about stock status, based on their memory of what is currently in stock. Dispensed-to-user data or consumption records are not kept; and, therefore, logistics information on the use of RH commodities at the SDPs is not known.

During the stakeholder workshop, some of the NGOs stated that, in their own managed facilities at the state and county levels, they have their own LMIS, including tools—stock cards, registers, and transaction records—that the NGOs established. The NGO-supported health facilities maintain dispensed-to-user data and keep stock registers to track the use of drugs. This information is reported back to the NGO office at the state level to assist with future forecasting and procurement actions. However, the logistics data on drug use that the NGOs keep are not being shared with the state or central level MOH offices. Some of the NGOs have semi-automated logistics systems using a combination of manual recordkeeping for daily registers, which are then entered into a computerized spreadsheet system.

[19] "South Sudan Comprehensive Condoms Programming (CCP) Strategy", Pg. 3

Comprehensive national data on RH commodities still is not available. Because development partners continue to provide most RH essential drugs and some contraceptives—the same as in 2007—their role in collecting logistics data is vital in assisting the MOH with building the LMIS and starting good data management practices.

Data on actual consumption will be needed to more accurately forecast the needs for RH products. When RH kits are eventually phased out, consumption data will be needed for the state- and central-level to conduct forecasting and quantification of RH products.

In the government-managed facilities visited, the public sector facilities do not regularly report the stock status; these facilities continue to have erratic supplies and frequent stockouts of essential RH drugs and medical supplies.

Warehousing and Storage

The Central Medical Stores in Juba (CMS) operates three warehousing facilities in Juba: the CMS main warehouse, the riverside (Gumbo) warehouse, and the airport warehouse. The MOH owns the first two; the airport facility is rented. According to an assessment completed in December 2012 by the USAID | DELIVER PROJECT, all warehouses in Juba have structural issues, including leaky roofs; all three have weak security and do not have documented SOPs or process flows.

The main CMS in Juba has a large facility for storing vaccines and drugs that require refrigeration. Unfortunately, none of the facilities in most states and county health departments can store large quantities of vaccines. As stated before, South Sudan's infrastructure is in very poor condition, including an essentially non-existent public electric grid. Almost all cold chain must be run from a generator or solar power. On several occasions during field visits to state hospitals and lower-level facilities, power outages and broken generators made the integrity of the cold chain questionable.

The CMS in Juba does not have adequate space for storing drugs, contraceptives, or medical supplies. Most drug kits in the warehouse are stacked on the floor and in the veranda of the medical store and they have expired. The store manager is trying to expedite the delivery of drugs and medical supplies to the states and SDPs to avoid overstocking commodities in the medical store; but, because of major transportation issues, the product is moving slowly.

For more details and information concerning the CMS in Juba, please find *South Sudan: Central Medical Stores Warehouse Assessment* at the below link:

http://deliver.jsi.com/dlvr_content/resources/allpubs/countryreports/SS_CMSWareAsse.pdf

Many of the existing state hospitals do not have adequate space for storing drugs, contraceptives, and medical supplies. Most also lack proper ventilation, file cabinets, furniture, pallets, as well as funds for minor repairs and renovation of the facilities to keep them free from rodents and water during the rainy season. The assessment results show some boxes containing drug kits are stored on the floors for long periods of time, without a pallet. In Malakal, at the state hospital, which was visited, a new warehouse was built; but it did not have the proper storage equipment, such as racks, shelving or pallets to protect the product. Not all RH commodities were stored in the new warehouse; some were stored in another small room, with products stacked to the ceiling. They had a cold room for temperature sensitive product, but the generator was reported as being frequently out of service, making the quality of the product suspicious. Expiries were noted, as well.

To fully service and provide for all of South Sudan, many more warehouses will be needed to forward deploy product during the rainy season. An assessment needs to be done to determine what warehouses are available, their size, and what areas without existing storage space will require it.

Standard operating procedures for warehousing and storage of drugs and medical supplies are not available or used in most government-run warehouses. Each NGO is trying to ensure proper storage and distribution of drugs in their facilities' catchments areas, but government-managed facilities that are not supervised regularly face a number of issues (e.g., leaky roofs, etc.).

UNFPA operates and maintains the largest warehouse of RH and FP commodities. It is located on the grounds of the Juba Teaching Hospital. This warehouse is well maintained and organized. There are two large walk-in refrigerators for cold storage, but because of their dependence on the hospitals' generators, they often do not work.

To avoid product expiration, both the NGOs and the government-managed facilities try to apply the first-to-expire, first-out (FEFO) principle for stock rotation, but how well this is being carried out in the public sector is questionable, because expired drugs were found in the hospital pharmacies and medical stores.

Inventory Control Procedures

The current inventory control system is the allocation (push) system used primarily for drug kits. The pull system is not used because of the lack of training at the receiving institution or facility. Hospitals usually receive an allocation of medical supplies and drugs from the central level. Hospitals receiving drugs from other sources, such as NGOs or cost recovery mechanisms, use either the push and pull system, depending on the program. At the Juba Teaching Hospital, its proximity to the UNFPA warehouse—located on the grounds of the hospital—enables them to use a pull system for RH and FP drugs.

UNFPA uses a manual request card for partner NGOs and the government facilities to fill out when they want product issued to them. They can either submit the request cards at the UNFPA warehouse or via email. NGOs must pickup any product they request. UNFPA provides transportation and distribution for government-requested products.

The government facilities seen during the assessment do not use any formal inventory control system. They do track shipments as they come in. Due to the general lack of skill and education among the workers, most of the government facilities had a few reports of expired drugs and contraceptives in stock. A monthly physical inventory is not done.

In the government-managed facilities that were visited, there were stockouts on the day of the visits; these had been ongoing for several months.

Transport and Distribution

Transportation in South Sudan is one of the largest issues preventing access to RH and FP commodities. As noted by a World Bank report written in September 2011, *South Sudan's*

Infrastructure: A Continental Perspective,[20] on average, approximately 60 percent of South Sudanese firms rated transport as a major-to-severe obstacle to doing business. All roads in South Sudan are rated poor or lower. There are very few paved roads, and little to no maintenance.

The central government is coordinating the transport of commodities from the CMS in Juba to the state and county health departments. As noted by CMS during a visit, the team learned transportation coordination is not managed well. CMS does not have a budget or the authority to coordinate truck pickups and deliveries out to the state and country health departments. At the time, they indicated transportation was largely stopped.

UNFPA will deliver commodities from their warehouse to the state level on behalf of the government. Usually, however, the NGOs drive to Juba and pickup product to bring back to their respective counties.

Currently, the state government is responsible for transporting commodities from the state- to county-levels and then on to SDPs; but, generally, the NGOs are taking over and managing the distribution process. Almost all transportation from the state- to county-level and then on to the SDPs is done by using a 4×4 (Landcruiser type) vehicle because of the poor road conditions. Very few government vehicles are currently available at the central- and state-level for transporting commodities to SDPs. The mechanism of transport between the states and SDPs still pose serious problems because of the lack of reliable transportation in some areas of the country.

The CMS indicated they would like to contract out transport services when shipments of drugs and contraceptives arrive in Juba because of the lack of availability and consistency of the government-run transportation. This would help avoid an overstock of commodities at the CMS for a long period of time, when drugs and medical supplies are needed at the SDPs. They also indicated they have not succeeded, thus far, in doing this.

[20] R. Ranganathan and C. Briceno-Garmendia, "South Sudan's Infrastructure: A Continental Perspective", (Sept 2011), World Bank.

Next Steps: Immediate Recommendations

The initial findings of the situation analysis were shared in a one-day workshop, with the objective of validating the results and recommendations with members from the RHCF. During the same meeting, the participants proposed recommendations and suggestions for the RHCS strategic plan.

Findings from the consultancy team were presented to workshop participants—see the attached PowerPoint presentation in annex 3. As issues were presented, the presentation was paused to allow for *validation*, meaning the team correctly assessed the situation. Then, certain decision points were open for discussion and the group agreed on the points. Discussions were very active, and resulted in a series of important decisions.

The following decisions represent the desire of the group to address to overarching RH issues in South Sudan—the limited availability of emergency obstetric drugs and the very low use of modern contraception.

The consensus decisions made by the group are as follow:

- **Establish a technical working group (TWG) to monitor reproductive health commodity security:** These working groups are usually very active and successful in other countries. It was decided that the TWG would be a sub-committee of the existing Reproductive Health Collaboration Forum to simplify arrangements for regular (quarterly) meetings. Some recommendations were to have this work done by the Pharmaceutical Technical Working Group, Pharmaceuticals & Medical Supplies Directorate. However, because of the RH focus, it was decided that the TWG would be separate, but would share their minutes with the Pharmaceuticals & Medical Supplies Directorate. UNFPA would be the secretariat for this group, but the DG for Reproductive Health would chair the meetings. Among the terms of reference for this group would be—
  - Develop and approve annual quantifications for reproductive health commodities.
  - Review supply status in-country, including consumption, stock on hand, and expected shipments.
  - Be a forum for discussing proposed purchases and donations of RH commodities.
  - Be a forum for discussing of distribution problems and supply chain needs.
  - Eventually, similar committees could be set up at state level—in keeping with South Sudan's desire to decentralize management of the health system.
- **Develop a national rollout of use of misoprostol to prevent post-partum hemorrhage.** South Sudan has the highest ratio of maternal mortality in the world. One in 50 deliveries results in the death of the mother. A major reason for this is that only about 11 percent of women in

South Sudan deliver in health facilities; and they are attended by non-registered birth attendants with very limited training and skills. Oxytocin is the drug of choice for preventing the leading cause of maternal death—PPH. However, oxytocin requires cool storage, can only be administered through injection, and in South Sudan only registered midwives and higher-level personnel can administer it. Misoprostol, on the other hand, is in tablet form, does not require cool storage, and can be administered with limited training—a practice supported by WHO. It is also almost as effective in preventing and treating PPH. JPHIEGO, which provides assistance in two USAID-supported states, carried out a pilot that trained village birth attendants to counsel families of the pregnant woman, and to leave misoprostol with the woman in her eighth month of pregnancy, with careful instructions for self-administration after delivery. The pilot was very successful, resulted in zero maternal deaths among about 750 deliveries, and participants reported 100 percent satisfaction with the drug. The validation group made a decision for rapid roll out.

- **Institute a BCC campaign focusing on women and men to increase acceptance of contraception.** South Sudan probably has the lowest use of contraception of any country in the world—contributing to the high levels of maternal and infant mortality. Total modern CPR is only about 1.5 percent, compared to higher rates in neighboring countries—5.8 percent in the DRC, 27.3 percent in Ethiopia, and 39.4 percent in Kenya. A Knowledge, Aptitude and Practice (KAP) survey on child spacing and family planning carried out in 2011 showed a deep distrust and resistance toward family planning. It was considered *bad* or even illegal. Contraceptives were considered dangerous and not very effective. In addition, because of the loss of up to two million people in the long civil war, many politicians are actively pro-natalist and anti-family planning. Therefore, it was agreed that efforts need to be made to destigmatize family planning; focus on child spacing; and aim the campaign toward the young, urban, and more educated population, who are more likely to accept the use of contraception.

- **Focus immediate family planning expansion on state capitals and other larger cities.** Obviously, the reproductive health program for South Sudan needs to view *all* families as their target population. However, the 2011 KAP survey showed that younger, more educated urban women are more positive about contraception. The reproductive health program should focus on getting services to these potential users, while building capacity in state capital hospitals and large hospitals in other larger cities to be training centers for lower-level practitioners.

- **Strengthen the community health system to reach rural communities:** This is a second, longer-term approach to providing reproductive health services to the population. So much of the population is rural, and the transportation infrastructure is so bad in South Sudan, that rural women have very little access to services available in the cities. There is a strong need to empower village midwives and community health workers (CHWs) to provide basic preventive services.

- **Maintain delivery of reproductive health commodities through the existing vertical system managed by UNFPA:** While the eventual goal is to develop an integrated supply chain system throughout the country, managed by the MOH, for the short- and intermediate-term, reproductive health commodities should continue to be managed and distributed by the functioning UNFPA supply chain.

- **Focus on providing contraceptives that are in demand:** Injectable (Depo-Provera) contraceptives continue to be popular; significant anecdotal information indicates that implants are popular—as they are in other African countries. Emphasis should be placed on ensuring the

availability of these commodities, while maintaining availability of other methods—combined orals, progestin-only orals, IUDs, emergency contraception, and both male and female condoms—within the system, as well, particularly at hospitals.

Long-Term Recommendations

During the mission in 2007 that developed the original draft RHCS situation analysis, a workshop was held where participants developed recommendations. As contrasted with the 2013 activity, these recommendations tended to be more global and long term. However, many of the recommendations are still valid.

Financing

- Establish routine monitoring of RH funding to ensure the MOH and other stakeholders have a better understanding of the RH and the RHCS funding situation. Toward this end, it would be useful to collect routine information on—
  - Commitments from NGOs as they enter into contracts with the MOH. This will be an opportunity to determine their plans and commitments for RH and provision of RH commodities and the associated financial cost.
  - Commitments from UNFPA, UNICEF, USAID, and others for their short- and long-term RH commodity commitments and the cost to provide them.
- Advocate for RH. The MOH should advocate to the GoSS to incrementally increase the annual budget for the health sector and to earmark a portion of funds for RH commodities. The MOH, with its development partners should demonstrate to the GoSS the impact of not fully funding RH commodities and the implications for reaching the MDGs and other global targets. The MOH could use the recent SHHS data to create advocacy presentations aimed at policymakers and to sensitize other government leaders about the important role RH plays in improving health and reducing maternal mortality in South Sudan.

Demand Creation/Services

Train and regularly supervise (quarterly) health workers to ensure the delivery of quality RH services.

- Equip health facilities so they can deliver a wider range of RH services, including screening and delivery of services for HIV and AIDS and other STIs.
- Ensure all service delivery guidelines and standard treatment guidelines include the proper use and delivery of RH commodities.
- Establish a national IEC/BCC strategy to ensure messages are harmonized and standardized to support the delivery of RH services—the MOH working with donor organizations and NGOs will create the messages. Messages would include child spacing, men as decisionmakers in the family, and the importance of antenatal care and presenting early during delivery.
- Encourage CHWs and the village health committees to support the dissemination of information for FP services.

- Train health workers in counseling and provision of appropriate FP services at PHCC and PHCU levels.
- To increase the demand and utilization of contraceptives, expand counseling in FP to include men, women, and the adolescent populations.
- To ensure the delivery of quality RH services, disseminate (by the MOH) the maternal and reproductive health policy, strategies, and standard treatment guidelines to all the health facilities in the states and counties.
- To increase demand and create awareness and acceptance of family planning, ensure that future supervision efforts among NGO and MOH facilities include monitoring of health workers' knowledge, counseling skills, and the delivery of RH services.
- To deliver quality RH services, equip health facilities (hospitals, and PHCCs) with the required medical supplies and equipment.
- Involve political and traditional leaders in promoting FP services, with an emphasis on the benefits of child spacing through FP.

Logistics

- Revise the draft EDL to reflect South Sudan's needs for an expanded EDL that includes all priority RH commodities. In 2013, it was reported that a yet-to-be approved EDL would fulfill this recommendation.
- Train health workers in logistics for RH commodities so they can better manage their resources and avoid serious stockouts of priority RH commodities.
- Develop a plan to develop central warehousing for pharmaceuticals that will lend themselves to modern warehouse management practices.
- To fully service and provide for all of South Sudan, many more warehouses will be needed to forward deploy product during the rainy season. An assessment needs to be done to determine what warehouses are available, their size, and what areas currently without existing storage space may require it.
- Move to develop a modern LMIS system.

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Annex 1: Principle Contacts

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Director General	MoH	Director General of Pharmaceuticals, Upper Nile State
Director General	MoH	Director General of Reproductive Health, Upper Nile State
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Dr. Muhrgeta	IGAD	Consultant

Annex 2: 2013 GPRHCS Commodities Procured and Distributed, UNFPA SOUTH SUDAN

CONTRACEPTIVES
Condoms, Male
Depo-Provera without syringes
Implanon
Microgynon cycles/ Microlut
Jadelle implants
HIV PREVENTION
HIV 1 + 2 lateral flow quicktest
CRITICAL MEDICINES
Ampicillin 1g injectable vial
Ampicillin 500mg injectable vial
Benzathine penicillin 900mg vial
Misopristol tabs
Benzathine penicillin G 2.4 M.I.U. (1.44g) vial
Ergometrine maleate 0.2mg/ml, 1ml ampoule
Gentamycin sulphate 10mg/ml, 2ml ampoule
Hydralazine hydrochloride 20mg/ml, 1ml
Hydralazine hydrochloride 50mg
Magnesium sulphate 500mg/ml (50%), 10ml ampoule
Oxytocin 10 I.U./ml, 1ml ampoule
Sodium chloride (Ringer's lactate) intravenous infusion, 1000ml bottle
Sodium chloride (Ringer's lactate) intravenous infusion, 500ml bottle
Sodium chloride 0.9% intravenous infusion, 1000ml bottle

Annex 3: PowerPoint Presentation

Reproductive Health Commodity Security Situation Analysis Update South Sudan

November 2013



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UNFPA

RH COMMODITY SECURITY SITUATION ANALYSIS METHODOLOGY

Interviews

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Dr. Richard	DG Planning & Budgets
Dr. Baba	DG Primary Health Care
Dr. Alexander Dimiti	DG Reproductive Health
Dr. Hilary Okanyi	DG State MoH Central Equitoral State
DG	DG Pharmaceuticals, Upper Nile State
DG	DG of Reproductive Health, Upper Nile State
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Veronica Bradford	Marie Stopes International
Program Manager	Marie Stopes International
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Amara Bedada	Reproductive Health Association, SS (RHASS)
Barnabas Yisa	UNFPA
Martha Bugnosen Cayad-an	UNICEF
Laura Campbell	USAID
Dr. Basilica Modi	USAID
Margaret D'Adamo	USAID
Victoria Graham	USAID
Trish	USAID
Ann Bakilana	World Bank
Dr. Suzie Francis Paul	World Health Organization

Sites Visited

Site	Location
Nyakururon PHCC	Juba, Central Equatoria
Lologo PHCC	Juba, Central Equatoria
Juba Teaching Hospital	Juba, Central Equatoria
UNFPA Warehouse	Juba Teaching Hospital, Juba, Central Equatoria
Central Medical Stores	Juba, Central Equatoria
Malakal PHCC	Malakal, Upper Nile
Malakal Hospital	Malakal, Upper Nile

Documents

Document Name	Date Published	Author
Southern Sudan Essential Medical List	2007	GoSS MoH
South Sudan Development Plan 2011 - 2013	August 2011	GoSS MoH
Basic Package of Health and Nutrition Services for Southern Sudan	January 2009	GoSS MoH
National Reproductive Health Strategic Plan 2011-2015	June 2011	GoSS MoH
Health Sector Development Plan 2011 - 2015	March 2011	GoSS MoH
National Reproductive Health Policy	November 2012	GoSS MoH
National Family Planning Policy	November 2012	GoSS MoH
DRAFT Reproductive Health Commodity Security Situation Analysis in Southern Sudan	July 2007	MoH, UNFPA, JSI
Pharmaceutical Logistics Assessment in South Sudan	October 2011	USAID
Health Care Financing in South Sudan	January 2012	Oxford Policy Management
South Sudan's Infrastructure: A Continental Perspective	September 2011	World Bank
Child Spacing and Family Planning KAP Survey	2011	USAID



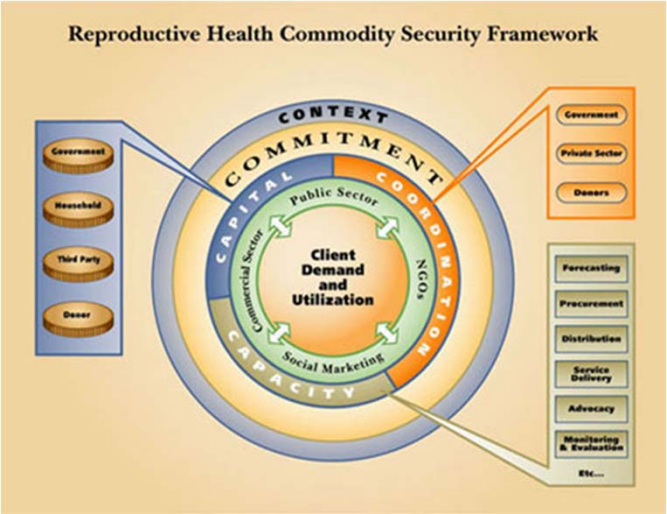
REPRODUCTIVE HEALTH COMMODITY SECURITY FRAMEWORK

Our Motto

NO PRODUCT,
NO PROGRAM

USAID FROM THE AMERICAN PEOPLE | DELIVER PROJECT

RH Commodity Security Framework



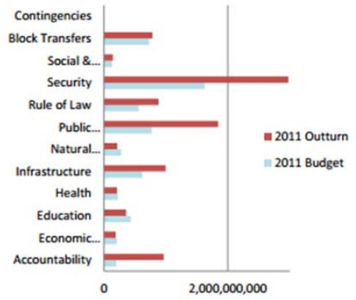
Context: You know it better than we do!

- "Creating a country from scratch"
- A devastating war for independence
- A battered and inadequate infrastructure
- A scattered, uneducated population
- Continuing security threats
- Few trained health workers
- Six months of floods – every year
- Many competing needs for a limited budget

Commitment: South Sudan Health Budget

Year	Ministry of Health Budget (SDG)	Ministry of Health Outturn (SDG)	Ministry of Health %	Government of RSS Budget (SDG)	Government of RSS Outturn (SDG)	Government of RSS %	Health budget as % of total budget	Govt. Health Budget per capita (US$)
2008	140,000,000	109,896,475	78%	5,506,330,718	5,712,662,066	104%	2.5%	6.40
2009	170,000,000	93,457,737	55%	3,606,312,239	4,012,011,070	111%	4.7%	7.54
2010	208,260,000	132,943,922	64%	5,629,539,871	4,113,520,984	73%	3.7%	8.97
2011	216,260,000	-		5,718,507,687			3.8%	9.04

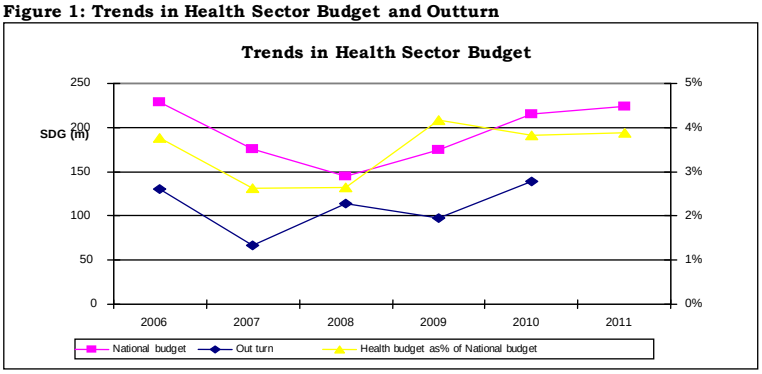
Oxford Policy Management, Health Care Financing in South Sudan



World Bank, South Sudan Economic Brief

Commitment: South Sudan Health Budget

Figure 1: Trends in Health Sector Budget and Outturn



"The Government's allocation to health as a proportion of the national budget has been under 4% over the last five fiscal years, far short of the 15% target pledged by African governments under the Abuja declaration."

GOSS HSDP January 2012

Commitment:
Donor support of States

USAID	Health Pooled Fund	World Bank	UN
States: 1. C. Equatoria 2. W. Equatoria	**States:** 1. E. Equatoria 2. Unity 3. Warrap 4. Lakes 5. N. Bar el Ghazal 6. W. Bar el Ghazal	**States:** 1. Upper Nile 2. Jonglei	**States:** ALL
Implementer: JPHIEGO	**Implementer:** Health Pooled Fund	**Implementer:** IMA	**Implementer:** State MoH. NGOs
Major NGOs:* Abt Associates, ADRA, AAH-I, IntraHealth	**Major NGO's:*** Merlin, AAA, DKH, HealthNet, CARE, IRC, MSF, SSRC	**Major NGOs:*** CARE, GOAL, CMA IMC, COSV	

*only represents a few top NGO's, see NGO Matrix File for full list:



NGO Matrix 2013

Coordination:
RHCS needs a coordinating body

- Terms of Reference:
  - Annual review of forecasts
  - Forum for commitment to purchase commodities
  - Quarterly meetings to:
    - Review supply status in country, including consumption, stock-on-hand, and expected shipments
    - Forum for discussion of unexpected needs, commodities for special campaigns
    - Forum for discussion of distribution problems and supply chain needs

Time for validation

- Are we on-track?
- Any comments or additional information?

Strategic Decisions

- Should a group be set up to monitor reproductive health commodities?
- Would it be simpler for this group to be a sub-committee of the Reproductive Health Coordination Forum (RHCF) or Family Planning Technical Working Group or a stand alone?
- Who could function as the secretariat of this group?

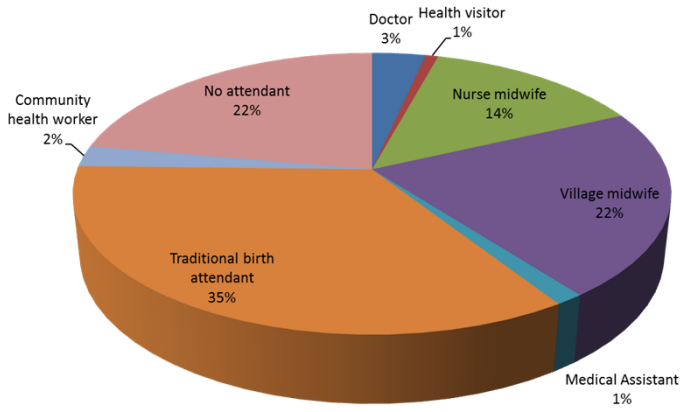
MATERNAL HEALTH AND LIFE SAVING OBSTETRIC DRUGS

Maternal Health Statistics: MMR

- 2006 SHHS reported a maternal mortality ratio of 2,054/100,000
- Methodology was disputed and 2010 SHHS II did not include MMR in the survey
- However we have no concrete data as to whether it has changed

Assistance During Delivery

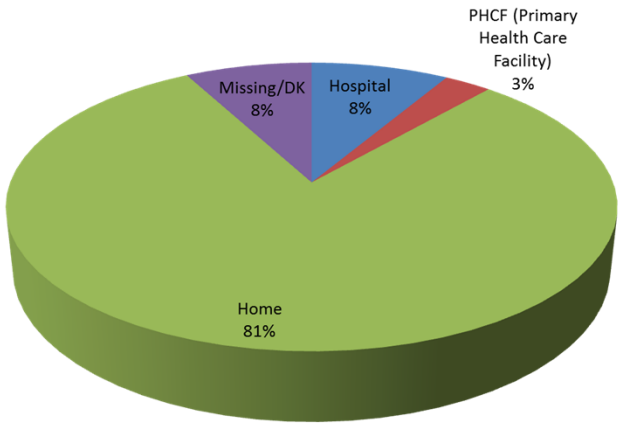
Percentage of women ages 15-49 who gave birth in the two years preceding the survey by person assisting at delivery



SHHS II 2010

Place of Delivery

Percentage of women ages 15-49 who gave birth in the two years preceding the survey by person assisting at delivery by place of delivery



SHHS II 2010

Complications During Labor and Delivery

Percentage of women ages 15-49 who gave birth in the previous two years

State	Prolonged labor	High fever	Convulsions	Excessive bleeding
Jonglei	34.2	39.8	11.5	24
Upper Nile	28.1	38.5	8.5	27.8
Unity	52.3	60.6	32	56.8
Warab	39.7	43.5	25	32.2
NBG	42.5	63.4	27.1	54.5
WBG	57.9	50.6	21.2	42.7
Lakes	70.8	69.1	39.1	63.5
W. Equatoria	51.4	52.2	12.4	58.6
C. Equatoria	38.7	32	11.8	36.2
E. Equatoria	34.6	37.7	13	25.3
Southern Sudan	**45.02**	**48.74**	**20.16**	**42.16**

Source: SHHS, 2006

Stopping Post-Partum Hemorrhage

- Oxytocin



About Oxytocin

- Found in the system down to PHCC level
- Cold-chain necessary – not always working, not always followed, not always accessible
- We saw oxytocin stored at room temperature (a large volume)
- Requires an injection
- Use permitted down to certified midwife level

About Ergometrine

- Has been in the system
- Not found in visits
- Unstable – short shelf life
- Usable only by well-trained, higher-level health worker
- Dangerous side effect – can induce hypertension

Stopping PPH

- Misoprostol



About Misoprostol

- Shelf-stable in tropical conditions
- Long shelf-life (at least 36 months)
- Oral, not injection
- Inexpensive
- WHO supports administration by low-level health workers with limited training
- SS has experience placing this product in the possession of pregnant women (2 counties)

It's time for validation

- Do you agree?
- Additonal comments?

Strategic Decisions

- Do we need to focus on formalizing and strengthening the community health system to reach rural families?

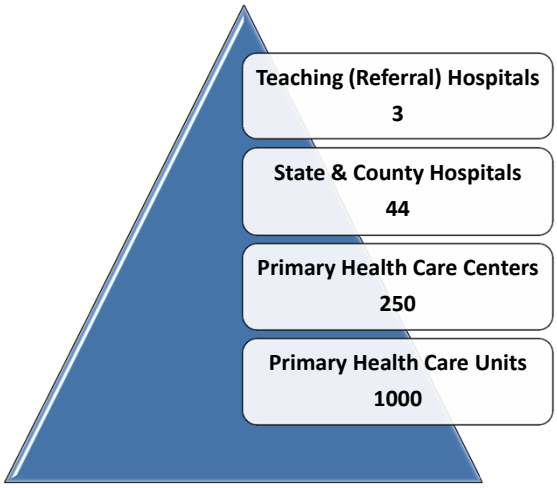
Strategic Decisions

- Approach 1:
  - Continue with the roll-out of the MoH/JHPIEGO pilot of distributing Misoprostol directly to mothers. (what would the pace be like?)
- Approach 2:
  - Distribute and endorse Misoprostol as the drug of choice at all hospitals and PHCCs for prevention and treatment of PPH? (would MoH support?)

Strategic Decisions

- Should both of these approaches be used to have major impact on maternal morbidity and mortality?
- Is the donor community, and its contracted NGOs ready to supply Misoprostol, and more importantly, to develop and support training in its use?
- Should certain States be targeted for rollout?
  - How would you choose them?

Health Facilities



FAMILY PLANNING

Contraception Prevalence Rate (CPR) in South Sudan

METHOD	SHHS 2006	SHHS II 2010
Tubal Ligation	0.64	0.1
Vasectomy	0.18	0
Injection	0.13	0.4
Orals	0.12	0.3
Implant	0.05	0
Male condoms	0.56	0.4
Female condoms	0.05	0
Total Modern	**1.73**	**1.2**
Traditional Methods	2.47	2.8
TOTAL CPR	**4.2**	**4**
95% Confidence = +/- 0.28		

Did CPR really decrease?

All surveys have a confidence interval:

In 2006: 1.73 +/- 0.28 ≈ 1.45 – 2.01

In 2010: 1.20 +/- 0.28 ≈ 0.92 – 1.48

- Statistically speaking there was no "significant decrease"
- CPR could be said to be "stagnant"

Other countries' CPR

Country	Modern CPR	Year
South Sudan	1.5	Average 2006-2010
Central African Republic	3.2	1995
D. R. Congo	5.8	2007
Ethiopia	27.3	2011
Kenya	39.4	2009

Published CPR Targets for 2015

Publication	National Reproductive Health Strategic Plan 2011-2015	Health Sector Development (HSDP) Plan 2012-2016	National Reproductive Health Policy
Date Published	June 2011	January 2012	November 2012
CPR Target	**7%**	**20%**	**7%**

A note on "unmet need"

- Unmet need in South Sudan is 26%.
- Unmet need is not demand

- Unmet need = Sexually active, fecund women in union who either do not want to get pregnant now, or ever again, but are not using an effective contraceptive.
- In SS, unmet need is high even among the wealthiest quintile

Demand is a key issue in increasing CPR

- Child-spacing and FP in SS, KAP survey (2011)
  - "Family Planning" is thought to be "bad", even maybe illegal
  - Men are more negative
  - Women users hide use from husbands
  - "Child spacing" is a better term to use in Behavioral Change & Communication (BCC) than "family planning"

Opportunities

- Young, urban and educated more likely to use
- There is significant ignorance and misinformation among potential users – ready for a BCC intervention
- Implants are seen as being very popular – an effective, safe and long-term method

Time for validation

- Do you agree?
- Additional comments?

Strategy Decisions

- Do we need to focus on formalizing and strengthening the community health system to reach rural families?
- Do we need to do more BCC focused on women and men to increase acceptance of contraception?

Strategy Decisions:

- Is there an immediate need to focus on developing a higher level of competence at the state capital level, for eventually improved training for community health workers?
- While the FP policy envisions widespread availability of all methods, should we first focus training and distribution of methods women now want: implants, injectables , pills?

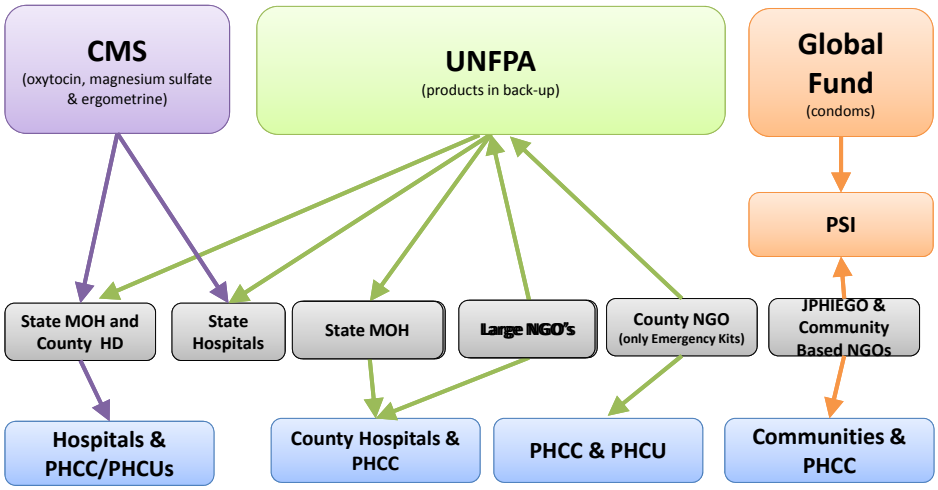
SUPPLY CHAIN

Supply Chain: Current Situation

System Design:

- Vertical Programs
  - Separate procurement, transportation, storage and distribution (even within RH & FP programs)
- Push System
- No LMIS: very little data collection
  - General lack of resources

Current RH Commodity Flow



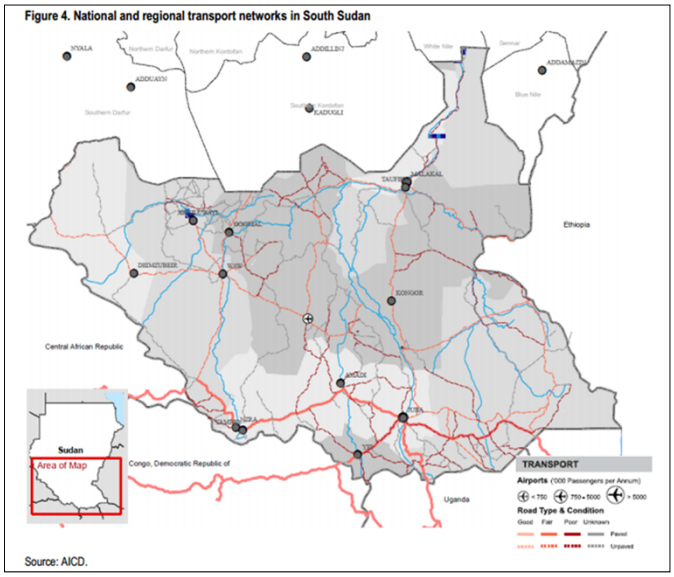
Supply Chain: Current Situation

Storage & Distribution

- Warehousing constraints nationwide
- Severe lack of public infrastructure
  - One of the least developed road systems in Africa
  - No stable public electric grid
    - Important for cold chain



Transportation



On average, around 60 percent of South Sudanese firms rated transport as a major-to-severe obstacle to doing business. – WB

Shading shows population density. Some of the hardest to get to areas are some of the most densely populated.

Supply Chain: Current Situation

Rainy Season (April/May to September/October)

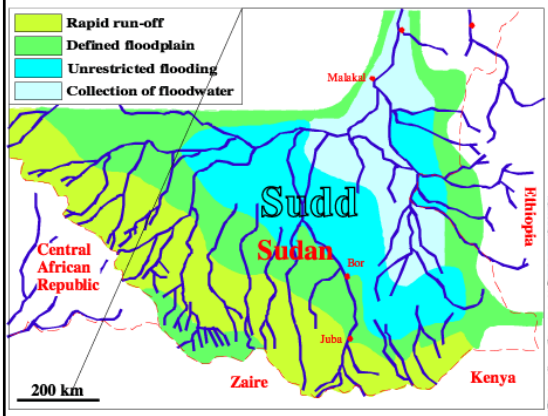
- During the rainy season in South Sudan, over 60 per cent of roads become impassable. - OCHA
- Jonglei and Upper Nile States are 2 of the most inaccessible states, as the few roads that exist are flooded for half the year. Large portions of these two states make up the largest swamp in the world, the Sudd. - IMA



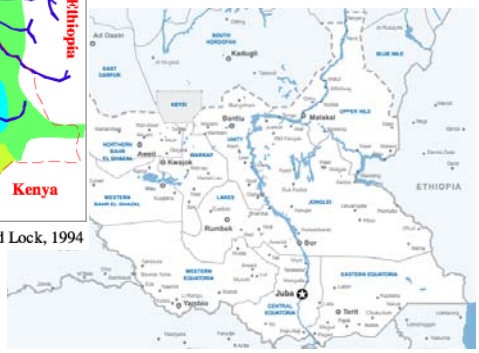
Truck drivers and passengers remain stranded in a flooded section of a road while driving from the Ugandan border into South Sudan at Nimule August 27, 2013. (Reuters/Andreea Campeanu)

SudanTribune August 30 2013

Rainy Season in South Sudan: The Sudd



Powell and Lock, 1994



The Sudd is the largest swamp in the world.

Time for validation

- Do you agree?
- Additional comments?

Strategy Decisions

- Is it ok to continue with the vertical system?
  - Should UNFPA continue to manage contraceptives and the 3 life-saving maternal drugs?
  - Should there be more coordination between UNFPA, lead implementers and NGOs in the counties? (HPF idea)
  - Should an RH Supply Chain Assessment and Design process be carried out (USAID Strategy Team)

Strategy Decisions

- Is it ok to suggest gradual implementation of a "pull" system?
  - Start off at 3 Teaching Hospitals?

BACK-UP

2013 GPRHCS Commodity Procured and Distributed, UNFPA SOUTH SUDAN2013 GPRHCS Commodity Procured and Distributed, UNFPA SS

CONTRACEPTIVES
Condoms, Male
Depo-Provera without syringes
Implanon
Microgynon cycles/ Microlut
Jadelle implants
HIV PREVENTION
HIV 1 + 2 lateral flow quicktest
CRITICAL MEDICINES
Ampicillin 1g injectable vial
Ampicillin 500mg injectable vial
Benzathine penicillin 900mg vial
Misopristol tabs
Benzathine penicillin G 2.4 M.I.U. (1.44g) vial
Ergometrine maleate 0.2mg/ml, 1ml ampoule
Gentamycin sulphate 10mg/ml, 2ml ampoule
Hydralazine hydrochloride 20mg/ml, 1ml
Hydralazine hydrochloride 50mg
Magnesium sulphate 500mg/ml (50%), 10ml ampoule
Oxytocin 10 I.U./ml, 1ml ampoule
Sodium chloride (Ringer's lactate) intravenous infusion, 1000ml bottle
Sodium chloride (Ringer's lactate) intravenous infusion, 500ml bottle
Sodium chloride 0.9% intravenous infusion, 1000ml bottle

Annex 4: RH Products on South Sudan Essential Drug List

Family Planning		Obstetrics and Neonatal Care (ONC)		HIV/AIDS/STIs	
Contraceptives	**Medical supplies & equipment**	**Medicines**	**Medical supplies & equipment**	**Medicines**	**Medical equipment & supplies**
- Condom male & female type - Lofemenal or Microgynon - Ovrette - Depo-Provera - Norplant - IUD	- IUD Insertion & extraction Kit - Norplant insertion kit	- Ferrous Sulfate/Folic acid - Magnesium Sulfate Inj. - Ergometrine - Oxytocin - Coartem 20/120 tablets - Amoxicillin capsules - Erythromycin 250mg tablets - Azythromycin 500mg tablets - Benzathine Benzyl Penicillin - Sulphadoxine Pyrimetamine - ORS - Vitamin A - Diazepam Inj. - Atropine 0,25 - Cefixime - Bupivacaine - Ketamine	- AMIU Syringes - Ventouses - Naso gastric tube - Mask - Gloves - C-Section Kit - Delivery Kit - IV sets - Transfusion sets	- Clotrimazole - Metronidazole - Ciprofloxacine - Cotrimoxazole - ARVs (i.e. Nevirapine)	- HIV Test Kits

(Source: the Essential Drugs List 2007)

Annex 5: RHCS Workshop Participant List

RHSCS Validation Workshop November 8th, 2013: List of Attendees

No.	Name	Organization	Tel	Email
1	Sunday Imunu	MoH	0912275204	iherelomoro@yahoo.co.uk
2	Odol Ocay	MoH	0956473339	odolocay@yahoo.co.uk
3	Basilica Modi	USAID	0912117878	bmodi@usaid.gov
4	Albert Nettey	MSH - SIAPS	0955282413	anettey@msh.org
5	Susan Grace Daku	Marie Stopes	0957124167	susan.grace@mariestopes-ss.net
6	Elisabeth Karlema	Swedish Embassy	0921240122	elisabeth.karlema@sida.se
7	Janet Michael	MoH	0956022817	janetmichael50@yahoo.co.uk
8	Solomon Abebe	MCHIP	0956541305	solomonabebe@jhpiego.org
9	Michael Tekie	UNFPA	0954371978	tekie@unfpa.org
10	Samson Paul Baba	MoH-RSS	0955169303	samson_baba@yahoo.co.uk
11	Alexander Dimiti	MoH	0955449984	alexander.dimiti@gmail.com
12	Jayne Waweru	USAID Deliver	0954622805	jaynewaweru@jsi.com
13	Leslie Tinney	Canada		cida.juba3@gmail.com
14	Kong James Tiong	MoH - RSS	095592872	kjames202@yahoo.co.uk
15	Kondvau Mwagulube	UNFPA	0955347397	mwangulube@unfpa.org
16	Catherine McKaig	MCHIP	0956820631	cat.mckaig@jhpiego.org
17	Tony Hudgins	USAID Deliver		tony_hudgins@gmail.com
18	Julia Bem	USAID Deliver		jbem@jsi.com

Annex 6: Facilities Visited

Name of Facility	Location
MOH Central Medical Stores	Juba
UNFPA Medical Stores	Juba Teaching Hospital Complex, Juba
Juba Teaching Hospital	Juba
Dissa PHCC	Juba
Lologo PHCC	Lologo (Juba)
Malakal Teaching Hospital	Malakal, Upper Nile Region
Malakal Pharmaceutical Warehouse	Malakal, Upper Nile Region
Luakat PHCC	Malakal, Upper Nile Region

For more information, please visit deliver.jsi.com.





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