

Knowledge Synthesis Report

Southern Sudan



University of Juba



malaria consortium
disease control, better health



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List of Abbreviations

AIDS	Acquired Immuno Deficiency Syndrome
AMREF	African Medical and Research Foundation
ANC	Antenatal Care
BPHS	Basic Package for Health and Nutrition Services
CHD	County Health Department
CHW	Community Health Worker
CPA	Comprehensive Peace Agreement
DG	Director General
GOS	Government of Sudan
GoSS	Government of Southern Sudan
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICSS	Interim Constitution of Southern Sudan
INC	Interim National Constitution
INGO	International Non Governmental Organisation
JAM	Joint Assessment Mission

JoSS	Judiciary of Southern Sudan
LATH	Liverpool Associates in Tropical Health
LRA	Lord's Resistance Army
MDTF	Multi Donor Trust Fund
MCH	Maternal Child Health
MCHW	Maternal Community Health Worker
M&E	Monitoring and Evaluation
MMR	Maternal Mortality Ratio
MoH – GoSS	Ministry of Health – Government of Southern Sudan
NCP	National Congress Party
PHCC	Primary Health Care Centre
PHCU	Primary health Care Unit
PIT	Personal Income Tax
SHHS	Sudan Household Health Survey
SPLM	Sudan Peoples Liberation Movement
SMoH	State Ministry of Health
TB	Tuberculosis
TBA	Trained Birth Attendant
UN	United Nations
UNDP	United Nations Development Programme
WHO	World Health Organisation

1. Introduction

Southern Sudan is a nation emerging from more than two decades of conflict and as such health research has not been a priority. The amount of published literature before the conflict is minimal and would have covered Sudan as a whole rather than focusing specifically on Southern Sudan. Since the signing of the Comprehensive Agreement (CPA) in 2005 there has been a huge influx of International Non Governmental Organisations (INGOs) into Southern Sudan, many of which have a focus on health. The Southern Sudan Ministry of Health has also firmly established itself over the past few years, and many systems and policies have now been put in place. As a result the procedure for carrying out health research is now more established. However given the short time period, published literature still remains sparse with most information coming from internal organizational reports.

In order to identify “knowledge gaps” in health research on governance, human resources, and access/equity, a number of key stakeholders working in the Southern Sudan health sector were identified and interviewed. These people were chosen based on purposive sampling because of their different roles and involvement in the health sector. They ranged from those involved at Ministry level, INGO level and donor level.

An extensive literature review was also carried out in order to obtain any published research which focused on these three areas of interest in Southern Sudan. All available policy documents and reports applicable to the areas of governance, human resources, access and equity were also reviewed and analysed.

A message was also placed on the NGO Health Forum requesting submission of all research reports from organisations. The NGO Health Forum is a Google group which allows for information sharing between all the Health NGOs working in Southern Sudan and the

Ministry of Health. This forum now has over 1,000 members so is a very effective way of gathering information.

All the information gathered from these sources was compiled and used to complete this knowledge assessment report.

2. Country Background

2.1 Historical Background

Sudan is a nation long afflicted by conflict. The most recent 23-year long civil war resulted in large-scale destruction, especially in the South. This has left little physical and institutional infrastructure. In many war-affected areas, communities are beginning to restore education services by constructing basic schools, and the international community has started rebuilding the health care system. The low skills level severely constrains access to and improvement of education, health care, water and sanitation services for Sudanese in isolated communities. The cessation of hostilities due to the signing of the Comprehensive Peace Agreement (CPA) has given the population off Southern Sudan a taste for a new life. This agreement was signed on the 9th January 2005 by the Government of Sudan (GOS) and the Sudan People's Liberation Movement (SPLM). Expectations are high following the peace agreement, and large-scale movements of people returning to their home communities have already been seen. In January 2011, six years after the signing of the CPA, Southern Sudanese will vote to remain part of Sudan or to form their own country.

2.2 Geography

Sudan is located at the heart of the Horn of Africa and borders nine countries. Sudan is the largest country in Africa, covering 250 million hectares. Southern Sudan's approximately 650,000 square kilometres – slightly smaller than France – are mostly tropical savannah and during the rainy season flooding is common in many areas. Southern Sudan borders Ethiopia to the east, Kenya, Uganda, and the Democratic

Republic of the Congo to the south, and the Central African Republic to the west. To the north lies the predominantly Arab and Muslim region directly under the control of the central government, with its capital at Khartoum.

Southern Sudan consists of the ten states which formerly composed the provinces of Equatoria (Central Equatoria, Eastern Equatoria, and Western Equatoria), Bahr el Ghazal (Northern Bahr el Ghazal, Western Bahr el Ghazal, Lakes, and Warrap), and Upper Nile (Jonglei, Unity, and Upper Nile). The map below shows the relative location of these ten states. Each state is then further divided into a series of counties which then are divided further into payams (sub-districts) and bomas (composed of a number of villages).

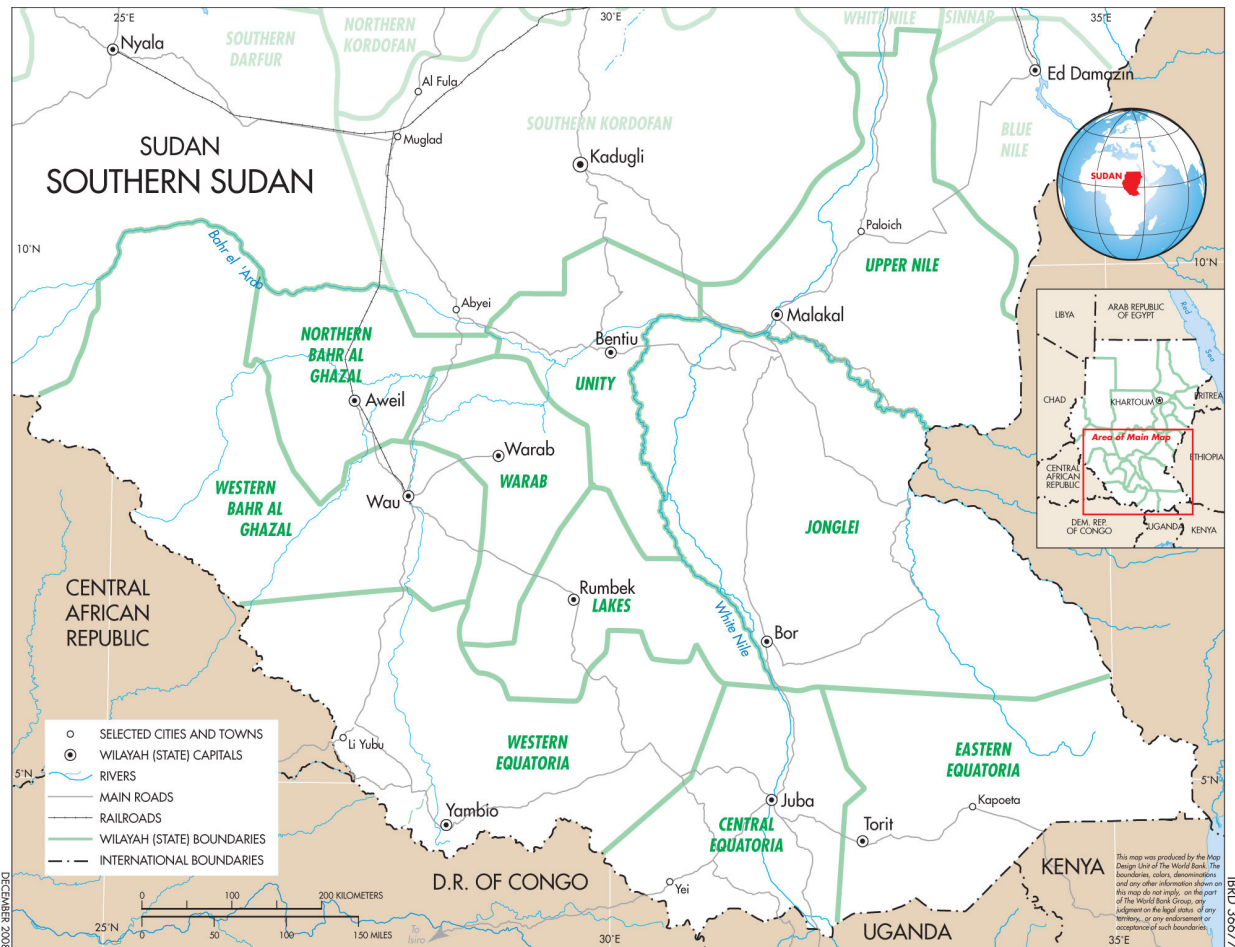


Fig. 1: Map of Southern Sudan (Source: World Bank Map Design Unit)

2.3 Economy

Oil revenue constitutes about 97% of the Government of South Sudan's (GoSS) annual budget¹. This leaves Southern Sudan very vulnerable to the effects of fluctuating oil prices. Other less significant sources of income for the Government come in the form of charges such as customs taxes, work permit fees, Personal Income Tax (PIT) etc. With only a minor percentage of the national budget allocated towards health, any decrease in revenue may seriously affect the provision of health services.

2.4 Political and Administrative Structure

The Government of Southern Sudan was established in 2005. It exercises authority in respect to the people and the states in Southern Sudan. The powers of the Government of Southern Sudan originate from the will of the people of Southern Sudan, CPA, the Interim Constitution of Southern Sudan (ICSS) and the Interim National Constitution (INC).

Powers of the Government of Southern Sudan

The structure of the Government of Southern Sudan and its responsibilities are defined by the ICSS and the principles embodied in the CPA. GoSS is made up of three branches.

1) The Executive - The executive branch of the Government of Southern Sudan is made up of:

- The President,
- Vice-President and the
- Council of Ministers.

2) The Legislative - The Transitional Southern Sudan Legislative Assembly (SSLA) is composed of 170 members appointed by the President of the GoSS;

As per the CPA a summary of the power sharing in the SSLA is that the SPLM has 70%; National Congress Party (NCP) has 15%; and other Southern political forces have 15% representation.

- 3) The Judicial Branch - The Judiciary of Southern Sudan (JoSS) is responsible for explaining the laws, applying the laws, settling cases and deciding who is guilty of breaking the law in Southern Sudan.

Southern Sudan follows a decentralized system of government with the following levels:

- (a) The central government of Southern Sudan which exercises authority in respect of the people and states in Southern Sudan;
- (b) The state government, which exercises authority within a state
- (c) The local government, which exercises authority within a county and is closest to the community

2.5 Demographic and Socioeconomic Profiles

A census was carried out in 2008 to ascertain the population of Southern Sudan. The results were released last year and the new population was given to be 8, 260,490². However, the results of the census are still being contested by GoSS. The South contains over 200 ethnic groups. It is widely agreed that the largest ethnic group in the South is Dinka, followed by Nuer.

Sudan is one of the poorest countries in the world ranking 146 out of 179 countries according to 2008 United Nations Development Programme (UNDP) statistics³. If Southern Sudan was evaluated as a separate country, it is likely that it would rank even lower. Most socio-economic and health indicators for Southern Sudan are below the level of the rest of Sudan. According to the most recently completed Sudan Household Health Survey (SHHS), the infant mortality rate is 102/1,000 live births and the under-five mortality rate is 135/1,000 live births. These are the highest infant and under-five mortality rates in the world. Child malnutrition is endemic: 32.98% of under-fives are underweight, 13.5% of them severely, another 22.04% have moderate wasting and 7.25% severe wasting. Only 17.03% of under-fives are fully immunized. Among expectant mothers, only 23.11% receive antenatal care from skilled health personnel and only 13.6% deliver in health institution. Moreover, only 31.73% of mothers receive at least two doses of tetanus toxic vaccine during pregnancy⁴. All these factors lead to an extremely high maternal mortality ratio of 2054/100,000 live births. Additionally, a range of rare 'tropical' diseases remain endemic in Southern Sudan under the name 'neglected diseases'. In 2008, the Ministry along with other partners carried out a situation analysis on these disease

and found¹² of them to be endemic in Southern Sudan. They found that 3.9 million people were at risk from trachoma and 4.1 million people were at risk from onchocerciasis⁵.

2.6 Health Determinants

The social, economic, and physical conditions in Southern Sudan are all determinants of health. Many are historical, for example war, destruction of infrastructure, poverty and access to health facilities etc. Additionally, the physical environment is affected by the use of solid fuels and lack of access to clean water and sanitation facilities.

The use of solid fuels such as charcoal and wood is widespread in Southern Sudan; approximately 72 % of all households cook with solid fuels. Increased risk of acute respiratory illness, pneumonia, asthma and other respiratory diseases are associated with the use of solid fuels. Pneumonia is a major source of illness in Southern Sudan, yet only a mean figure of 24.5% of mothers recognises its symptoms⁴.

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid etc. Less than half the population has access to safe water, and unprotected wells are still the most important source of water across the South. The vast majority (89 %) of households undertake no water treatment whatsoever. Poor sanitation in Southern Sudan also leads to the spread of diarrheal and other diseases. Only 6.4 % of Southern Sudanese households were found to be using sanitary means of excreta disposal⁴.

3. Governance and the Health System

Good governance of the health sector is essential to ensure sound health systems and effective service delivery.

3.1 Health Policies and Legislation

The Health Policy, Government of Southern Sudan, Ministry of Health, 2007 – 2011⁶ was drafted with consultation from the Government, health NGOs, United Nations (UN) and other stakeholders. This was the first health policy drafted specifically for the South and was a significant achievement in the move towards establishing a clear direction for the Ministry of Health. The final draft was then approved by the Executive Board of the Ministry of Health, Government of Southern Sudan. Policies related to the themes of this report will be described further in the following sections.

Policy Statement on Health Policy and Planning and Development

“The Ministry of Health is committed to the evidence based principle including evidence based decision making, policy making, public health and clinical interventions. It shall ensure that all processes involving the development of policy documents are consultative. The Government shall also develop a strategic health plan that stipulates the main and priority health issues and strategic and methodological approach in addressing the problems⁶”.

Appropriate policies are the backbone of the health system. However for these policies to be effective they should be well understood and have an effective roll out strategy. A recent health assessment by Liverpool Associates in Tropical Health (LATH) found that only 56% of health staff questioned had knowledge of the National Health Policy⁷. Although this figure may not be statistically representative of the

whole country it does highlight a potential problem which could warrant further study.

The Health Policy of the Government of South Sudan, 2007 – 2011⁶ has Primary Health Care as its focus and it receives the most political commitment and support in order to ensure that an effective primary health care system is set up.

3.2 Organisational Structure of the Ministry of Health (MoH)

In Southern Sudan the Ministry of Health is organised in the following manner.

The Ministry of Health, Government of Southern Sudan comprises of the Ministry of Health (GoSS) located in Juba and 10 State Ministries of Health (SMoH). The structure of the Central and State levels are given below in Figures 2 and 3.

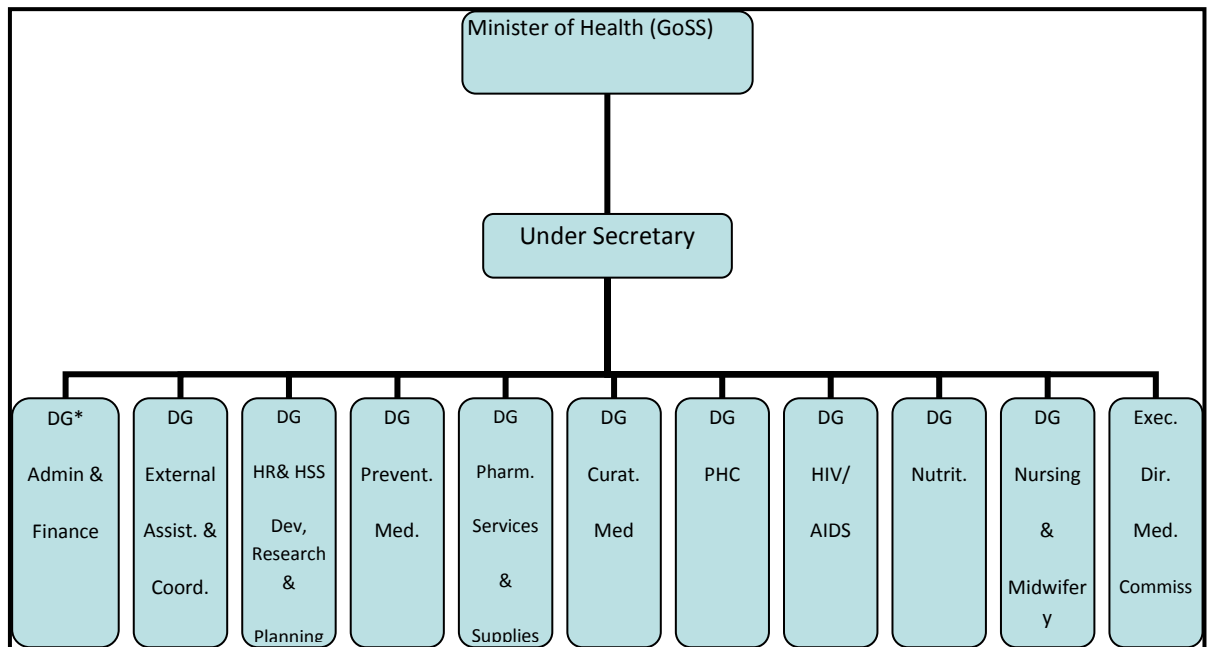


Fig. 2 Structure of MoH-GoSS

* DG stands for Director General

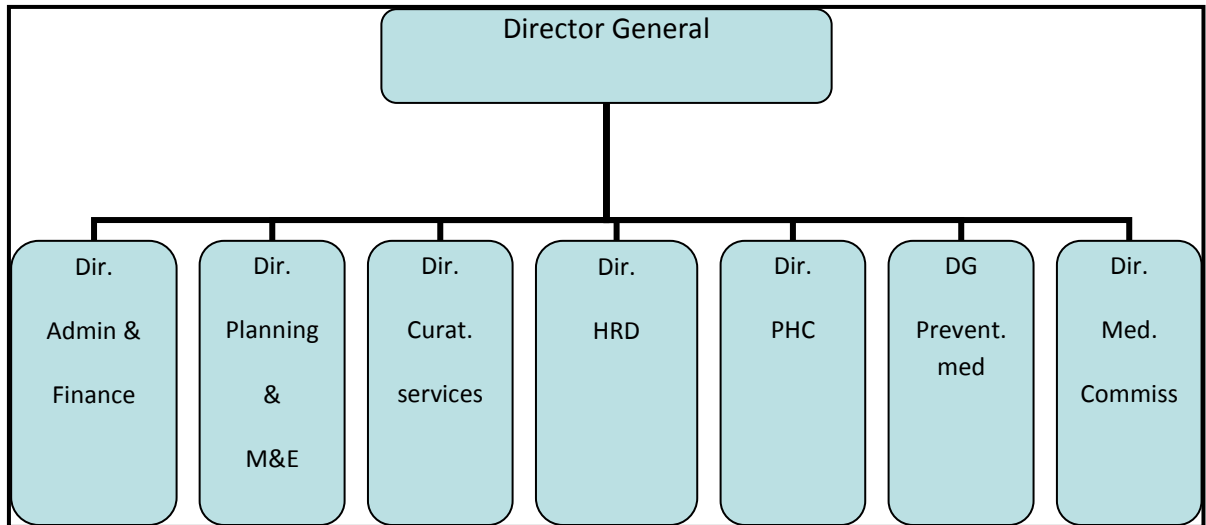


Fig. 3 Structure of SMOH

3.3 Roles and Responsibilities at the Different Levels of the Health System

The Health System of Southern Sudan exists at four main levels; central, state, county and community. The roles of the different levels are presented below as they are listed in the National Health Policy.

Central Level, Juba

- Governance and stewardship
- Policy formulation, setting standards and quality assurance
- Research and planning
- Monitoring and Evaluation
- Health Management Information Systems
- Regulation and legislation
- Strong partnership
- Development of a strategic, regulated, accountable and transparent organization and deliverable programmes
- Selective decentralization and effective delegation
- Sector-wide and interministerial coordination
- Health financing and management of financial resources
- Contracting out services when viewed necessary
- Selective decentralization and effective delegation
- Human resources capacity building and leadership development

State Level

- Stewardship and governance
- Implementation of health policy
- Planning and management of State health services
- Joint assessments, research and planning
- Monitoring and Evaluation
- Health management information systems
- Sectoral and inter-sectoral coordination
- Annual management work plans
- Implementation of government health care and services
- Supervision and guidance including contracted out services through Multi Donor Trust Fund (MDTF) project
- Referral system
- Epidemiological surveillance
- Efficient and cost effective use of resources

County Health Departments

- Health coordination
- Assessment and analysis of local health and managerial needs
- Joint strategic planning based on local needs and problems
- Implementation of health care and services
- Supervision, guidance, and monitoring including of contracted out services
- Referral system and epidemiological surveillance
- Monitoring and evaluation
- Contributions towards management of Information systems

Community level (Primary Health Care Level)

- Implementation of Primary Health Care Packages
- Monitoring and evaluation
- Referral system and surveillance
- Monthly work plans by PHCCs and PHCUs
- Outreach health programmes
- Health Education and promotion
- Health campaigns and awareness programmes
- Efficient and cost effective use of resources

- Implementation of community health activities
- Community participation and involvement
- Community ownership and development of local leadership

In short, the MoH-GoSS is responsible for setting the health policies and providing guidance for the provision of health services at the state level. The administrative authority lies with the SMOH, which supervises the County Health Departments (CHDs). The SMOH also coordinates the implementation of health programs and policies within the state while the CHDs manages and implements health programs and policies in the counties. Community ownership has always played a part in the South Sudan Health System. At Payam and Boma levels Village Health Committees routinely exist which consist of village elders and other community members etc. In theory these committees can monitor the standard of care being offered at health facilities and can be pro active in reporting any issues to the County level that they feel need to be discussed.

3.4 Structure of Health Care Provision

Southern Sudan has a four tiered health care system consisting of state hospitals, Primary Health Care Centres (PHCCs), Primary Health Care Units (PHCUs) and village level health care. The Basic Package of Health and Nutrition Services for Southern Sudan (BPHS)⁸ was written by the Ministry of Health and this document sets out the health service delivery standards and norms. The latest draft was made available in 2009. It describes the services that are to be delivered at each level of the health care system, the catchment area for facilities and the staffing required. PHCUs for example provide basic preventive and curative services whereas the PHCCs offers a wider range of diagnostic and curative services including an observation ward for patients and laboratory services⁸.

The BPHS defines four service components;

1. Integrated Reproductive Health Care
2. Community Based Health and Nutrition Care
3. Health Education and Promotion
4. Management, Oversight, Monitoring and Evaluation

The BPHS is a very ambitious document. Although many health facilities are supported by NGOs they all follow the guidelines set out in the BPHS and do their best to implement them.

In some post conflict countries international donors contract NGOs to provide a Basic Package for Health Services as the sole primary care service delivery system for the population. Southern Sudan is one of these countries. The aim is to “rapidly scale-up health services with proven, affordable health interventions and replace the fragmented, uncoordinated, vertically dominated services characteristic in many post conflict settings”⁹.

3.5 Financial and Funding Mechanisms

National Health Policy Statement on Health Financing

“The Ministry of Health shall design a health financing framework by exploring appropriate financing options, especially those that protect the poor, while also developing transparent, effective and efficient budgeting, accounting and audit systems. The Ministry shall also advocate for more funding and resources to strengthen the health sector. It will ensure spending is in line with priorities and coordinated across sectors. It will also strengthen coordination of different sources of funding and monitor different mechanisms to finance the delivery of health services such as contracting for their cost-efficiency and acceptability⁶.”

Funding for the health sector in Southern Sudan comes from the Government of Southern Sudan’s national budget and various bi-lateral and multi-lateral donors. Since the signing of the CPA, a group of like-minded bilateral donors have created a number of different mechanisms for pooling their funding, including the Multi-Donor Trust Fund (MDTF), Basic Services Fund (BSF), Common Humanitarian Fund (CHF), Sudan Recovery Fund (SRF), among others. Recently there have been some criticisms from the NGO community in Southern Sudan on the effectiveness of such pooled funding mechanisms¹⁰.

The MDTF is the largest of the pooled funding mechanisms. It was set up to align donor funding behind Government priorities, including health. Initially the agreement was that for every \$1 the Government contributed to the health budget the MDTF committed \$2. This is now a 1:1 relationship. The MDTF is administered by the World Bank and an oversight committee, which includes Ministry Representatives, UN and

donors with NGOs as observers. The National budget allocation to health as a percentage of the overall GoSS budget has varied from year to year. Budget allocation to MoH as a percentage of the overall National budget varied from 2.5% in 2008 to 5% in 2009¹¹.

The BSF provides funding for the delivery of primary health care, basic education and water and sanitation. BSF is governed by a multi-sectoral steering committee.

The CHF funds emergency-response interventions to ensure the continuity of basic service delivery and core pipelines for a period of 6-12 months. The annual level of funding depends on humanitarian needs in Southern Sudan. CHF is managed by the UN Resident Coordinator Support Office.

Finally, the SRF invests in 2-3 year recovery projects aimed at building state and local capacities. To date this mechanism has not funded health projects. SRF is administered by the UNDP with a steering committee made up of representatives from Government, donors, and NGOs.

A recent article¹⁰ looked at the health system in post conflict settings and posed the question of the effect of the concentration of donors in transitional contexts with Southern Sudan one of the areas being examined. Southern Sudan is an area inundated with donors and different donor mechanisms at a time of great change. It is important to assess the impact they have had so that lessons can be learned for future reference.

Southern Sudan is still in the process of establishing strong financial and administrative structures; at the state, county and community levels funds have had great difficulty in filtering through. This is an area of governance which needs to be addressed in order to ensure that the Health Sector in Southern Sudan begins to operate more effectively.

3.6 Importance of Good Governance in Health

As stated previously for the health sector to be efficient there needs to be good governance at all levels. A recent study carried out in Sierra Leone and Nigeria

showed that where NGOs are the primary providers of health care, communities are not stimulated in demanding better services from the State¹².

A similar train of thought was articulated by DFID in the document titled “**Health Systems Resource Centre, Improving the delivery of health and education services in difficult environments: lessons from case studies**” when it reported that one of the problems in delivering basic health packages in difficult environments is that if the state isn’t seen to being involved then it can lead to the accountability of the governance system being eliminated¹³.

Although there is no research evidence to suggest that this is the perception amongst Southern Sudanese it is worth considering that in a country where the majority of health facilities are supported by NGOs such attitudes in the long term may have a negative impact in establishing and maintaining an effective system of governance in the Health Sector. The Ministry of Health and the Government of Southern Sudan are working hard to establish themselves so that such a situation does not hinder the development of a fully functioning independent health system.

3.7 Gaps in Knowledge and Research Priorities

The Ministry of Health here in Southern Sudan has only had a few years to establish itself. Southern Sudan has some of the poorest health Indicators in the world and with the lack of infrastructure and human resources it has been a daunting task. The Ministry has come a long way in a few years however it recognises that there are many more obstacles to overcome and improvements to be made. Governance is an area that needs further research and there are many gaps in knowledge. The Ministry of Health recognises the following as some of the key gaps in knowledge and areas they would like to prioritise:

1. A comprehensive research policy needs to be developed still.
2. Only the MoH/Goss Ethical Committee is overseeing research in Southern Sudan but is incapacitated.
3. What is the perception of the Governance of the health system where health services are being provided primarily by NGOs. Is this affecting the governance of the health system?

4. Human Resources and the Health System

4.1 Policy Statement on Human Resource Development

“The Ministry of Health recognises the importance of human resource as an important asset in the health sector. Therefore it shall work in close collaboration with the Ministry of Public Service and Human Resource Development to develop a human resource coverage plan, policy and strategy. Among issues to address are the current policy changes in human resource development. These include gender imbalance, retention strategies, attracting the Diaspora to return, an enabling work environment, day care for the children of staff, the retirement of elderly health personnel and developing quality trainers, training curricula and continuing education programmes⁶”.

4.2 Human Resource Challenges

The Health Policy, Government of Southern Sudan, 2007 – 2011 lists the following as some of the main challenges faced:

- a) Limited capacity in various areas of need
- b) Concentration of health personnel in urban areas
- c) Large numbers of health personnel in the Diaspora
- d) Lack of motivation to attract the few qualified staff to work in Government institutions such as Health Ministries
- e) Unfavourable terms and conditions of service to attract and retain qualified health workers at all levels of Government health facilities⁶

The MoH has worked hard over the past few years to try and tackle some major obstacles. Some key achievements include the development of a HR policy, training of over 30 Health Managers in HR Management and training of mid-level health cadres scaled up¹⁴.

The Capacity project, which a partnership project aimed at strengthening the Ministry’s ability to hire and manage its health workforce, carried out a baseline survey in 2006 and found that one of the key challenges was the lack of strong managerial skills amongst health professionals. Since then the MoH has rolled out a

leadership development programme, opened a multi media resource centre in Juba Teaching Hospital, and continued to build capacity through a variety of other projects¹⁵.

LATH currently has a consultant in country whose main role is to build the capacity of the Human Resource Department at Central and State level. Such capacity building is essential to ensure that the Ministry can function in a sustainable manner.

4.3 HR Strategic Plans and HR Manual

The Government also developed a Strategic Plan for Human Resource 2007 – 2017¹⁶ which incorporated 9 main objectives in order to address the issue of shortage of required categories of health personnel with appropriate competency and skill mix for the delivery of quality health care services.

1. Institutionalize and operationalise planning for Human Resources for Health (HRH) at different levels
2. Develop and maintain HRH Information System
3. Project the required HRH at different levels
4. Develop capacity of training institutions for health
5. Improve management practices for the health workforce
6. Develop Legal and Professional Framework for Standards and Quality
7. Develop mechanisms for raising funds to support HRH development
8. Develop research capability for HRH policy oversight and effective planning, monitoring and evaluation in tandem with changes in the health sector
9. Develop sustainable partnerships and strengthen linkages among the community and stakeholders for HRH.

The Ministry has also developed a HR Manual¹⁷ for all staff which outlines all the policies and procedures for all health staff employed by the Ministry. These documents are a great achievement given the young age of the Ministry. However to be effective the Ministry must ensure there has been effective roll out, implementation and understanding of the documents.

4.4 Quantity and Distribution of Health Workers In Southern Sudan

Extreme shortage of qualified health workers in Southern Sudan is a well-known fact. A joint survey was carried out in 2005 by World Health Organisation (WHO) and

African Medical and Research Foundation (AMREF) in order to document the number of health personnel working in Southern Sudan. The results of this survey showed that the approximate health worker density in Southern Sudan was 0.99 per 1,000 people. The final results of this survey showed that there were at that time, 355 nurses, 1,005 midwives (including trained birth attendants (TBAs), community health workers (CHWs) and village midwives), and 225 doctors in Southern Sudan¹⁸.

The Ministry of Health is in the process of carrying out a Health Facility Mapping Process. As part of this project, an updated number of staff and their roles are being recorded. The Ministry is also developing a new payroll system, which upon completion should give an accurate figure for the number of health staff working in Southern Sudan.

Southern Sudan needs greater human resource capacity in the major qualified cadres such as doctors, nurses, midwives and lab technicians. In 2008 Southern Sudan received eleven Sudanese Canadian physicians which was a great boost to the country but many more are needed to serve the vast population¹⁹. With the extremely high Maternal Mortality Ratio (MMR), for example, trained midwives are essential for improving Maternal Child Health (MCH). It should be noted that more than 90% of the health personnel categorized as midwives are TBAs, Maternal Community Health Workers (MCHW), and village midwives. The number of certified midwives in Southern Sudan is very small and the exact figure is yet not known. Lack of human resources has meant that many agencies operating within Southern Sudan have had to bring in their own trained personnel from outside. Although these expatriate staffs aim to work alongside Southern Sudanese counterparts and attain a sustainable workforce, such capacity building takes a considerable length of time. A high turnover of expatriate staff only exacerbates this problem.

An example of the harmful effects of a lack of trained personnel can be highlighted by the following example. Sudan is a nation emerging from a lengthy conflict. This has led to a large amount of people suffering from Post Traumatic Stress Disorder (PTSD). However health workers qualified in treatment for such disorders are not available in Southern Sudan and this can have a detrimental effect on the health of the population. A recent survey carried out in Juba showed that over 36% of the respondents in the study displayed symptoms of PTSD and over 50% showed symptoms of depression²⁰. Research in other parts of Southern Sudan on this specific topic has not been carried out since the war ended.

4.5 Health Worker Training Institutions

There are three teaching hospitals in Southern Sudan based in Juba, Wau and Malakal. Additionally, there are 15 health training institutions located in different states of Southern Sudan, mainly offering certificate and diploma courses for different categories of health workers. Maridi NHTI, in Western Equatoria, is the only training institution that trains clinical officers. This is a cadre between physicians/doctors and nurses. A clinical officer can be trained in three years and can carry out 70% of a physician's work. Therefore, this is a very important cadre in a country like South Sudan which has a shortage of doctors²¹.

The health training institutions also offer training in nursing, midwifery etc. The funding for these schools is limited. There is not enough capacity to support these schools, with many of them depending on foreign teachers to remain functioning. Lack of capacity though is not the only challenges these institutions are facing. Poor infrastructure, lack of student accommodation in many of the schools, lack of teaching materials all add to the burden of the training institutions. According to the 2010 Budget Sector Plan no funds have been provided for basic equipment and so they will be dependent on what partner organisations can supply. A lack of funds in 2009 has meant that some facilities are in danger of closing down²².

The 2005 Joint Assessment Mission (JAM) estimated that about 3,000 health workers working in rural areas of Southern Sudan had less than one year of training²³.

4.6 Professional Development

In the absence of training institutions many NGOs provide on the job training as a good alternative to increase capacity. This can provide vital health staff to areas where they may never have reached. A recent article published showed how important this approach can be. On the job training was carried out by a number professional expat staff working for Comitato Collaborazione Medica (CCM) in Southern Sudan. Here they successfully trained Sudanese staff in various aspects of surgery²⁴.

As well as on the job training NGOs have funds available to sponsor their staff to attend various trainings. Such training is a major boost to improving the quality of health staff working in Southern Sudan. However this kind of situation is not

sustainable. There has been no research on the possible effects that NGO downsizing would have on the quality of health staff available to work in Southern Sudan.

4.7 Motivation and Retention of Health Workers in Southern Sudan

It is well recognised fact retention of health staff in Southern Sudan is a huge problem facing the Ministry of Health. It is especially difficult to deploy and retain staff in the more rural areas where the population is especially underserved in terms of access to health care. The Ministry of Health sends newly qualified students are generally sent to the more rural areas to try to address this imbalance. Living and working conditions in such rural areas are very tough and often remuneration packages do not compensate for the hardship. There are well known incidences of Government staff not getting paid for many months at a time and this leads to discontent and de-motivation amongst staff. It is essential that the Ministry devises strategies that enable them to retain qualified health staff, especially in more remote areas of the country.

In a recent tracer study by AMREF on Clinical Officers who had graduated from Maridi Training Institute the respondents cited “low remuneration coupled with delays in salaries, inadequately equipped health facilities, lack of drugs and medical supplies and lack of clear organisational structure and career path” as the main de-motivators²¹. This report also highlighted a high retention of qualified Clinical Officers and suggested that this may be due to the curriculum being designed specifically for a South Sudanese context. This is a very useful idea to keep in mind when looking at the issue of retention of staff.

An individual study carried out in 2008 on the factors affecting staff retention in Juba Teaching Hospital found that heavy workload, low salary, poor channels of communication, lack of overtime pay, lack of possible career upgrading and inadequate working tools all contributed towards poor retention of nursing staff. It was found that over a 5 year period 36 out of 256 nurses recruited had deserted their positions. Given the shortage of qualified health staff this number is quite significant²⁵.

Many health workers are currently employed by NGOs. This means that as well as a reliable salary, employees have access to other non monetary incentives such as further training. However as Southern Sudan goes through its transition from a

humanitarian context to a development setting a lot of relief funding may dry up. Currently the Ministry of Health is not in a position to assume all the NGO-supported staff and this is an area of concern which could be examined further.

4.8 Gaps in Knowledge and Research Priorities

It is clear that a lack of Human Resource capacity in Southern Sudan is greatly hindering fast development of the Health System. It is difficult to gauge the true extent that Human Resources affect development without some essential baseline knowledge. A lot of that is still missing in Southern Sudan. Some of the key gaps and research priorities as suggested by the Ministry of Health are:

1. No HR information system in place. This is a priority area.
2. Reason for rapid turnover of the Health workers is not fully documented in term of number or percentage. This requires further research.
3. Relevance and excellence of teaching institution assessments. Research is needed in this area to allow for a higher and assured quality of health staff graduating from the schooling facilities.

5 Access and Equity to Health Services

Policy Statement on Reducing Inequalities in Health Care

“The Ministry of Health, mindful of the current inequalities in the provision health services shall ensure a marked increase throughout Southern Sudan. To achieve this, the Ministry shall mobilize individuals and communities to play a major part in all aspects of health care delivery; it shall also develop effective partnerships with both funders and implementers of health services and systems.

The Ministry shall strive to strengthen existing health units, centres and hospitals while opening new ones in areas that were underserved for war related or other issues. Priority shall be given to States in Southern Sudan with very limited or no services and high population. Medium and long term policies and strategies shall be developed to plan strategically for:

- a) Geographical areas where no health services exist
- b) Populations living in underserved areas
- c) Pastoral communities
- d) Geographical areas supported by implementing partners
- e) Emergency services for everyone
- f) Returnees populations till integrations⁶”

5.2 Access to Health Service Facilities

The overall coverage of basic health care in Southern Sudan was estimated at 30% in the 2007 Southern Sudan Health System Assessment⁵ and in many other reports a figure of 25%-30% is quoted as being the coverage level. However it cannot be taken as an accurate estimation. Given the increasing population of Southern Sudan this figure may no longer be a true reflection of the real situation. A combination of the census results and completion of the ongoing Health Facility Mapping Process should give a clearer picture of the access of the population to health facilities. However it is clear that many people do not live within easy reach of the most basic health facilities. One of the key aims of the BPHS is “Promotion of equitable access to essential health services”. One of its key objectives is to increase access to PHC services from 25% to 50% by 2010⁸.

The Health Facility Mapping will not only provide the locations of health facilities in Southern Sudan but will also give up to date information on whether they are operational or not. Many of the existing health facilities are dilapidated, poorly equipped, and understaffed. Therefore although they may exist in a physical sense these problems may mean that they do not offer any health care access to the population they are supposed to serve. This exercise has now been completed in 7 of the 10 states and the Ministry hope to complete it this year.

The recommendation for coverage is one PHCU for every 15,000 people and one PHCC for every 50,000 people⁷.

5.3 Obstacles to Service Utilisation

There are a variety of obstacles to accessing health care in Southern Sudan. Most obvious is the lack of facilities. However there are other less obvious ones which can affect the population.

In a study carried out in 2004 in Yambio and Rumbek in Southern Sudan on the availability and use of emergency obstetric facilities focus group discussions amongst women cited distance and financial constraints as two of the major obstacles preventing women from accessing emergency care²⁶. People often do not have the money available for transport to health facilities given the distances.

Social obstacles were also cited in this study. In the above study it was reported that in Southern Sudan obstructed labour was often believed to be a sign of adultery therefore preventing the woman from accessing emergency care. Many people also still practice traditional medicine. This may be out of conviction or merely because there are no other facilities accessible to them. A study on immunization in Kapoeta East County found that 62.3% of the respondents said the reason that they did not send their children for immunization was due to the fact that traditional healers had advised them not to as measles was caused by the air²⁷.

Security is still an area of concern in Southern Sudan. In some Southern parts of the country the Lord's Resistance Army (LRA) is still a huge threat and access to facilities can be blocked off for the local population. Sporadic violence is commonplace in Southern Sudan. In 2009 more than 2,500 civilians were killed and more than 350,000 fled their homes. This is a greater figure than in Darfur¹⁰. Such displacement and violence can certainly hinder people's access to health services but the extent to which it does is not known.

Southern Sudan is one of the poorest in the world in terms of infrastructure. The rainy season lasts approximately half the year in Southern Sudan and without a proper road network many facilities are inaccessible for many months of the year. This means that the local population cannot access these facilities and it also prevents the delivery of vital supplies. A study in Western Bahr el Ghazal found that only 4 of the 15 health facilities visited are accessible during rainy season (May-November) for delivery of drugs and sundries²⁸.

5.4 Service Utilisation

User rates in Southern Sudan are estimated to be as low as 0.2 contacts per person per year⁸

All health facilities keep records of all patient visits and information. However with different organisations having their own reporting format and with a lot of this information not being fed centrally back to MoH level, it is difficult to maintain accurate records of clinic attendance in Southern Sudan.

The MoH is working very hard on improving its Health Management Information Systems (HMIS) and standardizing reporting formats. Roll out for this standardised format is planned for 2010. The M&E Department has grown in capacity over the last couple of years. The opening of a new centralized data centre in Juba should mean that the monitoring of data from all health facilities will greatly improve.

5.5 Service Gaps

In the BPHS “availability, accessibility and efficient management of service provision” are cited as being the major reasons for service gaps⁸. Two of the major gaps which have been discussed earlier are lack of facility coverage and human resource capacity.

An area which is particularly at risk is maternal health. Ante natal Care (ANC) services are offered in very few facilities especially in the more rural areas. Also most women still choose to give birth at home rather than attend health facilities. Given that the MMR in Southern Sudan is the highest in the world this is an area which needs much consideration. A report from 2006 stated that an estimated 84% of women did not receive ANC during their most recent pregnancy²⁹.

The Pharmaceutical Supply Chain is still another area which needs great improvement. Currently in South Sudan a drug stock out has been reported in 43 counties by health facilities reliant on MoH drug kits. However this is one of the areas recognised in the Budget Sector Plan with one of the key activities for the coming year being the development and implementation of pharmaceutical procurement and supply management plan²².

5.6 Inequity and Health Services

The health facility mapping exercise will also show the inequity and service gaps that exist in health care access. In the more rural areas it is likely that health facilities may be far more thinly spread than in the more urban regions.

The notion of equity in a setting where there has always been deprivation amongst the population is a difficult one to engage with. In a report issued by USAID in 2006 it stated that it had shifted its geographical priority locations to those areas which had a rudimentary health administrative system set up before the signing of the CPA as it was viewed that this would have more of an impact²⁹. This approach then would seem to make the equal division of health services in country all the more difficult.

In a study carried out by AMREF in 2005 the distribution of health workers was also examined. It was found that there was an uneven distribution of health facility workers between states. The following three States had the highest numbers of health workers. Central Equatoria had 2,379 followed by Warrap with 2,036 and Eastern Equatoria with 1,317. Lake States had the lowest level of health workers with a recorded value of 459 followed by Unity with 658 and Western Equatoria with 829¹⁸.

This inequity is further backed by a study carried out by BSF where they found that staff deployment by the State Ministries is heavily skewed in favour of towns: hospitals are overstaffed while PHCC/Us have only half the staff they need³⁰.

The large economic disparities which exist between the populations of Southern Sudan also further exacerbate the problem of inequity in terms of health care. Although primary health care is to be free for all citizens of Southern Sudan the fact that many people do not have easy access to facilities means they cannot afford to travel for care. Many people simply cannot afford hospital care.

5.7 Gaps in Knowledge and Research Priorities

The gaps which exist in the access and equity to health services in Southern Sudan are huge. Without accurate baseline figures for health facilities, established HMIS systems etc it is extremely difficult to collect accurate data on these areas. With estimates of only 25-30% of the population having access to health care we know that this is a real problem in Southern Sudan. Extreme poverty throughout exacerbates the problem further. Key areas where there are gaps in knowledge and future research priorities have been given by the Ministry of Health. They are:

1. Health seeking behaviour; what are the impacts on morbidity and mortality?
2. Is the Health Services impact in line with community demand? What can be done to improve this?
3. Barriers to access; what are the chief barriers which exist in Southern Sudan and to what extent are they affecting local communities?

6 Health Research in Southern Sudan

6.1 Policy Statement on Health Research

The Ministry of Health recognises the importance of research and shall, undertake strategic and operational research that test hypothesis within the domain of health and social classes including economics and behavioural science, at each level of the health system. Therefore, the Ministry shall budget for and support research that provides evidence for use by policy and decision makers at all levels. Research activities carried out in Southern Sudan should be related to the priorities of the Ministry and contribute towards the improvement of the health of the people of Southern Sudan. Research proposals should be reviewed by the Ethics Board at the Ministry and approved before it is conducted⁵.

6.2 History of Health Research in Southern Sudan

It is important to remember that the recent war devastated the health care system in Southern Sudan. The CPA was signed only five years ago and in that time the GoSS – MoH has had to build itself from scratch and try to establish a functioning health care system. In a post conflict context, basic health service delivery will always take precedence over research activities. Therefore unlike other countries where long established functioning health care systems have allowed for active health research projects and the collection of reliable data for informative decision making, Southern Sudan is only now in a position to begin supporting health research.

While compiling the information for this knowledge synthesis report, it became clear that although much is known about the state of health systems in Southern Sudan through people's experience and personal knowledge there is little published research to verify these anecdotes. Many organisations have carried out their own internal studies but none have devoted themselves to systematic health research. Therefore in order for sound evidence-based policy making to become the norm, more active reputable health research needs to be carried out.

It is only recently that the Research and Health Systems Development Directorate and the Monitoring and Evaluation (M&E) Units have begun to take a leading role in research projects in Southern Sudan. Before this time many research projects were being undertaken without the cooperation or knowledge of the Directorate. This meant that

there was little coordination in research and many of the research reports and data were never made available to the Ministry. Now, however, the Directorate is becoming more established and is currently in the process of building a main database centre in Juba. Moving forward all data collection will be fed back and stored centrally. It has also developed a research mandate which is a huge step in ensuring that all projects will be standardized and coordinated.

The research mandate includes the development of research policy and strategy, setting research priorities and carrying out operations research studies that can provide evidence for the improvement of the health system. The framework, guidelines and enforcement for ethical research is also provided by the Directorate. Selected specifics include the following:

- Provide evidence based on quality data for decision making
- Manage health sector response and ensure coordination between Ministry and partners
- Formulate and disseminate GoSS health sector policies and guidelines
- Provide training and technical support to states and counties level health interventions and implementing partners
- Develop systems to monitor and evaluate health interventions and compliance with policies and guidelines

6.3 Progress to Date

- Establishment of research department MoH - GoSS
- Establishment of ethical committee
 1. Composed of five to nine professional members responsible for the following:
 - Review study proposals
 - Ensure adherence to conventional ethical standards
 - Carry out ethical clearance before approval
 - Approve studies
 - Monitor on-going studies
 2. Ethical principle to guide credibility of research, including assessments and surveys
 3. Interim application procedures for research ethics approval
 4. Content of the standard form ethical issues assessed/asked

- Participant risk
- Biosafety
- Investigational drug
- Radiation and radioactive material
- Investigational devices
- Blood
- Confidentiality
- Informed consent

The creation of the new research-focused Directorate and ethical committee is a large step towards achieving quality data from future health projects. This has been a key area which has been lacking in the Southern Sudan Health System.

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