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<th>Access to maternal healthcare in post-conflict South Sudan. Is the health system designed for the context?</th>
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<tr>
<td><strong>Author(s)</strong></td>
<td>Elmusharaf, Khalifa</td>
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<tr>
<td><strong>Publication Date</strong></td>
<td>2015-05-09</td>
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ACCESS TO MATERNAL HEALTHCARE
IN POST-CONFLICT SOUTH SUDAN

Is the health system designed for the context?

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in fulfilment of the requirements for the degree of Doctor of Philosophy.

March 2015
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Abstract

Background: The importance of understanding the cultural, social, economic, political and historical contexts when working in post conflict fragile states is well documented. Many health and development projects in post conflict South Sudan are significantly hampered by (i) the mismatch between the views of service providers and those of the community, and (ii) because of the misunderstanding of the context. It is not clear in the literature if the health systems in post conflict situations are designed for or adapted to the context, and if they are, to what extent has understanding of the context and demand side barriers been useful in planning for accessible maternal health care services that can reduce the maternal mortality in such settings.

Aim: The aim of this research is to gain an in depth understanding of the determinants of, and delays to access to, the maternal health services in a post conflict setting in South Sudan, and to investigate the extent to which health system actors take account of the context in designing a system that incorporates the health care needs of their clients in order to provide accessible maternal health care.

Methods: This research applied a qualitative participatory action research approach in two phases. Phase one was to understand the issues around access and utilization of maternal health services using qualitative methods: Participatory Ethnographic Evaluation Research (PEER), and Critical Incident Technique (CIT), and stakeholder interviews. Phase two was interventions to improve the situation through Innovative Participatory Health Education “IPHE” and Participatory Reproductive Health Project Management “PRHPM”.

Findings: Access to maternal healthcare in the aftermath of conflict is complex. Maternal health is not always a priority, services do not usually match the needs of the people, most of the facilities are not functioning and many healthcare providers are not competent. Voices of hard to reach populations are usually excluded or not heard. Social determinants hugely influence access. Women often do not take decisions that prioritise their health, and even if they take healthy decisions, they do not act on them or act very late. There is a mismatch between stakeholders and service users’ perspectives on access to maternal healthcare.

Conclusion: Maternal healthcare in South Sudan will not be optimised unless women are cared for in their communities, and are empowered to take decisions about their care at the right time, without waiting for others to make decisions for them. Participatory Health Systems Research approaches strengthen capacity at multiple levels, ensure integrated knowledge translation, engage marginalized communities, and enhance their contribution to identify health needs, plan and design future health services.
Dedication

I dedicate this work to my parents:

Dr Abdelrahman Elmusharaf
&
Mrs Samia Al-Ashgar
Acknowledgements

First and foremost, all praise and glory to Allah for granting me the strength and opportunity to pursue this work. I would also like to extend my appreciation to Connecting Health Research in Africa and Ireland Consortium (CHRAIC), a project funded under the Programme of Strategic Cooperation, of Irish Aid and administered through the Higher Education Authority of Ireland for granting me the opportunity to conduct this study.

I offer my sincerest gratitude to my supervisor Dr Diarmuid O’Donovan who has supported me throughout my thesis with his patience and knowledge whilst allowing me the room to work in my own way. I attribute the level of my thesis to his encouragement, effort and inspirational discussions. I am also grateful for his faith in this study especially in the difficult circumstances in which it was conducted. The joy and enthusiasm he has for research was contagious and motivational for me, even during tough times. This thesis would not have been complete without his expert advice and unfailing patience. I doubt that I will ever be able to convey my appreciation fully, but I owe him my eternal gratitude.

My sincere appreciation goes to Dr Elaine Byrne for her constant encouragement and support. Her valuable contribution in this research was immensely helpful. I appreciate all her contributions of time, ideas, and insight throughout my work.

My sincere gratitude and appreciation goes out to Dr Mary Manandhar and Dr Egbert Sondorp for their invaluable contributions in helping me develop this research and in brainstorming the initial ideas. I am also greatly indebted to Prof Ruairi Brugha and Dr Regien Biesma. The interactions with them have considerably shaped my worldview and thus the conceptualisation and progress of this research.

I wish to express my great appreciations to Professor Mamoun Homeida the president of University of Medical Sciences & Technology in Khartoum, Sudan for his continuous encouragement and support, scientifically and financially, before and throughout my PhD.

I would like to present words of thanks, appreciation, and gratitude to the amazing team at the Rebuilding Reproductive and Child Health Systems in Post Conflict Settings Initiative (ReReCHI), the Reproductive and Child Health Research Unit, and the M.Sc. Public and Tropical Health Program who have contributed greatly to my personal and professional time at the University of Medical Sciences and Technology. Very special thanks go out to Prof Abdella Alkhwad, Dr Mohamed Kardaman, Dr. Hanan Tahir, Mohammed Abdalla (Molhim), Amal Khalil, Ayat Abuagla, Amjad Farah,
Hiba Salih Israa Bakhit, Israa Mustafa, Muaz Ibrahim, Mustafa Morgan, Amani Omer, Sarah Abdalla, Azza Faris, Rania Alahmer, Muhanad Hussein, Ashraf Khali, Fawzi Victor, and Ahmed Alfadil who have made every day worthwhile. The group has been a source of friendships and family as well as good advice and collaboration to my study.

I would also like to thank Professor Sameer Otoom the President of Royal College of Surgeons in Ireland – RCSI Bahrain and Professor Joe McMenamin the Vice President for Academic Affairs and Head of School of Medicine RCSI Bahrain for their continuous support and encouragement. I would like to extend my appreciation to my colleagues and friends in RCSI Bahrain who supported me.

I would also like to acknowledge Boumkuoth Sir Mach, Mama Marina, Mama Niemat, and Chol Omak from Renk County for all there help and support in the field. They made it possible to work in times of great hardship. I am particularly grateful to all the PEER researchers who participated in the study, without their support, this study would never have been born. I would also like to thank OPTION UK for their help with PEER methodology.

Also I would like to extend my appreciation to heads of tribes, midwives, youth and women in Renk County for their welcoming and cooperative attitude during times of great hardship and for their warm support.

Last but not least, I am deeply and forever indebted to my parents and my lovely wife for their love, support and encouragement throughout my entire life. I am also very grateful to my sisters and to my brother. May God bless them all.
## Acronyms

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<th>Description</th>
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<tbody>
<tr>
<td>ANC</td>
<td>Antenatal care</td>
</tr>
<tr>
<td>BEmONC</td>
<td>Basic emergency obstetric and neonatal care</td>
</tr>
<tr>
<td>BCC</td>
<td>Behaviour change communication</td>
</tr>
<tr>
<td>BPHS</td>
<td>Basic Package of Health Services</td>
</tr>
<tr>
<td>CBHI</td>
<td>Community-based health insurance</td>
</tr>
<tr>
<td>CEmOC</td>
<td>Comprehensive emergency obstetric care</td>
</tr>
<tr>
<td>CIT</td>
<td>Critical incident technique</td>
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<tr>
<td>CPA</td>
<td>Comprehensive peace agreement</td>
</tr>
<tr>
<td>DRC</td>
<td>Democratic Republic of the Congo</td>
</tr>
<tr>
<td>EmOC</td>
<td>Emergency obstetric care</td>
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<tr>
<td>EPI</td>
<td>Expanded Program on Immunization (South Sudan)</td>
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<tr>
<td>FBO</td>
<td>Faith-based organisation</td>
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<td>FSPs</td>
<td>Fragile states principles</td>
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<td>HBM</td>
<td>Health belief model</td>
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<tr>
<td>HHHHP</td>
<td>Household health promoters</td>
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<tr>
<td>HSDP</td>
<td>Health Sector Development Plan (South Sudan)</td>
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<tr>
<td>IPHE</td>
<td>Innovative participatory health education</td>
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<td>LAM</td>
<td>Lactation amenorrhea method</td>
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<tr>
<td>MCHW</td>
<td>Maternal and child health workers</td>
</tr>
<tr>
<td>MDTF</td>
<td>Multi-donor trust funds</td>
</tr>
<tr>
<td>MMR</td>
<td>Maternal mortality ratio</td>
</tr>
<tr>
<td>NGO(s)</td>
<td>Nongovernmental organisation(s)</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-Operation and Development</td>
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<tr>
<td>OFDA</td>
<td>Office for Disaster Assistance</td>
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<tr>
<td>PEER</td>
<td>Participatory Ethnographic Evaluation and Research</td>
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<tr>
<td>PDOC</td>
<td>Petrol–Dar Operating Company Ltd</td>
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<tr>
<td>PHCC</td>
<td>Primary healthcare centre</td>
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<tr>
<td>PHCU</td>
<td>Primary healthcare unit</td>
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<tr>
<td>PRHPM</td>
<td>Participatory reproductive health project management</td>
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<tr>
<td>SDG</td>
<td>Sudanese pound</td>
</tr>
<tr>
<td>SPLA/M</td>
<td>Sudanese People’s Liberation Army / Movement</td>
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<tr>
<td>SSLM/A</td>
<td>Southern Sudan Liberation Movement/Army</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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<tr>
<td>TBA</td>
<td>Traditional birth attendant</td>
</tr>
<tr>
<td>TDR</td>
<td>Training in Tropical Diseases programme</td>
</tr>
<tr>
<td>TPA</td>
<td>Theory of planned action</td>
</tr>
<tr>
<td>UMST</td>
<td>University of Medical Sciences and Technology</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>USD</td>
<td>US dollar</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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Author’s declaration

This dissertation is the result of my own work, except where explicit reference is made to the work of others, and has not been submitted for another qualification to this or any other university.

Khalifa Elmusharaf
1 Chapter One Introduction

1.1 Context and issues

For the past two decades the number of African countries affected by crises, particularly complex emergencies due to violent conflict and slow onset crises, has increased dramatically. Conflict has a profound negative impact on health including reproductive health in Africa. Poverty, loss of livelihood, disruption of services, breakdown of social support systems and acts of violence combine to destroy health (O'Hare and Southall, 2007).

Maternal mortality is a good indicator of the availability of health services, particularly in conflict affected, fragile states. Deaths during childbirth are caused mainly by lack of access to skilled birth attendants and to emergency obstetric care that a functional health system should to be able to provide. Armed conflict-affected states often have among the worst indicators of maternal mortality of any countries in the world. In the post-conflict period, maternal mortality tends to remain at wartime levels, or even increases as a result of damaged clinical facilities and lack of health workers (Rubenstein, 2009).

South Sudan\(^1\) has suffered from civil conflict for most of the period since the independence of Sudan in 1956. More than two million people are claimed to have died during that period, and more than four million were internally displaced or became refugees. A comprehensive peace agreement was signed in 2005, ending the civil war in South Sudan. In 2011, South Sudan gained independence and it is now considered a post-conflict-affected fragile state.

Women in South Sudan face alarmingly low maternal health status to the extent that a United Nations Population Fund (UNFPA) survey found that girls in southern Sudan are more likely to die in pregnancy and childbirth than to finish primary school (UNFPA, 2006). Social determinants of health, social rules and taboos in South Sudan have all been devastated by the conflict (Faramand and Carballo, 2006, Macklin, 2003). Health status indicators have deteriorated over

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\(^1\) South Sudan: for consistency, the researcher applies ‘southern Sudan’ for any pre-independence of South Sudan reference and ‘South Sudan’ to post-independence references
the last five decades and remain among the lowest in the world (Faramand and Carballo, 2006). The magnitude of maternal care problems in South Sudan is immense, as indicated by various available indicators, mainly the maternal mortality ratio (2054 per 100,000 live births), the infant mortality rate (102 per 1000 live births), and the neonatal mortality rate (51 per 1000 live births) (SHHS, 2006).

Women in South Sudan have very little control over reproductive decisions and have been exposed to sexually transmitted diseases and unwanted pregnancies. (Macklin, 2003). The war placed high pressure on them to reproduce as a national obligation, and to compensate for the high rates of child death (Jok, 1999b). Access to existing health facilities is severely limited, as indicated by the percentage of pregnant women receiving antenatal care by any qualified personnel (23%), and the percentage of deliveries attended by trained personnel (10%). Access to emergency obstetric care is low, as indicated by the caesarean section rate of 2.2%. Furthermore, reported complication rates during labour and delivery at facilities are very high: the main complications are prolonged labour (45%), infection (49%), convulsions (20%), and excessive bleeding (42%) (SHHS, 2006). The utilisation rate of family planning methods among women in South Sudan is less than 1.7%, and the most common method is the lactation amenorrhea method (LAM) (Faramand and Carballo, 2006, McGinn et al., 2011).

Health services in South Sudan, which were poorly developed even before the war, have deteriorated further over the decades of conflict, and are currently largely provided by a patchwork of international and local non-governmental organisations. These existing health facilities are in poor condition and are inadequately equipped, with minimal operational capacity and scarce human resources. Even if human resources were in adequate supply, there are no roads or means of communication. In addition, security continues to be threatened. Furthermore, while money may not be a problem due to oil revenue and the Sudan Multi-Donor Trust Funds (MDTF), absorptive capacity is a limiting factor in Southern Sudan, more so than in most other fragile states (Rietveld et al., 2006).

In an attempt to reduce supply-side barriers, international organisations provide about 70% of the health services in South Sudan, including antenatal care and safe delivery, treatment of serious complications of pregnancy and childbirth, family planning, training of healthcare workers, policy development, strengthening systems of referral, quality assurance and community behavioural changes (Michael et al., 2007).
Although demand-side barriers are as critical as supply-side barriers (Ensor and Cooper, 2004), the focus of much health policy intervention has remained focused on reducing supply-side barriers. In spite of this, very low utilisation of accessible maternal healthcare facilities in post-conflict states is one of the major obstacles to improving maternal survival. This is greatly influenced by cultural issues and other demand-side barriers. Demand-side barriers are likely to be more critical for people in conflict-affected fragile states (HLF, 2005, UNFPA, 2006).

Previous researchers reported on some of the cultural practices that might influence utilisation of services in South Sudan. For example, women would be more likely to attend modern services for childbirth if they were provided with privacy and the option to choose the squatting position for birth, and if families’ desire to use magical practices and give ‘blessings’ was facilitated. Prolonged labour may be considered a sign that a woman has not been faithful to her husband, and the woman is asked to confess ‘who else she had seen other than her husband’. Sometimes obstructed labour results in maternal death and the mother is blamed for ‘hiding the truth’. Labour is often considered a test of courage and so a woman who complains or cries is cowardly (Michael et al., 2007). Hiding the labour in this way makes it hard to identify a prolonged labour and the need for timely referral (Pearson and Shoo, 2005, AMREF, 2005). Spontaneous bleeding during the first trimester is linked to the supernatural and treated by initiating communication with the spiritual world through many means, such as asking a woman who has a past history of twins to tie a rope round the bleeding woman’s waist or ankle to stop the baby from ‘coming out’ (Jok, 1999a).

The importance of understanding the cultural, social, economic, political and historical context when working in post-conflict fragile states is well documented (HLF, 2005). A small number of studies have reported that many of the health and development projects in South Sudan are significantly hampered because of the mismatch between the views of service providers and those of the community (Palmer, 1999) and a lack of understanding of the context (Sabuni, 2011). Yet it is unclear from the literature whether or not the actors in health systems in post-conflict settings understand the context. Neither does the literature show the extent to which an understanding of the context and other demand-side barriers can be useful in planning for accessible maternal healthcare services that can reduce the maternal mortality in post-conflict settings.
Chapter One INTRODUCTION

This study is designed to gain an in-depth understanding of the extent to which the health system in post-conflict South Sudan takes account of the context of mothers in assessing their healthcare needs, so as to provide accessible maternal healthcare. The outcome of this research will inform decision makers, by promoting a better understanding of access to maternal healthcare in a post-conflict setting and identifying approaches to encourage utilisation of maternal health services.

This research represents a significant contribution to the development of the health system in South Sudan. It should be viewed as a piece in a puzzle, in an area that still needs further research, that aims for a comprehensive understanding of people in South Sudan and the challenges facing them in building their health systems. Problems of access to and utilisation of maternal healthcare are not unique to post-conflict South Sudan, these are common issues in many post-conflict settings and many developing countries. The study's findings can therefore also be relevant to other post-conflict settings, besides South Sudan.

1.2 Research aim and objectives

1.2.1 Aim

The aim of this research is to gain an in-depth understanding of determinants of and delays to access to the maternal health system in a post-conflict setting in South Sudan, and to investigate to what extent the health system actors take account of the context of their clients in assessing and planning for their healthcare needs, so as to provide them with accessible maternal healthcare.

1.2.2 Objectives

The objectives of this research are:
1. To gain an in-depth understanding of how women and their families make the decision to seek maternal healthcare;
2. To identify access pathways to healthcare services that pregnant women undergo during emergency obstetric situations;
3. To identify determinants of in-hospital delays in receiving timely and appropriate obstetric emergency care;
4. To investigate the extent to which the health system's actors understand the context of the community and integrate this understanding into service planning; and
5. To identify strategies to strengthen individual and community-based coping capacities and health systems to improve maternal healthcare in states recovering from conflict.

1.3 Outline of this thesis

Throughout this thesis, the researcher documents stories of pregnant women in South Sudan, and seeks to understand their experiences of, and challenges to, accessing maternal healthcare. In doing so, the researcher aims to add to the small but growing body of literature that documents health system challenges in South Sudan, with the intention of contributing to strengthening the maternal healthcare system there.

Chapter 2 provides a literature review and defines what is meant by conflict, conflict-affected fragile states and the stages of conflict. It summarises challenges in the post-conflict and early recovery phases, and provides examples that illustrate a lack of understanding of the context in the literature and in the practice. It also examines maternal health in post-conflict settings and existing strategies to overcome demand-side barriers to healthcare access.

Chapter 3 sets out the conceptual framework of the thesis. It conceptualises and operationalises ‘access’ to maternal healthcare, particularly in post-conflict settings. It provides a brief explanation of common theories, models and frameworks, including their limitations, that have been used in the literature that explores access to healthcare. It describes the researcher’s initial conceptual framework, which evolved throughout the research process. The final conceptual framework is outlined to guide the reader throughout this thesis.

Chapter 4 outlines the research methodology. It explores the underpinning philosophy of the research and the researcher’s philosophical position. It describes the design of the two phases of this participatory action research study, including a description of the participants, data collection and data analysis, as well as ethical issues.

Chapters 5 and 6 provide detailed descriptions of the settings to help the reader to understand the context, and to judge the similarity of study contexts and other contexts. Chapter 5 provides a brief summary of South Sudan. It outlines the country’s geographical, social and historical contexts, and describes the health system. It describes the environment in which the health system operates, the physical infrastructure, the societal norms, structure and values, as well as the historical factors that influence access to health services. Chapter
Chapter One INTRODUCTION

6 sets out the structural and cultural determinants of the study area, ‘Renk County’. It gives a comprehensive and detailed profile of the people, the context and conditions, in which people are born, grow up, live, work and age.

Chapters 7 to 10 can be read as a story of a pregnant woman’s journey. Chapters 7 and 8 address barriers to taking the decision to seek care (Objective 1). Chapter 9 addresses barriers to reaching a health facility (Objective 2), and chapter 10 addresses barriers to receiving the service (Objective 3). Chapter 7 describes contextual influences on decision making for maternity care. Two themes are described – acceptability and affordability. Acceptability is divided into two subthemes: cultural and social acceptability, which includes perceived needs and perceived severity, and acceptability of providers of maternal care, which includes healers, traditional birth attendants, the trained midwife and the doctor. Affordability is divided into three subthemes: cost of maternal care, ability to pay and willingness to pay.

Chapter 8 describes the decision-making process for seeking maternal care during labour, the actors involved in this process, and the factors that hinder or encourage the final decision to utilise maternal healthcare services.

Chapter 9 describes the physical challenges that families face to access healthcare. It describes the capacity of healthcare providers for appropriate referral and identifies and describes patterns regarding pathways to care.

Chapter 10 describes the determinants of in-hospital delays in receiving good quality obstetric emergency care. Themes include supportive systems and the environment, human resources, clinical management and appropriateness of the services.

Chapter 11 explores the extent to which stakeholders understand the context of the people they serve and the extent that this understanding has been used in developing an accessible health service that could reduce maternal mortality (Objective 4).

Chapter 12 describes the outcomes of the action research. The aim was to identify strategies to strengthen individual and community-level coping capacities and health systems to make a change and to improve access to maternal health services (Objective 5).

Chapter 13 reflects upon the research findings presented in previous chapters to address the research questions set out in this thesis (chapter 1). It includes critical issues that arose during the research process: access to maternal health
in post-conflict settings, translating knowledge into action and understanding the context.

Chapter 14 concludes the thesis. Comprising four sections, it reflects on the main research findings, the contribution made by the author (methodologically, theoretical and practical), the research limitations, and the need for future research.
Chapter Two  

**LITERATURE REVIEW**

2  Chapter Two **LITERATURE REVIEW**

‘The data we have are not the data we want. The data we want are not the data we need. The data we need are not available.’

Finagle’s Laws of Information (Graham, 2002)

2.1 Introduction

This chapter comprises three sections. The first section defines what is meant by the terms conflict, conflict-affected fragile states and stages of conflict. The funding and political challenges in the post-conflict, early recovery phases are also summarised.

The importance of understanding the cultural, social, economic, political and historical contexts is well documented in the literature, but growing evidence shows the lack of knowledge and understanding of the wider social context and structures in post-conflict settings (Oswald and Clewett, 2007, HLF, 2005, Mcloughlin, 2012). It is not clear from the published literature how much understanding the staff of health systems in post-conflict settings have of these issues, or of how much knowledge of demand-side barriers is used in planning for accessible maternal healthcare services that can reduce maternal mortality. In the second section, the researcher illustrates three main areas that reflect this lack of understanding of the context: the cultural skewedness of the publications; the mismatch with the views of communities; and the limited understanding of donors and international organisations of these contextual issues.

The lack of understanding of the context in the presence of many strategies that have been suggested to reduce maternal mortality raises an important question: do women in post-conflict settings have access to these interventions and do they benefit from these strategies? There is little published peer-reviewed research literature on this, and what is available comes from a small group of academics who are often not from the countries they are writing about. There is a lack of community voices, a lack of literature on conflict countries, and a lack of literature from researchers from conflict countries. Given these restrictions, the third section examines, through a narrative review of the literature, maternal health in post-conflict settings and existing strategies to overcome demand-side barriers to healthcare access with a focus on three thematic strategies: community involvement; financial incentives; and patients’ transfer enhancement.
2.2 Health system challenges in post-conflict and early recovery

2.2.1 Conflict phases and fragility status

The term ‘conflict’, which is derived from the Latin ‘to clash or engage in a fight’ means ‘a confrontation between one or more parties aspiring towards incompatible or competitive means or ends’ (Miller et al., 2004). Conflict is described as having four phases (WHO, 2000a): pre-conflict, conflict, stabilisation and post-conflict. The pre-conflict phase is characterised by deteriorating economic and social circumstances, civil disturbance and growing instability. The phase of conflict itself can go through recurrent phases of relative stability or intense fighting. This phase usually involves an emergency period characterised by initiation of a humanitarian response and gradual replacement of chaos by structure and organisation in order to meet people’s basic needs. The stabilisation phase is characterised by a return to life of some level of normality, where services and facilities try to meet people’s basic needs. The post-conflict phase is characterised by reconstruction, peace, state building, and the reintegration of refugees or internally displaced persons, who return to their areas of origin, with settled communities.

‘Conflict-affected fragile states’ (Figure 1) have been categorised into prolonged crisis (e.g. Somalia), post-conflict (e.g. the Democratic Republic of the Congo (DRC), Liberia, South Sudan), gradual improvement (e.g. Burundi), and deteriorating governance (e.g. Côte d’Ivoire). According to the World Health Organization (WHO, 2008), ‘fragile states’ are defined as states that either cannot or will not deliver core functions and basic services to their populations (DFID, 2005). According to the Organisations for Economic Co-Operation and Development (OECD), they are unable to meet their people’s expectations, or to manage changes in expectations and capacity through the political process (OECD, 2008a). Although ‘cannot’ in the WHO definition is vastly different from ‘unable’ in the OECD definition, both organizations agreed that these states are characterised by a lack of effective influential political processes, weak institutions and governance systems, limited administrative capacity, and extreme poverty. Most fragile states have experienced conflict.
2.2.2 Funding challenges in post-conflict and early recovery

The ‘transitional funding gap’ is one of the main challenges for post-conflict countries. The period from conflict to peace is a transition from relief to development, and from emergency to state building. During the emergency and relief phase the majority of health services are usually provided by humanitarian non-governmental organisations (NGOs). The challenge during the transitional period is to maintain at least the existing level of health services, and prevent any deterioration. As shown in Figure 2, the transitional funding gap occurs when the existing humanitarian aid reduces funding for health, and development aid takes time to be established (Canavan et al., 2008). Furthermore, there is a variety of funding gaps: a ‘temporal funding gap’ occurs during the time window between humanitarian and development assistance; a ‘recovery funding gap’ is related to recovery activities; and a ‘fragile states funding gap’ relates to fragile states and protracted crises (Steets, 2011).

Although there is no conclusive evidence for decreases in funding flows for the health sector during the transitional period (Steets, 2011), it has been reported that the DRC, South Sudan and Sierra Leone had such funding gaps. In the DRC in the years 2006–2007 the level of humanitarian funding fell and some humanitarian NGOs suddenly withdrew, resulting in reductions in health service delivery. In South Sudan after signing the comprehensive peace agreement in 2005, the Multi-donor Trust Fund (MDTF) that accounted for 43% of total funding experienced a major delay in its disbursement (Canavan et al., 2008).

Early recovery projects and activities are often extremely under-funded and may vary between regions and sectors (Bailey et al., 2009). These projects may
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also have lower financial coverage than humanitarian activities (CWGER, 2010). These gaps include funding gaps for building capacity for strategic planning, political implementation, and the absorption and utilisation of development financial resources (Chandran et al., 2008).

Factors that widen this transitional gap include poor health planning, lack of strategies, weak leadership, and the political agendas of donors and other actors. This may not always be the case. In Liberia for example, because of significant pressure from the Ministry of Health and NGOs, the transitional fund gap was reversed because the humanitarian donors agreed to continue their funding for basic health services until the situation stabilised, leading to a smooth shift from humanitarian to development funds (Canavan et al., 2008).

Ideally, the focus of the health sector in post-conflict settings should target three sequential interventions: meeting the immediate health needs, providing the essential health services, and rebuilding the health system. The latter should involve directing the resources not only towards short-term needs, but also towards medium-term and long-term ones, as well as towards the areas of management, financing, capacity building and health policy (Waters et al., 2007).

**Figure 2 Pattern of aid to fragile states in crisis**

![Pattern of aid to fragile states in crisis](image)

(Canavan et al., 2008)

**2.2.3 Political challenges in post-conflict and early recovery**

The health service provision during early recovery is seen as a good entry point for political visibility and legitimacy enhancement. (Eldon et al., 2008) Engagement of the state in health service provision extends beyond regime survival and has a positive impact in terms of reducing the likelihood of state
collapse in situations of rapid political transition (OECD, 2008b). This political pressure makes it difficult for politicians to wait for a comprehensive contextual understanding of a country, and whether their attention remains focused on aspects other than visible capital development and reduction of health system supply side barriers is doubtful (Eldon and Gunby, 2009).

The establishment of new health facilities, importation of new medical equipment and introduction of immunisation days can provide valuable photo opportunities for politicians (Wright, 2002). In Sierra Leone, the government rapidly restored certain health services after the war in order to be seen to be capable and ‘back in business’. Similarly, in the war areas of Mozambique, the provision of primary care services after the war was seen as an early sign of the ‘normalisation of civil life’ (Eldon and Gunby, 2009).

Cambodia’s health system, which depended on external experts, sought to ensure stewardship of the health service delivery and improvements in primary health after the conflict but healthcare providers struggled to appear responsive and to convince the people that the health services were provided by the state. Internal conflict between political parties within the Ministry of Health led to inconsistency and an inability to arrive at clear policy positions on maternal mortality for many years, with no decisive actions made (Eldon and Gunby, 2009). Only an urgent decree by the prime minister was able to break this cycle, and Cambodia now has a Midwifery Council, new guidelines for midwifery education, services and regulations (Kingdom of Cambodia, 2006).

Most of these efforts to rebuild health services aim to reduce supply-side barriers of health systems in post-conflict settings (Ensor and Cooper, 2004). Despite this, very low utilisation of accessible maternal healthcare facilities in post-conflict settings remains one of the major obstacles to improve maternal survival. Evidence from South Sudan shows that although most of the attention is focused at the facility level, facilities appear to be underutilised (Michael et al., 2007).

### 2.3 Challenges in understanding the context

#### 2.3.1 Absence of published knowledge

There is a marked under-representation of developing countries in high-impact medical journals such as the New England Journal of Medicine, the British Medical Journal and the Lancet. Many reasons are given for this, including the lack of research funding, poor facilities, inadequate training and language barriers (Sumathipala et al., 2004).
In a systematic review of 1,232 papers about maternal mortality in developing countries published between 2000 and 2004 (Gil-González et al., 2006), the authors found that more than two-thirds of the studies were culturally skewed and carried out by researchers from the developed world, without participation of authors from developing countries. Maternal mortality and morbidity studies that have been conducted in Asia and Africa have been criticised for quality issues (Gulmezoglu et al., 2004).

2.3.2 Exclusion of community voices

In addition to the publication bias and its cultural skewedness, mismatches between the views of policy makers, service providers and the community have been reported in the literature. The dilemma of traditional birth attendants (TBAs) is a good example to illustrate challenges in understanding and dealing with the context.

The training of TBAs started formally in Sudan in the early 1920s, introduced by Miss M.E. Wolfe, a British missionary midwife (Sibley and Sipe, 2006). It was promoted by the WHO in the late 1950s and 1960s as a strategy to reduce maternal mortality (WHO, 1992). This strategy has evolved from an emphasis on the training of TBAs to promoting the presence of professionally skilled attendants at all births (Sibley and Sipe, 2006).

Each country has its own story of how it introduced TBAs within the cultural context. For example Sierra Leone, which has one of the highest maternal mortality rates worldwide (WHO et al., 2010) has a long history of TBAs. Since the first TBA training that took place there, in 1972 in Nixon Memorial Hospital in Segbwema, considerable support was given by the maternal and child health division in the Ministry of Health and by UNICEF for training TBAs (West, 1981). Although TBAs are often poorly trained and sometimes use unsafe delivery procedures, almost 70% of deliveries in rural areas are attended by TBAs; for this reason, they are described as a lifeline for women in rural Sierra Leone (Gibril et al., 2004, Konteh, 1997). For years, trust in and the vast experience of TBAs as well as their compassionate care drew patients to them (Oyerinde et al., 2012). There is a severe shortage of skilled health workers in Sierra Leone, and the country has limited basic emergency obstetric care (BEmOC) facilities and poorly distributed comprehensive emergency obstetric care (CEmOC) facilities (Oyerinde et al., 2011b). Despite this, in 2011, the government suddenly banned TBAs from delivering babies in mothers’ homes, in order to encourage mothers to go to clinics or hospitals (Whitaker, 2012). Even though the government introduced free health services for those under
five years, pregnant women and lactating mothers (Donnelly, 2011), the
demand for maternity and new born baby services is still low (Oyerinde et al.,
2011b). A number of factors discouraged women from using services: indirect
costs, remoteness of some villages, poor roads, poor facility infrastructure,
often absent staff and the perception that facilities were poorly stocked and
could not provide continuity of care services (Oyerinde et al., 2012). Currently
the Sierra Leone government aims to fill this huge gap by replacing TBAs with
nationwide community health workers (MOHS, 2010).

A similar development happened in Malawi. The TBAs, many of whom had
years of training (Smit, 1994), were banned in 2007 (Nove, 2011). But in 2011
the President surprised everyone when he suddenly lifted the ban, saying,
‘traditional birth attendants should not be stopped from practicing. Instead
they should be trained in safer methods of delivery’ (Ngozo, 2011).

Most of the systematic reviews on the role of TBAs assumed that TBAs are
similar in all countries. However, there are huge cross-country differences
in terms of roles, levels of training, competencies and the culture of TBAs (Sibley
et al., 2012).

### 2.3.3 Different perceptions of health and illness

Access to antenatal care demonstrates misunderstandings of social and cultural
contexts in low and middle-income countries. Evidence suggests that there is a
misalignment between the provision of antenatal care and the social and
cultural contexts in which many women live (Finlayson and Downe, 2013). It
can be argued that the theoretical underpinnings and principles of standard
programmes for antenatal care do not fully consider the contextual beliefs,
views and experiences of women (Villar et al., 2001, WHO, 2002). This may
prevent or delay women in developing countries from initial or repeated access
to such care. If antenatal service provision and planning is not aligned with
local contexts, even the best and most physically accessible services may
remain underutilised (Finlayson and Downe, 2013).

The health system assumes that women perceive pregnancy as potentially risky
for them and their babies (WHO, 2002). However, several studies found that
women consider pregnancy as ‘a healthy physical state’ (Abrahams et al., 2001,
Choudhury and Ahmed, 2011). Another assumption by the health system is that
pregnancy brings a positive social status (WHO, 2002). But in fact, pregnancy
could be socially risky for certain groups and could subject woman to harmful
magical practices from jealous relatives and community members (Chapman,
2003, Atuyambe et al., 2009).
Health service providers might assume that antenatal care is an affordable service and that families have enough resources to rationally choose to prioritise access to care (WHO, 2002). This may not necessarily be true when families have to make economic choices to prioritise food for example. In addition, antenatal care (ANC) might be subjected to unexpected and indirect costs (Matsuoka et al., 2010, Titaley et al., 2010). All these beliefs and attitudes might prevent or delay the initiation of access to ANC or these visits being maintained (Finlayson and Downe, 2013).

At all levels of health service provision, even at the district levels, which are closest to the level of local community, health service providers might have different perspectives to those of the communities they are serving regarding healthcare issues. For example, while local people stated that miscarriage is an issue in South Sudan, some healthcare providers stated that miscarriages are not taking place in their community (Palmer, 1999). Some service providers thought that ‘not many women die in childbirth’; by contrast, maternal mortality and morbidity were perceived by local people to be high (Palmer, 1999).

2.3.4 Position of donors and international organisations

Donors face many challenges to provide substantial and effective support to conflict-affected fragile states, due to the rigidity and compartmentalisation of aid architecture and the lack of a holistic financing approach. The policies and procedures that international agencies use to engage and manage risks are not usually contextualised to the circumstances of transition environments (DAC, 2012). Humanitarian and aid organisations focus on short-term needs and quick impact without engaging or contributing actively to long-term sustainable solutions or state building (Save the Children, 2009).

A recent OECD (2011) report clearly stated that international stakeholder engagement in 13 post-conflict-affected fragile countries was seriously ‘off track’. They failed to meet almost 80% of the principles for good international engagement in fragile states and situations (FSPs), which indicates a significant gap between policy and practice (OECD, 2011). These principles are as follows:

- Take context as the starting point;
- Do no harm;
- Focus on state building as the central objective;
- Prioritise conflict prevention;
- Recognise the link between political, security and development objectives,
- Promote non-discrimination;
- Align with local priorities;
- Agree on practical coordination mechanisms;
- Act fast;
- Avoid pockets of exclusion.

To adhere to these principles international agencies would need to secure a comprehensive understanding of the specific country context; this includes the political will, legitimacy, capacity and the required strategic response. The adaptation to country and regional context helps to avoid a blueprint approach. However, a survey conducted in 2009 (CDA, 2011) found that development agencies do not take time to understand the context adequately or to share their respective analysis, that they did not always translate their efforts to understand the context into programming, and that they lack the flexibility to adjust programming in the light of changes. It also found that for those who gained understanding of the local dynamic and political context, the frequent staff turnover at local level can lead to loss of this wealth of knowledge (CDA, 2011).

Findings from South Sudan indicated that the programmes of the development agencies are significantly hampered because of a lack of understanding of the context, a lack of statistics and planning data, and limited capacity and experience, accompanied by continuously bypassing of the government in the delivery of basic services (Sabuni, 2011).

2.4 Maternal health services in resource limited and post-conflict states

2.4.1 Maternal health and conflict

Maternal death is defined as “is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes” (WHO et al., 2010). Maternal death is a good indicator of the availability of health services, particularly in conflict-affected fragile states. It is the ‘tip of the iceberg’ that reveals the magnitude of pregnancy-related conditions, near-miss events, other potentially devastating consequences after birth, and the long-term psychological, social, and economic consequences (Filippi et al., 2006).
Enough is known about maternal health to inform global action, yet the poorest and most fragile countries have the least adequate data to monitor and measure maternal health (Ronsmans and Graham, 2006). It has been argued that the impact of conflicts on maternal health in Africa is difficult to ascertain because of a lack of reliable data in politically unstable regions, and the doubtful scientific quality and inappropriate methods of mortality estimation (Guha-Sapir et al., 2005). This is compounded by factors such as the lack of pre-conflict development programmes and the influence of humanitarian aid (Guha-Sapir and van Panhuis, 2004). In addition, some international humanitarian organisations have claimed that maternal health improved in conflict settings covered by humanitarian activities, and that health indicators showed better results when compared to the situation before the conflict, or to the non-conflict-affected areas in the same country (Merlin, 2004, MSF, 2013, Larrance and Sharma, 2009).

Despite these arguments, there is growing evidence to show the profound negative impact of conflict on maternal mortality. Populations that have experienced armed conflict often have among the worst indicators of maternal mortality of any countries in the world. O'Hare et al. (2007) compared the adjusted maternal mortality ratio of 21 African that have experienced recent armed conflict with 21 African countries that have not experienced recent armed conflict. They found that the median adjusted maternal mortality is significantly higher in countries with recent conflict (1,000 per 100,000 births) compared to countries that had not had such conflict (690 per 100,000 births; p=0.005) (O'Hare and Southall, 2007).

Guha-Sapir et al (2005) reviewed mortality and nutrition indicators in the complex emergencies generated by conflicts in Angola, Sudan, DRC and Ethiopia. They concluded that the levels of hunger and death in these four African countries are unacceptably high by any standard. Causes of death tend to be highly dependent on circumstantial factors such as drought, crop failure, poor sanitation, infectious diseases, violent conflict, genocide and a failing health infrastructure (Guha-Sapir et al., 2005).

Poverty, loss of livelihood, disruption of services, breakdown of social support systems and acts of violence combine to destroy health (Waters et al., 2007, Pedersen, 2002). As war winds down, maternal mortality may remain at wartime levels, or even increase as clinics remain damaged or unstaffed and health workers remain scarce (Rubenstein, 2009, Michael et al., 2007). In addition, the return of refugees or displaced people can add greater demands to
an already stressed system (CHF, 2011, Duffield et al., 2008, Brooks et al., 2007).

2.4.2 Gender norms and maternal health

Gender norms determine sociocultural identity construction and attribution of rights and unequal power relations. These can affect risk and vulnerability, health-seeking behaviour and health outcomes as well as health sector responses for men and women of different ages and social groups (WHO, 2011). Gender inequality is a cross-cutting determinant of health that operates in conjunction with other forms of discrimination. Gender norms that allow superior value and power to men increase women’s risk of gender-based violence, which can contribute to poor maternal health (WHO, 2009).

Unequal household decision-making power restricts women’s autonomy, limit her power to negotiate with her partner, increase fertility rates, increase unwanted pregnancy, and negatively affect maternal health (Mohillajee et al., 2007, UNFPA and WHO, 2009). Women may not have access to household resources for health care, as family priorities may focus on household breadwinners, which are more likely to be male in many settings (Broom et al., 2009). Gender norms demanding that girls should remain shy and innocent about sexual matters may limit their access to information on sexuality, contraception, pregnancy and related services (WHO, 2011). Health care personnel may stigmatize and disrespect single mothers and pregnant adolescents. Judgmental personnel may prevent adolescents from accessing contraception or sexual and reproductive information or services (UNFPA and WHO, 2009). In some settings, infertility is more likely to lead to shame, social ostracism or divorce among women than among men (Jejeebhoy, 2004).

In the fluidity of conflict, gender norms are inadequately considered. The gendered aspects and maternal health are rarely examined exhaustively through a gender lens that could help to develop better ways to undertake gender-sensitive post conflict measures to improve maternal health status.

2.4.3 Efforts to improve access to the maternal health system

The majority of maternal deaths occur at homes in rural areas, among poorer communities and during the peripartum period that extends from the last three months of the pregnancy to the first week after the end of the pregnancy (Ronsmans and Graham, 2006). A peak in maternal mortality occurs during the intrapartum period around childbirth and the first day post-partum (Campbell and Graham, 2006). Hence Filippi et al., in the Lancet series they edited on
maternal survival (2006), called for a clear strategic vision that prioritises the intrapartum period in order to reduce maternal mortality.

The main reasons for maternal deaths within the health system are the lack of skilled birth attendants, remoteness, delay in referral for emergency obstetric care (Campbell and Graham, 2006), delay or poor implementation of interventions at the facility level, and verticalisation of care in which single elements of care are implemented without connection with the comprehensive care (Souza et al., 2013).

Many strategies have been suggested to reduce maternal mortality, including contraception, antenatal care, referral systems that include basic and comprehensive emergency obstetric care, and postnatal care. A recent review of the evidence shows the significant and successful role of family planning as a preventative strategy in reducing maternal mortality (Ahmed et al., 2012). Antenatal care that includes provision of Misoprostol for prevention of postpartum haemorrhage at home births has been proven to be one of the most cost effective interventions to reduce maternal deaths (Prata et al., 2010).

A more essential issue is whether women do indeed have access to these interventions and whether they benefit from these strategies. It is now evident that high coverage of essential interventions in healthcare facilities does not necessarily reduce maternal mortality (Souza et al., 2013). Universal access will not be achieved unless women are cared for in their own communities and are empowered to take decisions about their care at the right time, without waiting for others to make decision for them: 'Women are not dying because of diseases we cannot treat ... they are dying because societies have yet to make the decision that their lives are worth saving' (Fathalla, 1997).

Three thematic strategies to overcome demand-side barriers to healthcare access emerging from the literature are: community involvement, financial incentives and enhancing patient transfer.

2.4.3.1 Community involvement

2.4.3.1.1 Community-based interventions

Bringing healthcare to communities, through community participation and community-based interventions, is crucial for universal access to healthcare and for improving maternal and neonatal health (Darmstadt et al., 2005). Many approaches have been described including, for example, home visits, home management and facilitating referral (Bang et al., 2005). Home visits involve promotion of birth and newborn-care preparedness via home-based antenatal
care by female community health workers, and home-based postnatal care (Baqui et al., 2008). Another approach involves female or ‘lady’ health workers, who organise group sessions at the community to promote antenatal care, use of clean kits at delivery, institutional delivery, newborn care, danger signs identification and promotion of health-seeking behaviour (Bhutta et al., 2011).

A recent Cochrane review that included 18 cluster trials investigated the effects of community-based interventions in reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes. The authors concluded that although skilled delivery and facility-based services for maternal and newborn care are important, the evidence is sufficient to recommend scaling up the community-based care packages (Lassi et al., 2010).

### 2.4.3.1.2 Women’s groups practising participatory learning and action

Another promising approach involves women’s groups practising participatory learning and action. This includes a cycle of four phases: identification and prioritisation of maternal problems, planning for locally feasible solutions, implementation and assessment. A local woman facilitates each of these women’s groups and supports the women through a series of meetings. Interactive methods are used at these meetings, including stories, games and pictures, to discuss prevention, care seeking and treatment for common maternal and infant problems (Manandhar et al., 2004, Tripathy et al., 2010, Lewycka et al., 2013). This bottom-up approach not only addresses how to reduce neonatal and maternal deaths but also addresses poverty, inequity, women’s empowerment and other social determinants for health (Victora and Barros, 2013).

A recently published systematic review and meta-analysis of the effect of women’s groups practising participatory learning and action on improving maternal and newborn health in low-resource settings (Prost et al., 2013) confirmed that this approach substantially reduced neonatal and maternal deaths in rural and low-resource settings. These contextualised community-based interventions also led to significant behavioural changes and sustainable capacity development (Kumar et al., 2008). This method provides health education, based on dialogue and local problem solving, which is more effective and empowering than the message giving approach (Prost et al., 2013). However, there are still unanswered questions, such as ‘What are the mechanisms behind the intervention effects?’ and ‘How best to promote participation?’ (Victora and Barros, 2013).
2.4.3.1.3 Community based health insurance scheme

One other form of community involvement is the community-based health insurance (CBHI) scheme. This is a voluntary form of health insurance that is organised at community level. It aims to prevent catastrophic health expenditure, particularly among the underserved and the poorest of the poor. Community members are involved in the management of the insurance and the selection of the health services it covers (Tabor, 2005).

Current evidence about CBHI illustrates modest achievements and enrolment challenges (Carrin, 2003), difficulty in reaching the poorest of the population (Jütting, 2004), and challenges in financial and organisational sustainability (Robyn et al., 2012). However, the CBHI scheme can significantly contribute to financial protection, particularly if it is established as a complementary mechanism linked with social funds or the national health financing policy (Carrin, 2003). CBHI has been shown to increase both the demand for maternal health services and the rate of delivery with skilled birth attendants (Schneider and Diop, 2001).

2.4.3.2 Financial incentives

2.4.3.2.1 Conditional cash transfers

Conditional cash transfer is a social protection innovation that provides cash to poor households conditional on meeting health service requirements such as attending perinatal care, growth monitoring, and vaccinations for children or educational conditions such as school enrolment and good attendance (Fiszbein et al., 2009).

Most of the large-scale conditional cash transfer programmes have been implemented in Latin America. In Mexico (Gertler, 2004, Rivera et al., 2004), Nicaragua (Maluccio and Flores, 2005), and Colombia (Attanasio et al., 2005) the focus has been on child health and education, while in Brazil the focus included maternal health as well as child health (Morris et al., 2004, Rasella et al., 2013).

There is now compelling evidence that conditional cash transfers in general increase income and overall household consumption and nutrition (Kabeer et al., 2012). Furthermore, it promotes the accumulation of human capital among poor households (Rawlings and Rubio, 2005) and increases access to healthcare for hard-to-reach groups (Knaul et al., 2012).
Evidence about conditional cash transfer programmes strongly illustrates their effectiveness in improving access to preventative services and, sometimes, in improving health status and maternal health (Lagarde et al., 2007, Arnold et al., 2011). Nonetheless, it is still not clear whether the various pathways through which the conditional cash transfers work are caused by the structure of this scheme or through behavioural changes (Lagarde et al., 2009).

On the other hand, the success of conditional cash transfer programmes in Latin America isn’t necessarily transferable to other parts of the world and their replicability in poor settings is still uncertain (Lagarde et al., 2009). For example, the conditional incentive programme in Nepal for all pregnant women that encourages institutional delivery faced severe constraints in implementation at district level. These included bureaucratic delays, lack of planning and weak and inadequate health services (Powell-Jackson et al., 2009).

2.4.3.2.2 Voucher scheme

A voucher system has been introduced as a form of demand-side funding in many settings to provide access to pre-defined services and to improve targeting of hard-to-reach populations. These redeemable coupons for a defined service package place the power of purchasing care in the hands of patients (Ensor, 2004).

Vouchers have been used for maternal healthcare in Cambodia to improve access, quality and inequities of selected reproductive health services (Bellows et al., 2011). In India a voucher scheme, which was implemented to increase institutional delivery for emergency obstetric care for the poor, succeeded in providing substantial benefits to poor people (Bhat et al., 2009).

A recent quasi-experimental trial was conducted in Eastern Uganda to study the effect of the voucher scheme on improving institutional delivery and enhancing maternal follow-up. Women in the intervention group were given booklets containing transport vouchers and service vouchers to facilitate access to free transport and free antenatal care, delivery care and postnatal care. Early results show a rapid increase in the utilisation of maternal care (Ekirapa-Kiracho et al., 2011, Pariyo et al., 2011).

However, while there is growing evidence to support demand-side financing, simply providing vouchers does not guarantee utilisation of services. Issues such as the wider cultural context, inequality, transportation system limitations, cost effectiveness, health system strengthening and sustainability all need to be considered and integrated (Ensor, 2004, Pariyo et al., 2011).


Chapter Two LITERATURE REVIEW

2.4.3.3 Enhancing patient transfer

2.4.3.3.1 Emergency transport fund

Many communities have set up and administered loan funds for emergency obstetric transport to overcome difficulties in paying for transportation. Two studies conducted in Nigeria (Chiwuzie et al., 1997, Essien et al., 1997) showed how communities could establish and manage emergency transport funds for maternal emergencies to reduce delay in accessing emergency obstetric care. Similar community-managed emergency transport funds were implemented in Pakistan (Bhutta et al., 2008), Bangladesh (Hossain and Ross, 2006, Barbey et al., 2001, Azad et al., 2010), and India (Kumar et al., 2008).

Despite challenges, there is evidence that community transport funds and contracted transporters play a leading role in mobilising pregnant women to attend antenatal care and increase institutional delivery (Pariyo et al., 2011). However, this depends on community leadership and considerable mobilisation efforts (Fofana et al., 1997).

2.4.3.3.2 Intermediate forms of transportation

Facilitating geographical accessibility is crucial for access and utilisation of maternal care. There has been advocacy since the 1970s for appropriate intermediate modes of transport to health services in developing countries (Gish and Walker, 1978) that offer a locally appropriate and low cost mobility service in rural areas. Since then, many innovative, intermediate and alternative transport initiatives have been introduced to reduce the delay in referring women with maternal complications to health facilities, to reduce the cost and time of travel, and to link up with the referral system. These initiatives include motorised transport (such as motorcycles, pick-up trucks tractors and motorboats) and non-motorised transport (such as bicycles, animal drawn carts and canoes) (Holmes and Kennedy, 2010).

For example, in Malawi three remote rural health centres were equipped with motorcycle ambulances to refer obstetric emergencies to the district hospital. Findings of this study found that motorcycle ambulances reduced referral delay by 35%–76%. Purchase price and operating costs were 19 to 24 times cheaper than for a car ambulance (Hofman et al., 2008).

Linking the ambulance transportation with radio or telecommunications systems has improved referrals in many settings such as Burkina Faso (Brazier et al., 2009) and Indonesia (Alisjahbana et al., 1995). In rural Niger, prior to a radio-ambulance system, a woman with obstructed labour had no option other
than to walk 75 kilometres or go by camel to reach the nearest hospital (Bossyns et al., 2005).

Non-motorised transport is slow, uncomfortable, occasionally culturally unacceptable and unfeasible for long distances (Holmes and Kennedy, 2010). For instance, deep cultural beliefs in rural Malawi deterred pregnant women from using a bicycle ambulance, designed to pull a wheeled trailer-stretcher, and reduced their utilisation of health facilities (Lungu et al., 2001).

Recent reviews of transportation for maternal referral illustrate that motorised transports that consider cultural concerns are more likely to be an acceptable and effective choice for pregnant women during emergencies (Krasovec, 2004, Holmes and Kennedy, 2010).

2.4.3.3.3 Maternity waiting homes

Maternity waiting homes are residential facilities within easy reach of emergency obstetric care (EmOC) that aim to enhance access to care by bridging the geographical gap between women and services, and to increase institutional deliveries. These homes provide a place to stay and await labour for high-risk pregnant women or those who are living far away during the final weeks of their pregnancy. Those women have the opportunity to receive antenatal care and health education about pregnancy, delivery and neonatal care (van Lonkhuijzen et al., 2012). Some of these waiting homes are actually located within hospitals, as is the case in Ethiopia (Gaym et al., 2012), or just next to the maternity ward, as in rural Zambia (van Lonkhuijzen et al., 2003) and rural Timor-Leste (Wild et al., 2012). Some of them are in accessible locations with secured transportation and communication facilities, such as some of the waiting homes in Cuba (WHO, 1996).

However despite studies that have reported positive effects of maternity waiting homes, utilisation of these facilities remains a challenge. Factors affecting satisfaction and utilisation include: quality of the facilities (small, crowded, poor hygiene) (van den Heuvel et al., 1999, Nhindiri et al., 1996); cost of living (shortages of food, water and firewood, cost of reaching the hospital) (Nhindiri et al., 1996, Eckermann and Deodato, 2008); cultural issues, such as lack of awareness about the existence of the waiting homes, lack of privacy, inability to use traditional birthing practices, being away from the family and lack of respect from health staff (Eckermann and Deodato, 2008, Mramba et al., 2010); and access to services, issues here including safety concerns at night, cost of reaching the hospital and absence of healthcare personnel (Eckermann and Deodato, 2008, Wilson et al., 1997).
A recent Cochrane review that assessed the effects of a maternity waiting facility did not find any randomised controlled trials that evaluated the outcomes of maternity waiting homes in developing countries. The authors found wide variations between maternity waiting homes in terms of facilities, location, population covered, capacity and level of care. These variations make it difficult for individual studies to transfer their results to other settings (van Lonkhuijzen et al., 2012).

2.5 Conclusion

Although there has been marked progress and positive changes in maternal and child health in some developing countries (Hogan et al., 2010, Countdown to 2015 Initiative, 2012), the African Regional Health Report 2006 shows that many campaigns have failed to improve maternal health in African countries in the last three decades (WHO, 2006). This is mainly because of neglected health systems (Songane, 2007). The Safe Motherhood Initiative, launched in Kenya in 1987 by international agencies (Mahler, 1987), is an example of a failure to generate a broad-based improvement in this area of public health because of the inability to translate recommendations into local practice (WHO, 2006, Maine and Rosenfield, 1999).

Maternal health services are dependent on the complex interdependent functioning of the entire health system (Graham, 2002). The links between inputs, process and outcomes are subject to multiple influences and confounding factors, and each country's contexts determine many factors that influence the outcomes of maternal health and the performance of the service (Parkhurst et al., 2005). The intermittent nature of demand, the difficulty in accessing maternal health quality, and the wide range of powerful stakeholders with different priorities and agendas make the health system extremely complex (Tayler, 2005). In addition, international donors may influence the conditions of a country's health programmes to satisfy their own agenda (Songane, 2007).

One of the main factors contributing to the failure of maternal health programmes is the mismatch between the actual needs of the people and the circumstances in which healthcare is provided, such as lack of trust and culturally inappropriate medical practices (Kanté and Pison, 2010). Numerous single interventions exist; however, no single intervention is by itself sufficient to improve maternal health and decrease morbidity and mortality (Campbell and Graham, 2006). These multiple interventions and projects often do not communicate, bypassing the government, and using standardised, inflexible
models. Politicians, policy makers, health authorities, providers and target populations do not generally communicate with each other before developing maternal health programmes. Likewise, programme designers do not normally take into consideration the socioeconomic, cultural, political and other sensitive factors within the community when designing or implementing their programmes (Kanté and Pison, 2010).

Although there are many interventions to enhance access to maternal health care (Bart Jacobs et al., 2011), most of them are not linked in a programmatic approach, and are not incorporated into a coherent planning and implementation process.
3 Chapter Three CONCEPTUAL FRAMEWORK

3.1 Introduction

This chapter sets out the conceptual framework of the thesis, as ‘the current version of the researcher’s map of the territory being investigated’ (Miles and Huberman, 1984).

While the initial framework was based on existing theories, it evolved as the research progressed, as reflected in the final framework. This approach enabled the identification of all useful means of analysis and presentation of data throughout the research process.

The purpose of the first section of this chapter is to conceptualise and operationalise ‘access’ in order to construct an integrated conceptual framework for the study of access to maternal healthcare, particularly in post-conflict settings. The section provides a brief explanation (including limitations) of common theories, models and frameworks that have been used in the literature to look at access to healthcare.

The second section describes the researcher’s initial conceptual framework, which is based on the wider definition of access and explains the theories and models the researcher integrated into the framework. As this conceptual framework continued to evolve during the research process, the final conceptual framework is then illustrated to guide the reader through this thesis.

The purpose of this chapter is not to provide a systematic review of all the models and frameworks on healthcare utilisation and access but to examine frameworks and concepts that the researcher found useful in describing the results.

3.2 Concept of access

Access to services is a major concern in the study of health systems, health policy, politics and development. It is one of the indicators most used in evaluating the performance of health systems. Despite this, access is often not clearly defined in the literature and there is no universally accepted definition. Sometimes it is used as a political rather than operational concept. In addition
to the lack of a precise definition and the fact that the meaning of access has been changing over time, the term has also been used interchangeably with other terms, such as accessible and available, which are themselves ill-defined (Oliver and Mossialos, 2004, Aday and Andersen, 1974).

Some authors considered access to mean entry to healthcare sites. For example, the US Institute of Medicine defines access as the degree to which individuals and groups are able to obtain needed services from the medical care system (Institute of Medicine, 1993). On the other hand, WHO considers access as, 'coverage of health interventions at an affordable cost' (WHO, 2005). Universal coverage that was recommended by WHO in 2005 was defined as ‘access to key promotive, preventative, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access’ (WHO, 2005).

Utilisation of healthcare services is often inappropriately used as a proxy for access because it is easier to observe (Oliver and Mossialos, 2004). However, access to healthcare is not the same as utilisation of healthcare. There is a difference between access in terms of having it and access in terms of using services. For example, people may have access to services if services are available and adequate, but the extent to which they ‘gain access’ is influenced by other factors such as financial, organisational and social or cultural barriers (Gulliford et al., 2002). This means that to have access to services does not necessarily mean that one is able to take advantage of those services and utilise them (Gulliford et al., 2002, Oliver and Mossialos, 2004).

In general there are two main approaches used to look at access to healthcare. The first approach emphasises the ‘process’, which is mainly the illness response. This approach is rooted in health psychology and looks at population characteristics, health-seeking behaviour and factors that enable or prevent people from making healthy choices. The most utilised models of this approach are the ‘health belief model’ (HBM) (Hochbaum, 1958) and the ‘theory of reasoned action’ (Ajzen and Fishbein, 1980), which later developed into the ‘theory of planned behaviour’ (Ajzen, 1991).

The second approach emphasises the ‘end point’, which is the utilisation of the formal health system. This approach is rooted in medical sociology and medical anthropology and focuses on aspects of the health delivery system, the type of barriers that lie between patients and services, and the type of pathways to healthcare (Aday and Andersen, 1974). The most known model is the ‘healthcare utilisation’ model (Andersen and Newman, 1973). In the next
paragraphs the researcher provides a brief explanation of these common theories, models and frameworks.

### 3.3 Health belief model (HBM)

The HBM theorises that readiness to take action is mainly influenced by perceived susceptibility or vulnerability, perceived severity of illness and its consequences, perceived benefit of seeking healthcare, and perceived barriers (Hochbaum, 1958). This is illustrated in Figure 3 (Abraham and Sheeran, 2005).

The three main constructs here are whether people believe that they are at risk of contracting a disease, and their evaluation of the benefits and efforts involved in taking the action to seek healthcare. This model is conditioned by individual socio-demographic and psychological characteristics. The HBM, which was based on research on utilisation of preventative services by focusing on the attitudes and beliefs of individuals, is one of the first theories of health behaviour. It is also one of the best known and widely recognised models in the field, having remained so since the 1950s (Hochbaum, 1958, Abraham and Sheeran, 2005).

The main thing that has been drowning from this framework to create the researcher’s initial conceptual framework is the emphasis on the process and illness response that influenced by the population characteristics.

![Figure 3 Health belief model](https://example.com/figure3)

*(Abraham and Sheeran, 2005)*

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**3.4 Theory of planned behaviour (TPB)**

The TPB theorises that an individual’s behaviour is controlled by the intention related to that behaviour and that it is moderated by the perceptions of control over that behaviour. The intention is shaped by attitude, norms and perceived control (Ajzen, 1991).

As illustrated in Figure 4 (East, 1997), attitude is determined by beliefs about behaviour and its consequences. Norms are determined by the perceived social pressures associated with performing certain behaviours, and whether influential people approve or disapprove the behaviour. Perceived behavioural control is determined by an internal belief of having sufficient resources to undertake a particular behaviour.

The theory emphasises that behaviours are governed not only by individual attitudes and a sense of control, but also by peer pressure and social network support (Conner and Sparks, 2005).

This framework contributed to the researcher’s initial conceptual framework by emphasising on the social network support that influences individual behaviours.

*(East, 1997)*

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**Figure 4 Theory of planned behaviour**

![Diagram of Theory of Planned Behaviour](image)
3.5 Healthcare utilisation model

The healthcare utilisation model (Figure 5) (Andersen and Newman, 1973, Weller et al., 1997) theorises that healthcare utilisation is influenced by three categories of individual determinants: predisposing factors, enabling factors and need factors. These individual determinants are further influenced by characteristics of the health services delivery system, and changes in medical technology and social norms.

Figure 5 Healthcare utilisation model

Source: (Andersen and Newman, 1973)

This framework contributed to the researcher’s initial conceptual framework by emphasising on the factors that enable or prevent people from making healthy choices.

The three above frameworks (Health belief model, theory of planned behaviour and healthcare utilisation model) tend to ‘blame the victim’, considering individuals responsible for inadequate health-seeking behaviour, and overestimate the capacity of individuals to choose and follow behaviour that is considered adequate (Hausmann-Muela et al., 2003). There is a need to consider access as a complex concept, summarising a set of more specific dimensions. Some of the common frameworks that have emerged from that trend are discussed in the following section.
3.6 Aday and Andersen’s framework for the study of access

Aday and Andersen (1974) developed a framework for the study of access (Figure 6), which proceeds from health policy through the characteristics of the health delivery system, and from the characteristics of populations at risk to actual utilisation of health services and consumer satisfaction with these services.

This framework contributed to the researcher’s initial conceptual framework by emphasising on the characteristics of the both the system and the people and how they influence utilization as a proxy to access.
3.7 Right to health approach

In 1981, Penchansky and Thomas suggested five main dimensions to study access: availability, accessibility, accommodation, affordability and acceptability (Penchansky and Thomas, 1981). The authors defined availability as the ‘relationship of the volume and type of existing services and resources to the clients’ volume and types of needs’. Accessibility was defined as the ‘relationship between the location of supply and the location of clients, taking account of client transportation resources and travel time, distance and cost’. They defined accommodation as the ‘relationship between the manner in which the supply resources are organised to accept clients and the clients’ ability to accommodate to these factors and the clients’ perception of their appropriateness’. Affordability was defined as the ‘relationship of prices of services to the clients’ income, ability to pay, and existing health insurance’. The authors defined acceptability as the ‘relationship of clients’ attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients’ (Penchansky and Thomas, 1981).

In recent years, these dimensions of access have been used by WHO within the definition of the ‘right to health’, which include access to timely, acceptable, and affordable healthcare of appropriate quality (WHO, 2012). The UN Committee on Economic, Social and Cultural Rights adopted a General Comment on the Right to Health in 2000 (OHCHR, 2008, CESCR, 2000, WHO, 2012). According to this General Comment, the right to health contains four elements (AAAQ) (Figure 7) Availability (1) is defined as a ‘sufficient quantity of functioning public health and healthcare facilities, goods and services, as well as programmes’. Accessibility (2) is defined as ‘health facilities, goods and services accessible to everyone’. The definition of acceptability (3) is that ‘all health facilities, goods and services must be respectful of medical ethics and culturally appropriate as well as sensitive to gender and life-cycle requirements’. Finally, regarding quality (4), it states, ‘health facilities, goods and services must be scientifically and medically appropriate and of good quality’. ‘The right to health’ integrates these four concepts with underlying determinants and healthcare.

This framework is one of the backbones structures of researcher’s initial conceptual framework.
3.8 Three delays model

Thaddeus and Maine (1994) developed a framework to study delays in access to maternal healthcare that focuses on the interval between the onset of an obstetric complication and its outcome (Figure 8). The framework describes three phases. The first phase is the delay in deciding to seek care on the part of the individual, the family, or both. This phase might be influenced by socioeconomic and cultural factors. The second phase is the delay in reaching adequate healthcare facility. Physical accessibility factors might influence this delay. The third phase is the delay in receiving adequate care at the facility level. Quality of care is the main influencing factor in this delay, and it influences phase one and two as well (Thaddeus and Maine, 1994).

Gabrysch & Campbell (2009) adapted the three delays model by conceptually separating preventative care seeking from emergency care seeking (Figure 9). The authors did not change the three delays for emergency care seeking, but they reduced the phases of delays for the first two phases that are relevant for receiving normal preventative delivery care.

This framework is the main backbone structure of researcher’s initial conceptual framework.
Chapter Three CONCEPTUAL FRAMEWORK

Figure 8 The three delays model

Source: (Thaddeus and Maine, 1994)

Figure 9 Delay phases and factors affecting use of delivery care and maternal mortality

(Gabrysch and Campbell, 2009)
3.9 The health access livelihood framework

Obrist et al. (2007) suggested using ‘the health access livelihood framework’ to study access. This framework situates access to healthcare in the broader context of livelihood insecurity.

This livelihood approach puts people at the centre of sustainable development and emphasises assets and activities needed to gain and sustain a living under condition of economic hardship. It is based on defining five types of capital that form the asset pentagon. These are human, social, natural, physical and financial capital (DFID, 1999). **Human capital** includes the skills, knowledge, ability to work and good health that enable people to achieve positive livelihood outcomes. **Social capital** in this context means the social resources such as networks and connectedness, membership of more formalised groups, relationship of trust, reciprocity and exchanges that facilitate cooperation and provide an informal safety net. **Natural capital** refers to natural resources stocks, which vary from intangible public good to divisible assets. Examples include land, forests and wild resources. **Physical capital** comprises the basic infrastructure and producer goods to support livelihood, for example affordable transport, means of communication, and clean and affordable energy. Finally, **financial capital** represents the financial resources that people use to achieve their livelihood objectives, namely the available stocks in the form of cash, bank deposits, or liquid assets (DFID, 1999).

This framework contributed to the researcher’s initial conceptual framework by emphasising on combining the two traditional approaches health seeking and health services approaches.
### 3.10 Supply and demand approach

Another approach to studying access is to look at barriers to accessing health services from both demand and supply sides. This approach facilitates the formulation of appropriate interventions (Bart Jacobs et al., 2011) Demand-side determinants are defined as those factors that influence demand and the ability to utilise health services at individual, household or community level. Supply-side determinants are healthcare functions that interact to produce effective healthcare services and influence service uptake (Ensor and Cooper, 2004, Bart Jacobs et al., 2011).

Ensor and Cooper (2004) present a framework (Figure 11) based on the following barriers to healthcare utilisation: supply-side barriers, demand-side barriers, and demand and supply interaction barriers. Peters et al. (2008) provide a framework (Figure 12) that linked each of the four dimensions of access to a supply and demand element, and put the quality of care at the centre of the circle as an integral component of each of the four dimensions. This conceptual framework is linked with distal determinants of access that are policy and macro-environmental determinants, as well as the individual and household determinants.
Chapter Three CONCEPTUAL FRAMEWORK

Based on the two frameworks (Peters et al., 2008, Ensor and Cooper, 2004), Bart Jacobs et al. (2011) present a refined framework of the identical barriers classified according to the four dimensions of access and according to supply-side and demand-side barriers (demand-side barriers (Table 1).

This framework is one of the backbones structures of researcher’s initial conceptual framework.

**Figure 11 Supply and demand barriers to utilisation of healthcare**

![Supply and demand barriers to utilisation of healthcare](image)

Source: (Ensor and Cooper, 2004)

**Figure 12 Conceptual framework for assessing access to health services**

![Conceptual framework for assessing access to health services](image)

Source: (Peters et al., 2008)
Table 1 Overview of identified supply- and demand-side barriers across four dimensions of access

<table>
<thead>
<tr>
<th>Supply-side barriers</th>
<th>Demand-side barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic accessibility</strong></td>
<td><strong>Indirect costs to household (transport)</strong></td>
</tr>
<tr>
<td>- Service location</td>
<td>- Means of transport available</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td><strong>Information on healthcare services/providers</strong></td>
</tr>
<tr>
<td>- Unqualified health workers, staff absenteeism, opening hours</td>
<td>- Education</td>
</tr>
<tr>
<td>- Waiting time</td>
<td>-</td>
</tr>
<tr>
<td>- Motivation of staff</td>
<td>-</td>
</tr>
<tr>
<td>- Drugs and other consumables</td>
<td>-</td>
</tr>
<tr>
<td>- Non-integration of health services</td>
<td>-</td>
</tr>
<tr>
<td>- Lack of opportunity (exclusion from services)</td>
<td>-</td>
</tr>
<tr>
<td>- Late or no referral</td>
<td>-</td>
</tr>
<tr>
<td><strong>Affordability</strong></td>
<td><strong>Household resources and willingness to pay</strong></td>
</tr>
<tr>
<td>- Costs and prices of services, including informal payments</td>
<td>- Opportunity costs</td>
</tr>
<tr>
<td>- Private–public dual practices</td>
<td>- Cash flow within society</td>
</tr>
<tr>
<td><strong>Acceptability</strong></td>
<td><strong>Households’ expectations</strong></td>
</tr>
<tr>
<td>- Complexity of billing system and inability to inform patients of prices beforehand</td>
<td>- Low self-esteem and little assertiveness</td>
</tr>
<tr>
<td>- Staff interpersonal skills, including trust</td>
<td>- Community and cultural preferences</td>
</tr>
<tr>
<td></td>
<td>- Stigma</td>
</tr>
<tr>
<td></td>
<td>- Lack of health awareness</td>
</tr>
</tbody>
</table>

(Bart Jacobs et al., 2011)

3.11 The corporate approach

The corporate approach to healthcare needs assessment has been defined as an approach that ‘involves the systematic collection of the knowledge and views of informants on healthcare services and needs’ (Stevens and Gillam, 1998).

This approach considers views of various stakeholders and interested parties including local people, professionals and politicians to produce an overall understanding of need (Figure 13) (Nicholls, 1999). The corporate approach addresses need and wishes and also looks at supply and demand at the same time (Stevens et al., 2004).
The corporate approach to needs assessment has been widely used in different contexts to listen to local voices. It has been used as a way of accessing the knowledge of community representatives to identify priorities and develop policies that reflect local circumstances (Okereke et al., 2007). It is also used to determine the perspectives of patients and their family and capture their expressed need (Bruera et al., 2009, HASCAS, 2011).

**Figure 13 Contributors to the corporate view of local service needs**

![Diagram showing contributors to the corporate view of local service needs]

Source: (Stevens et al., 2004)

### 3.12 Limitations

While these theories, models and frameworks are comprehensive in their attempts to understand access to healthcare, several shortfalls limit transferability. For example, the framework developed by Ensor and Cooper (2004) focuses on the factors that can be controlled or are amenable to policy intervention, while factors that are outside the specific control of the health sector were ignored. In addition, some of these frameworks were based on evidence that lacks rigour or consistency and is mostly descriptive in nature (Ensor and Cooper, 2004).

In a review by Jacobs et al. (2011) to develop an analytical framework for selecting appropriate intervention in low-income Asian countries, the authors...
identified missing factors in these frameworks. Examples include: poor interpersonal skills of staff; staff absenteeism; limited opening hours; late and non-referral of patients from lower-level health facilities; lack of health awareness; low self-esteem of poor patients; and lack of time to sell assets, even when available, to ensure availability of cash (Bart Jacobs et al., 2011).

Although frameworks that use supply and demand approaches conceptually separate supply from demand, in practice supply-side and demand-side issues are not so easily separated (O’Donnell, 2007). In addition, most of the frameworks do not explicitly mention the decision-making process at the levels of individual, household and community. Those who focus on individual behaviour regarding utilisation pay little attention to social capital, the social determinants of health and the wider dynamics of the health system (MacKian, 2003).

Taking into concentration the fact that media and political agendas may influence stakeholder and local concerns, one of the disadvantages of the corporate approach is that it might identify demands rather than needs if carried out in isolation (Congreve and Evans, 2007).

The health-seeking behaviour and utilisation of healthcare involves multiple steps and is difficult to explain with a single model. However, it has been suggested that combining elements from different models within a conceptual framework can lead to an advancement in understanding access to healthcare (Hausmann-Muela et al., 2003). This is the process the researcher followed in this participatory action research.

### 3.13 Conceptual framework

#### 3.13.1 Initial framework

The researcher used the wider definition of access, a complex concept summarising a set of specific dimensions, to design a conceptual framework to study access to maternal healthcare in post-conflict settings. This access framework integrates the three delays model (Thaddeus and Maine, 1994), the right to health approach (OHCHR, 2008), supply and demand approaches (Ensor and Cooper, 2004) and the corporate approach to healthcare needs assessment (Stevens and Gillam, 1998). Figure 14 shows the stakeholders that contribute to the corporate view, and Figure 15 shows my initial framework.
The main domains of the demand-side barriers in this framework are acceptability and affordability; this framework is also concerned with how these domains could delay the decision to seek care. Acceptability is conceptualised as comprising social beliefs, culture, knowledge, awareness, community involvement and health service utilisation. Affordability is conceptualised as comprising costs (direct and indirect), ability to pay and willingness to pay.

The second dimension of this framework is physical accessibility and how this can serve as a barrier to getting to the health facility. The framework suggests conceptualising this factor as comprising time, transportation, and security. The role of birth attendants and midwives in providing maternal care before reaching the health facility and the encouragement of service utilisation when needed will also be investigated within this dimension.

The third dimension of the framework relates to supply-side barriers to receiving the services. Availability and quality (adequacy) of facility are the main domains here. Availability includes: geographical distribution; available services (antenatal care, delivery care, basic emergency obstetric care, comprehensive emergency obstetric care, and post-partum care); budget and finance; and human resources.
The framework conceptualises quality within Donabedian's framework (Donabedian, 1979), which includes three main domains: inputs (structures), processes and outcomes. Structures include staffing and material resources. Processes include client–provider interaction, clinical diagnosis and management, including issues such as measuring blood pressure, blood and urine tests, and health system characteristics, especially the referral system. Outcomes includes patient satisfaction and health outcome, for example regarding pregnancy or neonatal care.
Figure 15 Framework to study access to maternal healthcare in post-conflict settings
3.13.2 Final framework

The conceptual framework for this study evolved throughout the research process. Figure 16 shows the final conceptual framework.

Maternal healthcare covers a long period that starts before pregnancy and continues beyond childbirth. Access to maternal healthcare during this period is a dynamic process, not a linear one. It is not a single event; rather, it comprises multiple events that occur at multiple levels of care. Each stage of pregnancy has a different preferred end point of access, not necessarily a hospital. The presence of complications during pregnancy or childbirth changes the appropriate level of care.

The researcher looked at delay in access, from the perspective of both the community and service providers. This allowed for triangulation and comparison, and helped to create a clear picture of access to healthcare from different perspectives. This corporate approach is fundamental to a successful healthcare needs assessment (Stevens and Gillam, 1998).

The three delays form the backbone of this framework. The first delay is covered in Chapters 6, 7 and 8. The second delay is addressed in Chapter 9. The third delay is covered in Chapter 10.

The delay to decide to seek healthcare is conceptualised to integrate social determinants of health (structural and cultural determinants, see Chapter 6) and contextual influences on decision making for maternity care (acceptability and affordability, see Chapter 7). It also comprises the process of making the decision for maternity care (see Chapter 8). This chapter addresses the actors involved in this process, and the factors that hinder or encourage making the final decision to utilise the maternal healthcare services.

Once the decision is made to access a health facility for childbirth, the second delay starts; this is explored in Chapter 9. In the initial conceptual framework, this second delay was conceptualised around factors that might delay a pregnant woman from reaching a health facility. But one word changed this concept: ‘appropriate’. In order to explore access to appropriate health facilities, it was necessary to understand the different ‘pathways to care’ women undertake. Pathway models have been used by many researchers to examine steps taken by an individual to access healthcare (Hausmann-Muela et al., 2003). Two additional important themes emerged here, namely ‘functionality of facilities’ and ‘competency of providers’. Both reflect the ‘capacity to refer appropriately’. Physical accessibility is the other component of
this delay, which includes different challenges and obstacles that result in a delay in reaching health facilities.

The third delay is the delay in receiving services in the main referral hospital (Chapter 10). Once the woman reaches a referral hospital, she faces a series of delays, starting with delays in: (i) reaching the initial diagnosis, (ii) then in stabilisation and preparation for her definitive treatment, and (iii) receiving the definitive treatment. Human resources and clinical management emerged as the main two themes that directly influence the in-hospital delays. These interact with two other themes: supportive systems and environment and appropriateness of the services.

In the initial framework, the third delay was conceptualised around two main themes: ‘availability’ and ‘quality’ of maternal healthcare services. Here, quality was defined using Donabedian’s framework (Donabedian, 1979). During the data analysis, the availability theme emerged as part of the domain of ‘supportive systems and environment’, which covers: the availability of functioning peripheral health services that support the health system; infrastructure in the hospital, equipment and supplies; the weak systems inside the hospital; and limited funding. Human resources emerged as a theme that includes shortage of qualified providers and, of existing providers, their lack of commitment to public services, immediacy of response in emergencies and competencies. Clinical management also emerged as a theme; this includes preparedness for delivery, investigation, drugs, blood bank and further referral.

It could be argued that it is more appropriate to examine at third delay as a quality of care through input, process and output. However, looking at in-hospital delays (reaching the initial diagnosis, stabilisation and preparation, and definitive treatment), though integrating themes like supporting systems, supporting providers, clinical management, and appropriateness of the services, helped to contextualise the third delay to maternal healthcare.

This is supported by a recent definition of the quality of emergency obstetric care:

‘a state of readiness that enables the EmOC facility to provide quality care by competent staff who are willing to respond to clients at any time by providing prompt and appropriate emergency care according to acceptable clinical standards and protocols and in a manner corresponding to the rights and needs of all clients. Staff, equipment, supplies and infrastructure should be available, functional and adequate’ (EngenderHealth, 2003).
The researcher’s view of the third delay is also supported by Donabedian (1988) when he stated that in regard to quality of healthcare, ‘several formulations are both possible and legitimate, depending on where we are located in the system of care and on what the nature and extent of our responsibilities are’.

Moreover, the themes that emerged in the final conceptual framework allowed for the incorporation of ‘appropriateness of the services’ into the third delay. Combs Thorsen et al. (2012) made a similar contribution to the third delay by adding ‘Phase 3B Delay’, which refers to concealment and when a patient refuses treatment, which delays receipt of care in the hospital.
Figure 16 Final framework to study access to maternal healthcare in post-conflict settings
4 Chapter Four METHODOLOGY

4.1 Introduction

This chapter outlines the research methodology in three sections. The first section explores the underpinning philosophy of the research and the researcher’s philosophical position. The second section explores the three study designs of this research, including a description of the participants, data collection and data analysis. The third section outlines ethical considerations for this study.

Information is patchy regarding the views of hard-to-reach people across post-conflict settings, and the social determinants of their health. There is still a long way to go before a comprehensive and common understanding of maternal health can be conceptualised and contextualised to meet contemporary challenges. Barriers to maternal healthcare will continue to pose a serious problem. These barriers are difficult to define clearly, have no obvious solutions, are socially complex, and involve changing complex behaviours. It is beyond the capacity of any one organisation to understand or respond to these issues. Moreover, there is often disagreement about the relevant determinants, and a lack of certainty about the best way to tackle them (Rittel and Webber, 1973, Ronsmans et al., 2002).

Making decisions about maternal health at the household level, and about seeking appropriate healthcare, is a very complex process (Parkhurst et al., 2005, Brown and Barrett, 2009). Behaviours are contextualised by the complexity of social institutions and cultures that determine the health outcomes of people in each community (Brown and Barrett, 2009). Each community has its own unique context, which must be understood in order to address the people’s needs and to plan for accessible maternal healthcare services that can reduce maternal mortality rates. The approach of identifying and implementing solutions that have been handed down from outside, not rooted in the local history or culture and lacking community ownership, have repeatedly failed and, in some cases, have done more harm than good (Lush et al., 2003). This complex and sensitive research area needs a correctly framed approach that targets the hardest-to-reach people in order to provide better information.
4.2 Determination of the study area and its challenges:

The researcher chose Renk county in Upper Nile State in South Sudan as a study area. This post conflict area was chosen because it was accessible to the researcher in terms of security, institutional support, and access to conduct the research. Renk county is located close to the international border with Sudan. However, conducting research in post-conflict settings has many challenges that need to be overcome, and many ethical issues that need to be addressed.

One of the main challenges that the researcher anticipated was a lack of trust between the researcher, participants and the local community. The researcher is from the northern part of Sudan, so conducting research in South Sudan during a referendum and period of separation in one of the border cities was expected to raise suspicion. Careful approaches were needed to build trust, in order to encourage the engagement of participants and communities, thereby enhancing opportunities to obtain reliable information and provide relevant and timely feedback to communities (Adejumo, 2008).

The researcher also faced competition with organisations already providing services and food, while he offered to listen. In order to address this, he needed to implement a research approach that inspired and motivated the community to be part of the research project and to build their sense of ownership of it.

Challenges were also anticipated in relation to power differences between the researcher and participants, in the sense that the researcher was to conduct all the analysis, while the participants were to contribute the data. Such a power differential can be augmented by illiteracy and lack of effective communication between researcher and non-literate participants (Meara and Schmidt, 1991). This power imbalance could increase the potential vulnerability or participants and compromise their autonomy (Adejumo, 2008).

The lack of capacity of marginalised women in Renk county to actively take part in a participatory action research was a challenge. The ability to participate is usually assumed, but there is often the need to develop this capacity (Jonsson, 2003, Byrne E and Sahay S, 2007). While developing this capacity is common in some of the more recent participatory approaches (Cleaver, 2001), in this research it was important that this capacity was extended to all aspects of the research process: the design process, the fieldwork, the data analysis and lead to action.
4.3 Philosophy underpinning this research

Many methodological approaches have been used to understand cultural and localised dimensions to maternal care. Whilst a well-designed quantitative survey with a representative sample can provide essential information on trends in behaviour, it does not necessarily establish a contextualised understanding of the complexity in which different behaviours occur. Unless a contextualised approach is used in generating knowledge and interpreting the data, the resulting understanding of the complexity of social institutions and cultural practices involved in the demand for maternal healthcare can be limited. Though traditional ethnographic approaches can be used, resources required for this approach – financial, human and time – are often not available within the timeframe of most health interventions.

The researcher’s philosophical position in designing, conducting and writing up this study is based on two approaches: an interpretivist approach, which considers the social world as constructed by people through their interactions, understandings and ownership (Holliday, 2007), and a critical philosophical approach, which aims to change the situation so that people are in a better position to access appropriate health services (Reason and Bradbury, 2007) (See Chapter 12). This was achieved through a participatory ethnographic approach that involved stakeholders, tracing critical cases, and action research. These qualitative methods were chosen to address the scarcity of bottom-up, health system research approaches in such settings (Sheikh et al., 2011).

A participatory action research approach was deemed most appropriate and necessary as not only is it ethically and morally right to include the views of people whose lives are to be affected by an intervention, and without their participation, it is impossible to gain contextualised and localised knowledge.

In general, participatory action research implies a closer relationship between the researcher and the subject and greater participation of ‘insiders’ than is commonly found in traditional research approaches (Baskerville, 1999). As noted by Elden and Levin:

*Participatory action research means that all relevant stakeholders do what only researchers usually do. It can be seen primarily as a learning strategy for empowering participants and only secondarily as producing ‘research’ in the conventional sense. ... The researcher is the linchpin so that what he or she learns contributes to accumulation of knowledge above and beyond a local, ‘context bound’ situation. (Elden and Levin, 1991)*
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4.4 Research design

This research applied a qualitative participatory action research approach, aimed to understand the issues around access and utilisation of maternal health services (Table 2 and Figure 17). It involved 3 data collection methods:

- a. Participatory Ethnographic Evaluation and Research (PEER);
- b. The critical incident technique (CIT); and
- c. Stakeholder interviews (SI).

<table>
<thead>
<tr>
<th>Type</th>
<th>Who was involved</th>
<th>Aim</th>
<th>Relevant chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEER</td>
<td>14 local women</td>
<td>To understand the issues around access and</td>
<td>6, 7, 8, 9, 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>utilisation of maternal health services.</td>
<td></td>
</tr>
<tr>
<td>CIT</td>
<td>13 critical cases</td>
<td></td>
<td>7, 8, 9, 10</td>
</tr>
<tr>
<td>SI</td>
<td>37 stakeholders</td>
<td></td>
<td>6, 7, 10, 11</td>
</tr>
</tbody>
</table>

Figure 17 Summary of the methodology chapter

4.4.1 Participatory Ethnographic Evaluation and Research (PEER)

This study used the novel participatory methodology known as Participatory Ethnographic Evaluation and Research (PEER) to provide a contextualised understanding of the barriers to maternal care and to provide recommendations on how these can be addressed in a realistic timeframe for programmatic health interventions. PEER is an innovative, rapid, participatory and qualitative research method involving ordinary members of the community to generate in-depth and contextual data (Price and Hawkins, 2002) that has been used in reproductive health research in many settings.
PEER is rooted in anthropological ethnographic studies and, similar to other participatory approaches, recognises that effective participation occurs when the voices and interests of the poor and marginalised are heard. For this to occur, ownership and trust are essential. The main aim of PEER is to gain an understanding of social life through collecting views, stories and narratives, from different members of the social network, regarding social organisation, decision-making processes, health-seeking behaviour, power dynamics and how power relations are experienced (Hawkins and Rolfe, 2006). Practically it has been used to assist with understanding processes of exclusion and barriers to accessing mainly health services (Hawkins, 2002, Hawkins and Rolfe, 2006).

Specifically, PEER is a methodology that enables community members to design and conduct interviews and analyse data. Ordinary members of the community, known as PEER researchers, were recruited in this study.

PEER fieldwork does not require the same amount of time for trust building as other anthropological approaches, because PEER researchers have an established relationship of trust with their peers that they are interviewing. Furthermore, data generated by this intensive exploration has the potential to yield a more in-depth understanding than the superficial survey of many cases (Hammel, 1990).

4.4.1.1 Recruitment of PEER researchers

The main selection criteria for the PEER researchers in this study were that they should be:

- from the target group, that is, women at reproductive age (15–49 years);
- married with at least two children;
- able to communicate orally in Arabic or Juba Arabic;
- committed and motivated and with a desire to have a voice and tell the story of their peers;
- willing and available to undertake workshop training and participate in the data collection;
- able to secure the permission from their family (husband);
- representative of typical local women as far as possible (e.g. not hold an official position in the village, and not a leader).

Given the social context, it was accepted that some of PEER researchers would be illiterate.
Chapter Four METHODOLOGY

The purpose of the PEER study was explained to representatives of a local NGO called Women’s Organisation for Development and Capacity Building; the Director of Preventative Medicine and the Director of Reproductive Health and the midwifery school at the state Ministry of Health; and the vice-governor of Renk County. The criteria for recruiting PEER researchers and its justification were described to them. They then contacted the leaders of 16 villages to formally nominate women to be part of this study. The researcher aimed to have a minimum of 12 PEER researchers. In case any candidates did not attend or withdrew from the study, 16 women were initially nominated and enrolled in the research project. Two of these did not attend again after the first workshop. Table 3 describes the background characteristics of the PEER researchers.

The researcher compensated the costs borne by participants such as the bus journey and their telephone calls. Food and accommodation were provided to participants for the duration of the workshop.

Table 3 Background characteristics of PEER researchers

<table>
<thead>
<tr>
<th>Background characteristics</th>
<th>Number (n=14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Literate</td>
<td>5</td>
</tr>
<tr>
<td>Illiterate</td>
<td>9</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>10</td>
</tr>
<tr>
<td>Christian</td>
<td>4</td>
</tr>
<tr>
<td>Tribe</td>
<td></td>
</tr>
<tr>
<td>Dinka</td>
<td>12</td>
</tr>
<tr>
<td>Sholuk</td>
<td>1</td>
</tr>
<tr>
<td>Nuba</td>
<td>1</td>
</tr>
</tbody>
</table>

4.4.1.2 Training of PEER researchers and data collection instrument development

The PEER researchers attended a four-day participatory training workshop during which they were introduced to the concept of PEER research. They discussed and identified important maternal health issues in their communities. They practiced ‘third-person interviewing’\(^2\), asking open-ended questions, probing, requesting stories and consent from their friends to take part. This training process builds the capacity of recruited women to be ‘qualitative

\(^2\) PEER researchers asked interviewees to talk about ‘what other people like them’ do or say, and were never asked to talk about themselves directly.
researchers’, able to design research instruments, and collect and analyse qualitative data. A more detailed description of the training is in Appendix 1.

During the workshop, they worked together to develop an understanding of what ‘maternal health’ meant to them and what are the important maternal health issues in their communities. This included factors that might affect pregnancy and birthing experiences, and related decision-making. This helped them to identify key themes and sub-themes for the research and to develop the questions that they would use to interview their friends. Then they developed ‘drawings’ to guide their interviews. A more detailed description of the development of research instruments is in Appendix 2.

The final themes were: 1) family and determinants of family size; 2) experiences of pregnancy; and 3) experiences of childbirth. The final set of questions is shown in Table 4

**Table 4 Final set of PEER questions**

<table>
<thead>
<tr>
<th>Theme 1</th>
<th>Theme 2</th>
<th>Theme 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family and determinants of family size</strong></td>
<td><strong>Experiences of pregnancy</strong></td>
<td><strong>Experiences of childbirth</strong></td>
</tr>
<tr>
<td>1. What is the benefit of the family?</td>
<td>7. How do people feel/react when they hear that a woman is pregnant?</td>
<td>15. How do people feel/react when they hear a woman gave birth?</td>
</tr>
<tr>
<td>2. What makes people have lots of children?</td>
<td>8. What are the concerns of pregnant women?</td>
<td>16. What determines the outcomes of the pregnancy, whether it will be good or bad?</td>
</tr>
<tr>
<td>3. What makes people have few children?</td>
<td>9. What makes a pregnancy good?</td>
<td>17. What are the things that make women die or get sick during delivery?</td>
</tr>
<tr>
<td>6. What is the role of the children?</td>
<td>12. Who gives the pregnant woman advice?</td>
<td>What is the role of each person present?</td>
</tr>
<tr>
<td></td>
<td>13. What are the things the pregnant woman does to remain healthy?</td>
<td>20. What are the concerns a mother feels for her baby?</td>
</tr>
<tr>
<td></td>
<td>14. How does pregnancy change the daily life of a woman?</td>
<td>21. What does a woman do to protect her baby?</td>
</tr>
</tbody>
</table>
4.4.1.3 Data collection

4.4.1.3.1 Interview

After training, PEER researchers returned to their villages. For six weeks, they carried out a series of three in-depth, conversational interviews with three of their friends. On each occasion they interviewed their friend on one theme using the subtheme questions as in Table 4, and the drawings prompts to guide the conversation. The literate PEER researchers were asked to note down key phrases to remind themselves of the issues covered in the interviews. The illiterate PEER researchers were asked to draw pictures or sketches to help them remember stories they heard when interviewing friends.

The approach of interviewing the same person on several occasions allowed for intensive probing of each interviewee around a number of identified key themes.

The aim of the interviews was to collect narratives and stories, which provide insights into how interviewees conceptualise and give meaning to the experiences and behaviour of ‘others’ in their social network. All interviews were confidential and PEER researchers did not note down the names or addresses of interviewees or other people in their social network. Interviewees were not asked to identify who they were talking about, but were asked to simply share their experiences or stories. The third-person interviewing approach allowed interviewees to conceptualise the social behaviour of ‘others’ in their networks, and to avoid accounting for their own behaviour or normative statements. Using this approach, it is anticipated that interviewees will not make themselves vulnerable to their peers, thereby allowing differing and conflicting perspectives to emerge in the narratives (Price and Hawkins, 2002).

4.4.1.3.2 De-briefing

The researcher visited the PEER researchers to collect their findings in a series of three de-briefing sessions, making detailed notes of the narrative data that PEER researchers had collected. The de-briefing sessions were one-to-one interviews. The researcher was both collecting data from the PEER researchers concerning what their friends said to them, and discussing and interpreting what their friends said.

Meetings were arranged with each PEER researcher, for at least two hours in a place that facilitated private discussion. During the de-briefing the researcher spent the first few minutes having a general discussion about how their
interviews went, and any problems or questions they may have had. Then they were asked, ‘what did your first friend say about question 1?’, after which they were given the chance to talk. This was followed with prompts as required. Extra questions were often added, such as ‘what do you think she meant by that?’ or ‘why do you think that happens?’ When the researcher wanted to clarify a point, he repeated what the PEER researcher had said in their own words or asked them to explain it again. After the researcher collected the data from all three friends of the first theme, he gave them a copy of the next theme’s questions and drawings, and went over them again to make sure they understood the questions. After this, a time was arranged for the next de-briefing. More details about debriefing are in Appendix 3.

4.4.1.3.3 Emic or insider interpretation

After the data collection and debriefing, a one-day workshop with PEER researchers was conducted. This workshop aimed to get insiders’ interpretation of the data that they had collected. The PEER researchers discussed the key issues arising from their interviews and provided their own analysis of the data. The researcher worked with them to explore the meaning of their findings and to explore how findings might best be translated into action in a ‘forward vision session’. In order to bring research findings to life, PEER researchers were encouraged to represent some of the main findings by means of telling profile stories and dramas. They also provided feedback on their experience of being involved in the study, clarified any outstanding issues and explored any new questions that arose during the study. They were publicly thanked and presented with certificates of participation.

This was followed by a questions and answers session called ‘forward vision session’, in which the research team checked their comprehension of the main issues raised, and asked further questions to clarify matters. More details about the workshop are in Appendix 4.

The main outputs of this workshop were: the identification of most important findings, including 15 important maternal health issues in Renk County (see Chapter 12); profile stories; and a series of dramas.

4.4.1.3.4 Verification and validation processes

The de-briefing sessions were used as an opportunity for verification of the data collected by PEER researchers. The verification procedures involved 2 steps: 1) Questions verification: verification that PEER researchers asked the questions in the agreed way. 2) Content verification: at the end of each de-
briefing session, the researcher summarized the information and asked the PEER researcher to determine its accuracy.

The one-day analysis workshop was used as an opportunity for validation of the data collected by PEER researchers. PEER researchers collectively validated each other's data. They worked in groups to discuss the data they have collected. Their reflection on the data (profile stories and drama) added another layer of validation.

### 4.4.2 Critical incident technique (CIT)

Critical incident technique (CIT) has been defined as a technique that involves use of a set of procedures to collect in-depth data on human behaviour and people’s experiences in regard to significant incidents (Flanagan, 1954). Examples of where CIT has been used include a series of studies to: identify effective and ineffective work behaviours to study industrial and organisational psychology (Flanagan, 1954); to explore social issues (Lee D. Butterfield, 2005); to identify customers' perceptions regarding quality of services (Edvardsson and Ross, 2001); to study marketing and management issues (Gremler, 2004); to study risk management and quality improvement within a practice (Pringle, 2000); to evaluate health promotion care (Bjorklund and Fridlund, 1999); and to study patients' compliance with treatment (Stromberg et al., 1999). It was also used as an audit tool for deaths in general practice to analyse the deaths of patients and the circumstances surrounding these deaths (Berlin et al., 1992).

In this study, the researcher employed this technique to study incidents of maternal death and maternal near miss cases that occurred within the past two years, to ensure the interviewees could still recall details of the incident and to minimise recall bias. Maternal deaths were identified according to the ICD-10 definition of a maternal death as, ‘the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes’ (WHO, 2010a). Maternal near miss cases were identified according to the WHO definition of maternal near miss as ‘a woman who nearly died but survived a complication that occurred during pregnancy, childbirth or within 42 days of termination of pregnancy’ (Say et al., 2009).

The researcher used this method to systematically identify pathways to healthcare during labour, and determinants and behaviours associated with an
event of maternal mortality or near miss through a series of in-depth interviews with witnesses or those involved.

### 4.4.2.1 Sampling

The case-finding strategy that the researcher employed in this study is a critical case purposive sampling approach. Critical case sampling has been defined as a process whereby, 'individuals, groups, or settings are selected that bring to the fore the phenomenon of interest such that the researcher can learn more about the phenomenon than would have been learned without including these critical cases' (Onwuegbuzie and Leech, 2007).

PEER researchers were the main source for identifying critical cases in their villages, either directly themselves or through village midwives and traditional birth attendants. After one death was identified, a snowball technique was used to identify the rest of the cases, by asking the interviewees to identify other ‘critical cases’ among their social networks (neighbours or relatives) who went through a similar experience.

### 4.4.2.2 Respondents

Thirteen critical incident cases were identified and included in this study, of which five were maternal deaths and eight were maternal near miss cases. The common causes of the identified maternal deaths and near miss cases were bleeding, eclampsia and obstructed labour (Table 5).

<table>
<thead>
<tr>
<th>Causes</th>
<th>Maternal deaths</th>
<th>Maternal near misses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bleeding</strong></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Eclampsia</strong></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Obstructed labour</strong></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

### 4.4.2.3 Data collection

After identifying the event an appointment was made with the interviewees to conduct the interviews, at which an informed consent was verbally obtained. The interviews were scheduled at a time and venue chosen by each respondent.

In each case, the researcher conducted semi-structured interviews with all possible witnesses of the critical case (see Box 1); this could include the husband, the mother, the in-laws, the sisters, the TBA, the midwives and, in cases of survival, the woman herself. Some of the interviews were done on a
one-to-one basis, where each respondent was interviewed separately. Some were carried out via a group meeting, where the interviewees were interviewed in a group. In the latter case, one respondent would give an overview of the event, after which the interviewee would be interviewed according to this sequence of events.

The researcher applied safeguard measures for psychological safety of people involved. The researcher had to build trust and rapport with the families through visiting their homes a number of times. The first visit was spent sitting and talking with the family and explaining the study and sympathising with their pain and loss. The issue of death is a sensitive one, surrounded by many negative circumstances and incidents. Discussing this with relatives brought back a wave of negative emotions for them. The researcher had to probe sensitively, steer the interview so that it stayed focused, and at all times consider the interviewee’s comfort. The researcher was carefully observing any cues or signals by which the interviewee was indicating distress. The researcher gave the interviewees time to express significant emotion. A follow up visit was also arranged to meet with the family members.

**Box 1 The structure of the interview questions for CIT**

<table>
<thead>
<tr>
<th><strong>Interview questions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The interview structure was as follows:</strong></td>
</tr>
<tr>
<td><strong>Introduction:</strong> The researcher began by reintroducing the study, followed by ice-breaking questions and getting to know the interviewee. This led to personal and demographic data, background information about the family, details about the respondent and their relationship to the deceased mother in case of maternal deaths.</td>
</tr>
<tr>
<td><strong>Body:</strong> The main question was ‘what happened?’ The interviewee was enabled to speak about the event as much as possible. Then the researcher returned to the beginning of the story and began asking follow-up and probing questions in order to get as much detailed data as possible.</td>
</tr>
<tr>
<td>Depending on the specific event and interviewee, questions were also asked regarding past obstetric history, previous similar experiences, culture, beliefs and choice of health-seeking behaviours.</td>
</tr>
<tr>
<td><strong>End:</strong> Interviews ended with questions as regards future resolutions, recommendations if any and revisiting the answers of some questions that were not satisfactorily answered. Interviewees were thanked for their full participation and help.</td>
</tr>
</tbody>
</table>
4.4.3 Health system stakeholder interviews

The stakeholder interviews took place after the PEER and CIT, during which stakeholders were identified and interviewed. The definition of a stakeholder is, ‘a person with an interest or concern in something’ (Oxford Dictionaries Pro, 2012). In this study, the term stakeholders refers to individuals from different institutions and agencies that hold relevant official positions, or are perceived as having a role to play or a perspective on maternal health in Renk County (Brugha and Varvasovszky, 2000, Varvasovszky and Brugha, 2000).

This method was chosen to provide greater scope for discussion and learning about the problems, opinions and views of the health system stakeholders. The interviews were seen as central to this study as they provided an insight into stakeholders’ perceptions regarding provision of and access to maternal healthcare services in Renk County.

4.4.3.1 Sampling

A purposive sampling technique was used to identify, approach and recruit potential information-rich key informants. Following this, a snowball sampling technique was applied to identify and recruit further interviewees.

4.4.3.2 Respondents

Interviews were conducted with a number of stakeholders. Senior officers who hold relevant official positions in Renk County government and county health department were approached. Health personnel at Renk hospital, Jalhak health centre and Geiger health centre, who were involved in providing the service to pregnant women either directly or indirectly, were invited to participate in this study. Relevant nongovernmental (NGOs), faith-based organisations (FBOs), community and religious leaders, and traditional healthcare providers were identified and invited to participate in this study.

Some of the relevant key informants emerged during the data collection stage and were therefore invited to be included in the study. In total, 37 of these interviewees were identified and invited to participate (Table 6).
### Table 6 Stakeholders interviewed

<table>
<thead>
<tr>
<th>Profile of Stakeholders</th>
<th>Renk hospital personnel (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local government (2)</td>
<td>Gatekeeper</td>
</tr>
<tr>
<td>• County executive director</td>
<td>Storekeeper</td>
</tr>
<tr>
<td>• Head of Humanitarian Aid Commission</td>
<td>Ambulance driver</td>
</tr>
<tr>
<td>County health department (4)</td>
<td></td>
</tr>
<tr>
<td>• Director of County Health Department</td>
<td></td>
</tr>
<tr>
<td>• Director of HIV and sexually transmitted diseases</td>
<td></td>
</tr>
<tr>
<td>• Director of reproductive health and midwifery</td>
<td></td>
</tr>
<tr>
<td>• Operational manager of a vaccination programme in Renk County</td>
<td></td>
</tr>
<tr>
<td>Healthcare providers (19)</td>
<td></td>
</tr>
<tr>
<td>• Renk hospital (15)</td>
<td></td>
</tr>
<tr>
<td>• Doctors (2)</td>
<td></td>
</tr>
<tr>
<td>• Hospital manager</td>
<td></td>
</tr>
<tr>
<td>• Health visitor (senior midwife)</td>
<td></td>
</tr>
<tr>
<td>• Midwives (3)</td>
<td></td>
</tr>
<tr>
<td>• Nurses (2)</td>
<td></td>
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<tr>
<td>• Pharmacist</td>
<td></td>
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<tr>
<td>• Laboratory technician</td>
<td></td>
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<tr>
<td>• Medical technician</td>
<td></td>
</tr>
<tr>
<td>• Surgical assistant</td>
<td></td>
</tr>
<tr>
<td>• Facilities outside Renk town (4)</td>
<td></td>
</tr>
<tr>
<td>• Male doctor, Geiger</td>
<td></td>
</tr>
<tr>
<td>• Medical assistant, Jalhak</td>
<td></td>
</tr>
<tr>
<td>• Midwives, Jalhak (2)</td>
<td></td>
</tr>
<tr>
<td>Renk hospital (15)</td>
<td>Gatekeeper</td>
</tr>
<tr>
<td>• Directors (2)</td>
<td>Storekeeper</td>
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<td>• Hospital manager</td>
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<tr>
<td>• Health visitor (senior midwife)</td>
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<tr>
<td>• Midwives (3)</td>
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<td>• Nurses (2)</td>
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<td>• Pharmacist</td>
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<td>• Medical assistant, Jalhak</td>
<td></td>
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<tr>
<td>• Midwives, Jalhak (2)</td>
<td></td>
</tr>
</tbody>
</table>

#### 4.4.3.3 Data collection

Once a stakeholder was identified, an appointment was made to conduct the interview with them. The interviewees chose the time and venue for these interviews. At the beginning of each interview, the researcher explained the purpose of the study and obtained verbal informed consent. After explaining and taking their permission, the interviews were video or audio recorded. In addition, notes were taken during the interviews in a diagrammatic style (i.e. with key words and phrases recorded).

The researcher developed an interview guide based on the initial conceptual framework that was developed to study access to healthcare (Appendix 5). Although the researcher prepared pre-planned questions to ask during the interview, he allowed questions to flow naturally, based on the respondent’s position and information provided (see Box 2).
Box 2 The structure of the interview questions for health system stakeholder interviews

<table>
<thead>
<tr>
<th>Interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The interview structure was as follows:</td>
</tr>
</tbody>
</table>

**Introduction**: At the start of these interviews, participants were briefed and informed that they had the right to refuse to answer any question if they wanted (which none chose to do). Then they were asked for background information and introductory questions about issues facing women in South Sudan.

**Body**: Following this, more focused questions were asked about issues related to acceptability, affordability, accessibility, availability and quality of healthcare. Some of the stakeholders were asked about the understanding of the context of the community, policy and planning for maternal health. Healthcare providers and personnel working in the Renk hospitals were asked about in-hospital delays and their possible causes.

**End**: Interviews ended by asking them about their recommendations to improve women’s health in South Sudan.

### 4.4.4 Data analysis

Data analysis for PEER and stakeholders interviews was done through thematic analysis. Data analysis for CIT was done by pathway analysis.

#### 4.4.4.1 Thematic analysis

The researcher’s aim throughout the thematic analysis is to provide a rich thematic description that accurately reflects the content of the entire data set. Thematic analysis is, ‘a method for identifying, analysing and reporting themes within data to reflect reality and to unravel the surface of reality’ (Braun and Clarke, 2006). The researcher employed an inductive approach to ensure that the identified themes are data-driven and strongly linked to the data, without trying to fit it into a pre-existing coding frame (Patton, 1990). Hence the themes identified bear little relation to the questions that were asked by PEER researchers in (Table 4). In the thematic analysis the researcher followed the five phases suggested by Braun and Clarke (2006).
4.4.4.1.1 Stage 1: Data management and familiarisation

The researcher collected the data for this research through interactive means, and he engaged with the participants over a period of almost two years. This allowed him to come to the analysis with some prior knowledge about the data, its depth and breadth, and some initial analytic thoughts.

Data generated from PEER researchers, and stakeholders’ interviews were transcribed and translated into English by the researcher. Efforts were made to ensure that the original, intended meaning of these data was not altered. Transcripts were imported to NVivo software for subsequent coding and analysis (Figure 18).

In order to achieve greater immersion in the data, the researcher read through the entire transcripts repeatedly, took notes, and marked ideas for coding.

Figure 18 A screenshot of subfolders contain the imported transcripts in NVivo

4.4.4.1.2 Stage 2: Initial coding

The code is defined as ‘the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon’ (Boyatzis, 1998). In this phase the researcher worked systematically through the transcripts, line by line, to produce initial codes from the data, which facilitated organising the data into meaningful groups.
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(Tuckett, 2005). Then the researcher worked through the transcripts to apply codes across the entire data set. He made sure that he created codes for as many potential themes as possible, and contextualised extracts of data by keeping a little of the surrounding relevant data.

In NVivo, each code is represented as a node, which contains a data extract that has been assigned to that code. Codes were originally done as ‘free nodes’ (Figure 19) and then as ‘tree nodes’ within NVivo (Figure 20), which resulted in a hierarchical structure of parent and child nodes. By the end of this phase, all transcripts were initially coded and organised into a long list of codes with assigned data extracts that the researcher identified across the data set.

Figure 19 A screenshot of ‘free nodes’ in NVivo
4.4.4.1.3  Stage 3: Identification of themes

In this phase the researcher studied the codes to see how they could combine to form themes. In NVivo, codes were displayed as ‘coding stripes’, which enabled the viewing of coding in progress, and visually helped to organise and link nodes (Figure 21).

The researcher worked through the codes by merging, renaming or making ‘parent–child’ relationships, and trying to identify relationships between each such pair.

The researcher reduced overlap between codes, sorted the remaining codes into potential themes and organised all the relevant coded data extracts within
the identified themes. He then explored how emerging themes relate to each other.

By the end of this phase, the researcher had a collection of potential themes and sub-themes, and their data extracts.

**Figure 21 A screenshot of ‘Coding’ in NVivo**

---

4.4.4.1.4 Stage 4: Reviewing themes

In this phase, the researcher read data extracts for each theme to ensure there was a coherent pattern, and clear and identifiable distinctions between themes by modifying, merging, dividing or creating new themes.

He then checked individual themes against each other and returned to the data set to ensure that they reflected the meanings contained within the entire data set and that there was enough evidence to support each theme. This involved re-approaching the data several times, each time considering specific questions that the researcher wanted to code. It also meant coding any additional data within themes that had been missed in earlier coding stages.

By the end of this phase, the researcher had a map of the themes (Figure 22), and a good idea about how they fit together and the overall story they tell about the data.
4.4.4.1.5 Stage 5: Defining and naming themes

In this phase the researcher ‘defined and refined’ themes and sub-themes by organising data extracts for each theme into a coherent and consistent account with an accompanying narrative. He made sure that the analytic narrative was supported by embedded data extracts.

4.4.4.2 Diagrammatic pathway analysis

Data generated by the critical incident technique was transcribed and translated into English by the researcher and dealt with it separately. A story was developed by summarising each event from all its related transcripts in order to gain a better understanding of it.

The researcher reanalysed the data by mapping the path of each incident that the patient followed from her house when labour pains or complications
occurred until she reached the health facility. The mapping identified actors, decision makers, decision points, consequences, timeframe and geographical places. This method of analysis gave new insights into the data and helped to identify decision-making processes, delays in accessing healthcare, and referral patterns (Figure 23).

Qualitative data structuring and analysis using different mapping methods have been described in the literature. Examples include mind mapping (Buzan, 2012), concept mapping (Novak and Gowin, 1984), cognitive mapping (Kitchin and Freundschuh, 2000) and dialogue mapping (Conklin, 2003).

![Figure 23 An example of mapping exercise](image)
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4.4.4.3 Integration of findings across different sources

The researcher integrated findings from the three qualitative methods (PEER, CIT, and SI). This integration approach is seen to have increase the accuracy of research findings and the level of confidence in them (Kelle, 2001) and to facilitate hearing different voices (Moran and Butler, 2001).

Moran-Ellis et al (2006) argued that:

“Integration denotes a specific relationship between two or more methods where the different methods retain their paradigmatic nature but are inter-meshed with each other in pursuit of the goal of ‘knowing more’” (Moran-Ellis et al., 2006)

In this study, each method was operationalized at some distance from the others, and the data sets brought together only at the point of analysis and interpretation to develop common analysis of a diverse set of data without losing the characteristics of each type of data. The differences in findings between those separate sources were not erased, but ‘worked synergistically to produce a whole that is greater than the sum of its parts’ (Moran-Ellis et al., 2006).

The researcher used the conceptual framework to initially pull together different data sources alongside each other conceptually, and started the initial inductive analysis with PEER findings to identify key themes and analytic questions requiring further exploration. Based on the themes and analytic questions created, the researcher used them across the other dataset to inform further data analysis and deductively analyse the stakeholders’ interviews and the stories developed from the critical incident technique.

The value of this integrative analytic approach lies in allowing an inductive lead to the analysis, preserving the value of the open, exploratory, qualitative inquiry but simultaneously open to any emerging themes. The technical mechanisms available in recent versions of NVivo software enabled the researcher to integrate different types of data, manage the huge datasets and analyse them.
4.5 Ethics

4.5.1 Ethical approval and permissions

Ethical approval for the research was obtained from the University of Medical Sciences and Technology and the Ministry of Health in Renk county. Permission and notification from Renk County official authorities was obtained before initiation of the study. Before commencing the research, permission was received from the managerial department at Renk County hospital. The hospital personnel were informed about the research study and were asked for their cooperation while it was being carried out.

4.5.2 Informed consent

The researcher followed an informed consent procedure consistent with international standards for participatory research and appropriate to the research context. All reasonable steps were taken to ensure that participants could collaborate freely and without coercion. The interviews were scheduled in advance. Informed consent was obtained verbally from the participants after the researcher described clearly the research and the role of the participant, the commitment involved, reasonably foreseeable risks, and expected benefits. The study participants being interviewed were informed that the interview was being recorded. The researcher explained how information that may identify individuals or communities is managed, including the extent to which confidentiality and/or anonymity is guaranteed. He made it clear that the participant may contact him should they have any questions or concerns. He explained that participation is voluntary, participants have a right to withdraw at any time and that no sanctions will be imposed for either non-participation or withdrawal.

4.5.3 Risk management

The researcher took reasonable steps to assess and mitigate physical, social or psychological risks to which those participating or involved in the research may be exposed. Where PEER researchers might be exposed to health-related information that may put them at personal risk, such as misleading information, he took steps to provide correct information in an accessible format. He ensured that participants had a realistic understanding of what they can reasonably expect in terms of outcomes from the research, both for themselves and their community. He ensured that all participants had the necessary support to participate as equals in the research process. A one-day educational
session was provided to the PEER researchers at the end of the study, covering the following topics: antenatal care and its importance; pregnancy and its complications; and danger signs in labour and how to deal with them. The session was interactive, with different teaching methods used, including demonstrative models.

4.6 Conclusion

The researcher in this chapter justified and documented the rationale behind the different qualitative approaches used in the data collection and analysis procedures used in this study, and described how he managed the ethical considerations relevant to this research.
Chapter Five South Sudan

5 Chapter Five SOUTH SUDAN

5.1 Introduction

The Republic of South Sudan gained independence on 9 July 2011 after five decades of war, conflict and fragility. There is limited published literature on South Sudan, with most of the information presented coming from old references and grey literature. This chapter is based on a narrative review of existing literature dating back to 1900, as well as reports and publications by various organisations working in South Sudan. It provides a brief summary of South Sudan (a more detailed context about Renk County will follow in the next chapter). It outlines the country’s geographical, social and historical context, and finally describes the health system. This background is provided so that the reader understands the broad context in which the health system operates, the physical infrastructure, the societal norms, structure and values, as well as the historical factors that influence access to the health services.

5.2 Geographical context

South Sudan (Figure 24) is approximately 650,000 square kilometres, and lies between 25° to 30° east longitude and 4° to 12° north latitude. It borders Sudan to the north, Ethiopia to the east, Kenya and Uganda to the south, the DRC to the south-west and the Central African Republic to the west. South Sudan is divided into 10 states.

The 10 states are further subdivided into counties. As of June 2012, South Sudan has 79 counties in total and more than 60 new counties are expected to be established soon (Sudan Tribune, 2012). Each county is subdivided into two administrative units: Payam and Boma. Payam is the coordinating sub-unit of the County and the intermediate administrative level of local government between the county and the Boma. Boma is the
basic administrative unit of local government with its own functions and powers, and represents the lowest level of local government and a chief’s area (GOSS, 2006).

The 2011 population of the region was estimated to be approximately 9.7 million. This is expected to grow rapidly as hundreds of thousands of refugees and displaced persons begin to return from around the world to build their new country. They are likely to bring with them different cultures, belief systems and social regulations. This rapid population growth is expected to be exacerbated by a fertility rate estimated at 6.7 (MOH, 2006).

5.3 Societal context

5.3.1 Tribal structure

South Sudan has wide variation in cultural beliefs and traditional practices, and more than 60 indigenous ethnic groups and 80 linguistic partitions (OCHA, 2009). The largest ethnic groups in the northern part of South Sudan are the Dinka and the Nuer. The Dinka and Nuer people have similar cultural traditions and characteristics, and some scholars believe that Nuer have a Dinka background (Breidlid et al., 2011).

Historically the Dinkas were considered as a simple collection of independent tribes with no dominant central authority (O'Sullivan, 1910, Stevenson-Hamilton, 1920). Likewise the Nuer, who appear to have a similar political system, comprises a collection of tribes without a common political organisation, central administration or centralised authority (Evans-Pritchard, 1940).

5.3.2 Village governance structure

There are no tribal chiefs among the Dinkas. However, every village governs itself by means of the village elders. Historically the chief (Bany) is the principle executive officer of the village (or division of the tribe), but the real power is vested in the general body of older men. The chief acts as president and spokesman of his court of advisers, ‘the old people’, because it is believed that they have the best knowledge of tribal traditions and customs and the way to direct matters and settle disputes (O'Sullivan, 1910). The chief is followed by the paramount chief (Bany-dit), followed by sub-chiefs (Bany-kor), followed by clan, or ghol leaders (Nhom-ghol). The village governance structure has experienced minimum changes over time. Recently, towns became
administered by town councils who took precedence over any traditional tribal structures (Norwegian Refugee Council, 2002).

Villages comprise the political units of the Nuer and are grouped into tribal sections (Evans-Pritchard, 1940). In Figure 25, Evans-Pritchard describes the Nuer’s social horizon as two groups: domestic and political. The domestic group is a monogamous family attached to a single hut, with the household occupying a single homestead, which make up a hamlet. The political group, as described by Evans-Pritchard, is the village, the camp, the district, tribal sections of varying sizes, the tribe, the people, and the international community (Evans-Pritchard, 1940).

![Figure 25 Nuer's social horizon](source: Evans-Pritchard, 1940)

5.3.3 Community cohesion

Community cohesion is rooted in social relations, notions of human dignity, communal ownership of wealth and values, such as pride, hospitality and generosity (Deng, 2010, Evans-Pritchard, 1940). This cohesion is very apparent in times of trouble and sickness, when people unite, gather, help and reassure each other, no matter what friction there may be in a family or among kin and neighbours (Evans-Pritchard, 1951).

5.3.4 Family structure

The society in general is male-controlled; the father is the head of the family and his wives and children are considered to be his ‘property’. He has control
over property and at the same time has duties towards them. O’Sullivan (1910) argued that these duties are vaguely recognised and difficult to enforce, particularly when a dispute arises within the family: in this situation the husband does not settle it himself, but refers it to the ‘old men’ (O’Sullivan, 1910).

5.3.5 The cattle

The economic basis of most of the pastoral Nilotic societies such as the Dinka and Nuer is the ownership of cattle (O’Sullivan, 1910). Cattle are very important in their economy and social life. They are their great treasure, a constant source of pride and joy, and their intimate companions from birth to death. Cattle have great value particularly in milk and their use as bride wealth (Evans-Pritchard, 1953). Their significance goes beyond their economic value, as they are used to maintain social relations, religious values and political institutions, and are considered as one of the assets of the social capital and community cohesion (Deng, 2010). The Dinka people, as described by Evans-Pritchard, ‘make a double analogy in referring to their cattle by terms which suggest some activity associated with, or some attribute of, the creature that displays similar colouring to the cattle’ (Evans-Pritchard, 1934).

Stevenson-Hamilton described the Dinka as ‘naturally a sober race’. Crime usually consists of cattle-stealing, disputes about women and quarrels over the grazing and watering of cattle. The latter is often the most serious form of dispute, which in many cases results in loss of life. Human life, indeed, counts for very little, and ‘the loss of a good cow calls for louder lament than the death of a near relative’ (Stevenson-Hamilton, 1920).

5.4 History of the conflict in South Sudan

There were two main civil wars in Sudan in the twentieth century. The first civil war (1955–1972) was between the northern part of Sudan and the southern region that demanded representation and more regional autonomy. However, the agreement that ended the war in 1972 did not fully dispel the tensions that had originally caused it and the conflict resumed again and lasted from 1983 to 2005. Sometimes the period between 1955 and 2005 is considered to be a single war with an 11-year ceasefire. The following sections describe in more detail the history of the conflict in South Sudan, which is summarised in Table 7.
Table 7 History of the conflict in South Sudan

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899</td>
<td>Condominium agreement: Britain and Egypt administer Sudan jointly</td>
</tr>
<tr>
<td>1930</td>
<td>Closed door policy and the 1930 directive</td>
</tr>
<tr>
<td>1953</td>
<td>Granting Sudan self-government</td>
</tr>
<tr>
<td>1956</td>
<td>Sudan gains independence</td>
</tr>
<tr>
<td>1955 to 1972</td>
<td>First war: Anya Nya I</td>
</tr>
<tr>
<td>1972</td>
<td>Addis Ababa Accord</td>
</tr>
<tr>
<td>1972 to 1983</td>
<td>Granting Southern Sudan Autonomous Region</td>
</tr>
<tr>
<td>1983 to 2005</td>
<td>Second war: Anya Nya II</td>
</tr>
<tr>
<td>2005</td>
<td>Comprehensive Peace Agreement</td>
</tr>
<tr>
<td>2011</td>
<td>South Sudan gains independence</td>
</tr>
</tbody>
</table>

5.4.1 Closed door ordinances

On 19 January 1899, Lord Cromer, the British counsel-general in Egypt, and Boutros Ghali Pasha, the Egyptian minister of foreign affairs, signed a condominium agreement between Britain and Egypt. Under this agreement, the Sudan was to be administered jointly by Britain and Egypt. The agreement legalised British control of the Sudan as an Anglo-Egyptian rule and administration (Warburg, 1970, Metz, 1991).

Most of the north of Sudan was inhabited by Muslims who were culturally Arabic, while southern Sudan was inhabited mainly by Christians and animists who were culturally sub-Saharan African. Therefore, the British treated the three southern provinces, Equatoria, Bahr al Ghazal and Upper Nile, as a separate region, and considered its people distinct from northern Sudanese, who were barred from entering or working in the south in the so-called ‘1930 directive’. Moreover, the British gradually replaced Arab administrators and expelled Arab merchants, thereby severing the southern Sudan’s last economic contacts with the north. As a result, the south remained remote, isolated and economically less developed (Metz, 1991).

This British ‘closed door policy’ and the ‘1930 directive’ were justified by claims that the southern region was not ready at that time for exposure to the modern world, and that it should be prepared for integration with Kenya, Uganda and Tanzania, the area known as British East Africa (Metz, 1991). The other justifications were to control the internal slave trade, and to stop the spread of Islam to the south (Johnson, 2011). However, the closed door policy did not apply to the entire south and did not exclude all northern Sudanese from the south. The area from Renk to the north of the upper Nile province was excluded.
because of the established economic interest of northern merchants there (Johnson, 2011).

5.4.2 First War: 1955 to 1972 (Anya Nya I)

In 1953, Britain and Egypt signed an agreement to grant Sudan self-government within three years (Collins, 2008). At that time, as part of British strategy in the Middle East, south and north Sudan were merged into a single administrative region. This decision was taken without consultation with people in the south, who feared being subsumed by the power of the north. Subsequently, internal tensions were heightened as northern leaders withdrew from commitments to create a federal government that would give the south substantial autonomy (Collins, 2008).

On 18 August 1955, just months before Sudan gained independence; a military unit of people from the south, from the British-administered Sudan Defence Force Equatorial Corps, mutinied at Torit in the province of Equatoria, with aims of achieving representation and more regional autonomy. Feeling disenfranchised and cheated, this separatist movement (better known as the Anya Nya guerrilla movement that later formed the Southern Sudan Liberation Movement/Army (SSLM/A)) began an initially low-intensity civil war aimed at establishing an independent south (Poggo, 2009).

By the late 1960s, about 500,000 people had died because of the war and a similar number had escaped to refugee camps in neighbouring countries, or were hiding in the forests (Wama, 1997). By the late 1960s, the Anya Nya rebels controlled much of the southern countryside while government forces occupied the region’s major towns (Fadlalla, 2004).

In 1970, the Khartoum government’s armed forces launched a major offensive against the rebel camps in the province of Equatoria. In 1971, Joseph Lagu, who had become the leader of southern forces opposed to Khartoum, proclaimed the creation of the Southern Sudan Liberation Movement (SSLM). The Anya Nya rebels united behind him (Shinn, 2004).

In 1972, delegates from the SSLM and the Sudanese government signed the ‘Addis Ababa Accord’, which granted southern Sudan wide regional autonomy on internal matters through the ‘south regional government’, with its independent executive body, the ‘high executive council’. This accord ended 17 years of a chronic state of insurgency and civil conflict (Shinn, 2004).

During the time of the ‘Southern Sudan Autonomous Region’ (1972–1983), no key development projects were initiated. Infrastructure was very poor and
South Sudan remained marginalised. Most development projects were internationally financed but many were misdirected (Nyibong, 2010). Although the focus was on improving the infrastructure, services and economic productivity of South Sudan, the lack of logical planning, supervision and coordination led to uneven development. However some progress was made in the development of coffee, tea and forestry products, and in a small number of roads and rural water projects (Nyibong, 2010).

5.4.3 Second War: 1983 to 2005

The 1972 settlement did not last. Eleven years later, in 1983, the second war began, involving the same sides and issues. The Sudan president reversed his course and withdrew autonomy for South Sudan by re-dividing it into three regions and imposing Islamic Sharia law. Representatives of Anya Nya II and of the mutinous army units met in Ethiopia and formed the Sudanese People’s Liberation Army / Movement (SPLA/M), under the command of John Garang, a Dinka Sudanese. By 1985 the guerrilla war waged by the SPLA had spread from the Upper Nile and Bahr al Ghazal regions to Equatoria. Millions of villagers were forced to leave their homes as a consequence of the fighting (Kebbede, 1997).

During the years 1983–1988 there was major political unrest, with violent warfare and economic tension. There was also serious drought, food shortages, famine and death (Minear et al., 1991). The effect of war was very damaging as most of the fighting took place in and around towns and villages in South Sudan, creating circumstances of violence that people could not escape (Philpot, 2011). By 1989, one million people had died and almost three million people from southern Sudan were believed to be displaced (Minear et al., 1991).

In response to widespread famine and death, ‘Operation Lifeline Sudan’ was launched in 1989. This was a consortium of more than 35 international organisations and United Nations agencies that allowed humanitarian assistance to pass through ‘corridors of tranquillity’ to civilians on either side of the conflict (Minear et al., 1991, Cometto et al., 2010). It has been argued that the role of the international organisations during this ‘permanent emergency’ affected the country’s social fabric, weakened the existing institutional capacities and created long-term dependencies (Riehl, 2011).

5.4.4 Comprehensive Peace Agreement, 2005

In 2002, peace negotiations commenced between the government and the SPLA. The first historic meeting between President Bashir and SPLA leader
Garang was held in Kampala on July 27, 2002 after the two sides reached the ‘Machakos Accord’ in Kenya. Their preliminary accord provided for a referendum at the end of a six-year period of self-rule in southern Sudan to determine whether or not the region would secede (IGAD, 2002).

In 2005 a ‘Comprehensive Peace Agreement’ (CPA) was signed between the Government of the Republic of Sudan and the Sudan People’s Liberation Movement/Army. This granted the southern Sudanese the right to decide if southern Sudan should declare its independence from Sudan (CPA, 2005). Although the CPA triggered euphoria among the population and enhanced the transition from war to state building, the mistrust between the parties remained (Rolandsen, 2011).

In the referendum in January 2011, 98.83% of the population voted for independence (Southern Sudan Referendum Commission, 2011). On 9 July 2011, the Republic of South Sudan gained independence after five decades of war, conflict and fragility. It is estimated that during that time, more than two million people died, and more than four million were displaced or became refugees (Lefkow, 1995).

5.5 The health system in South Sudan

5.5.1 Historical background

During the colonial period (1898–1956), medical services were very limited in southern Sudan, and missionaries provided most of the health services (Gruenbaum, 1981). Juba Hospital was built in the late 1920s as a small hospital intended to render medical services to the small population of the town. However, the majority of the population in the south relied primarily on traditional healers and religious leaders for the treatment of illness (Gruenbaum, 1981).

During the war, health services in southern Sudan were provided and controlled by official government authorities in Khartoum and were restricted to a few major ‘garrison towns’, including Juba, Yei, Malakal and Wau. On the other hand, health services in the area controlled by the rebels (SPLA/M) had been largely provided through humanitarian channels by NGOs, FBOs and UN agencies. In the late 1990s, the SPLA/M created a secretariat of health and a department for relief operations to oversee the provision of health services in areas under their control (Brooks et al., 2007, Cometto et al., 2010).
Health services, which were not well developed before the war, deteriorated further over the decades of war. Non-stop fighting resulted in a decline in the health of the people in the south (Michael et al., 2007).

However, many medical achievements under civil war conditions have been reported. One of these is the Onchocerciasis Control Programme in southern Sudan (Homeida et al., 1999). In this programme, two working groups agreed to cooperate in a national effort to control onchocerciasis in the country. One of these groups served people living in areas under the southern opposition movement, and the other one attended to areas under the Sudanese government (Homeida et al., 1999).

5.5.2 Post-conflict health system in South Sudan

5.5.2.1 Structure of the health system

The South Sudan health system includes all the resources, institutions, structures and actors whose actions have the primary purpose of achieving and sustaining good health. It comprises public and private sectors. The public sector includes the Ministry of Health, the Ministry of Defence and the Ministry of Internal Affairs. The private sector includes non-governmental organisations (NGOs), voluntary sector, private health practitioners and traditional healers (MOH, 2011a).

Currently the Ministry of Health in South Sudan operates through a decentralised structure comprising four levels: central, state, county, and community (MOH, 2011a). This is part of the decentralisation policy of the government in which the main aim is to devolve power to a hierarchy of local authorities (Branch and Cherian Mampilly, 2005). The responsibilities of each level are listed in Table 8 as they are listed in South Sudan’s health sector development plan 2011–2015.
Table 8 New Health System structure in South Sudan (MoH, 2009, MOH, 2011a)

<table>
<thead>
<tr>
<th>Health system level</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central level</td>
<td>Ministry of Health, Government of South Sudan</td>
</tr>
<tr>
<td>State level</td>
<td>Ten state ministries of health located in the capital of each state, plus three teaching hospitals</td>
</tr>
<tr>
<td>County level</td>
<td>County health department (CHD) (79), State hospitals (7), County hospitals (16)</td>
</tr>
<tr>
<td>Community (village)</td>
<td>Primary healthcare units (PHCU) (1377), PHC centres (PHCCs) (270), maternal and child health workers (MCHW) and household health promoters (HHHP)</td>
</tr>
</tbody>
</table>

However, it is important to note that some of these structures are not currently functioning, particularly those at lower level such as county health department and below (CHRAIC, 2012, MOH, 2011a). Key challenges include poor coordination, unclear lines of responsibility between levels and stakeholders (MOH, 2012).

5.5.2.2 Health policy and planning

Since the CPA of 2005, the Ministry of Health has developed a number of policies and documents; most were developed with the support of external technical assistance. The health policy document for 2007–2011 emphasises the priority areas in health that require strengthening in order to improve service delivery (MOH, 2011a).

The document ‘Health Sector Development Plan (HSDP) 2011–2015’ emphasises both supply and demand sides of the health system. Strengthening the supply side is planned through strengthening institutional functioning and increasing utilisation and quality of equitable and free primary healthcare services. Strengthening the demand side is planned through empowerment of communities via scaling up health promotion and protection interventions to enable people to take charge of their health.
Specifically regarding maternal health, the HSDP indicated three main priority areas for maternal, neonatal and child health:

1. Increase access to services
2. Implement a comprehensive package of high-impact interventions
3. Expand the routine programme on immunisation in PHCC (MOH, 2011a).

The recent maternal and reproductive health policy (MOH, 2007) provides a comprehensive, integrated, equitable and sustainable maternal and reproductive healthcare package that offers a full range of quality services based on 10 fundamental principles:

1. Focus on significant problems
2. Community participation
3. Support of family planning
4. Respect for and support of the rights of individuals and couples
5. Gender sensitivity
6. Access to essential services
7. Reduce sexually transmitted infections
8. Institutional capacity building
9. Respect the right of healthcare providers
10. Help communities to secure appropriate services.

However, evidence indicates that health policies have not been disseminated widely to stakeholders particularly at state level (MOH, 2011a). In addition, there is growing evidence surrounding the limitations of well-coordinated sets of outreach and community mobilisation activities towards maternal health (Faramand and Carballo, 2006).

5.5.2.3 Human resources

The shortage of skilled human resources has restricted coverage expansion. Less well skilled personnel dominate the current health workforce, and the number of midwives and staff at mid-level cadres is low. Training of skilled medical workers, particularly midwives, is hindered by low literacy levels (UNFPA, 2006). The challenge of health professional training and recruitment is
enormous in the context of limited financial and technical resources (Michael et al., 2007).

5.5.2.4 Health services delivery

In the ongoing, early phase of the post-conflict period, the health system is fragmented, with very low health service coverage (Cometto et al., 2010). Health facilities are in very poor condition, inadequately equipped, with minimal operational capacity (MOH, 2011a). Roads and communication infrastructure are very underdeveloped. Insecurity continues to represent a considerable threat (Rietveld et al., 2006).

Despite the huge funding and efforts that have been made to reduce supply-side barriers, very low utilisation of accessible maternal healthcare facilities has been one of the major obstacles to improving maternal and child survival in South Sudan (Table 9); this is heavily influenced by cultural issues and other demand-side barriers (Michael et al., 2007). On the other hand, there is very limited evidence of a well-targeted strategy or use of behaviour change communication (BCC) interventions regarding maternal and child health (Faramand and Carballo, 2006).

Table 9 Maternal and Child Health indicators in South Sudan

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANC by any qualified personnel</td>
<td>23.11%</td>
</tr>
<tr>
<td>Delivery assisted by any skilled personnel</td>
<td>10%</td>
</tr>
<tr>
<td>Caesarean section rate</td>
<td>2.25%</td>
</tr>
<tr>
<td>Institutional delivery</td>
<td>13.6%</td>
</tr>
<tr>
<td>Prolonged labour</td>
<td>45.02%</td>
</tr>
<tr>
<td>Excessive bleeding during labour and delivery</td>
<td>42.17%</td>
</tr>
<tr>
<td>Percentage of still births</td>
<td>22.68%</td>
</tr>
<tr>
<td>Percentage of miscarriages</td>
<td>15.40%</td>
</tr>
<tr>
<td>Maternal mortality ratio /100,000 live births</td>
<td>2054</td>
</tr>
<tr>
<td>Neonatal mortality rate /1,000 live births</td>
<td>51</td>
</tr>
<tr>
<td>Post neo-natal mortality rate /1,000 live births</td>
<td>51</td>
</tr>
<tr>
<td>Infant mortality rate /1,000 live births</td>
<td>102</td>
</tr>
<tr>
<td>Under 5 mortality rate /1,000 live births</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: (SHHIS, 2006)
Chapter Five South Sudan

5.5.2.5 Contracting for health

The Multi Donor Trust Fund (MDTF) managed by the World Bank was established soon after the signing of the CPA. This has helped the government of South Sudan to contract, with lead international organisations, the provision and management of primary healthcare services, aiming to increase access particularly in maternal and child health (Michael et al., 2007). It has been estimated that international and national organisations provided about 70% of the existing health services in South Sudan in the early post-conflict phase. This includes antenatal care and safe delivery, treatment of serious complications of pregnancy and childbirth, family planning programming, training of healthcare workers/managers, policy development, and systems of referral, quality assurance and research. Agencies involved include the United States Agency for International Development (USAID), Office for Disaster Assistance (OFDA), and United Nations Population Fund (UNFPA) (Michael et al., 2007).

This was implemented through the Basic Package of Health Services (BPHS), which was designed to provide immediate delivery of essential services to a significant proportion of the population in the 10 states of South Sudan (MoH, 2009). However, over the three years since its launch, the BPHS has commenced roll-out in only four out of the 10 states. The main reported reasons for this failure are: World Bank procedures of procurement; the Ministry of Health’s weak capacity for follow up; an over-ambitious initial programme design; and escalating costs that exceeded available funds (Davies, 2009).

While funds may not be a problem for the health sector in South Sudan due to oil revenue and the Multi Donor Trust Fund (MDTF), absorptive capacity is a limiting factor, more so than in most other fragile states (Rietveld et al., 2006).

5.6 Conclusion

In the light of the escalating regional conflicts and their threats to global peace and security, the issues of state building, health system strengthening, and internal reconciliation in conflict-affected societies gained significant importance. Wars in post-conflict societies are most likely to restart within less than 10 years: evidence indicates that half of African peace reconciliations last less than a decade, and globally one-third of wars have resumed within the first decade of the end of conflict (Bigombe et al., 2000).

The social system of each post-conflict community is rooted in its cultural context and provides the normative framework for the social order that is
accepted by the community (Bubenzer and Stern, 2011). Wars destroy trust, identity and social ties. (Pouligny, 2005). As a result of years of violence and destruction, the cultural issues experience transformations and weakness in the social fabric and regularity mechanisms (Pouligny, 2005, McEvoy, 2011). In this context, the role of community cohesion is crucial in ensuring that collective life is sustained and organises itself in the face of all these challenges (Pouligny, 2005).

Health systems in post-conflict settings like South Sudan struggle to meet the needs of their people. Interventions have proven to be ineffective in improving maternal mortality or addressing the contextual causative factors. Health services lack community-based models of care to respond to evolving demographic, economic and other contextual determinants.
6 Chapter Six SOCIAL DETERMINANTS OF MATERNAL HEALTH IN RENK COUNTY

6.1 Introduction

This chapter aims to provide a detailed profile of the people of Renk county and their social, cultural and economic circumstances, in order to give readers a comprehensive picture of the context in which people live and to understand the meanings that they communicate. The social determinants are organised into structural and cultural determinants. Due to the limited published literature available, the first section, structural determinants, is based on stakeholders’ interviews and a review of grey literature that includes technical reports, news outlets, and published and unpublished research projects. The second section, cultural determinants, is based on available literature and Participatory Ethnographic Evaluation Research (PEER) findings and focuses largely on cultural and social determinants related to maternal and child health.

6.2 Structural determinants

6.2.1 Administration

Renk county (see Figure 26) is one of the 13 counties that constitute the Upper Nile State. Renk county is located in the northern part of the state, close to the international border with the Republic of Sudan, and bordered by Manyo county to the west, Melut county to the south, Maban county to the east, and to the north by Jebelen in the White Nile state of the Republic of Sudan.
The administrative capital of Renk county is Renk town, which lies on the eastern bank of the White Nile. The coordinates of Renk town’s location is 11.743618°N 32.816633°E. Renk county is sub-divided into four political subdivisions or ‘payams’: Renk town, Geigar, Shomedi and Galhak. Each payam consists of several ‘bomas’ (Table 10, Figure 27).

**Table 10 Local government administration of Renk county**

<table>
<thead>
<tr>
<th>Payam</th>
<th>Bomas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geiger</td>
<td>Geiger</td>
</tr>
<tr>
<td></td>
<td>Gerbenat</td>
</tr>
<tr>
<td></td>
<td>Gospamni</td>
</tr>
<tr>
<td></td>
<td>Kilo 15</td>
</tr>
<tr>
<td></td>
<td>Kilo Five</td>
</tr>
<tr>
<td></td>
<td>Wanthaw</td>
</tr>
<tr>
<td>Jalhak</td>
<td>Jalhak Centre</td>
</tr>
<tr>
<td></td>
<td>Anambul</td>
</tr>
<tr>
<td></td>
<td>Awarpiny</td>
</tr>
<tr>
<td></td>
<td>Molbok</td>
</tr>
<tr>
<td>Renk town</td>
<td>Abukadhra</td>
</tr>
<tr>
<td></td>
<td>Emtidad-El-Jidiet</td>
</tr>
<tr>
<td></td>
<td>Hai-Theraya</td>
</tr>
<tr>
<td></td>
<td>Kidwad</td>
</tr>
<tr>
<td></td>
<td>Kumshuer</td>
</tr>
<tr>
<td></td>
<td>Elmasara</td>
</tr>
<tr>
<td>Shomodi</td>
<td>Shomodi</td>
</tr>
<tr>
<td></td>
<td>Bebineeth</td>
</tr>
<tr>
<td></td>
<td>Buobdit</td>
</tr>
<tr>
<td></td>
<td>Labior</td>
</tr>
</tbody>
</table>
6.2.2 Electricity

In March 2010, the national electricity supply was brought to Renk county for the first time. Some months before the independence of South Sudan, the Renk electricity project was launched with two electrical transformers with a capacity of 120 megavolt ampere that provide 40 megawatts to feed the town of Renk (SUNA, 2010).

According to the statistics of the Southern Sudan Electricity Corporation in 2011, out of 24,206 households in Renk county, only 2,236 customers are connected to the electricity power station (SSCCSE, 2011).

6.2.3 Telecommunications

According to telecommunication companies outreach data, analysed in 2010 by the Ministry of Telecommunications, there are three mobile phone networks covering Renk county: Zain, MTN and Sudani. The three companies have 23, seven and two telecom aerials in Renk county respectively (SSCCSE, 2011).

Usage of cell phones is very common even in rural and remote areas. There are many booths that sell top-up vouchers, transferee air credit, and charge cell
phones in an area without electricity. Most of the people pay SDG 1 (USD 0.30) for charging services and SDG 1 for airtime credit.

### 6.2.4 Transportation

There is one main road that goes through the town. Towards the north, the paved road passes through several smaller towns (Abukhadra and Geiger), before crossing the international border and leading to Aljabaleen, Rabak and Kosti in the White Nile state in the Republic of Sudan. Towards the south, the road goes to Jalhak (81 km): this is currently an ‘improved dirt road’ that continues south from Jalhak to Paloich (50 km), before going on to Malakal as a dirt road (214 km) that becomes inaccessible during the rainy seasons. The total length of the Renk – Jalhak – Paloich – Malakal road is 345 kilometres. A secondary dirt road of 31 kilometres from Melut to Paloich links Melut town to the main road (UNOCHA, 2011).

It has been reported that the poor roads in the county have been further damaged by heavy vehicles carrying oil. The poor maintenance of the existing roads results in low economic activity, increased car accidents, insecurity and inaccessibility of basic services, such as health centres (BCSSAC et al., 2012).

Air access to Renk county is poor. There are two airstrips. One is 1,400 m long by 65 m wide, established by a commercial oil company approximately 10 kilometres south of Renk town that has reportedly temporarily ceased operations. The other is an abandoned 400 m long airstrip that requires substantial rehabilitation (UNOCHA, 2011).

Renk port is fully operational, with substantial capacity, and is considered as an alternative means of transportation to Kusti in the Republic of Sudan and to Melut and Malakal in South Sudan. During the wet season, when the Renk to Malakal road is restricted, the only means of transportation to the region south of Renk is via barge or boat. Two commercial shipping agents operate in Renk during the wet season.

### 6.2.5 Water

The major source of water for most households in Renk county is the river Nile. Waterholes, swamps (Haffirs) and canals all provide water for consumption by the community and livestock. Some areas in Renk town have access to water through a piped distribution system. A water station draws and treats water from the river and distributes it (Figure 28). Some households carry or purchase water from donkey carts that collect water from the river, canals and
water treatment points (Figure 29 and Figure 30). The dearth of clean water sources remains a central concern and causes major health problems.

**Figure 28 Water station in Geiger**

![Image of a water station in Geiger](image)

*Source: Author / PEER (ON20003)*

**Figure 29 Girl bringing water from the river by donkey**

![Image of a girl carrying water on a donkey](image)

*Source: Author / PEER (ON20001)*
6.2.6 Economy

The economy of Renk county is predominantly agricultural with some other trade and commerce. Most of the people practice subsistence agriculture as well as rearing livestock (mainly cows, sheep, goats and poultry). People derive their livelihoods from trade, salaried work, farming, fishing, brewing and various forms of kinship support.

Agriculture is the primary economic activity in the Upper Nile State. Out of 24,206 households in Renk county, there are 8,751 farming households (SSCCSE, 2011). The main crops cultivated are sorghum and maize, but it has been reported that there is a steady decrease in number of households that cultivate these crops (FSTS et al., 2012). Unpredictable weather patterns, outbreaks of pests and disease, and flooding were reported as deterrents for successful crop yield or food security (BCSSAC et al., 2012).

Food production in the Upper Nile state covers only 28% of the state's requirements (FSTS et al., 2012). The state relies mostly on markets as a food source, at which most sorghum, maize and pulses are purchased. The food security situation in the state is a serious concern and it is expected to deteriorate due to reduced food access because of low food stocks from production and high food prices. The coping mechanisms most commonly adopted to secure food include consumption of cheaper, less preferred food,
borrowing and relying on kinship support, reducing number of meals and reducing meal serving size (FSTS et al., 2012).

South Sudan’s largest oil fields are located in the Upper Nile state, around Renk county: about 77% of the estimated remaining commercial reserves of South Sudan’s oil are located in the Upper Nile state. It is produced as Dar Blend from blocks 3/7 (Bol, 2012). The Petrol–Dar Operating Company Ltd (PDSC) currently holds oil development rights for these blocks (Wesselink and Weller, 2006).

Despite the number of oil drilling sites in the Upper Nile State, the state remains extremely poor by any standards, with limited public services and basic development indicators (BCSSAC et al., 2012). More than 90% of the population in Renk district live on less than USD 1 a day (ECOS, 2006):

> Oil centres like Adar and Paloic have clinics, but local people say they cannot access, unlike oil workers and the military. Paloic has an important up-to-date airport, but its population has no fresh water, no jobs and no security. (ECOS, 2006)

Petrol Dar have supported some community development projects to improve quality of life of local communities, but it has been reported that these facilities benefit the local militias and not the community (BCSSAC et al., 2012). As ECOS noted:

> Before oil production in 2001, Paloic was a small village which had a clinic run by foreigners, with free treatment for the poor. Today’s clinic is larger and better equipped, and almost exclusively for army use. The Dinka population is obliged to sell goats to buy medicine, and has no other option now but to treat themselves. (ECOS, 2006)

### 6.2.7 Education

In 2010, 11,819 boys and 10,083 girls were enrolled in primary school in Renk County, giving a total of 21,902 pupils. According to Ministry of Education statistics in 2009, there were 241 permanent school classrooms in Renk county, with 54 semi-permanent classrooms, five tents and eight open-air classrooms. There were 416 employed teachers in Renk county (232 male and 184 female) (SSCCSE, 2011).

There are three secondary schools in the county to accommodate all children. The Upper Nile University, based in Malakal the capital of the Upper Nile state, has a branch in Renk town that includes a faculty of Agriculture and Forestry.
6.2.8 Security

The state is characterised by underdevelopment, lack of infrastructure, harsh environmental conditions, and an influx of large numbers of returnees, in addition to the presence, activities and superiority of militia groups and army living and operating in the region and in Renk town.

The Upper Nile state was seriously affected by violence, unrest and conflict during Sudan’s civil war, and has since become one of the most devastated and marginalised areas in South Sudan:

Five years into the CPA, the security and conflict situation in the Upper Nile State still remains very fluid and potentially volatile. It has historically existed as an entity of both Sudan and South Sudan, a fact which has affected both the psychology and expectations of its inhabitants. The adjustment between the two has not been easy, particularly on the dynamics of referendum and the citizens’ need for reassurance that their concerns can be addressed under the leadership of the new government. (BCSSAC et al., 2012)

Widespread alcoholism, drunkenness and unemployment have contributed to the escalation of insecurity in the county. The main threats to security are
murders and robbery. Many incidents are connected to cattle rustling, which have led to more violence and increased fights over resources:

Due to presence of the army/ SPLA in town, drunkenness, unemployed former service men and youth in Renk county, it has been noticed that there are increased crimes, constant fear, loss of property, rape of women and insecurity. There is little enforcement of laws and little progress made in development. (BCSSAC et al., 2012)

Women are considered to be responsible solely for domestic concerns, and for providing for their families. They are often abused when performing actions related to these roles. Whenever the husbands are unable to provide, the frequency of domestic violence, mainly wife beating, rises significantly. Violence against women occurs frequently but gets little attention:

Violence against women is very high in some tribes. Husbands hit their wives during pregnancy. (Health visitor)

The presence of military barracks within the township posed a number of security problems for women and girls with reported cases of rape and harassment allegedly conducted by drunken soldiers. (BCSSAC et al., 2012)

### 6.2.9 International and local organisations

Before the peace agreement, international organisations were primarily working in emergency relief. Government stakeholders perceived that international organisations did not work on building or strengthening the health services. After the peace agreement, stakeholders interviewed claimed that international organisations continued their work in South Sudan within the scope of an emergency and that they were questioning the peace between North and South, and expected the war to start again anytime. International organisations continued the same programmes and activities that they were doing during the war:

The government asked them to change their work from emergency to development. The international organisations responded and agreed to that, but in reality they did not. (Director of Renk County Health Department)
Government stakeholders stated that during the four years after the peace agreement, the international organisations did what they regarded as priorities, taking advantage of the chaos, instability and weak capacity of the government to question them:

*Lack of reliable information and statistics opened the door to international organisations to exploit and plan according to what they want. They write statistics and information, which are not true, so they can get more funds. Some organisations received funding according to specific project proposals. But they didn’t implement the exact proposed projects, and delay the projects.* (Director of Renk County Health Department)

Although there is a huge need for health services in Renk county, most of the large organisations that work in the health field operate minimal and low-scale activities in this county. According to the government stakeholders, some of the organisations do not have a clear vision, their programmes and activities were not planned, and the Ministry of Health has no clear plan for the organisations to follow:

*In the last five years in Renk county, there was not a single organisation that worked in health. When IMA organisation came to the county it was welcomed and it was given one of the government’s cars to go around [to] the available health centres. This is how the officials here support external help.* (Director of Renk County Health Department)

The geographical distribution of the international organisations is a political issue. International organisations assume that Renk county is close to North Sudan and that people there have better access to health facilities both in Renk and in North Sudan. They feel that this county is better served than others in South Sudan. The few international organisations that are present in the Upper Nile state prefer to stay near the decision-making centre, which is Malakal, the capital of the states; this results in there being few if any offices or branches in Renk county.

There are some local organisations working in Renk County. The ‘Invitation to Islam Organisation’ and the ‘Turath (culture) Organisation’ focus on education. The ‘Labena (Brick) Women’s Organisation for Development and Capacity Building’ and ‘Mubadiron (initiators) Organisation for Prevention of Disaster and War Impacts’ run a few, low-scale health related activities: they would like to work in the area of health but have limited resources and capacity.
There is no real partnership between international and local organisations in the health field. Most of the health-related activities have involved small medical outreach projects, environmental sanitation, first aid courses, disaster relief work, and the building of some health centres.

Employees in local organisations stated that any international organisation needs a long time to understand the cultural context of the people, and most of them come with a focused mandate for a short duration and tight schedule, with limited understanding of the context or the people:

*Some of the international organisations learnt the lesson, and started to recruit local people. Because the local people are aware of the culture of their community, they act as introductory channels to the community, they know the priorities and needs, and they facilitate and solve many problems through their contacts and relations.* *(Employee in a local NGO)*

*Organisations that [are] involved in community development and capacity building are in contact with the people, so they become aware of beliefs and culture of the community.* *(Employee in a local NGO)*

### 6.2.10 Health planning

Before the peace agreement, health policies and plans were made by the federal Ministry of Health in Khartoum and send to the Upper Nile state. As the state had limited budget and resources, most of the activities were limited. Stakeholders stated that most of the plans did not match the need, and the human resources capacity was weak. Most of the services were provided by hospitals in big towns and cities. Health services in rural areas were managed through dispensaries, and the dispensaries were administrated by rural hospitals.

For the three years that followed the peace agreement of 2005, the situation was marked by chaos and a range of problems. Policies were made in Juba, without reliable information about the number of functioning health units, health centres, hospitals and existing human resources. The director of the health department in Renk county noted that most of the policies and plans did not address the substantial needs of the community. He claimed that policy makers depend on the limited available information, making policies in a context far removed from the community in question, and without identifying the problems at hand:
There is a southern Sudan government policy for maternal health. It is called basic package health services. Reproductive health is the number one on that list. The policy has been written down on a paper by the government, but the question is who is going to apply this policy in reality! (Director of Renk county health department)

In 2010, the Ministry of Health in South Sudan began to pay serious attention to the health system. As it was difficult to manage the health services in all states and counties in South Sudan from Juba, the Ministry of Health established a county health department (CHD) in each county. The CHD is supposed to make local input into plans, provide the Ministry of Health with information and statistics on the county, and implement the policy of the government of South Sudan at local level. The CHD is requested to prepare plans for the following year, present this to the State, after which the State presents it to the Ministry of Health in Juba. The plans, when approved, are brought down to the county level to be implemented. The CHD is composed of the county health department officer, the expanded programme of immunisation (EPI) and surveillance officer, the monitoring and evaluation officer, the pharmacy services officer, the laboratory services officer, the health promotion and nutrition officer, and the midwifery and nursing officer.

6.3 Cultural determinants

6.3.1 Marriage customs and traditions

6.3.1.1 Marriage

The social relations in Renk are largely determined by marriage (Deng, 2010), which must occur outside the descent groups of the man and women concerned. Otherwise it is considered as incest, which is defined as the ‘offence of sexual intercourse between persons related by blood from either the father or mother of either of such persons’ (Evens, 1983, O’Sullivan, 1910, Harragin and Chol, 1998).

According to the PEER researchers, when choosing a wife men visit nearby villages in search of eligible women. They choose women from families with a good reputation. They become engaged for a period of about one year to get to know one another before marriage. Women in most cases are given the choice of deciding which man to marry but they respect their fathers’ wishes.
6.3.1.2 Bridal dowry

Historically, marriage in South Sudan, according to O'Sullivan, is considered as ‘the purchase’ of a girl from her father or guardian. The payment gives the husband possession of the girl, the right to all children borne by her, and it authorises him to ‘reckon the children to his stock’ and gives him full control over them. The ‘bride price’ is paid in cattle as this is their currency (O'Sullivan, 1910). It is recorded that the more cattle paid for a woman, the prouder she is of it, as cattle enhance her social standing (Herskovits, 1926). In Dinka, the husband pays a portion of the dowry after obtaining his father's consent, and he pays the remainder if the girl suits him, usually a year before he marries her (Herskovits, 1926). All the agreements necessary before a marriage are made by a council consisting of the senior relatives of both the man and woman concerned; this council decides on the amount of the ‘marriage payment’. It is not necessary that the whole ‘marriage payment’ be paid before the ceremony can take place (O'Sullivan, 1910). The ceremony of marriage consists of the marriage feast and sacrifice, the formal handing over of part of the cattle of the ‘bride price’ to the girl's father or guardian by the boy's parents, and the removal of the girl to her husband's enclosure (O'Sullivan, 1910). Many other southern tribes have similar customs; in the Shilluk for example, the father of the woman must be compensated by cattle for the loss of his daughter before marriage can take place (Herskovits, 1926). The wife's parents cannot dispose of this cattle until a first-born completes the union (Evans-Pritchard, 1948, Beswick, 2002). Among the Dinka, if the wife dies in childbirth, or fails to give birth to a child within the first two years after her marriage, her father substitutes another daughter, takes back his daughter if living, or returns a portion of the cattle (about half) and assists the husband in finding another wife (O'Sullivan, 1910).

Not many changes have happened in the last hundred years regarding the bridal dowry. A recent study (Sommers and Schwartz, 2011) argued that parents still routinely view their daughters as ‘property’ that can generate family wealth, and the desire to profit contributes to rising dowry prices. This skyrocketing of dowry demands, according to Sommers, have had negative and alarming effects on young women. Conversely, Harragin and Chol explained that ‘cows payment’ is a way to ensure that marriage is not just a union of a man and a woman, but also an alliance between two families, and the ongoing payments and exchanges of cows is to ensure that relations between in-laws remain good. Furthermore, the ‘cows payments’ are seen to have come from the ancestors and to bring their blessing to the union (Harragin and Chol, 1998).
According to PEER researchers, currently in Renk the bridegroom’s family share the burden of giving a dowry, consisting of a number of cattle agreed upon with the bride’s father. The husband and his family expect his wife to bring children so they do not feel they lost their money and cows invested in her:

_They marry women by cows, and the husband has concern that the woman should bring children. He took cows from his family to complete the marriage. That is why he will be waiting for children._ (R6)

The groom brings a fixed number of cattle as decided by custom. If the bride is educated he will bring an extra number of cows (15), to compensate the bride’s father for the money he spent on her education. Fathers expect to regain the ‘loss’ of money spent on pens, papers and so on because his daughter is moving away and her education will not benefit him anymore:

_Education has many cows more in the dowry because if a girl is working and she has a salary she gives it to her husband to help him._ (R1)

A bull, bags of flour, onions and oil are presented to the mother of the bride as compensation for her years of breastfeeding her daughter. The bride’s family will sacrifice this bull on the wedding day and have a big feast for their family, friends and neighbours. The bull’s legs are given to the bride’s maternal uncles as she is considered to be their daughter as well as her parents’.

After accepting the dowry, the bride’s parents feel that the groom has returned to them the money they spent raising their daughter, especially since she will be moving out and will not benefit them anymore. After the wedding the bride will serve and benefit her husband and her future children.

The bride’s family will accept however many cows the groom presents, if he presents less than the custom the rest will be a debt to be paid later. The dowry is presented to the bride’s paternal uncle, never to her father, as a sign of respect. It is believed that a man is responsible for his nieces and not his daughters. The father of the bride will not negotiate wedding and marriage details; this is left for his brother so as to avoid conflict and misunderstandings between the fathers of the bride and groom.

The cows that are presented as dowry will be added to the cows the bride’s father owns but the money given by the groom’s family will be divided among the uncles. The bride has no share in the money.
6.3.1.3 Giving away the bride

The bride is given away by young unmarried girls consisting of her sisters, cousins, neighbours and friends. The girls will accompany the bride to her husband’s house and will stay for three days. They take with them the bride’s clothes, perfumes and personal belongings. During these days the groom and his friends will come over to have casual conversations and then leave the house.

When the girls first arrive at the house they refuse to eat or drink until they are acknowledged by the groom’s family and given money. The money presented to the girls will be split between them later on. After this the girls are free to eat, drink and sleep over with the bride. While the girls are at the bride’s new house, the groom’s friends will come and chat with them and they will form bonds between the two families.

The mother of the bride takes water and sprays it on the bride and groom to bless them and wish them a long, happy life together. The bride’s uncles bring sand from the farm, spit in it and slap it onto the bride to wish her well.

6.3.1.4 Wedding ceremony

Strict Christians get married in church, where the bride and groom hold the bible and exchange vows promising to love and honour each other until they die. Men who marry in the church are allowed only one wife. This is usually because they are devout and they need to focus on their religion, rather than be distracted by conflict that may arise from having multiple wives.

Some tribes like Shuluk celebrate in a traditional way called ‘Nugara’ which means ‘hit the drum’. People meet and sing the best songs they have (see Figure 32).

Figure 32 Wedding ceremony, ‘Nuqarra’ of the Shuluk tribe in Renk town
6.3.1.5 Pregnancy out of wedlock

In some cases a couple might make a ‘mistake’ and have sexual intercourse before they get married. This is not uncommon but nonetheless regarded as a sin that should be corrected by marriage. In most cases the sexual intercourse is not noticed, but in some cases the woman falls pregnant. In the latter case the woman will ‘go after’ the man until he marries her. If he refuses she will go to his house and tell his family, who will usually take her side and marry them. The man’s family will take two cows to the woman’s father as a sign of apology; they will explain that the couple made a ‘mistake’ that can be corrected by marriage. The father may be angry but his first concern will be that the baby is not born out of wedlock and so he will agree to start the wedding rituals straight away.

In some cases the man may refuse to acknowledge his baby, and then he has to pay about twenty cows and never see his son or daughter again. The woman will live in shame and if something happens to her during childbirth everyone will blame the boy who got her pregnant. If a man marries a woman and then discovers that she is not a virgin, he will send her back to her father’s house, thus causing a big scandal. This is why when a couple have premarital sex the woman will insist that the man marries her even if she goes and tells his family herself:

*Once there was a girl who got pregnant by a boy. The boy said that he*
didn’t get her pregnant, the girl went and stayed with the boy’s mother in their house. The boy kept saying this is not my baby and the girl said she didn’t know anyone else. The boy told her that he saw her talking to someone else. The girl said nothing happened between me and that man. The girl was always sad, saying to her mother-in-law your son is denying this baby. She was worried all the time and not eating. When she had delivery pain she didn’t tell anyone about it, people found the baby crying by her side as she laid dead. (R7)

Box 3 Composite narrative story of an out of wedlock pregnancy

Pinj was 15 years old. She was two months pregnant. She told her boyfriend about the pregnancy but he denied it. She insisted but the boyfriend continued to deny it, even in front of his friends. She then told her mother who got angry and told her that ‘you are not my daughter anymore and you will not have this baby’. She went to his parent’s house and told them that she had been made pregnant by their son. The boyfriend’s mother asked him but he denied it, again saying that ‘she is not pregnant from me and she should check who made her pregnant’. The boy’s father and mother decided to take her to the hospital. She was taken to hospital and after examining her the doctor said she was two months pregnant.

She went back home with the boy’s parents to stay with them because she had no place to go. The boy did not want the girl to stay at their house and continued to deny the pregnancy. The boy’s parents accepted the girl and looked after her. She was not eating properly and was feeling very low and depressed. She was taken to the hospital for treatment. The doctor said that the girl was weak and needed to eat properly. The boy’s parents continued to look after her. The months passed and she went into labour. She was taken to the hospital again. Since she was only 15 years old she had a tight pelvis so her labour was obstructed and they had to deliver her by caesarean section. She gave birth to a boy.

After the delivery the girl’s mother told her that she wanted her to come home. The days passed and the baby started to look like his father. Watching the baby play outside, his father realised that it looked like him. He went to his parents, confessed and said that he wanted to marry the girl. His parents then asked the girl if she would marry him. But she refused, saying he had not wanted her at the start, when she needed him. The parents went back to the boy and told him that she had refused to marry him. He asked them to try again. They returned to the girl’s house and tried to persuade her to accept his offer of marriage. She continued to refuse. The parents then said, ‘we supported you during your pregnancy. We want this baby to grow among us and we are sorry’. So the girl finally agreed and soon they were married and happy.
6.3.2 Family size

6.3.2.1 Demography

Renk county is well known for the diversity of its population, mixed identity, generations of intermarriage and cultural exchanges between different parts of Sudan. The nature of this diversity is derived from the fact that Renk has numerous cross-border activities, which attract traders from other counties and countries.

The people of Renk county are predominantly Nilotics, and the majority are members of the Dinka ethnic group. The reminder are from the Shilluk, Nuer and other non-Southern tribes such as Dago, Burun, Funj and Selaim.

In the April 2010 census, the population of Renk County was 137,751, in an area of 10,031 square kilometres (population density 13.7 per square kilometres) (see Table 11, Figure 33). The male to female ratio was 1:1.16. The number of households was 24,206, with an average household size of 8.5 members, ranging from two to 19 members (SSCCSE, 2010, FSTS et al., 2012).

This study was conducted during the South Sudan referendum, which witnessed the return of many people to Renk. A recent survey in 2012 found that in the last two years the percentage of returnees to Upper Nile State has increased by 10%, and currently more than 20% of households are those of returnees (FSTS et al., 2012).

<table>
<thead>
<tr>
<th>Payams</th>
<th>Total Population</th>
<th>Male</th>
<th>Female</th>
<th>Number of Households</th>
</tr>
</thead>
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<tr>
<td>Renk</td>
<td>69,079</td>
<td>36,790</td>
<td>32,289</td>
<td>11,684</td>
</tr>
<tr>
<td>Geger</td>
<td>39,649</td>
<td>20,620</td>
<td>19,029</td>
<td>7,234</td>
</tr>
<tr>
<td>Jalhak</td>
<td>17,436</td>
<td>9,920</td>
<td>7,516</td>
<td>3,093</td>
</tr>
<tr>
<td>Shomedi</td>
<td>11,587</td>
<td>6,639</td>
<td>4,948</td>
<td>2,195</td>
</tr>
</tbody>
</table>

| Total in Renk County | 137,751 | 73,969 | 63,782 | 24,206 |

Source: Census figures of April 2008 (SSCCSE, 2010)
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Figure 33 Population pyramid for Renk County (2008)

Most of the population of Renk county is very young, with 30% of the population under 10 years, and 70% of the population under 30 years. The population of women of reproductive age (15–45 years) in Renk county is 29,589. This population pyramid of the Renk county population indicates a high birth rate, a high death rate and a short life expectancy (SSCCSE, 2010).

6.3.2.2 Having children

Marriage is considered incomplete until a child has been born. Thus the real security and stabiliser to the indissolubility of marriage lies in having children. The husband and wife are both equally anxious for a child to be born. With the strong desire to bring as many children into the world as they can, couples and their families worry about infertility. The husband will be concerned about seeking treatment or marrying another wife if they fail to have children, as pregnancy brings happiness to him:

*If a lady doesn’t bring a child that means she’s not good and people don’t like her.* (R11)

The grandfather looks for a child to carry his name. He brings cows for the naming ceremony where family, friends and neighbours will be invited for food and drinks. A new child might help family members overcome their problems:

*The husband’s father when he knows that the woman get pregnant, he*
knows that the child will raise the family name. They will name him after his grandfathers' names, so the name will not disappear. (R6)

When a woman gives birth her parents give her two cows and furniture for her house. They also bring her groceries, oil and alcohol. They hold a feast to celebrate the health of the new born and the mother:

The family who paid the dowry will be happy when the woman gets pregnant. They won’t feel like they lost money over her. The family will be happy because a new baby is born and it will be an addition to the family. The whole family will be very happy and they will party (nuggara) and dance. (R10)

Box 4 Composite narrative story of infertility

This is a story about a boy and a girl. They were neighbours, and both families knew each other well. After the boy grew up he said to his father, ‘I want to marry the neighbours’ daughter’. They went to arrange the engagement and set a date for the wedding. The wedding was held with the gathering of the families and they were happy. They escorted the bride to the village of the groom’s family.

For one year she did not have a baby and the neighbours said, ‘She is a loss’ (Khisara: failure, waste). She heard what they said. His mother was worried because everyone said this woman does not bring children. The wife asked her husband to take her back to her family's home, but he insisted she stay, saying ‘I want you like you are’. He wanted to take his wife to the hospital but she said, ‘Go and marry another woman’. The man convinced his family she should stay, saying ‘I want her like this!’

Suddenly, two months later, the woman got pregnant. After five months, her belly grew. Some people said ‘she is pregnant’ while others denied it. There is a tradition known as a ‘boy’s tradition’, where the man tells his mother, ‘my wife is pregnant!’ They did traditions for the wife. They made a traditional bead necklace for her. The husband’s mother was very happy and she went to every house to inform them of daughter-in-law’s pregnancy. She got things to her daughter-in-law’s family, who were very happy.

The woman went back to her village for labour. The man bought good things for her. She gathered the people and informed the whole neighbourhood. They came to her and made perfumes and incense. Everyone congratulated her. The lady gave birth to a baby boy. The grandfather bought a lamb and slaughtered it and named his grandson after him.
6.3.2.3 Factors influencing family size

There are many factors that influence the size of a family which are now described.

6.3.2.3.1 God’s will

People believe that the number of children a couple have is in God’s hands. They accept the death of children as a normal phenomenon, and believe that children will only live if God spares them:

If God wants her to have lots of children, then there will be lots of children in the family. (R10)

God takes some, and leaves some. It is not guaranteed who is going to live or die. (R7)

6.3.2.3.2 Desire to have children

People have a strong desire to have as many children as they can. It is rare for a couple to say that they do not want children; hence no one refuses to have children. It is deeply rooted in the culture; people believe that only foreigners decide on the number of their children. There is a huge social pressure on couples to have children. A woman who does not conceive is considered shameful. Husbands are admonished for not being able to make their wives get pregnant, as the children will benefit their parents later in life. On the other hand, some women desire to have fewer children and concentrate on raising healthy children instead of having many children:

The woman should marry to bring children that will benefit her later, if she doesn’t have children her heart will not rest. Her tummy brings six or seven children. The mother and father will not say we don’t want children, no one refuses to have a baby, but it is God’s wish. (R6)

In our traditions, it’s disgraceful if a woman still gets her periods and doesn’t become pregnant. People quarrel with him – why don’t you make the woman pregnant? (R7)

Some women had just one child, because they wanted to have just one or two children to raise them properly and to satisfy them. (R14)

6.3.2.3.3 Compensation for loss of children

The loss of children due to death during birth or disease is a major concern. The family consider the death of a child as ‘khasara’ (a waste). One of the
participants explained that if a child sleeps hungry, and does not eat clean food then they will catch a disease and die. It is common for babies to die. According to participants, three to four out of every 10 children are likely to die. If a family does not take care of its children and take them to the hospital when they are sick then they may lose them and have fewer children. It is not possible to predict who is going to live or die:

Some families have six or eight children, because if you get a lot, half of them might live and half might die. If four die, then four will be alive. (R7)

There is also concern that some children might not be socially successful or might be difficult for their parents to control. So parents try to have many children to compensate for those 'bad children':

The man can bring many kids so he can send them to school. Maybe one will be a doctor, one will be a teacher and of course some others might stay without any work. If you bring kids, say seven, maybe three out of them will be not good in education, and you don’t benefit from them. So that’s why having many children is very important. (R12)

6.3.2.3.4 Pride in their clan

Creating big families is an essential concept to sustain the name of the family and to have more social influence and status. Participants stated that ‘khashm al-bayt’ (mouth of the house) is very important; this term refers to a collection of big families that descend from a common ancestor. ‘Mouth of the house’ is the building block of a clan, and clan is the building block of a tribe:

If the children were many they will improve the family, and they will be ‘khashm al-bayt’ (the mouth of the house). The mouth of the house means if people come and visit us they will say this is the family of X. The children when grown up they will marry and have children again and make a family. ... If they grow up and get married they will be ‘the mouth of the house’. Nothing is as important as the children. (R3)

They are proud when they have lots of children and then people can say that person has lots of children. Children get older and carry your name. If the father dies, the family’s name would remain, the family would continue. (R5)
6.3.2.3.5 Fewer men as a result of war

The long civil war in South Sudan killed many men, leaving many widows. Many women have few children because their husbands went to war and never came back:

Most men were taken by the army for the war, that's why women are left with no husbands. She can have only two children, but lots of men were killed during the war so that's why women don't get pregnant. (R7)

6.3.2.3.6 Having enough children to fight and protect

The years of war and conflict, as well as the post-conflict period, resulted in fear and instability. People continue to be concerned about protecting their property, preparing for upcoming unpredicted war or fights, and compensating for the men they lost in the war:

In the war, lots of men died. Some families have completely disappeared because of the war in the south. That is why men now marry four wives who could all get pregnant in the same year and he can have four new babies in one year. (R7)

The story is that there was a family living in Renk. The house was attacked by the army who killed all the family members. They killed all the family members but one of the boys managed to escape. He went up north to study and came back again and now he is representing his family. He re-opened his mother and father’s house. He would not allow them to close their house. (R7)

Most of the current fighting and conflict in the area is related to farming and lands. People are worried about attacks on their arable land. People may fight with sticks over these issues. That is why there is a belief that the family should be large and strong, so they can carry these sticks and thereby fight, protect and defend themselves:

We live where Denka tribe live, if you have a farm and it has borders, someone from outside can't take your farm if he sees that your family is big. One person cannot defend against an outsider by himself, but when a family is big whoever wants to bring something bad cannot because they are many. (R1)

Here, sometimes people fight or go to war. Men marry more than one wife to create a large family. Each woman might have five to 10 children,
so they have large families. If war arises, they can attack the other one. But if you have just one woman, you might have only one child, so you can’t fight. (RI2)

6.3.2.4 Strategies to expand the family

6.3.2.4.1 Marrying several women (polygyny)

Polygyny (a narrow form of polygamy) is the practice of having more than one wife at one time. PEER researchers reported that a woman’s worth is only to give birth and raise the children. The man used to see the woman as his property, having ‘bought’ her with cows. It is common that a man can be married concurrently to more than one woman. If a man is able to afford the expensive bride price in the form of cows, he has the right to marry again. If a woman gets married and does not get pregnant, she may be considered useless. The husband will find another woman to marry:

Families here consist of a mother, father, children and two, three or even four wives to bring lots of kids. There is one father but many wives; there is no trouble because a man who is strong solves his family’s problems. A man who has cows, goats or money can raise his kids and marry more than one woman. (RI)

If the woman didn’t get pregnant, they will take her to seek treatment to bring children. If she didn’t get treated, the husband will marry other one. (R6)

The man has one big yard with multiple huts where his wives live separately, though they eat together, taking turns to prepare meals. While jealousy does arise for some, the majority do not have a problem with these arrangements, seeing benefits from living in one place with other wives. The wives must respect each other; otherwise the husband will beat them. If a woman is wrongfully beaten she will complain to her father-in-law, who will discipline his son.

Some participants contradicted this, by saying nowadays women are seen as an important part of the household and that the average number of wives has decreased. It has been stated that some women try to have as many children as possible so her husband will not have an excuse to marry another woman:

My husband is a priest in the church and he only has one wife, me. I have six children now. I love him and so I’m prepared to have more children, maybe twelve (laughs). (R7)
6.3.2.4.2 Husbands taking care of women

Within the context of difficult life, stress, the multiple responsibilities of women and financial constraints, it is becoming more acceptable for a husband to take care of his wife, provide her peace of mind, so as to improve her health, thereby enabling her to have more children. There is a belief that rest, relaxation, comfort and avoidance of tiredness and heavy work like bringing water and wood, enable women to have more children. For them, rest means that pregnant women should be able to rest when they need to and only take care of children and the home.

A good relationship between a woman and her husband is considered important. Agreement, happiness, honesty and harmony make them bring many children:

If her husband makes the woman comfortable, takes care of her, looks after her when she’s sick and takes her to the hospital, she’ll bring many kids. My friend told me a story about a woman who gives birth every year, she has lots of things, and her house is clean. Her husband takes her and the kids to the hospital even if she just has a headache. (R1)

If you are at home in the shade taking care of your children and the man goes bring water, wood and food you’ll have no concerns or worries, just relaxed at home, your heart relaxed you don’t have any problem. The relaxation and husband not fighting will make you brings you many children. (R11)

6.3.2.4.3 Financial security

Financial security is considered one of the major determinants of having many children. The ability to provide food and medicine for both mother and children, medicine, and meet basic life needs makes women them comfortable, relaxed and therefore able to have more children. Women stated that they dream to live in a better place, but because of their illiteracy and poverty their dreams will never come true:

If the family is (financially) comfortable, and the father is able to provide the wife medicines, in this situation woman can have lots of children. It depends on the father’s (financial) abilities, if people help each other and if they take care of the mother and treat her that makes people bring more children. (R9)
6.3.2.4.4 Importance of strength and wellbeing for women

Women believe that they have to be physically and psychologically fit in order to get pregnant and give birth. A woman has to be healthy and happy, and have a good relationship with her husband in order to have more children. The man should take good care of her and feed her well, especially during pregnancy. If a woman is neglected by her husband, and does all the heavy work in the house such as carrying wood and water, she will have fewer children. In addition, some men have more than one wife. This can mean that the less time he spends with a wife, the fewer children she will have:

If she ‘shayila fi galba’ (is not comfortable) and there are ‘Mashakil bitamal nafsiyat’ (problems in the house) they won’t have more kids. (R4)

If they are not happy together, for example if she has lots of problems and fights she can stop herself getting pregnant. (R10)

As one interviewee put it, ‘disease takes people backwards’, and so a mother, if ill, should seek treatment so that she can have children. A woman treated for illness is considered a clean women, ready for having children:

If the woman got married and has a disease in her tummy and it is not treated she will have few children, but if treated and cleaned she will have 10 or six. Don’t let disease stay in your body. If they get sick, there will not be a family. Take care of yourself because diseases take people backwards. (R6)

If the mother is healthy, if you take care of the mother and the children properly, this makes you have lots of kids. The woman is healthy when her husband and the doctor take care of her. (R13)

6.3.2.4.5 Lack of uptake of family planning

Family planning is not culturally acceptable, as the role of women in South Sudan is seen mainly as the provider of children. There is a strong social need to have many children, in order to meet family responsibilities and to be the main family asset:

There is no family planning and ignorance, the mother gets her menstrual cycle 40 days after delivery and becomes pregnant. (R5)
On the other hand, some women may prevent pregnancy through abstinence and a few women have access to family planning methods. In these situations their husbands agree to have fewer children:

*When the couple love each other, knowing and practicing family planning, they will bring few children. Sometimes there are people who have children with a five-year gap without planning.* (R5)

*If they are not happy together, for example if she has lots of problems and fights she can stop herself from getting pregnant. She abstains from her husband.* [Do you use contraceptives in your community?] *No, no one uses contraceptives in my community.* (R10)

### 6.3.2.4.6 Social cohesion

Social cohesion is deeply rooted in the culture of South Sudan. People advise and support each other, they face and solve problems together. They value social cohesion and large families play an important role in consolidating it. Social cohesion is strengthened by the presence of multiple supportive social networks of families, friends, neighbours, heads of tribes and local tradesmen:

*The big family is good. People agree and do one thing; if they want to do anything you all get together and help each other. If they all going to harvest on the farm they will all get together.* (R13)

*If there is a problem the family will face it. For example if a son made a problem, they bring him and say whose child is this. The family is the one that stands up to face the problems and solve it. If the family have same points of view then they can improve their family.* (R10)

### 6.3.2.5 Consequences of big families

#### 6.3.2.5.1 Financial burden

Having many children brings a greater financial burden to a family. The father has to work and provide for his children so that they can go to school. Fathers are concerned about raising their children well, so that they will grow up and do the same for their children:

*You can bring many children, but you have to support and watch them. The mother and father may get tired, but you will be able to raise them well. Then if God willing, even if one rose well, he will support his father*
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and mother. (R6)

After he brings the child he raises him and then another child comes after him. If you raise them well then your child will also raise his children well. (R6)

You need to take care of everything: the money, raising the children up, studying with them and doing all his duties. The father goes farming so he can bring bread for his children, guides towards the future so they won’t do anything wrong. (R10)

6.3.2.5.2 Fear of the ‘evil eye’

Many people who have many children are afraid of the ‘evil eye’. People don’t like to talk about how many wives or children they have as they believe that if people saw their ‘many children’, without saying ‘mashallah’ (God has willed it) or ‘tabarakallah’ (blessings of God), injury and bad luck for the children will follow:

There is a woman who have a lot of children, these children always play in front of the house, and when the man comes back from the work he find them playing and then he shout at them to go inside. He fights with his wife because she let them play in front of the people’s eyes. He is afraid from ‘oyown al nas’ [people’s evil eyes] (R9)

There is a man dividing his house into two yards for his two wives because he said people don’t say the word ‘mashallah’ (God has willed it), that’s why if any stranger come to their house he always make sure who is he to make sure that his children are safe. (R9)

6.3.2.5.3 Borrowing children

Families with many children often give a child to an aunt or uncle who does not have children, so that they can raise the child as their own. Sometimes the aunt or the grandmother borrows a child to help her in the house when she is sick:

Her sister had no children so she gave her a child to help her in the house and he became like hers. For example, if someone has a child and he dies, his brother gives him one to rise until he grows up and gets married. (R10)

These children are not just yours; your aunt or grandmother who is sick
or needs help may come to you and ask you to give them a child to help them in the house. (R14)

If the mother have no children other than the one who got married then she might ask him to give her one of his children who are between 8–10 years old and then this mother will become responsible from this child, and if the child want to go back to his family they will let him go. This was more common in the past. (R14)

6.3.2.5.4 Husband leaving the family

Sometimes when there is a large family and the responsibility is too big for the husband he leaves the family and runs away. In this case his wife has to stay with her father-in-law especially if she has a child because ‘she married with cows’, and he might take the child away from her if she leaves. If she has no children, she still cannot leave because of the dowry of cows, and she will be given to one of his brothers to marry. The husband’s father will gather his sons and tell them ‘this woman is a good woman she is a man’s woman, she stayed and did not leave so I will give her to one of you’. If the woman is strong enough, she can refuse to go to one of her husband’s brothers and wait for her husband to come back:

There is a lady who has kids, lots of kids. And her husband takes care of her. The man stays with her; he stays for some time and then goes away. So sometimes he stays with her and sometimes he runs away. When he finds it’s difficult to take care of them, he goes away. He goes far away. He stays away one or two years. When he finds a job, he comes back (R13)

If the father is not around, the mother can study with her children and fill the gap. She shouldn’t just say I am only a woman so I can’t teach my children. I know a woman after her husband got married; he left home and left her with five children. Her husband’s family shunned her. This woman started collecting wood and selling it and her children started going to school. Then she started doing business. When her children started secondary school she moved to Khartoum and started doing washing. Now one of her boys is a doctor in Juba and one is a teacher here in Renk. Everybody here wants to be like them. If your husband has died or is in the war you have to do as much as you can. (R10)
6.3.3 Role of the family members

6.3.3.1 Role of the children

6.3.3.1.1 Expand the family

Children are considered very important as they make the family large and strong. Their presence brings happiness and joy to the family. Participants stated that it is common for families to have between eight and 12 children from one woman. The children grow up and get married and expand the family further. People take great pride in having many children and big families:

Children around the house makes the family and people happy. (R4)

People encourage their children to marry young so that they can have children from an early age:

If you have only one child, you make him marry early like 15 years to have children to benefit the family. (R6)

6.3.3.1.2 Benefit the parents

If children are raised and educated well, they will grow up and help their family. Their presence in the house is very important as they help their mother and father. The girls can cook and clean and the boys can bring things to the house and help the father. If something happens to the mother, the children can call the father and the neighbours for help. There are many stories narrated by participants that tell how educated children helped their parents and family by building houses, buying cars and sending money:

In the past each young man helps his family. My neighbour sent her children to the school and educated them, and taught them good things. Then these children built the houses and bought cars, and benefited the whole family. (R4)

My neighbour’s husband opened a store for his son. After the school the kid goes and works in the canteen. (R12)

A well-raised and educated girl is easy to marry and brings wealth to her family. Because of her education, the husband includes more cows in his dowry for her, because if the girl works and has a salary, she gives it to her husband to help him:

A man coming from far will say this girl was raised well and I want to marry her with cows. If a girl is raised well and she is educated, a man
comes and says I want to marry her. (R1)

Figure 34 Children helping their parents by carrying water from the river

Source: Author / PEER (AB9006)

6.3.3.2  

Role of the father

6.3.3.2.1  Head of the household

The father is considered the head of the household and is responsible for the children’s wellbeing. The father is responsible for providing his family with a decent life. He raises the children and is responsible for their education. The participants agreed that if the husband loves his wife he takes care of her when she gets pregnant. He watches over her, sits by her side and brings her whatever she desires:

It is a big responsibility. The father is the first in charge. He’s the head of the house. He oversees everything. He has a big influence inside the family. (R5)

Some men are irresponsible and are drunk all the time; in those cases, the woman takes responsibility. In other cases, men take on too much
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responsibility by marrying numerous women, yet only focus attention on the youngest wife:

There is a man who has four wives and twelve kids. He does not take good care of all the four wives and family. He has four, but he only takes care of the last wife. This is very common, it happens a lot. It’s not very common [to take care of all of your wives], once you have the kids the mother takes care of the kids and he takes care of the new wives. (R13)

6.3.3.2.2 Raising children

The father plays an important role in forming the family and raising the children. He has to work and provide for them and pays for their wedding when they grow up. He has to pay for their food, clothing, school fees, and provide a house for them.

The father can engage in any kind of work. He might farm and weed, harvest or go to the field to cut wood to feed his children and family. In the past there were no cars. When the father goes to the fields he may stay away for 10 to 15 days. All this time, his children wait for him:

The father takes care of everything; the money, raising the children, studying with them and doing all his duties. He goes farming so he can bring bread for his children, guides towards the future so they won’t do anything wrong. (R10)

6.3.3.3 Role of the mother

6.3.3.3.1 Raise the children

The mother is very important as she gives birth to the children. She has to feed, clean and wash them. She has to make sure that they are not outside all the time and raise them properly. She also has to ensure that they go to school and study, so they benefit their parents later in life:

The role of mother is to take care of her children, feed, wash, and take care of them. (R3)

She is the first caregiver, and the second with the man. She is responsible for up-bringing inside and outside the house. She has to keep an eye on the children and raise them up properly. She has to guide the children in the right direction. (R5)
6.3.3.3.2 Do housework

The woman is responsible for her house and works to take care of her children. Her main roles are to stay at home and to take care of her home, her husband and her children. Her responsibilities include cooking, collecting water and filling the ‘azyar’ (a large, clay pot for carrying water), keeping the house clean, bathing the children and washing their clothes. She supports her husband, and takes over his responsibilities in his absence. She takes care of her own parents and in-laws. Most women collect sticks or cut wood to sell in the market:

*You have to feed the children so their tummies won’t be empty and they lose fluids. She has to follow up her children in school and study with them well. She has to run the whole house. She cooks, serves the husband, washes the clothes, and checks if anything is missing in the house. The one who doesn’t run the house properly is not a woman. If you don’t take care of your man, home won’t be home, you have to take care of your man.* (R7)

*There is a story when the father goes to work and the woman cooked at home and waited for the children to come from school to feed them and ask the kids if they be late in school. This is the role of mother.* (R12)

The woman collects firewood and carries it on her head to bring it home. She takes the ‘bayara’ (two plastic water containers, one on each side) with her and goes to the river or to the ‘hafir’ (a small reservoir constructed in low-lying areas to allow water to be stored during rainfall). She may walk for more than two hours to collect water. People feel sympathy when they see a pregnant woman carrying heavy loads, but there may be no one else to do this. Although some men help their wives, a man does not carry anything on his head. It is shameful for men to carry wood for fire or water; this is considered to be exclusively women’s work, even if they are pregnant. If a man carries wood, the people will say, ‘look at this man, he brings wood to his woman’.

Women carry mud for building or repairing their houses. Men bring wood for building; they ‘yekarkig’ (build) the house, but women ‘tablog’ (plaster) the wall with the mud. If a couple are building their house and the pregnant woman has money, she will hire women to plaster the house. If she does not have money she might work alternative days only, but the man cannot plaster the house. In this culture, the man cannot plaster houses in the village but he can carry the mud, and the women plaster the house with mud:
The thing that makes pregnancy bad when the pregnant woman goes to the field and brings wood on her head, when carries heavy things, walks long distances, sweeps the floor, goes to the river to bring water on her head, and brings heavy things on her head from a far place. These make her body tired and make the pregnancy bad. If a pregnant woman doesn't rest during pregnancy it becomes difficult and she brings a weak baby. (R4)

There's a story about a woman who wasn't resting. She went to the river to bring water, cut the corn and went to the fields until she got the labour pains. Her body was weak and couldn't tolerate it. She went to the hospital and the doctor said she needs to be saved by blood from somebody. The baby didn't make it; he was fully grown but didn't make it. (R12)

The photographs below illustrate some of the daily activities of a pregnant woman in this area, such as carrying wood (Photograph 1 to Photograph 3), helping in building and repairing houses (Photograph 4), doing the housework (Photograph 5), and washing clothes near the river (Photograph 6).
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Photograph 1 Woman carrying wood (AB15010)  Photograph 2 Women carrying wood (AA9004)

Photograph 3 Pregnant Woman carrying wood (AB15007)  Photograph 4 Women helping in building a house (AP14013)

Photograph 5 Woman doing the housework (AB15008)  Photograph 6 Women washing clothes near the river (ON20011)
6.3.3.3 Support the husband and family

The women play an important role in supporting the husband in providing for the family. Some women reported that many husbands drink all the time, leaving the women as the sole provider for the family. If the husband is absent, the woman has to take full responsibility for the family. She has to work and, in addition to taking care of her children, she also must take care of her parents and in-laws:

There was a man that has a big family and he was the only boy for his parents. The whole family were living together. Then this man worked in the sea to bring fish, and the cooling vehicle comes and takes the fish from him. He was renting a boat to use for fishing. This man was taking everything he might find to the house. His wife was saving some of the money he was giving her. One day she called him and gave him money. He asked her from where you got this money. She told him the story and told him sometimes she was telling him that people wants money from her and they wasn’t so she was taking that money to save it for him. Because I want you to buy your own boat and net. Now this man is using two workers and has a shop in the house. This is the benefit of the man. (R9)

A long time ago, there were whole families who were starving. The men used to go to look for food for their children but they would die on the way back because there is no food. In one family there was a woman who just had a baby, so she squeezed her breast milk into a container and gave it to her husband. The husband asked where she got it from, so she said from a cow in the village. So the man went to look for food, and he came back carrying lots of maize. On the way back every time he got thirsty he drank from that milk. He finally got home with the food. The children ate from it and they started farming. So by time their farming was successful and then they harvested it. They made ‘mareesa’ (local alcohol drink) and invited the villagers over. The woman told them the whole story about how she gave her husband her breast milk so he can go and get some food and save his children and her. (R5)

6.4 Discussion

The social determinants of health described in this chapter illustrate the conditions in which women in Renk are born, grow, live, work and age. Renk County and surrounding regions were affected by violence, unrest and conflict.
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during Sudan’s civil war. Since then this area became one of the most devastated and marginalised area in South Sudan and it remains very unstable and volatile. Despite the fact that almost 80% of South Sudan’s oil is located in the region, the area remains extremely poor with limited services and basic development indicators.

The conflict-associated social determinants worsen existing circumstances, aggravate longstanding poverty, place greater limitations on women’s mobility, and force women to undertake new social and economic roles that may make them more vulnerable if they are isolated, exposing them to violence and a lack of resources (WHO EMRO, 2008).

However these new roles may strengthen these women’s ability to cope in stressful situations and to act independently, in the absence of their husbands, by engaging with social networks that provide mutual support, thereby helping to protect themselves and their rights (WHO EMRO, 2008). The value of social coherence and the related importance of supporting each other, and of facing and solving problems together, is deeply rooted in the culture of South Sudan. It plays a major role in preventing many maternal deaths.

The average household size is around nine members, and the population pyramid of Renk county indicates a high birth rate, a high death rate and a short life expectancy. Determinants of large family size are: desire to have more children; avoiding shamefulness; pride in the clan; strengthening social cohesion; non-usage of family planning methods; and belief in God’s will. Other determinants that were mentioned include: women’s physical health and psychological comfort and her relationship with her husband. Cited strategies to expand the family and to have many children include: men marrying many women; husbands taking care of their wives, both physically and financially; and not using family planning methods.

The determinants of family size described here are not unique to Renk County or South Sudan. In sub-Saharan Africa, poverty, illiteracy and child mortality have been reported as the main determinants of large family size (Bongaarts, 2011). Family size is also influenced by cultural factors, such as children’s economic value, and the importance of helping elderly parents, posterity and family lineage (Ntozi and Odwee, 1995).

Many studies have shown a positive relationship between child mortality and the desire to have more children (Yamada, 1985, Beyeza-Kashesy et al., 2010). Three mechanisms have been suggested. The first is known as ‘the physiological effect’ in which infant death results in a sudden termination of breast-feeding,
resumption of ovulation and an increased chance of getting pregnant sooner (Jones and Palloni, 1990).

The second one is known as ‘the replacement effect’ in which parents try to ‘replace’ the dead child with a new child, in order to attain the desired number of surviving children (Ben-Porath, 1976).

The third mechanism is known as ‘insurance effect’, by which parents try to bear more children in order to protect themselves against any future child death, even if none of the children born ever die (Palloni and Ralalimanana, 1999).

The findings presented in this study are mainly supported by the latter two theories: the so-called replacement effect and insurance effect. The long civil war in South Sudan killed many men and left a lot of widows. The years of war resulted in fear and instability. People are concerned about protecting their property and continue to prepare for upcoming unpredicted war or fights.

As a result of war, the people in South Sudan are under pressure to reproduce in order to compensate for the men lost during the war, and for a high rate of infant mortality. This is considered a national obligation (Jok, 1999b).

The desire to have a big family will remain in Renk county and other parts of South Sudan until families and communities realise that their children will live longer, that their men will not be taken by the war, and that the costs of living will be met. Hence, family planning is not considered an option, and the fact that women in Renk county are not using contraceptives because they do not have access to them does not mean that they would if they were available.

Women in South Sudan are caught up in a vicious cycle of high fertility and a high rate of child mortality. High child mortality is causing women to have more children, and that in turn is increasing rates of repeated childbearing, maternal morbidity and mortality and the high child mortality rate. The fertility–mortality link keeps demand for contraception at a very low level. This supports the conventional demographic theory regarding the early stages of the demographic fertility transition. According to this theory, large family size is a result of high fertility, and the desire for many children is caused by the need for: children to help with family enterprises; security in old age; and protection against loss or the recovery of past losses (Bongaarts and Casterline, 2013). It also reflects the distinctive pronatalist features of African societies, whereby reproduction is promoted for social reasons and to ensure national continuance (Caldwell and Caldwell, 1987).
Chapter Seven CONTEXTUAL INFLUENCES ON DECISION MAKING FOR MATERNITY CARE

7.1 Introduction

This chapter describes those findings of the Participatory Ethnographic Evaluation Research (PEER), the critical incident technique (CIT) research, and stakeholders’ interviews that reflect the contextual influences on decision making for maternity care. Two key themes emerged: acceptability and affordability (Figure 35). The researcher considers these themes from the perspectives of the women interviewed.

Figure 35 Determinants of decision making for maternity care

Acceptability is divided into two subthemes: cultural and social acceptability, which includes perceived needs and perceived severity; and acceptability of providers of maternal care, which includes healers, traditional birth attendants, the trained midwife and the doctor. Affordability is divided into three subthemes: cost of maternal care, ability to pay and willingness to pay.

7.2 Acceptability

7.2.1 Cultural and social acceptability of maternal care

The cultural acceptability of maternal care relates to how women’s perceptions of maternal care are influenced by cultures, norms and customs. These in turn determine the options available to her and the way she make use of them. She compares perceived needs with known alternatives and decides whether the perceived severity of her condition is different or similar to the norms.

7.2.1.1 Perceived needs

Perceived needs of maternity care reflect social phenomena, traditions, health beliefs and available options for pregnant women. Needs of maternity care relate to birth preparedness, adapting to pregnancy, beliefs about antenatal
care, and cultural norms around pregnancy, labour and the postpartum period. As Anderson explains:

> My intent has never been to consider perceived need as primarily representing some measure of pathology or disease devoid of the social context. Indeed, perceived need is largely a social phenomenon which, when appropriately modelled, should itself be largely explained by social structure and health beliefs. ... Perceived need will better help us to understand care-seeking and adherence to a medical regimen (Andersen, 1995).

### 7.2.1.1.1 Birth preparedness

The first concern of a woman who becomes pregnant is to prepare her ‘delivery things’, which are items that she will need during childbirth and the postnatal period. These usually include ‘bakhour’ (incense), ‘karkar’ (scented oil generally made from animal fat, orange peel, and clove essences) and ‘talih’ (acacia wood burnt in a traditional Sudanese sauna). In addition, pregnant women also prepare ‘newborn things’ – items she will need to use for her new born baby. These usually include clothes for the new baby and a mosquito bed net. Pregnant women also prepare ‘house things’ like bed sheets, covers and a plastic bed sheet. The final concern is to prepare ‘food things’ by buying maize, sugar, oil, coal and matches to prepare all the food needed before delivery:

> The pregnant woman prepares her things for labour. things for delivery, food, and things such karkar oil, incense, and mosquito bed net. The mosquito bed net [is] used after the woman deliver to sleep under it. She prepares the maize, sugar, and food; so when the woman delivers the food will be available at home. No one will bring it if the woman didn’t prepare it herself. (R3)

### 7.2.1.1.2 Adapting to pregnancy

Pregnant women, their husbands and families adjust to the reality of pregnancy. Some women are aware of the need to adapt their daily life and activities to this new reality, with the hope of minimising the risk of adverse events during pregnancy. Although different women have different strategies of adaptation, most of them do not change their daily chores or activities while pregnant. They continue to practice their heavy duties and responsibilities as before, regardless of the consequences.
Women recognise that common complaints during the first trimester of pregnancy are heart pain, nausea, vomiting, feeling frustrated and getting mad at everything. According to participants, the pregnant woman becomes lazy, tired, cannot work and wants to lie down to rest. Because of the ‘bad waham’ (morning sickness), housework is too much for her and she sees it as a heavy burden. In the second trimester, a pregnant woman becomes healthier and can do light chores like sweeping and washing, but might not be able to carry wood and water. In the eighth month, she feels that she is heavy and cannot handle housework, and she does not work as she did when her body was light, before pregnancy:

> Her daily life changes because when she first feels pregnant her whole body will be weary, she will be sleepy and she wouldn’t want to work.

(R12)

Despite this, pregnant women are expected to do the same work as non-pregnant women. Husbands expect their wives to fulfil their duties even during pregnancy. Men do not accept a dirty house. Some of the men might get upset if their wives do not do housework, some to the extent that they might divorce their wives for this reason, or leave them for another woman:

> The husband will be upset with his wife if she doesn’t work in the house when she is pregnant. He will tell her, ‘you are not pregnant in your hands; get up and work’. Women are different, some can work during pregnancy, and they don’t vomit or spit a lot and the housework will not change. But there are some pregnant women who sleep a lot, they would take one look at the broom or the cooking pan and say I can’t do any housework; her husband would say get up to work. ... Some men will divorce their pregnant wives if they didn’t do their housework. (R7)

In order to adapt to pregnancy, the pregnant woman tries to stop doing heavy work. She works less, does light work, and takes rests in between chores. She avoids working near the fire or under the sun, because a popular belief is that, ‘the foetus doesn’t want fire or heat’ (R6). She tries to reduce her daily workload; for example, she would not wash and iron clothes on the same day, she might not clean the entire house in one day or she might choose to either sweep or tidy up the house, though every day she will complete some aspect of her housework. She tries to avoid going to the river and carrying water or wood:

> There was a 30 years old pregnant woman, and her husband was poor, he
Chapter Seven CONTEXTUAL INFLUENCES ON DECISION MAKING

goes to the field to weed out and plants with his hand. Her wife works with him. The people say to him, let the woman take rest. He said to her, ‘it is okay, you stay at home’. But the woman refused, and said to him, ‘I will work with you, because you have no money’. He says to her, ‘don’t go with me to the field’, but she followed him and worked and got tired because of the sun heat. The people in neighbourhood always say to him, ‘this woman will get tired later’. Then she got sick. He took her to her family to stay with them, because her body is not good. She delivered with her family. Her father is rich. When the time of labour came her family took her to the hospital. Her father is now responsible for her. Her delivery was good. (R6)

The ‘bekrya’ (a woman pregnant for the first time) may not know when she is pregnant, and may continue working well during the early months of her pregnancy, but she reduces her work when she gets morning sickness. (R10)

Pregnant women ask for help. They might ask sisters, mothers, in-laws, children, neighbours, or other people they know to stay with them and to assist in the housework. Some pregnant women go to their own family house, and their mother takes care of them. Others decide to stay at their own houses; their mothers come and stay with them in the month before delivery and remain until the child reaches one month or 40 days:

My neighbour is very comfortable. When she became pregnant, she stopped working. She would just sleep in bed and then get up to eat; she wasn’t working. The doctor said the baby is growing very well because his mother wasn’t working a lot. People are different, some ladies their men take care of them, and some others they work a lot. (R13)

7.2.1.1.3 Beliefs about antenatal care

The need of regular antenatal care for a healthy pregnant woman, involving a formal healthcare provider, is not commonly shared. Antenatal care for most women in the study context, is associated with a pregnant woman who is experiencing illness or complications during pregnancy visiting a midwife or doctor to treat her illness.

The most alarming symptoms force women to seek medical care during pregnancy; these are fever, severe headache and pain. A woman who has fever during pregnancy will initially seek care from the nearest traditional birth
attendant or village midwife, who might refer her to the medical assistant or
doctor in the nearest health centre or hospital, so the doctor can investigate and
prescribe medicine:

If the pregnant woman has high fever in her body the midwife will tell her
to go the doctor. The doctor gives her medicines. (R6)

There are many reasons that prevent pregnant women from attending
antenatal care in the formal healthcare system. Some of the reasons given were:

- There is no midwife in the village.
- Pregnant women do not have time to go to hospital, because it might
take their whole day.
- There may be no one to help them to mind their children during the day.
- They might not be able to afford the cost of transport or other expenses.
- A pregnant woman, or her relatives, weigh up the symptoms and often
believe that the illness will go away by itself.

There was a tired woman, she always works and doesn’t go to the doctor.
People tell her to go to the doctor; she says who will I leave my children
with? People are not the same. A Dinka woman might not go to the
doctor because she will say I don’t have time to go to Renk and I need
money to get there. (R1)

People link the behaviour of women who do not seek medical care when they
get sick or experience complications during pregnancy to maternal death. They
believe that if a sick pregnant woman does not go to a village midwife or a
doctor to examine her; this might have a negative impact on her pregnancy. If
the midwife or the doctor asks the pregnant woman to return at a certain time
for follow-up care, she should go in time and not be late:

If she is sick and she doesn’t know whether the baby is good or bad, body
illness may reach the baby. If she has sickness in her body she sees the
doctor and takes the medications. The doctor might tell her to follow up
with him so she will get cured but if all of that is not present she might
die. (R2)

The pregnant woman when she follows up with the doctor and he takes
care of her, she will not die. (R4)

If she doesn’t go to the midwife to examine her, the pregnancy will be bad.
If she didn’t go to the hospital and check with the doctor, she won’t know
Some pregnant women clearly appreciated the value of regular antenatal care visits. These women know that when a pregnant woman reaches three months, she should go to the midwife, and then go to the doctor on a monthly basis for follow-up care, blood testing, and to check if the foetus is in a good condition. They are aware that the doctor prescribes medications, and so the sick pregnant woman gets treated early to protect herself and her baby. They recognise that if the pregnant woman does not follow up with the midwife or doctor, the health of the baby and the mother may suffer, and that it may even lead to the mother’s death during childbirth. They also recognise that a pregnant woman is more likely to have an easy labour and a healthy baby if she attends the doctor regularly during pregnancy:

A woman will have a good baby if she gets pregnant and goes to the doctor regularly. (R1)

There was a pregnant woman that goes to the doctors and follows up with the midwife. When she was due for birth she said that the baby was good because she follows up and there was no difficulty in her labour. (R10)

Box 5 Extract from role play script on antenatal care

The following script is taken from one of the role plays that PEER researchers performed during the study when asked to perform dramas that reflect pregnancy.

Characters: Pregnant woman, mother-in-law, midwife and neighbour

Summary: This drama tells the story of a pregnant woman in a village and her mother-in-law who treats her very nicely. The pregnant woman is very worried. They have attended the midwives and doctors many times. The drama reflects the importance of regular check-ups.

First scene: At the pregnant woman's house, a conversation takes place between the pregnant woman and her mother-in-law.

Pregnant woman: I couldn't sleep last night.
Mother-in-law: Why didn't you tell me?
Pregnant woman: I preferred to wait; I thought I was going to feel better.
Mother-in-law: Let us go to the hospital.
The pregnant woman: Okay.

Second scene: At the hospital; they went to the hospital and when they got there, they met the midwife.

Pregnant woman: Hey midwife, I really couldn't sleep last night
Midwife: What do you feel, and since when?
Pregnant woman: I didn't sleep, I was in the village, and came to the town.
The midwife did a full check-up of the pregnant woman, including her head, eyes (for jaundice), legs (in case they are swollen). She also took her blood pressure.
Midwife: Please lay on the bed, I want to check your abdomen. 
*When she was finished, the midwife had a conversation with the mother-in-law.*
Midwife: Don’t let her carry heavy things, and she should come for regular check-ups every two weeks.
They went back to their house.

**Third scene: At the pregnant woman’s house, after several days.**

Pregnant woman: I am still in pain, if you don’t want to take me to the hospital let me go to my mother, she will be sure to take me there.
Mother-in-law: What kind of talk is that? What am I doing here then? Let us go to the doctor.
Pregnant woman: Okay.

**Fourth scene: At the hospital with the doctor.**
Pregnant woman: (to her mother-in-law) If you could have taken me earlier to doctor, I would never go through all of this.
Doctor: Do you still feel pain?
The Doctor checks her.
Doctor: You are in good health, go home.
Pregnant woman: This doctor talks just like the midwife.

**Fifth scene: At her house, the neighbour enters the house and addresses the mother-in-law.**

Neighbour: How is the pregnant woman feeling now?
Mother-in-law: She is all right but she is scared.
Labour pain starts to increase
Pregnant woman: Stop talking, I am in labour.
Mother-in-law and neighbour: Let us go to the hospital now.

**Sixth scene: At the hospital, they meet the midwife, who checks the pregnant woman and tells them that she is in labour.**
Pregnant woman: (screaming) Waaay, waaaaaay.
Midwife: Come and help me people.
Midwife: She delivered the baby and he is strong and healthy because she checks up regularly and listens to the doctors’ advice, and the best thing for a pregnant woman is to have regular check-ups to save herself and her baby’s health.

### 7.2.1.1.4 Traditions during pregnancy period

There are several traditional practices carried out during pregnancy. For instance, to protect a pregnant woman from getting a disease during pregnancy, they might ask an old man in the family to sniff on her nose, or hit her belly and feet gently with a stick.

Some sick pregnant women seek help from a traditional healer, who gives them remedies from roots of trees to remove the infection and the disease, and treats pain and vomiting. The pregnant woman is instructed to grind the roots, add water and drink the liquid. As a side effect, they might get diarrhoea.

*If you have abdominal pain they give you ‘dain yoke’ (a traditional medicine made by a traditional healer) that makes you pass gas. It is given to the pregnant woman and also during menstruation as it removes the gases in the body. (R7)*
To stop nausea and vomiting, pregnant women eat mud. They eat it at any time. Some of them might wake up at night-time, get some mud and eat it. Others drink water with salt and sugar to stop the vomiting. To get relief from heartburn, women use ‘agar-nab’, or white plant (agar means white). Women put it in water for a while and then drink it.

The infertile woman is called ‘yankimin’, which means ‘the guest girl’. To treat her infertility or to ‘fix pregnancy’ [prevent miscarriage], women use ‘abul bul’ (a wasp’s nest). As the wasps build their nests from mud in a wall, women take the nest with its small insects inside, and soak it in water for a while, and then place it on the body of the woman, on her legs, arms and back, like henna. They might also mix it with soil from the graveyard. This is usually done when the pregnancy is two months old to prevent miscarriage. They believe that this mud will prevent the ‘evil eye’, keep evil away and prevent the occurrence of bad things. They might take water lying on the top of the mud and give it to the pregnant woman to drink. They believe that the nest full of young wasps will fix the pregnancy, and prevent miscarriage. The husband asks an older woman who has had children to prepare this; she could be his mother or his father’s wife, but cannot be his wife’s mother.

Some families take sand from where the cows of the husband’s family are kept. This sand is known as ‘arob’. They wrap it in a small piece of fabric, which they put into the suitcase of the pregnant woman, before she goes to stay with her mother for the delivery. This practice is only done for ‘bekrya’ (women who are pregnant for first time). When the labour pain begins, they pick up the sand, state the grandfather’s name, then put it on the pregnant woman’s abdomen to prevent ‘the bad things’ from harming the baby. If she delivers a boy they name him after his grandfathers, and if she delivers a girl they name her after her grandmothers. Others mix this sand with water and drink it to prevent backache during pregnancy.

Women also put an ant house around their abdomens, before throwing it onto the road so people will step on it. This is believed to prevent the occurrence of anything bad from happening to pregnant women.

When a woman becomes pregnant and has morning sickness, she does not have sex with her husband because she fears that he will ‘dirt the baby’ (make the skin of the baby unclean):

Even the traditional midwife would tell the pregnant woman to not sleep with her husband. She will not sleep with her husband until after delivery.
The man becomes mad at his pregnant wife and goes looking for any woman with his money (i.e. pays for sex). (R7)

7.2.1.1.5 Traditions around labour

In order to give birth with the help of a traditional birth attendant (TBA), the pregnant woman sits on her knees and the TBA sits in front of her to receive the baby. She ties the umbilical cord by a thread and cuts it with a razor.

TBAs have their own ways of assisting labour, including ‘rock delivery’ and the use of traditional forceps. For the ‘rock delivery’ approach, they ask the woman giving birth to sit on a rock, so that it applies pressure on the woman’s pelvis. Then the assistant pulls as much of the baby out as possible. Some nomadic TBAs make a tool from a stick and piece of thread to simulate the role of the forceps:

She was bleeding. She started to scream, and says that she is about to die. Then the baby started to come out, one leg came out first and the other leg was inside. So I told her to start pushing. I put my hand in and pulled out the other leg. Then the baby got to the shoulders and would not come out. I told her to lie on the bed. She said she doesn’t know how to deliver on the bed because she always delivers the traditional way so we put her on the floor. I brought a rock and I told her to sit on it so the baby comes out in front. She sat with her bottom on the rock and I put my hand inside and squeezed my hand inside to pull the arm. The arms came out. The baby was small and dead. But the woman survived. (JMN3)

The TBA examines the delivering woman. If she sees the baby’s head, she cuts ‘warba’, or upwards (episiotomy), using a small blade. Afterwards, they stitch the cut with a needle and thread before washing it with hot water. They take care of the wound by washing it with boiled tea and ‘garad’ (Acacia nilotica), which is believed to minimise itching around the wound, and make the wound heal faster. If the woman wants to pass urine, she will do so when sitting on hot water.

The TBA cleans the newborn baby with a cloth and rubs him or her with sesame oil. Then she puts the baby next to the mother and ties the mosquito net. Use of any perfume is avoided. They do not bathe the baby for three days, as they believe that if they bathe the baby in water he or she will develop a cough. After the delivery, the midwife takes the placenta and buries it at the doorway.
7.2.1.1.6 Traditions around post-partum care

In some villages they ‘clean the woman’s uterus’ (stop the bleeding after delivery) by using a hot brick. They put the brick on a fire until it gets hot, then they tie it on the belly of a woman with a fabric. This is said to stop the bleeding. Alternatively, women who have just delivered are given hot milk or coffee to drink, which is also believed to help stop bleeding. In addition, women who have given birth are given porridge with milk, as it is believed this helps the woman pass a lot of urine and that the blood clots and any remains will pass with the urine:

*The traditional birth attendant tells the woman's family to get her some porridge. They don't get her cold things because her heart is still going fast, they give her something hot. And hot milk. After that they get her chicken or pigeon. They don't give her tomato because it's cold.* (R6)

After delivery, the woman puts a plastic bed sheet under her. Her mother helps her by washing all her clothes early in the morning before anyone wakes up because they believe it is a private matter. The mother burns ‘*bakhour*’ (incense, a nice smelling wood made with sandalwood and then mixed with perfumes) inside the room so as to make the room smell good:

*If a woman delivers and she smells bad, no one will enter her house, because the smell of a woman is not like it used to be before giving birth. The ‘dokhan’ removes the delivery smell from the mother's body, if a woman doesn't do that no one will drink or eat with her, people will run away from her.* (R7)

*At the month of delivery (ninth month) they get ‘talih’ (acacia wood) and break the wood into small pieces and add sugar, perfumes and musk. They put all that in a pan on fire. Every one that comes to congratulate the delivery of the baby gets to have some of ‘al bakhoor’ with some good smelling oil, the oil has to smell good and a woman who delivers uses that type only.* (R7)

Ten days after delivery, the woman sits on the ‘dokhaan’ – a traditional Sudanese sauna treatment made by burning acacia wood. The woman is encouraged to do so as it brings out all the blood that did not come out post-delivery. Before the ‘dokhan’, the woman drinks porridge and milk to fill her stomach because she cannot sit on the ‘dokhan’ with an empty stomach; she might get dizzy, hungry or even get shivers. In preparation for the ‘dukhan’, she
puts oil and petroleum jelly on her body and then sits on the smoke of ‘al talih’ (acacia wood).

A woman would put her perineum close to the fire so the smoke enters the abdomen, as this is believed to make all the blood come out. When she is finished, she moves away from the smoke and closes the hole where the wood has been burning to create the smoke, and stays sitting while still covered (with a sheet or a blanket) so she will not get a chest infection. Afterwards, she scrubs her body to remove all the dirt.

7.2.1.2 Perceived severity

Perceived severity of maternal illness reflects awareness and beliefs about illnesses during pregnancy and labour. Severity of maternal illness is related to the threshold of perceived danger and consequences of ‘bad pregnancy’ and ‘bad labour’.

7.2.1.2.1 Bad pregnancy

For women in Renk, a ‘bad pregnancy’ means a pregnant woman having a ‘bad’ (weak) and unwell body during her pregnancy. The pregnant woman vomits, has ‘low blood’ (anaemia) or has diabetes. A bad pregnancy includes pregnancy hypertension that starts in the seventh or eighth months of pregnancy and is associated with headache, ‘waram’ (oedema), ‘zulali’ (lab results showing protein in the urine), and, at the end, developing ‘kalabsh’ (convulsions) that can lead to the mother’s death. Some believe that bleeding during pregnancy is due to a ‘hot uterus’ that is bad or not clean, and which then opens and bleeds. The women also believe that weak and sick bodies are more prone to bleeding:

When the uterus is bad it opens. A hot uterus brings bleeding because it is not clean. When your body is weak and sick it brings bleeding. If you have foetus pressure in seventh, eighth month (pregnancy-related hypertension), you will have a headache. (R8)

The pregnant woman should not to carry heavy things. If she get sick the pregnancy will be bad, like ‘zolali’ (protein in urine). (R3)

If the woman has pregnancy hypertension, she will have swelling in the legs and hands and after sometime she might get headache. Headache makes the woman go into a bad status and fits and the baby remains inside her. If they bring her to hospital she can have the baby straight away. (R6)
They also believe that if the pregnant woman develops a fever, the fever will go into the womb and to the baby, and the baby will not be comfortable because of this heat. This fever may keep her awake all night, which weakens her body and her baby’s body. If a mother’s body is sick then the baby also becomes sick. If the doctor prescribes medicine for her fever, this medicine will help prevent fever from affecting the baby. Most of the fevers are thought to be malaria, and they are aware that this malaria might bring ‘yaragan’ (jaundice):

*If the pregnant woman has high fever in her body, the fever goes to baby and the baby will be born unwell. Once the baby is born, she has to cover him well so he doesn’t get infections. She shouldn’t go out with him in the rain and [should] stay in the house.* (R6)

*Pregnant women in my village are afraid of malaria and ‘kalabsh’ (convulsions). Severe malaria brings ‘yaragan’ (jaundice), and kalabsh makes the woman die.* (R14)

The women are also aware that some husbands sleep with other women and may thereby get AIDS. They know that a man can pass that illness to his wife. They also described how the new born baby will be very small, sick and weak:

*There were some doctors who came to test people; they found out that some children of one woman have AIDS. Her man had some kids, then he started to have other women, the kids that he had before were fine but the kids that were delivered after he started to have other women all had AIDS. That man has died now, some of his kids died too and some are still alive. His wife is very weak and has fever every day.* (R7)

They believe that the main issues that make pregnancy ‘bad’ are heavy work during pregnancy, not eating well, bad relations with husband, lack of follow-up care, stress and bad emotions.

The types of work that pregnant women consider as *heavy work* and that might lead to a bad pregnancy include carrying heavy things (like water, wood and mud), walking for a long distance, plastering the wall of the house, any work that involves bending forward (like grinding the corn in the mortar, sweeping the floor or working in the field to collect greens and straws), walking in hot weather or working near the fire:

*The pregnant woman shouldn’t go to the river or bring wood, just do housework like taking care of children. If she is comfortable at home and not tired she will be healthy and have good baby.* (R11)
It is recognised that when women go through the stage of ‘waham’ (morning sickness) they lose their appetite and only eat certain foods, and do not like the food they usually eat. They do not eat food that they do not want because they might get sick and vomit. They believe the baby might want certain things, so if the pregnant woman desires something her husband has to get it for her because of the concern that she might become anaemic. They also believe that the pregnant woman is like a child; whatever she wants they should get it for her. They recognise that the pregnant woman’s food preferences are different, and that she does not eat what other people eat. They also believe that she should not get hungry, and that she should prepare a meal and eat every time she gets hungry:

I had a pregnant neighbour who didn’t like the smell of anything, not even the soap. When she wants to eat she would choose anything that didn’t have a smell, like sweet potato with chilli. She wouldn’t let herself go hungry; she chooses anything to eat. ... In pregnancy there are lots of things. Maybe if she wants ‘kawari’ (beef trotters) she eats it. She might refuse ‘almulahat’ (stews) and want something with salt in it. She might also not want sweet things. She should eat anything she wants. She should have her food at a certain time and not let her body get hungry. (R12)

They are also aware that by not eating well, or by eating something that has no real value she will not nourish the baby inside her and will have a ‘bad’ (weak) baby. Food that they mentioned as being ‘without value’ includes ‘alkohdra’ (mulukhiyah, corchorus leaves), ‘alweekah’ (dried okra stew) and ‘alkissra’ (traditional Sudanese thin sheet handmade bread) with water and added chilli:

Not eating or eating something that has no real value, like ‘alkohdra’ (corchorus leaves) and ‘alweekah’ (dried okra stew) will not nourish the baby inside her and will make her have a bad baby. (R2)

On the other hand, they are aware that eating clean, good food that has value and benefits, and drinking milk and juice, will make the pregnant woman healthy during the pregnancy, prevent her and the baby from developing complications, and increase her chances of an easy delivery. Good food for them includes fruit like mango, grapefruit, lemons and banana, vegetables, fish, meat, pigeon soup, liver, beans, lentils, raisins, semolina with milk and Rozana juice (juice made from concentrate). There are some traditional foods that pregnant women eat. These include ‘tia tia’ (made from corn), ‘wal wal’ with milk, ‘akok’ (similar to rice made from dough) with fish and ‘madeeda’ (porridge made from
flour and milk):

The pregnant woman does her duties when she wakes up in the morning, makes juice and cooks something good to eat, such as fruits, sweets and juice such as lemons, grapefruit and banana. She also eats liver and may drink madeeda (porridge made from flour and milk). When she eats all this she becomes healthy and the pregnancy is good. When she has a good appetite she eats well and her pregnancy is good and she doesn’t need to go the hospital. (R4)

It is recognised that a good relationship between the woman and her husband, and his support of her, is one of the main factors affecting pregnancy and childbirth. If a woman gets pregnant and her husband is not around, she is more likely to find herself in difficult circumstances. She will not have money, and might go by herself to the fields to get wood and sell it to feed her children. She will be under pressure, and if she gets tired or sick there will be no one to take her to the hospital:

My neighbour was pregnant and sick and she asked her husband to give her money to go to the hospital for a check-up. The husband says, ‘where I should find the money to give to you!’ She stopped asking him. Three month before delivery he told her he’ll go to Fallouj, a town near Jalhak for work and he left. On the day of her delivery they called him but he didn’t come. The lady was in labour and the midwife told her your body is weak you should go to Renk, but the lady said I don’t have money and my husband’s away. She slept with her labour pain all the day and in the afternoon her neighbour’s husband came and asked where her husband is! And he said he’ll go and look for a car to take her to Renk hospital. But she gave birth at home and then they took her to Renk with her baby. The next morning the mother died at the hospital. The father arrived at Renk hospital to find his wife dead. He ran around naked. He went crazy! They told him she died because of your carelessness. (R11)

Husbands who work in the army may move and leave their family behind. He might return for one month, get his wife pregnant and then return to his work in the army, so that he does not lose his salary. The woman works to support her family and is busy with her children. Husbands advise their wives to stay in their in-law’s house, but many women refuse to do so because the workload will be too much for them. Other husbands are unemployed and do not support their pregnant wives.
Poor relationships can occur between husband and wives, and in some cases the husband is physically violent towards his wife, causing her problems every day. It is believed that the women carry all these feelings in their heart, which affects the unborn baby. It is also believed that, ‘the bad man’s baby will also be bad’. If he is a nagging husband, gets into trouble with his wife and makes her uncomfortable at home, she will hate him, causing her to hate the baby she is carrying. When she gives birth, her heart will not be ‘clean’ and every time she looks at the baby, she will remember her husband. Emotions are important; the pregnant women should deliver her baby without stress or worries that could affect her during pregnancy, so that she survives the delivery:

In the village there was a pregnant woman who makes problems all the time with her husband. During the problem the woman was due and her husband hit her, and she fainted and was taken by a car from the street to the city. She was brought to the doctor and the pain was continuous and she gave birth and the baby died immediately. The people took her from the hospital to her family’s house and not back to her husband. (R10)

Participants shared an awareness that love between a woman and her husband is important. They described how, if a husband stands by his wife’s side during her pregnancy and encourages her to rest, not pressuring her to do the housework, and looks for someone to assist her, then the pregnancy and delivery will be uneventful. The good man is the one who goes early in the morning to the market and to the butcher and brings meat, liver and eggs to his wife. He does not have problems with her at home and if she has a headache the man tells her she should go to the hospital and get checked.

7.2.1.2.2 ‘Bad labour’

For women in Renk, ‘bad labour’ refers to a pregnant woman with complicated labour, who might wait for days in her pain without being able to give birth. She might have fits and bleed.

People interviewed shared awareness of ‘foetus pressure’, or pregnancy hypertension, and ‘kalabsh’ – eclampsia. They know that pregnancy hypertension ‘catches’ pregnant women and results in ‘paralysis’. Eclampsia was described as follows: ‘it catches one leg and one arm, the body shakes and she bites her lips and tongues’. Woman will be in a life and death situation; the baby begins to arrive head first before retreating. They recognise that if a woman with this condition cannot reach a doctor, she will die. When a pregnant woman gets eclampsia at the village they take care of her by putting a spoon in
her mouth so she will not bite her tongue and then take her straight to the hospital. If she goes to the doctor, he will give her medicine and she will deliver well. In the hospital, the woman rests, alone, in a quiet room; she does not want noise:

*She suddenly started convulsing. Her body started shaking, her eyes rolled up and she lost consciousness for a minute or so. Her mother quickly inserted a spoon in her mouth, and took her to the nearby health centre for help. (6JMM)*

Women interviewed recognise that bleeding during labour may kill a woman, particularly if she has a weak body and is anaemic. Pregnant women worry about bleeding during pregnancy if it occurred during their previous pregnancies or if they knew a pregnant woman who died from bleeding.

Women are aware that a primigravida might need to deliver her baby in hospital, since it is not certain if she will deliver normally or might need to have an operation. They are also aware that a contracted pelvis, particularly in a teenage pregnancy, requires the intervention of doctors and that a pregnant woman with this condition should be close to the hospital:

*In the hospital if the body is tired, or she has tight pelvis and bad health she has to be close to the doctor so he will help her in the delivery. (R7)*

*Some pregnant women are at an early age like 14 and 15 and their pelvis is weak so they have to go to the hospital. (R10)*

### 7.2.2 Acceptability of providers of maternal care

Figure 36 presents common pathways followed by pregnant women for their maternal care during pregnancy. If a pregnant woman gets ill during pregnancy, she has three main healthcare options: a traditional healer, a TBA or a trained midwife. The least likely option is to go directly to a doctor, unless if she is referred by a midwife. If a pregnant woman does not get ill during pregnancy, she is unlikely to seek healthcare. If she does seek healthcare, she is most likely to go to a trained midwife.
7.2.2.1 Healers

A ‘kujuriya’ (exorcist) is a spiritual healer who claims to have paranormal powers and uses ‘kujur’ to deal with souls to banish evil spirits and cure disease. A male exorcist is called a ‘kujur’, and a female is called a ‘kujuriya’. The spiritual healers practise black magic and do ‘azima’ – a magic spell said by spiritual healers to minimise a disease. ‘Azima’ could be in Arabic or in the Dinka language, and it may include phrases like, ‘Oh God, give us good things, this woman is pregnant, and give her money and health’.

There was a sick woman, and her husband has one hand (no one helps him) and he was poor, he has no brother and no father, and he works alone. His pregnant wife got sick, she had back pain and she was laid down, and they had no money to go to hospital, and they live in a village. They went to kujuriya [exorcist] who lives in the same village. The kujuriya checked her like a midwife and she gave her remedies. She gave her roots and the woman drank it. The woman became healthy and the back pain went and at the end she delivered well. (R3)

A ‘faki’ is a seller of religious remedies and roots that are assumed to have special properties. The ‘faki’ has a good knowledge of certain bushes that grow in the autumn; she gives a pregnant woman cuttings from these bushes, who then grinds the cuttings, adds water and drinks the mixture:

They can go to [the] faki, to give her traditional remedy. The faki lives in the village, and there are people know him. Not every village has a faki. The faki takes minimum amount of money, like one pound. If a woman has back pain, she could go to the faki, and she will be all right. (R3)
7.2.2.2 Traditional birth attendants

Traditional birth attendants (TBAs) are ‘lay midwives’ in the community with no formal education and no link with the formal health system. Most of them are older women who have experience in delivering babies. Most of them use traditional tools and maternal positions for delivery. For the pregnant woman, the traditional birth attendant could be her mother, her aunt, her grandmother, a relative, her neighbour or any woman in their village who attended a delivery before and can help in delivery:

*We don’t have a suitcase midwife (a trained midwife), when the time of delivery come we prepare the blade and other delivery things; we cut the baby’s cord with the blade.* (R7)

*If there are no nearby midwives or no doctor, they call the traditional midwife.* (R2)

Women prefer TBAs for many reasons. One of the main reasons is that TBAs are relatively cheap compared to the trained midwife. A TBA cannot charge more because ‘she does not have a bag like the trained midwife’. Therefore, those who cannot pay for the trained midwife will have their child delivered with the TBA. In addition, women who have already given birth feel that there is no need for a trained midwife and that a TBA is enough.

People are aware that TBAs have inadequate skills and they know the limitations of the TBA. The TBA might give advice if there is no trained midwife available. She reassures the delivering woman about the baby and her health. She advises her to rest, not to do housework and to lie in bed. However, her limited skills may mean that she cannot identify the severity or the magnitude of certain maternal and neonatal complications, or the appropriate actions to take. The TBA, after exhausting all her efforts, may call the trained midwife if the delivery is not progressing well. The trained midwife will take over and if the midwife fails to solve the problem, the woman may be referred to the hospital:

*Sentence 4 missing here*

*Sometimes the traditional midwife (TBA) doesn’t care to tie the baby’s umbilicus properly after delivery, the mother sleeps with her baby next to her then the umbilicus empties all the baby’s blood out. When the mother wakes up she finds her baby has died. This has happened a lot. When a mother asks the midwife saying to her that you didn’t tie the baby’s umbilicus properly the midwife will say to the mother, no you were the*
one who didn’t take care of your baby. (R7)

7.2.2.3 Trained midwife

The trained midwife is also called a ‘government midwife’ because she is trained and certified by the government. She is also called ‘a suitcase midwife’ because of the bag that the trained midwife carries, which contains her medical equipment. The availability of a trained midwife in a village reassures people that their women can get antenatal care and can deliver at home. However, the number of midwives available is perceived to be low.

If there is a midwife that lives nearby; a woman can deliver at home, if her body is sick she can deliver normally at home. (R2)

People consider the fees of a trained midwife to be expensive. They believe that the trained midwives avoid poor people, so if the midwife thinks that a woman is not capable of paying her then she will avoid her. Moreover, they claim that the trained midwife takes a salary and the sheikh at the village gives her a house, but that she refuses to work for free.

If a woman delivers with the trained midwife and she transfers her to a doctor, she will not be given her fee because the money will be given to the doctor. They may give her a little money when they get home:

It is up to the woman to go to either the traditional midwife or the government midwife. If she is financially able to follow up with the government midwife she will deliver her, when her labour starts she will send for the midwife and bring her to the house. (R4)

The midwives are often not from the village – they are ‘outsiders’. Pregnant women would prefer if the midwife was from the same village:

In our village we have two midwives, one traditional midwife and one government midwife, one of them died. The traditional midwife is not very old. There are many young girls in our village who want to become midwives, if they find out there is training they would go. (R4)

Some women believe that pregnant women should go to see the midwife if they feel unwell. The midwife can reassure them about the baby’s position and give them advice about nutrition and heavy work. In such a scenario, the pregnant woman would takes the midwife’s advice. If the midwife conducted a check-up of a pregnant woman early in the pregnancy, found her sick and this sickness continued, she would refer the woman to the doctor. They believe that the
midwife only examines the baby, and that while she can detect the mother’s complications, she cannot treat them; instead she refers her to the doctor. They are aware that if certain conditions are present, the midwife can refer pregnant women to a doctor, such as low blood (paler), pain, malposition of the foetus, and fever:

\[
\text{The midwife examines the baby only and will know if there is anything wrong with the baby, she will tell her if the baby is sitting straight. But she does not know the complications of the mother. She told me a story about a woman during her pregnancy who went to the midwife only and not the doctor. It turned out the woman had complications that the midwife did now know about, she only told her the baby is okay but did not know the woman’s complications. (R1)}
\]

Women perceived that delivery is the responsibility of the midwife. The midwife brings medicine and stays with the delivering woman and her mother. She checks to see if the baby is near then, tells the others to heat the water on the fire and then sits and waits. She does not leave, but if the labour is not close, she tells them to call her later. She tells the mother to bring hot water to wash the woman after delivery. The midwife takes care of the woman after delivery. When the baby is born, she cleans him up, dresses him and puts him to sleep beside his mother. She takes the dirty clothes, by herself, and makes the bed. Then she burns incense. Then she has coffee. Every morning for a while after the birth, she comes to check on the woman and her baby.

Women perceived that the midwife is the one who decides whether or not the pregnant woman should go to hospital, because ‘she knows what the pregnant woman has’. If she decides the woman needs to go to hospital, she discusses this with the father first, telling him to get a car so the woman can be driven there. If he gets a car, she goes with them. If they come to Renk hospital at night and the doctor is not available, the midwife looks for him. When she finds him, she tells him to come and see the woman. Then the doctor explains what must be done.

**7.2.2.4 The doctor**

The doctor is seen to provide assurance for the pregnant woman and to give her advice. It was also noted that the doctor finds whether or not anything is wrong with the mother, and will advise a pregnant woman if she can give birth at home, whether she needs to be in the hospital or if she needs a caesarean section. Women are aware that the doctor treats a pregnant woman’s health
conditions; examines her, and requests blood tests for malaria and other febrile diseases. Doctors can tell her haemoglobin level, if she is anaemic, and identify the cause of her illness. The doctor prescribes medications and intravenous fluids that treat disease and make the pregnant woman healthy:

_ She doesn’t accept what the family said. Her family might tell her to relax and not to carry the wood but she will tell them why? Then they take her to the doctor and he tells her the same thing, and she listens to him and is convinced. If there is something wrong in her pregnancy then the doctor can see her and give her medications. If the doctor advises her, she would be happy because she will be assured. (R10) _

_ The pregnant women take advice from the doctor who gives you the full advice. He examines you and the baby. If the baby is not lying properly, the doctor gives you advice and sets a date to come back. If the baby isn’t good the doctor might decide an operation, otherwise the pregnant woman gives birth with midwife. (R4) _

### 7.3 Affordability

#### 7.3.1 Cost of maternal care

The cost estimation presented in this section was completed during the fieldwork period of this research (2010–2011), just before the separation of South Sudan. During that time, one US dollar was equal to three Sudanese pounds. South Sudan has its own currency now. These costs, however, are still indicative of the financial burden of healthcare placed on families in South Sudan and are given here just to highlight the relative cost of maternal care. In Renk county, at least 22% of the population live under SDG 80 per month (USD 27) (SSNBS, 2011). Table 12 gives an estimation of the cost of maternal health in Renk county and Table 13 shows cost variations between different pregnancy care scenarios.

As indicated above for preparation of childbirth, pregnant women have to get money to buy incense, ‘karkar’, ‘dilka’, ‘talih’, new born baby clothes, bed sheets and covers. They also buy food to store in the house before the time of labour.

The cost of antenatal care with a trained midwife at her home is SDG 2 (USD 1) per visit. For the delivery of a boy, the trained midwife charges around SDG 130 (USD 45), and around SDG 90 (USD 30) for a girl; there is also the cost of the incense, sugar, soap perfume, ‘dilka’ and ‘karkar’. For traditional birth
attendants, the cost of delivery is SDG 30 (USD 10) for a boy, and SDG 25 (USD 8.50) for a girl, as well as the cost of incense and perfume.

Depending on the distance involved, the cost of the journey to Renk from a woman’s village, by tractor, can vary between SDG 200 and 300 (USD 70–100) for a two-hour drive. A taxi might cost between SDG 60 and 150 (USD 20–50). The cost of transportation for those who live in Renk town near the Renk hospital, including transportation within the town, costs around SDG 10 (USD 3.5).

Some people travel from their villages and come to stay in Renk for the follow-up care and delivery. The cost of accommodation is not less than SDG 150 (USD 50) per month.

Normal delivery at Renk hospital costs SDG 50 (USD 17). Forceps delivery at hospital costs SDG 300 (USD 100) and a caesarean section costs SDG 800 (USD 270). Additional expenses include the cost of drugs, food and drinks for the patients and those involved in accompanying and visiting people; these might reach SDG 600 (USD 200).

Some well-off families might travel to Khartoum to give birth because they know that the quality of services is much better, ultrasounds are available, and that consultants there provide follow-up care. Costs can therefore be high; in addition to healthcare costs, costs associated with travel, accommodation and living expenses might reach SDG 3,000 (USD 1,000) or more.

<table>
<thead>
<tr>
<th>Table 12 Estimation of maternal healthcare cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items</strong></td>
</tr>
<tr>
<td>ANC</td>
</tr>
<tr>
<td>Home delivery with a midwife</td>
</tr>
<tr>
<td>Boy</td>
</tr>
<tr>
<td>Girl</td>
</tr>
<tr>
<td>Home delivery with a TBA</td>
</tr>
<tr>
<td>Boy</td>
</tr>
<tr>
<td>Girl</td>
</tr>
<tr>
<td>Transportation</td>
</tr>
<tr>
<td>Tractor</td>
</tr>
<tr>
<td>Taxi between villages</td>
</tr>
<tr>
<td>Taxi within the town</td>
</tr>
<tr>
<td>Accommodation in Renk</td>
</tr>
<tr>
<td>Public hospital</td>
</tr>
<tr>
<td>Normal delivery</td>
</tr>
<tr>
<td>Assisted delivery</td>
</tr>
<tr>
<td>C/S</td>
</tr>
<tr>
<td>Private facility</td>
</tr>
<tr>
<td>Normal delivery</td>
</tr>
<tr>
<td>Indirect costs (food, daily expenses, etc.)</td>
</tr>
<tr>
<td>Delivery in Renk</td>
</tr>
<tr>
<td>Delivery in Khartoum</td>
</tr>
</tbody>
</table>
Table 13 Maternal healthcare cost variations between two different scenarios

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Estimated cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A pregnant woman in Jalhak village had four ANC visits, and delivered a baby girl at home with the TBA.</td>
<td>USD 20</td>
</tr>
<tr>
<td>A pregnant woman in Jalhak village had four ANC visits, had to travel to Renk with a tractor because of complicated labour, and delivered a baby by Caesarean section in Renk hospital.</td>
<td>USD 600</td>
</tr>
</tbody>
</table>

7.3.2 Ability to pay

Some pregnant women fight constantly with their husbands because their husbands do not provide money to buy ‘delivery things’. Sometimes women cannot get a midwife because they cannot afford it. A pregnant woman might worry because her husband does not have money. She may be concerned that if she gets sick and her husband has no money to take her to the health centre, she might die. She might get labour pains at home and deliver her baby at home, because she cannot afford to go to hospital. Participants mentioned that the midwife can wait up to two weeks to get paid, but the hospital wants ‘cash’ straight away; as one participant noted, ‘how can a woman come to the doctor and say I don’t have money!’

There was a woman who got severe labour pain. She had no money or goats to sell. Then she walks on foot to the midwife. She couldn't go to the hospital straightaway. She died at the end. (R5)

If she has no money to go to the doctor, if she gets sick and needs treatment and her man has no money, she might die because she can't go to hospital. (R2)

7.3.3 Willingness to pay

The amount of money spent on a woman’s maternal care depends on how well her family take care of pregnant women. If a husband cares about his pregnant wife, he would provide her with food and drugs. However, some women do not see a doctor for their entire pregnancy.
Antenatal care and hospital delivery for a healthy woman is not a priority for most of the families. They prefer to spend their money on feeding their children and preparing the ‘delivery things’:

If the husband is poor and cannot afford, the family prefers feeding the children with the money then spending it on going to the hospital. (R11)

Most families would not spend money unless the midwife referred them to the hospital or there was an emergency. Going to hospital, when labour is complicated, is seen as an urgent issue. If this occurs, some families are willing to sell their stock or cattle to take the pregnant woman to hospital:

If the woman gets sick the husband could sell ‘Showal’ (50kg bag) of corn or fava beans and take his wife to the hospital. (R6)

The few husbands who are well off spend money on their wives, to make life easier for her. They might rent a tractor or a donkey to bring firewood home, instead of a pregnant wife having to carry it on her head:

If the husband has money he will bring the wood by the tractor, some people bring it by donkeys, and others could hire one to bring it if they have money. Those who have little money prefer to buy sugar instead. (R6)

7.4 Discussion

The journey of pregnancy for women in the study area can be described as being surrounded by a ‘circle of fears’ of things that women might face during their pregnancy and childbirth (Figure 37). This circle includes fear of being unprepared, having a bad pregnancy, having a bad labour, lack of money, lack of transportation, and death during delivery. Three cross-cutting issues affect this circle: lack of financial support, lack of people to help, and past experiences.
Lack of knowledge and awareness of the importance of seeking medical attention during pregnancy and labour is commonly believed to negatively influence health behaviour and decision making processes (Yar’zever, 2013, Gyawali et al., 2013). It is clear that people in the study are aware and knowledgeable about maternal health and danger signs during pregnancy and childbirth. This is largely attributable to having experienced or witnessed many maternal events in the community. Despite this, they have a low demand for formal maternal healthcare services.

Only 16% South Sudanese women are able to read and write (Factbook CIA, 2009). Education is said to increase demand and utilisation of maternal services by enhancing autonomy, empowerment, confidence and capacity to make appropriate health decisions and, in the cases referred to above, it is often associated with an increased ability to pay for services (Raghupathy, 1996, Karlsen et al., 2011, Mekonnen and Mekonnen, 2002, Birmeta et al., 2013).

However this study shows that cultures, norms and customs of pregnancy and childbirth can influence the acceptability of the formal health system and impact on the demand for maternal healthcare in the health facility. Cultural
acceptability determines the perceived available options of maternity care and the ways pregnant women make use of them.

Cultural acceptability of maternal healthcare has been reported in many studies to influence the maternal healthcare-seeking process (Warren, 2010, Dillip et al., 2012, McCray, 2004). Cultural acceptability, an important dimension of acceptability, is poorly conceptualised and needs to be considered and incorporated to ensure successful planning for accessible healthcare (Dillip et al., 2012).

Before deciding to seek care, and in the light of perceived capacity and skills of available healthcare providers and their cultural acceptability, people balance the perceived severity of their maternity health status with the perceived need to seek healthcare. The perceived need can be defined as an individual judgment about the necessity or benefits of a particular service (Coulton and Frost, 1982).

The term ‘acceptability of healthcare providers’ describes the relationship between patients and providers and reflects patients’ reactions to the attitudes and characteristics – personal and practice-related – of providers. These characteristics might include sex, ethnicity and religious affiliation (Ensor and Cooper, 2004, Penchansky and Thomas, 1981, Dillip et al., 2012). In this study, the women’s expectations and cultural preferences influenced the acceptability of providers, and determined the pathways that pregnant women follow for maternal care. In this study, it emerged that home delivery was the preferred option, unless there are existing or a history of complications.

The other main determinant of decision making for maternity care that emerged in this study was the affordability of maternal health services, with all its associated costs. The total maternal health cost to the consumer can be calculated by adding together the cost of travel time, the cost of waiting time, the cost of transport, user fees and other expenditures, such as purchase of drugs and supplies by the consumer (Levin et al., 2003) and household expenses in terms of food and birth preparation materials.

Household resources and cash flow within the society determine affordability. This is governed by both ability and willingness to pay. Prioritisation of women’s health within the household in relation to daily purchases plays an important role in prioritising the household spending. These findings are supported by previous research that identified affordability barriers to utilisation of health services (Penchansky and Thomas, 1981, Ensor, 2004,
Peters et al., 2008, Bart Jacobs et al., 2011). Preference is for a TBA (when the woman has no money) or a midwife (if they have money) and, if there are complications, a doctor in a hospital.

Affordability and acceptability are complex themes that need to be contextualised within the social structure and belief system of a community. Analysed in this way, these themes facilitate an improved understanding of the decision-making process regarding maternity healthcare. A better understanding of this process can inform the decision-making process regarding prioritisation of limited healthcare services in particular communities.
8 Chapter Eight PROCESS OF MAKING THE DECISION FOR MATERNITY CARE

8.1 Introduction

This chapter describes those findings of the Participatory Ethnographic Evaluation and Research (PEER) and of the critical incident technique (CIT) research that reflect decision-making processes in seeking maternal care during labour (Section 8.2), the actors involved in this process (Section 8.3) and the factors that hinder or encourage making the final decision to utilise the maternal healthcare services (Section 8.4).

Figure 38 Decision-making processes for maternity care

8.2 Decision-making process for seeking maternal care during labour

The decision to utilise maternal healthcare services during labour involves two decisions: the initial decision to seek assistance when labour begins and the decision, made later, on which healthcare facilities to use.

When labour begins, the typically initial decision is to call for a traditional birth attendant (TBA) to assist with delivery, especially when there is no trained
midwife available in the village. The three main people that communicate with the TBA are: the husband, the mother or mother-in-law, and the child[ren]. Any of them can go directly to the TBA, or get a message to her through intermediate messengers such as neighbours. Occasionally, a neighbour can be the main messenger, if she happened to be the only person with the pregnant woman at the time her labour began. A messenger ensures that in addition to calling the TBA, the husband is informed either by telephone or by sending someone to tell him if he is not present in the home at the time. His permission at this stage is not crucial but he needs to be informed. Figure 39 illustrates common pathways for calling for initial assistance when labour begins.

The TBA is usually either part of the extended family or a neighbour. She usually tries her best to manage the labour. Once she feels that she cannot manage the delivery, she may call for a trained midwife if available in their village or nearby. In some cases the family bypass the TBA and call the trained midwife directly, if she is available in the village, affordable to the family, and the need for her is perceived (Figure 40) and (Box 6).
Mary is an uneducated 20 year-old married woman who lives in Jelhak. Her sister-in-law's children found her in her house, screaming in pain and rolling on the floor. They hurried to fetch their mother who was at the market. She arrived to find Mary in pain and in a state ‘between life and death’, pushing to get the baby out but without succeeding. The sister-in-law sent her children to bring the TBA who had been delivering babies for the previous 16 years, but with no official training. The TBA found Mary on the floor, bleeding profusely. She proceeded to lift her on the bed and told the husband to bring the trained midwife from her house. The midwife came and decided to go back to bring IV fluid. By the time the midwife arrived, the TBA had delivered the baby, which was stillborn.

Box 6 Role play developed by PEER researchers on calling for assistance during labour

**Actors:** Pregnant woman, her mother, the neighbours, the midwife

**Summary:** This drama tells the story of a pregnant woman who was in labour for three days with a traditional birth attendant (TBA). Her husband was not around. She and the TBA came to the midwife at a late stage in the labour. The woman was very tired. She delivered a baby boy, and then she died.

**First scene:** The pregnant woman and her mother at the house.

**Pregnant women (in severe pain):** Awoooook.

**Mother:** What is happening, what is going on with the girl?

**Pregnant women:** It is my tummy ... waaay. I will die!

**Mother:** I will call the neighbours.

**Neighbour:** What is going on with her?
Chapter Eight  PROCESS OF MAKING THE DECISION FOR MATERNITY CARE

Mother: She is hurting; let’s take her to the midwife’s house.
Second scene: The midwife’s house.
The pregnant woman is in severe pain and tiredness. They put her to bed.
Midwife: what is going on with you? Since when is the pain?
Neighbour (to the pregnant woman): Stop moving, you will hurt yourself.
Mother (to the midwife): The pain started three days ago.
Midwife: Why were you late?
Mother: We brought her a traditional daya (TBA)
Midwife: Where is the traditional daya?
Mother: She was with us, but she refused to come.
Midwife: What did she tell you?
Mother: She said that there are complications.
Midwife: Where do you live?
Mother: We live at the village.
Midwife: Why you didn’t bring her from the beginning?
Mother: We were with the TBA.
Midwife: Where is your man?
Mother: Her man travelled ahead.
Midwife: How is the pain now?
Pregnant woman (keeps vomiting): Uh...uh...uh
The midwife examines the pregnant woman.
Pregnant woman: The baby is coming .... The baby is coming.
The mother tries calling the husband on the mobile but no answer
Midwife: This woman still has pain, we have to take her to the doctor, but the baby is fine.
Mother: I am trying to call him, but he went to the field and left his mobile at home.
Midwife: Get an IV infusion.
The midwife tries to find a vein, with no success.
The pregnant woman is shaking and screaming.
Neighbour: Hold her down with me.
Midwife: Hold this girl so not to kill the baby.
Pregnant woman: the baby is coming.
The midwife holds the baby as he comes out and shouts: it’s a boy ...... it’s a boy.
Neighbour: Thank God. ... God is with us. ... Thank God.
The mother takes the baby in between her hands and sits on the chair next to the bed.
Midwife: Bring the IV infusion quickly!
She calls the pregnant woman, trying to wake her up.
Midwife: Wake up. ... Wake up.
But no response from the pregnant woman!
Mother: What is wrong with my daughter?
The midwife shakes her but still no response.
Midwife: This girl has gone to God!
Every one cries.
Midwife: She is dead!

Note: The PEER researchers developed this script as part of this study, when asked to perform dramas that reflect on the initial call for assistance during labour.
Decisions regarding use of maternal healthcare facilities relate to the perceived severity of symptoms. Three main scenarios arose.

(i) When there are no alarming signs, most women deliver at home.

(ii) When there are symptoms that are not considered alarming, such as prolonged and obstructed labour, most people take a long time to discuss and consider; the aim being to balance the need to seek care with the severity of the signs.

(iii) When there are symptoms that are recognised as alarming, such as bleeding and convulsions, most people will start discussing the option of seeking care.

Decisions do not always go according to plan and babies can be delivered in many settings. Women either give birth alone without assistance, at home with the traditional birth attendants or village midwives, on the way to the hospital, or at hospital (Figure 41).

*Figure 41 Common places of delivery*
8.2.1 Delivering alone

Moving nomads, call ‘Al-Arab Alrohal’ do not deliver in a particular place. They live in tents that can be pitched in any place they choose. A woman might deliver her baby under a tree or near the river. When the baby is delivered she ties the baby to her back with a piece of fabric.

Tribes like ‘Boron’ do not deal with midwives. According to their culture, women deliver alone, with only ‘God and herself’. When she has pain, she does not want the people to know that she is giving birth. So she does not tell anyone about her delivery. She takes a rope that is used to tie wood and goes to ‘al khala’ (the field), as if she is going to gather wood so the people will not know that she is going to give birth. She sits on her knees, delivers her baby, cuts the umbilical cord alone and buries the placenta there. She wraps the baby in the bed sheet she is carrying and goes home. In the home she lights a fire and boils water for bathing.

Some pregnant woman at her ninth month would go out of the house to get wood or water and her delivery comes so she gives birth at that place in the street and comes back home holding her baby. (R7)

People in one of the tribes leave the woman to give birth on her own; they give her a rope to hold on to so she does not break the baby’s neck. (R13)

Participants noted that it can be traditional for some non-nomadic women to deliver without a midwife. When a woman feels labour pain, she takes things such as wood, match sticks and water into her room. She locks the door so that no one can enter. Everyone present will know that this woman has labour pain and wants to deliver alone. She delivers alone without any assistance. She sits on her buttocks on the floor, with her back leaning against something. She pushes until the baby is out, then cuts the umbilical cord with a stick. Afterwards, she boils water to bathe. When she is ready, she opens the door. She gives the placenta to someone to bury. If she stays a long time inside, her mother or sister open the door. If they find something wrong with her they bring a cart to take her to the hospital.
8.2.2 Delivery at home

For most of the women, it is their habit and culture to deliver at home even if they feel sick:

Our delivery is always at home; whether the woman is sick or not she delivers at home. (R7)

But the main reason a pregnant woman will decide to deliver at home is that she feels she is healthy. If a doctor has told her during her pregnancy that she is in good health, not sick and has no problem with her body, she will most likely decide to deliver at home. Experienced women who have delivered before are more likely to decide to deliver at home. But if it is a woman’s first pregnancy, she will probably deliver at her mother’s house. Neighbours might encourage her to not go to hospital, and they might say to her husband, ‘leave her to have her baby at home’. Figure 42 illustrates the common reasons for delivering at home.

When a woman gets pregnant, she and her husband go to the doctor to examine her. So if the doctor tells her that her body is good and her blood is good and her baby is fine she will get a midwife and deliver at home. If the woman is pregnant with her first baby, then she goes and delivers at her mother’s house, the next babies she will deliver in her own house. (R1)
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Box 7 PEER researchers’ ‘typical story’ illustrating a scenario of a woman delivering alone

A woman called Fatima is 21 years old and has two children and is pregnant. She now lives in Old Imtidad in Renk town. Her husband is not working and does not take care of her. She lives with her husband and mother in one house. She had labour pains in her last month of pregnancy and she told her mother. Her mother told her, ‘this is not labour pain, you are just afraid’. Then she got worse and walked in and out of the house then her mother went to fetch a midwife. She was alone in the house and the baby came out. She told her son to go get her a piece of stick, she took a slice of it that was very sharp and she cut the cord with it and took a piece of cloth and tied the umbilical cord with it. The neighbours came after she sent her children to tell them. They found that she already delivered by herself. Her mother came back and found the house full of people and said, ‘what is going on?’ They told her, ‘How come you didn’t tell us that the woman went into labour?’ The mother said, ‘I went to get the midwife and she delivered without me knowing’. The midwife asked the woman, ‘Did you give birth by yourself?’ She said, ‘Yes’. She asked her, ‘Does anything hurt?’ She answered, ‘No’. Then the midwife cleaned the umbilicus and the baby and the mother. The neighbours cleaned the house and stayed with her while her mother prepared the food. The midwife left. The baby was fine and the mother was fine.

8.2.3 Delivering en route to a health facility

Some pregnant women, despite taking the decision to go to hospital, end up delivering on their way there. Most of these women live far away from the health facilities, take a long time to decide to go to hospital and then struggle to find a means of transportation.

<table>
<thead>
<tr>
<th>En route delivery scenario</th>
<th>Quotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>On a Donkey Cart</td>
<td>Once there was a pregnant woman at her ninth month, and she got on a ‘karrow’ (donkey cart) to get to Galhak. Because of the vibrations she delivered on the karrow. (R7)</td>
</tr>
<tr>
<td>In the Street</td>
<td>A pregnant woman in labour started to fit and fainted and was taken from the village to the city. Before she could make it to the hospital she gave birth on the street. So they took her back to her family’s home and she woke up from the coma. (R10)</td>
</tr>
<tr>
<td>Under a Tree</td>
<td>The woman was pregnant and her husband was working in a company in Foluj near Galhak and we were staying at home with his wife making ‘bakour’, perfume and oil for ‘Nifas’ (postpartum period). We stayed and the woman started having pain so we went and brought a midwife and examined her and told her that she doesn’t have a problem. We stayed and the woman didn’t deliver and when it was four o’clock (pm) I was tired and told the midwife that I am going to the market to get a car to take her to Rank. So I went and brought a pickup truck and we put the woman on the back, on a mattress. When we arrived at Majack we stopped the car and got down under a tree and the woman gave birth about five o’clock (pm). I went to Majack and brought water and we cleaned the baby and his mother and we went back to Galhak. The woman had a baby girl. (R11)</td>
</tr>
</tbody>
</table>
8.2.4 Delivering at hospital

In advance of labour, some women who suffered illnesses during pregnancy, such as anaemia, bleeding or hypertension, might choose to go to hospital for delivery, along with those women who feel that they were working heavily during pregnancy without taking rest:

*If the doctor tells her that her blood is low and her body is weak then she will deliver in the hospital. She might need drips (IV fluids) and medications. She must go to the hospital so she has a good delivery.* (R1)

Severe bleeding and eclampsia during labour are the main two danger signs that make a family seek immediate help urgently. They are aware that these complications are difficult for the traditional and the trained midwives to manage:

*This happened to me, labour pain started to come and go, the trained midwife came and examined me and told me labour started. After three hours the baby came out but the placenta did not come out, but there was no bleeding. The midwife told us we have to go to the hospital, there is no solution. My husband brought a tractor, me, my brother’s wife, my uncle’s wife, my mother, my aunt (my mother’s sister), my other aunt (my father’s sister), my husband’s sister, my husband’s uncle, my brother, my cousin and the baby all rode on the cart pulled by the tractor. I was lying down on a mattress on the cart. We paid him 200 SDG to take us from Garbanat to Renk. Because it was rain season and the streets were muddy and small cars cannot pass through them, there is a lot of sticky mud. If a woman is pregnant, she has to have money prepared. We made a move at eight am and arrived at Renk hospital at 11 am. The midwife was with me since five am. This was my second pregnancy. The tractor went inside the hospital and they took me inside on a stretcher. The doctor examined me and gave me an infusion drip; the placenta came out after an hour. After that I had severe bleeding. The doctor gave me an injection and the bleeding stopped. I stayed in the hospital for two weeks and then they discharged me and the baby was fine.* (R2)

There is a belief that when labour is prolonged, it means the baby has ‘rasom gawi’ (a hard and tough head). Women might wait for a long time, assuming that the baby has a hard head. They are aware that teenage pregnant women might take longer time because they might have ‘tight pelvises’. In some circumstances of prolonged labour, it might be decided that the woman needs
to go to hospital after half a day in labour. In other circumstances, it might take three days to reach this decision:

\[\text{If the delivery takes a long time then the midwife might transfer her [the pregnant woman] to the hospital. She goes with her to the doctor and tells him this woman had pain since yesterday and didn’t deliver. (R12)}\]

Participants perceive that women who deliver in hospital have delivered there before, that they live near the hospital, and that they can afford the cost of hospital delivery. In their opinion, if a pregnant woman has money and lives in Renk town she will deliver her baby in hospital:

\[\text{If she lives in the city and her husband has money then she will deliver at the hospital. (R11)}\]

### 8.3 Actors in the decision-making process

The pregnant woman’s husband, family and social network all take part in the decision-making process, which is influenced by their knowledge, experience and beliefs. This process often involves negotiation and steps to maintain peace. This section describes the role of each actor in this decision-making process.

#### 8.3.1 Role of the husband

Some husbands play a positive role. The pregnant woman depends on her husband to take her to the doctor or to the midwife ‘if she gets sick during pregnancy’. He reminds her of the advice of the doctor and midwife they gave during the ANC visits and brings her medication if she needs it. He encourages her to go for check-ups. If the doctor asks the husband to feed his wife and let her rest, he does what the doctor advises:

\[\text{In the village, I saw a lady after she got pregnant. She was in the middle of her pregnancy. Her husband met with the rest of the family. He told them that he would take his wife to the city because she works too much in the village. She has to collect and carry the wood. So he took her and left to [go to] the girl’s family’s house. (R10)}\]

If the pregnant woman is in labour, her husband either calls the midwife himself or he might ask her mother, his mother if available, or her neighbours to call the midwife. Then he stays nearby to provide what his wife and the midwife need. He checks whether he has all the materials that may be needed and gets what may be missing.
During a delivery at home, most husbands stay at ‘aldewan’ (a living room on the outer side of the house that is for men only) together with their older sons. When a husband hears that his wife has given birth he will be happy and hands out sweets to everyone. He also brings new clothes for his wife to express his support for her.

If the labour is complicated or prolonged, the husband is the one who decides to take the woman to hospital. So if at night the woman has developed complications, they will wake up the husband so that he can take her to the hospital:

When my neighbour got pregnant with her first baby, her husband took her to the midwife. When the midwife found something wrong, she referred her to the doctor. So she started regular follow up with the doctor. Because this was her first pregnancy and she was pregnant with twins, the doctor told her to have her baby in the hospital. When her due date was near, her husband brought her to Renk city to have her babies there. When she only had three days left she had labour pains, and her body felt heavy. The man brought the midwife and the doctor. She had an operation but unfortunately they found the twins had been dead inside her for around three days. (R12)

On the other hand, some husbands treat their wives badly, hitting them and fighting with them. If one of these husbands has no money and his wife gets sick he tells her, ‘be patient, wait until we find money and take you to the doctor’, or, ‘be patient until you become healthy’. Some husbands leave the house when they hear that the woman has labour pains, and do not come back home until they are told that that she has delivered:

I have a story about a woman who got married but then moved from the city to the village. When she got pregnant she told her husband, ‘I don’t want to eat this food, I want eggs, fruits and fish’. He said that he won’t bring for her; and said he didn’t marry her to feed her. So he kicked her out of the house when she was pregnant and told her not to come back again. (R10)

Some men hit their wives. He fights with her and asks why she hasn’t prepared food. If she tells him that he didn’t bring anything, he will hit her and tell her to go and work. Some women leave the house and go and stay with their families. (R13)
8.3.2 Role of the pregnant woman’s mother and mother-in-law

The mother plays an important role in her daughter’s health-seeking behaviour. She encourages her daughter to seek care, and accompanies her to the midwife or the hospital. She gives her advice and says, ‘do not exhaust yourself by carrying heavy things’, and, ‘if you didn’t go to the midwife, you should go to her and to the doctor for follow-up care, and take your medicine’. The mother might come and stay with her pregnant daughter if there is no available midwife nearby, or if her husband is away.

There was a story about a woman who got pregnant five years after her last pregnancy. When she got pregnant she didn’t believe it. Her mother told her to go to the hospital and see the midwife. She refused to go, she said her tummy was full but she wasn’t pregnant. After her mother convinced her, she went to the midwife who told her that she was five months pregnant. But she still denied it. She didn’t believe it. They went with the midwife to the doctor. The doctor said she was pregnant and transferred her for an ultrasound in Kosti city in the North Sudan. [The] ultrasound showed that she was six months pregnant. After some time, the baby’s movement reduced. So they referred her to Kosti city again and she had an operation there and the baby was fine. (R12)

If there is a midwife in the local village, the mother of a pregnant woman will call the midwife or ask the neighbour to call her ‘after informing ... the husband’. If there is no midwife nearby and the pregnant woman is not afraid of delivering the baby without a midwife and her mother is not afraid either, the pregnant woman might deliver the baby with her mother. But if she is ‘bikrya’ (pregnant for the first time) they will call a midwife from a nearby village.

During labour, only the mother and the midwife stay in the room with the woman. The mother may hold her daughter if she is a primigravida because she might be scared. The mother remains in the room after her daughter gives birth; the midwife gives her the baby, which she cleans the baby before preparing water for her daughter to bathe. After delivery, the mother does the housework for her daughter. She cooks ‘madeeda’ (porridge made from flour and milk), cleans the house in the morning, boils the water, washes the clothes, changes the bed sheets, cares for other the other children, cleaning and feeding them, and welcomes guests.

After delivery, her mother heats up water, lays her daughter on the bed, and spreads oil on the abdomen, followed by heated water. She massages
Chapter Eight  PROCESS OF MAKING THE DECISION FOR MATERNITY CARE

the body so all the blood comes out. Every other day the mother bathes her daughter with heated water. They put you on a ‘sabara’ (chamber pot) if you want to urinate and wash you with heated water for a whole week; after that you bathe and work on your own. (R7)

If the pregnant woman gives birth at the house of her husband’s family, her mother-in-law takes care of her and keeps an eye on her. In general, she performs the same duties as she would if the daughter-in-law was her own mother.

The mother-in-law will tell the pregnant woman not to jump or carry heavy things, and when you turn in the bed don’t turn on your abdomen, but sit up change to the other side then lie down, they would say we have got pregnant before you. (R7)

8.3.3 Role of neighbours

A pregnant woman will also receive care from her neighbours, especially if her mother or husband is not with her. If she does not go outside her room for a while, or talk with her neighbours, they worry and come to ask about her. The neighbours give her advice, and encourage her to go for follow-up care with the midwife and to go to the doctor ‘if she is sick’. If anything happens, they are closest at hand to help and they call the midwife.

When a woman has labour pains, the neighbours come to see her. If she is at her home and her mother is not with her and she has no one to help, the neighbours come and stay with her until she delivers her baby. Her husband might go to the neighbours and tells them, ‘my wife is giving birth and doesn’t have anybody to stay with her’, so they come and stay with her. When 40 days have passed, some of the neighbours leave, but the close ones will remain.

The neighbours make ‘madeeda’, ‘kisra’ (traditional bread), tea and coffee for the midwife, and food for the woman. They also sweep the floor, wash the dishes, clean the house, boil water and wash clothes:

My neighbour when she got labour pain she sent her daughter to her neighbour. She came and brought another woman with her. They cleaned the house and the other one went to bring the midwife and they called her husband. They sent for the husband’s mother and the woman’s mother. They sent children to call them. (R12)

If the delivering woman is afraid of labour, she might not cooperate with the midwife; she may get agitated and move around too much while she is giving
birth. In the participants’ opinion, the mother might thereby distress the baby and let him die: ‘she might kill her baby’. So the neighbours help in the labour, prepare the bed and the table for the midwife, hold her hands, legs and head, and take care of the new born baby. That is why establishing and maintaining a good relationship with the neighbours is very important:

There was a woman who didn’t have a good relationship with her neighbours. Suddenly she went into labour while her husband was absent and his family was far away. She sent one of her children to her neighbour to tell them that she is in labour. The neighbour said that she is coming but eventually didn’t show up. So the woman signed for a car in the street and went all alone with no accompanying person and told the person in the car to take her to the hospital. She got off at the hospital door and gave birth. After that she was asked ‘you came alone, don’t you have any family?’ She said, ‘my family is far away’. They asked, ‘don’t you have a husband?’ She said, ‘my husband is away’. ‘Don’t you have any neighbours?’ She said ‘I have but I don’t visit them’. They asked her, ‘didn’t you send somebody to them?’ She said, ‘I sent but they didn’t come’. They asked, ‘did the people that bring you know you?’ She said, ‘no, it’s just a car that I stopped from the street’. So the midwives took care of her and advised her about the importance of neighbours, and that you have to have a good relationship with neighbours. So they rented a car and took her back home and the midwife went with her. When they arrived home the midwife went to her neighbour and asked her, ‘why didn’t you come when your neighbour sent for you?’ She said, ‘she doesn’t come and visit me’. The midwife told her that labour is like death, if she is bad you have to be better than her. So the midwife made peace between them and left the neighbour with her and she went back to the hospital. (R10)

8.3.4 Role of other family members

Elderly women in the same household as the pregnant woman who have had children in the past might give her advice based on their own experience. Other family members like sisters, nieces and other relatives may advise and accompany the mother to the midwife for follow-up care. They stand by her side when she delivers. They do her house chores, wash, prepare food and prepare water for her to take a shower. Whether she stays at her own house or at that of her husband’s family, members of her own family might come to wash clothes, clean the house, make ‘madeeda’, cook food and serve guests. They also give her moral support and encouragement.

Children in the home act as messengers. Mothers may send one or two of her children to her neighbours to tell them that she is in labour. This extensive support network is important for a woman, especially in times of need:
If a woman delivers a baby then that baby dies, her relatives don’t upset her. They tell the mother may God give you another baby. They encourage her and ask her not to be sad. They tell her that the ... baby [who died] is now an angel. Just stay with your man and God will give you another baby. (R7)

8.4 Enabling factors and barriers

The previous section outlined the various roles played by people surrounding a pregnant woman during her labour and delivery process. Although there are many determinants that determine the decision-making process, as discussed in the previous chapter, there are also a number of enabling factors and barriers that influence taking the final decision to utilise maternal healthcare services. These include factors such as beliefs regarding God’s will, past experience of maternal complications, poor advice and carelessness.

8.4.1 God’s will: ‘It is her destiny’

People’s beliefs are influenced heavily by Christianity and Islam. They justify maternal and child deaths as ‘God’s will’. They believe that even if a pregnant woman is regularly seen by the midwife and doctor but ‘her day comes’ she will die, because ‘it is God’s will’. And even if she is treated but ‘Allah ma gasam layha omor’ (it is her day) she will die because ‘it is her destiny’. They believe that labour is in God’s hands; if it is her fate she will give birth and die, and there is little they can do about it. This belief can demotivate people to seek care, and at the same time helps them to accept the final outcome:

*God might let her die or she might come out alive; this is all in God’s hands, no one knows. If it is your fate you will give birth and die.* (R3)

*The pregnant woman doesn’t know if she’s going to live or die and depends on God.* (R5)

However, for some women, ‘God’s will’ means finding support in God while at the same time, continuing to with her own efforts to have a safe delivery. These women rely on God for the strength needed to give birth:

*If the husband didn’t take her to hospital and she died, the woman’s family will be very upset. The woman’s father will say to the husband: ‘destiny’ or ‘her days are up’ are not excuses. If you took her to the hospital and she died near the doctor then I would have been fine but she died at home and this is negligence. ... But if the mother died in hospital,*
then they all get together and accept condolences in one place because her
days are over and they all share the same grief, and there is no
carelessness. (R6)

8.4.2 Past experience of maternal complications

Women’s past experience of maternal complications or similar outcomes
among neighbours influence the extent to which they worry and are alert to
danger. If a woman bled during her last pregnancy or witnessed a woman
bleeding to death during labour, she will be very worried about bleeding during
her pregnancy or delivery. In her later months of pregnancy, she may
remember a lot of instances of women who had bad deliveries in the area. This
fear positively impacts on their health-seeking behaviour.

*If she had bleeding last time she will be scared this time if there are no
doctors nearby. That is why when she gets pregnant she would say please
God relieve me so I would see my children.* (R7)

On the other hand, past experience of normal and uneventful pregnancies gives
women and her friends and family the confidence to deliver the baby in the
home and to not seek healthcare:

*If her last pregnancy was good and she has people by her side, she would
not be worried.* (R7)

8.4.3 Poor advice

One of the main factors affecting the decision to seek immediate medical help
during labour is the advice provided by people the pregnant woman knows. For
example, if the husband wants to take his wife to the hospital, the neighbours
may wonder and ask him, ‘Why should you go to hospital?’ Others might say,
‘leave her here for a little bit, she might deliver’. Neighbours might say, ‘Wait for
a bit, let her have her baby at home’, or ‘This happens in labour, she will be fine’.
The quality of the advice will affect whether or not the correct decisions are
made. Such poor advice results from the fact that most people involved in this
decision-making process do not always have the correct information, even if
they want to help.

If the husband takes advice from his neighbours to keep his wife at home when
her labour pains begin, instead of bringing her to hospital, her family becomes
upset with his family. This is because they fear that she may die. If the daughter
dies, they will say, ‘if he had taken her to hospital she wouldn’t have died’ and
they blame him for her death. They will accuse him of treating her like ’soof
There was a story about a woman, when she got the labour pain, the neighbours said to her husband, ‘let her have her baby at home’. The pain didn’t get better and the baby didn’t come out. The husband thought he should take her to hospital. The neighbours said, ‘wait for a bit’. She was tired and in pain for two days in the Denka neighbourhood. He wanted to take her to the hospital but she didn’t make it: she died. Now if people understand they wouldn’t do something like this again. (R6)

Once there was a woman who delivered for the first time. One week after delivery she had pain in the top of her head and fell down unconscious. She started to have fits. When she had a convulsion they put a spoon in her mouth because she bit her tongue. When they told her mother, she said, ‘this is delivery illness, she will be fine’. After three days they took her to the hospital, they gave her drips, but she died there. The doctor said to the family, ‘you brought her late, you didn’t bring her right away’. (R7)

8.4.4 Carelessness

Carelessness is one of the main contributors to delayed decision making and maternal death. People recognise that women die because of carelessness. This neglect and carelessness could be caused by herself, her family or her husband.

If the midwife tells her she has to go to the hospital and they don’t take her to hospital, then she dies – the people will be sad. The woman’s family will be very upset with the husband because this is ‘ihmal’ (carelessness). (R6)

Some women do not care about themselves; they undervalue their health, and under-estimate the severity of their complications. They are careless about attending regular follow-up care and about what they eat, and do not care when complications occur. A pregnant woman might not tell anyone that she has a pain or feels sick and she does not go for check-ups.

Even if she looks after herself, those in her social network might not do so. When the pregnant woman is sick and says so, her husband and her family may tell her, ‘No you are not sick, this is not a serious problem’. The midwife might
advise her to go to the hospital but her husband may ignore this advice and feel that there is no need for her to go to hospital. People say, ‘if the man cares for his wife she won’t die during delivery, and some husbands don’t care if their wives are sick or not’.

A woman from Melut got pregnant and went to Khartoum. Her husband was travelling away in Singa. The woman was sick all the time; she had pressure in her head. She was not able to work to bring money; she used to wash clothes for people. She told her oldest girl, ‘go to Singa and bring money from your father’. So she went and he gave her 150 SDG. When she came back she took her mother to the hospital and [they] did investigations and gave her treatment. The money ran short and she was discharged before she gave birth and was taken home. When her months were over and the pain labour started she was tired and there was no money to take her to the hospital. She stayed for two days with the pain. When her neighbour told her to go to the hospital she told her, ‘I don’t have any money’. So the neighbour took her to the hospital and called her husband to bring money. At the hospital the woman gave birth and died immediately after delivery. The baby survived. They took the mother and buried her. The oldest girl called her father and told him that the woman died. He came and took his children and brought them to Melut. The woman’s family made trouble with the man. They said that the woman died because of your carelessness. They told him that if a woman is not treated she will die. So the man became insane. (R11)

8.5 Discussion

Many journal articles on the subject and models of health-seeking behaviour are based on ‘individual choice’, the implicit assumption being that individuals are rational and autonomous in making decisions if they have sufficient information and knowledge about the outcome of courses of action they might take (Mackian et al., 2004a).

Our findings indicate that making the decision to seek maternity care is not an individual decision; rather it is a process that involves individual interaction within a social network. The decision-making process for maternity care includes negotiation and achieving balance between the perceived severity of the maternal situation and the need for referral to hospital on one hand, and, on the other hand, the cost and disruption associated with this.
It is clear that the process is not usually affected by awareness and knowledge of maternal health or danger signs during pregnancy and childbirth. People know that if there are danger signs, women should go to the hospital. But they do not recognise them, or do not recognise them early enough.

The findings of this study indicate that the decision-making process usually takes place over a long period. A decision to seek healthcare and the following decision to act on that choice could take three or more days. Severe bleeding and convulsions during labour are considered by the community as alarming signs and the presence of these signs might shorten the decision-making process, while prolonged and obstructed labour may take a longer time for the decision to be made to seek care. Families usually lack the capacity to recognise danger signs at the right time and do not anticipate the time it might take for them to find a means of transportation to reach a functioning healthcare facility.

Although men were blamed for being part of the problem (Odimegwu et al., 2005, Story and Burgard, 2012), and despite the negative roles that have been reported in this study, our findings also indicate that some men have positive roles in maternal health; they ‘watch over’ their wives and prioritise their needs. Men tend to have access to money, act as head of household, and hold decision-making powers. They recognise that maternal health during pregnancy is aided by providing nutritious food, decreasing the woman’s housework and seeking care promptly if there are any complaints. During pregnancy, husbands recognise the need to seek professional healthcare when needed. They accompany their wives to antenatal care visits and support them in accessing services as early as possible. The roles these men play in maternal care should be built upon and their stories should be highlighted to others in similar circumstances.

WHO encourages the promotion of the role of men in reproductive health through: promoting shared decision making for birth planning; enhancing men’s understanding of needs and danger signs of pregnancy; and encouraging men’s participation in antenatal care, childbirth and the postnatal care of the mother and the new born baby (WHO, 2010b, Mullany et al., 2005).

Mothers-in-law have also been frequently reported in many articles to have a strong influence on decision making for maternity care (Simkhada et al., 2010, Mumtaz and Salway, 2007). However, saying that decision making is predominantly conducted by one person such as the husband or mother-in-law oversimplifies the matter. There is a consensus that the decision to seek care is
a process that occurs in stages, across a network and depends on the emergency of the situation (Thaddeus and Maine, 1994).

The process of decision making is affected by supporters and encouragers on one side and hindrances on the other. The pregnant woman’s husband, mother, in-laws and the midwife all play different, crucial roles, positive and negative. Their respective roles in delaying the decision to seek maternal healthcare has also been previously discussed in literature (Mesko et al., 2003, Masvie, 2006).

Our results indicate that deciding on where to deliver and with whom is a process that is characterised by complexity and diversity. This research identified seven situations in which women give birth: 1) alone in the field without assistance; 2) alone at home without assistance; 3) at home with family assistance; 4) at home with the help of a TBA; 5) at home with the help of a village midwife; 5) on the way to a healthcare facility; and 6) at hospital. This diversity is influenced by many contextual factors, accumulated experiences, cultural beliefs, social pressure and access to emergency funds. Often the place of delivery is not the planned place of delivery.

The research literature suggests that decisions regarding place of delivery and use of skilled birth attendants does not necessarily reflect the women’s preferred choice, and that its variation is explained by variations in socioeconomic factors, cultural factors, ethnicity, religious factors, beliefs, preferences, women’s autonomy, social networks and structures and other factors that can cause pressure (Birmeta et al., 2013, Glei and Goldman, 2000, Say and Raine, 2007, Some et al., 2011).

This chapter emphasises that the decision-making process for delivery and the involvement of the pregnant woman in that process is influenced and informed by wider social networks during childbirth and takes place within the context of their culturally-embedded lives. This insight can be used in the planning of culturally sensitive maternal services and would facilitate the design of more culturally behavioural changes models and community mobilization in the context of South Sudan and similar post-conflict settings.
9 Chapter Nine REACHING THE HEALTH FACILITY

9.1 Introduction

Maternity referral systems have been ‘under-documented, under-researched, and under-theorised’ (Murray and Pearson, 2006). Undoubtedly, responsive emergency referral systems and appropriate transportation are cornerstones in the continuum of care and a crucial part of this complex health system.

One of the findings of this research study is that once the decision is made to seek care, the woman concerned faces a very long journey before she reaches an appropriate health facility. This journey is determined by three overlapping sets of barriers, categorised here as (1) ‘physical accessibility’, (2) Capacity to refer, and (3) ‘pathways to care’. These data emerged from PEER data and the critical incidence analysis (Figure 43). Between making the decision to seek care and reaching the appropriate health facility, families face a range of challenges relating to physical accessibility. Section 9.2 of this chapter illustrates these challenges. Section 9.3 describes the capacity of healthcare providers for appropriate referral. Section 9.4 goes on to identify and describe four patterns regarding pathways to care.

Figure 43 Pathways to reaching an appropriate healthcare facility
9.2 Physical accessibility

Accessibility means the relationship between the location of supply and the location of clients, taking account of client transportation resources and travel time, distance and cost. (Penchansky and Thomas, 1981)

Between making the decision to seek care and reaching the appropriate health facility, there are many challenges faced, starting with searching for funds and an appropriate vehicle, followed by negotiating the transport fee (Figure 44). Distance and the quality of the road determine the time the journey takes and both are related to the cost.

Figure 44 Range of challenges to physical accessibility

9.2.1 Searching for funds

Most of the families who participated in this research saw labour as something that occurs at home, without the need for travelling to seek help in other places. Some of them saved money in order to cover future expenses that are associated with labour and birth, but most did not:
When your wife is pregnant, and you have money, you save it for her delivery. You will buy meat, fish and other important things. (4JMNM)

When a family decides to seek medical help, the first thing they do is seek funds to cover the costs of transportation, hospital fees and other expenses. The most common way to cover these expenses is by borrowing from extended family members, neighbours or the midwife. Some families go to the extreme of urgently selling property such as cattle and crops in order to cope with the burden of the sudden expenditure:

Families in the neighbourhood help one another especially during birth when lots of money is needed. If you have labour pain and you need money you can borrow. When you come back you can take your goats and cows to the market and repay back the borrowed money. (4JMNM)

If the husband has no money, then the midwife will pay for a car to take them to the hospital and he can pay her later. (R6)

9.2.2 Searching for an appropriate vehicle

The location of the village in relation to the main road that goes to Renk town determines the type of vehicle needed. Journeys within the village or to a nearby village could be conducted by a donkey-driven cart. Those who live near a paved road can rent a private taxi, the main supplier of which is Hyundai Atoz Cars (Figure 45), or they may call someone in Renk town to ask for a taxi to be sent to their village. Pickup trucks and tractors are the only vehicles that can go through the poor, muddy roads.

Figure 45 Hyundai Atoz taxi car

Some of the health centres that belong to oil companies and rural hospitals have ambulances. People who live near these facilities may travel to them, or be referred there, and so have access to ambulance services. Other people carry
the delivering woman to the main road, from where they hitchhike to Renk town.

It is very difficult for a pregnant women living in these remote villages to access fast transport to hospital when the midwife refers them there as an emergency case. This is a serious cause of concern for these women. During the rainy season, cars cannot pass through the poor, muddy roads. If they decide to go to hospital at night, they may need to wait until the morning to find and rent a tractor. People recognise the lack of transportation as a major cause of maternal death in the county. Many of the maternal deaths that they recalled were due to the inability to find transport to take women who were bleeding after delivery to hospital in time.

I saw a woman who was in labour and they brought the midwife to the house. The woman delivered the baby and had bleeding. They tried to save her but they couldn’t find a car. The midwife stayed till the morning until she died. (R12)

A woman in the village got bleeding after delivery. The bleeding didn’t stop. They don’t have a car in the village to take her to hospital. They found a tractor, but the woman died on the way to hospital. (R14)

They describe women as lucky when the woman in labour who can find a car when necessary to reach the hospital and deliver her baby safely, with the help of the doctor:

**9.2.3 Negotiating the price of transport**

Due to a limited availability of transport, poor road infrastructure and long distances, travelling to the hospital can be very expensive. With a tractor, it might cost between SDG 200 and SDG 300 (USD 70–100) for a drive that takes two to three hours. Private cars, taxis, pickup trucks and private ambulances can cost SDG 30–150 (USD 10–50).

They rent a pickup truck that cost them SDG 30 (USD 10) to go five kilometres from village to Goda south village (a 30 minute drive). ... At six pm they rented an ambulance that cost them SDG 60 (USD 20) and went from Goda south village to Algabaleen hospital (one hour drive). (13RMNM)

The husband decided to take his wife to Renk hospital. They were lucky to find a car, rent it and were off. It cost them SDG 150 (USD 50). It took them three hours to reach Renk at nine pm. (4JMNM).
Chapter Nine REACHING THE HEALTH FACILITY

9.2.4 Distance to the facility

As people want to arrive at health facilities as soon as possible during an emergency, the distance is a major concern. People who journey from areas such as Maban or Palouge travel for seven hours to reach Renk hospital, and even longer during the rainy season. Some women in the last month of pregnancy go to Renk town and stay with their relatives near the hospital.

Her body started to shake (fits), and she was between life and death. They took her to hospital, but the hospital was far. She couldn't reach the hospital in a good time and she died. (R6)

9.2.5 Quality of roads

Despite the significant progress that has been made in improving road connections between Renk town to North Sudan and to the rest of South Sudan, the road network is very limited and the existing roads get too muddy to use during the rainy season. This poor road infrastructure limits mobility and is one of the major constraints to accessing health facilities:

Because it was rain season and the streets were muddy and small cars cannot pass through them, and there is a lot of sticky mud, my husband brought a tractor. (R2)

Once a woman was in labour and there was no health centre in the village and she couldn't reach the hospital because of the rain in the autumn and no car can move. That is why women die in labour. (R13)

One of the participants narrated a story about a pregnant woman who was dehydrated. It was the rainy season in October and the roads were closed. She was sitting at home when her labour pains began. She had no money. They brought the traditional birth attendant, who said, ‘you don’t have blood’ (i.e. she was anaemic) and told her to push but she could not push. She and her baby died during the delivery.

9.3 Capacity for appropriate referral

This section describes how even when a family makes the decision to seek care, reaching the appropriate level of quality healthcare depends on the ability of healthcare providers to make an appropriate decision to refer the patient on time, without any delay, to a functioning and appropriate healthcare facility.

Depending on the geographical location, the nearest healthcare facility could be a health centre serviced by a medical assistant, or a rural hospital serviced by a
medical doctor. Women in emergency obstetric conditions seek help at these rural facilities as directed by the midwife or the medical assistant in the village health centre.

When these facilities cannot manage emergency cases, they refer women to Renk hospital, the referral hospital for the county that provides comprehensive emergency obstetric care. This hospital does not have a blood bank, and staff members rely on family members to donate blood. Failure to secure a blood donor may result in the family being referred to Rabak hospital or Kusti hospital in White Nile state in North Sudan, where blood bank facilities are available.

For the women live in the village, where there is no health centre or midwife, they find difficulties in referring the pregnant woman to the appropriate place. (R5)
Two critical incidents of post-partum eclampsia from Jalhak illustrate well how the capacity of healthcare providers to know whether or not a patient needs to be referred to another facility, can determine maternal survival. The first case (Box 8) shows how a competent midwife referred the husband to the health centre to collect medication: the patient survived. If she had tried to refer her to Renk hospital the woman would have died.

**Box 8 Maternal near miss case in Jalhak**

Batool experienced post-partum eclampsia. Her eyes rolled and she salivated excessively. The trained midwife immediately inserted a spoon into her mouth to prevent her from biting her tongue. She sent the husband running to collect infusions and injections from the nearest health centre. The husband went there and described the situation to the medical assistant, who gave him IV fluids and injections to take them back to the midwife to treat the convulsion. The convulsions continued for about five minutes until the midwife gave the treatment. Batool recovered and did not have another fit. Five hours later she was nursing her new born baby. (7JMNM).
The second case (Box 9) shows a mother who tried to manage the situation herself and a non-competent medical assistant who failed to manage the case effectively and to assure the family. They ended up transferring the patient in a critically ill state to Renk hospital, but they arrived too late for the doctors to save her.

**Box 9 Maternal death case from Jalhalk (6JMM)**

Ajak had post-partum eclampsia. She had a fit and lost consciousness for a minute or so. Her mother quickly inserted a spoon in her mouth and took her to the nearby health centre for help. On arriving she had another episode. The medical assistant in charge gave her a normal saline infusion without checking her blood pressure: this led to another episode. Her mother took the infusion off and decided to take her daughter to Renk hospital. On their way to the market on the same donkey-driven cart that took them to the health centre, while looking for a vehicle, another fit occurred. Luckily they found a pickup truck and could afford to rent it. On the way she experienced two fits and never spoke again. They arrived at Renk hospital four hours later. Unfortunately, after two hours in the hospital she died in her mother’s arms, despite the doctor’s efforts. (6JMM)
Chapter Nine REACHING THE HEALTH FACILITY

9.4 Pathways to care

9.4.1 Late referrals to appropriate facilities

Most late referrals to appropriate facilities are due to traditional birth attendants being reluctant to refer women before acknowledging their failure to manage the labour. A TBA assures the pregnant woman that everything will progress well and that the delivery will be very smooth. They try to manage the delivery as much as they can. They tend to keep the women in labour with them for long periods. When the duration of labour exceeds two to three days, or if one of the two main danger signs (bleeding and convulsion) occurs, TBAs declare their failure to manage the labour. Sometimes, the father and mother might notice that the labour is not progressing well and decide to declare the TBA’s failure before she does so herself. The referral process is delayed until failure is declared.

The next three critical incidents (outlined in Box 10) further illustrate the variety of reasons that lead to a late referral to appropriate healthcare facilities.

**Box 10 Critical incidents reflect late referral to appropriate healthcare facilities**

<table>
<thead>
<tr>
<th>(1) Naboul was a 30 year old mother of four children. When she started experiencing labour pain, her family called for the TBA. Day after day passed until on the third day she asked to be taken to the hospital. They headed to the nearest rural hospital in Melut village. She presented to the casualty department at eight am. The doctor examined her to discover that she had a ruptured uterus. (10RMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Alyd was a 16 years old primigravida living in a village on the outskirts of Palouge. When she was in labour, her family called for the TBA to come to help deliver her baby. Day after day passed until she became restless, febrile and yet no progress had been made with the labour. They decided to seek professional healthcare and only on the fourth day did they commence the journey in search of help. (11RMM)</td>
</tr>
<tr>
<td>(3) Niboul lived in a village in Mabaan county. She was in labour for two days with a TBA caring for her. Her family could not find a trained midwife nearby. On the third day, her family decided to seek medical help. They went to Adar, an area southeast of Melut. (12RMNM)</td>
</tr>
</tbody>
</table>

9.4.2 Zigzagging referral

Another common pattern in delayed access to the appropriate level of healthcare is the ‘zigzagging referral’ that occurs when a delivering woman is referred back and forth between two healthcare providers. Each provider refers
her to the other after failing to manage the labour, both failing to refer her to an appropriate facility instead. Abouk’s case (Box 11) is a good example of this zigzagging pathway.

**Box 11 Maternal mortality case from Jalhak (5JMM)**

Abouk was a 19 years old housewife living in Jelhak village. The labour pain started at eight am. After six hours, the trained midwife advised her family to take her to the medical assistant in the village health centre. They lifted her onto a donkey-driven cart and went to the village’s medical assistant. When they arrived, her water broke. The medical assistant prescribed drugs and told them that she was in labour and that the midwife should deliver her straight away. He sent them back to the midwife for delivery. After spending three hours with the midwife without progress, Abouk was exhausted. The midwife advised them to go back to the medical assistant. They spent most of the night like a ping pong ball, bouncing back and forth between a midwife and a medical assistant until the midwife insisted on the medical assistant referring them to Renk hospital, which happened shortly before four am. The pregnant woman’s father-in-law sought transportation to Renk hospital; he negotiated with the petroleum company to help them to get to the hospital. He waited until the driver arrived at 6:30 am and by seven am they were on the road to Renk. At 10 am they arrived at the maternity ward of Renk hospital. All attempts to induce labour in hospital failed so they ended up using forceps. The baby was delivered lifeless. Three hours later the mother died (5JMM).
9.4.3 Referred to more than one healthcare facility

Another common referral pattern that emerged was one whereby the patient visits several healthcare facilities before reaching the appropriate facility that can provide comprehensive emergency obstetric care. Women seek help at the nearest health centre and can then be referred to a ‘non-functioning’ rural hospital, which might refer them again to another ‘non-functioning’ rural hospital before reaching the referral hospital (Renk hospital) that is able to provide the caesarean section and blood transfusion that is needed. The referral hospital (Renk hospital) might refer patients to another referral hospital (Kusti hospital) due to lack of blood, or inability to perform operations. The next three critical incidents reflect this pattern of referral. The first one is the case of Om Jumaa (Box 12).
Box 12 Maternal near miss case from Kilo 4 village (13RMNM)

Om Jumaa is from Kilo 4 village in the northern part of Goda (north of Renk town), a small village lacking electricity, tap water supply, healthcare facilities and a school. Her labour pains started at around eight pm. Her family called the TBA who assured her that the delivery would be smooth, but she remained in severe pain for hours. By noon of the next day, Om Jumaa was in severe pain with no progress made. Her husband decided to go to the nearest health facility in Goda south village. They rented a pickup truck at a cost of SDG 30 (USD 10). They arrived at one pm at the house of the trained midwife, who was busy with another delivery. The midwife examined Om Jumaa and tried to deliver her. After a while she called for the doctor. The doctor referred them to Algabaleen hospital in a town in North Sudan for an emergency caesarean section. At six pm they rented an ambulance, which cost them SDG 60 (USD 20) and crossed the border of North Sudan to Algabaleen town. They arrived at seven pm and found that the theatre was closed for 72 hours. They called another ambulance at eight pm, which cost them another SDG 60 (USD 20). They arrived at Rabak city hospital at 10 pm. They were asked to pay SDG 60 (USD 20) for the caesarean section operation. There were many patients ahead of them and she was not operated until four am. She was transfused the next day with four units of blood and was given medication. Om Jumaa was hospitalised for 22 days. During her stay her family was beside her and supported her as much as they could. Her husband sold their cattle to cover the expenses, which exceeded SDG 1,000 (USD 350) with no regrets. She lost her baby and lives now with a fistula. She goes every 14 days to the nearest health centre in ‘Goda south’ to change her urine catheter (13RMNM).
The case of Ashwayr is another example of this type of referral (Box 13).

**Box 13 Maternal mortality case from Palouge (11RMM)**

Ashwayr was a 16 years old primigravida living in a village in the outskirts of Palouge. Her family called for the TBA to come to deliver her when her labour began. Day after day passed until she became restless, febrile and with no progress. They decided to seek professional healthcare on the 4th day. They arrived to Palouge health centre at 8:00 pm. The health centre is run by a medical assistant and a village midwife but does not have an operation room or blood bank. The medical assistant referred them to Melut hospital. On the 5th day at 1:00 pm they called the doctor in charge of Melut hospital to inform him about the case and requested an ambulance for the referral. Unfortunately the ambulance was not available. The road between the two towns is a dirt road (no permanent surface) and deteriorates during the rainy season. An hour later they managed to transfer the patient to a hospital that did not have an operating room or blood bank. The patient was only given antibiotics and referred to Renk hospital for an emergency caesarean section. At 11:00 pm the ambulance stopped in front of the maternity ward of Renk Hospital. The patient was given antibiotics and prepared for an emergency caesarean section. Due to delays in preparation and blood donation, the patient was ready for the operation by midday. The woman passed away during the operation (11RMM).
Chapter Nine REACHING THE HEALTH FACILITY

The case of Ashan (Box 14) is another example of visiting several healthcare facilities before receiving the appropriate care.

Box 14 Maternal death case from Jalhak (CC4)

Ashan was in her seventh month of pregnancy. She complained of body swelling and fever and was taken by her husband to the village health centre. She was given treatment but experienced no improvement in her condition. Her husband decided to take her to Renk hospital. In the hospital she had labour pains and after a few hours of a not too severe delivery, she gave birth to a stillborn boy. Ashan was devastated and severely depressed. She stopped eating and drinking, and was kept alive by intravenous fluids and various pills and injections. Her health continued to deteriorate. Her abdomen became uncomfortably distended. The doctors recognised that she needed a blood transfusion. As the blood bank in Renk hospital was closed she had to be taken to the nearest hospital in Kusti. Her husband calculated the extra expenses this would cost him and realised he could not afford it. Some well off relatives sent him money when they heard about Ashan’s condition. They arrived at Kusti hospital, where she was admitted and transfused on the same day. Unfortunately an hour and a half later she passed away. The husband and her brother-in-law carried her body and buried her in their village (CC4).
9.4.4 Bypassing non-functioning healthcare facilities

Another pattern of referral involved bypassing non-functioning healthcare facilities. This emerged in the case of a woman who experienced prolonged labour and bleeding. She survived because she bypassed these non-functioning facilities and was instead referred directly to Renk hospital (Box 15).

**Box 15 Maternal death near miss case from Adar (12RMNM)**

Kayla lives in a village in Mabaan county, a more than seven hours’ drive from Renk hospital. Kayla was in labour for two days with a TBA caring for her. On the third day, her family decided to seek medical help. They went to Adar, an area southeast of Melut. The doctor in the Adar oil company-funded health centre inserted a catheter into her and then referred them directly to Renk hospital. They were lucky to find a pickup truck of a petroleum company in Adar to bring them. Midway, while the driver was driving at high speed to get them to Renk, Kayla started to deliver the baby. They stopped the car and she gave birth in the car. The baby was alive, but the woman started to bleed. They continued driving to Renk. When they arrived at the hospital, she was lying restlessly, soaked in her blood, her baby beside her. She had a tear that was managed by the doctor and she was discharged three days later. (12RMNM)

Box 16 is PEER researchers’ role play script on referral to health facility which shows this pattern as well.

**Box 16 PEER researchers’ role play script on referral to health facility**

<table>
<thead>
<tr>
<th>Role Play: Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characters:</strong> Pregnant woman, her mother, the midwife, and the doctor</td>
</tr>
<tr>
<td><strong>Summary:</strong> This drama tells the story of a simple family, consisting of a husband, wife and the wife’s mother. The mother is pregnant and in labour. She seeks help from her mother, who in turn goes to bring the midwife, the ‘aldaya’. The aldaya failed to conduct the delivery, and so advises them to consult a doctor. They go to the doctor, who performs a caesarean section, giving joy and happiness to the small family.</td>
</tr>
<tr>
<td><strong>First scene:</strong> At the pregnant wife’s house, a conversation between the wife and her mother.</td>
</tr>
<tr>
<td><strong>Pregnant woman:</strong> Mom, my tummy is hurting me.</td>
</tr>
<tr>
<td><strong>Mother:</strong> Since when?</td>
</tr>
<tr>
<td><strong>Pregnant woman:</strong> Just now.</td>
</tr>
<tr>
<td><strong>Mother:</strong> It’s better that I go get ‘aldaya’ (midwife)</td>
</tr>
</tbody>
</table>
Chapter Nine REACHING THE HEALTH FACILITY

**Pregnant woman:** (screaming) Uh ... uh ... Go get her ... Mom help me.
**Mother:** Let's go.
**Pregnant woman:** I can't.
**Mother:** You stay alone?
**Pregnant woman:** Yes, but you go.
**Mother:** I shall go then.
The mother goes to the midwife's house.

**Second scene: At the midwife's house**
**Mother:** Al salamo alaykom (hello), my daughter's tummy is hurting her.
**Midwife:** How is the hurt?
**Mother:** I don't know.
**Midwife:** Let's go.
**Mother:** Where is your suitcase?
**Midwife:** Get a car ... Let's go ... Here is my suitcase.
The mother and the midwife go to the pregnant wife's house.

**Third scene: At the pregnant wife's house. The pregnant wife is screaming in pain.**
**Pregnant woman:** Uh ... Call ... Rescue me, mother ... My tummy is hurting me.
**Midwife:** Since when?
**Pregnant woman:** I don't know.
**Midwife:** Lay down on the bed.
The pregnant wife lies on the bed as she screams.
**Midwife:** (as she examine her) One minute, let me examine your tummy.
The pregnant wife screams.
The mother stands by the bed.
The midwife examines the pregnant wife with a stethoscope.
**Midwife:** Let me hear this baby's voice.
**Midwife:** This woman is 'a bikriya' (first time to get pregnant) and I see this baby is not sitting right, get a car to go to the doctor.
The pregnant wife is screaming.
**Pregnant woman:** Rescue me.
They get the car; the pregnant wife, mother and the midwife get into it to go to the hospital.

**Fourth scene: At the hospital**
The mother us in an extreme fearful state.
**Mother:** Salam', hospital's people we need a doctor.
**Pregnant woman:** (screaming and shouting) ... Uh, mother rescue me.
**Doctor:** I am the doctor.
**Pregnant woman:** Rescue me.
The doctor examines the pregnant woman with his stethoscope.
**Doctor:** This girl's pelvis is narrow, an operation is a must, hurry, bring money, we want an IV infusion ... We want lots of things ... We want gauze and syringes.
The doctor prepares the pregnant woman by giving her an anaesthesia injection and he performs the operation; he opens the tummy, takes out the baby, cuts the umbilical cord, takes out the placenta, sutures the wound, covers it with gauze, then he goes out to where the mother and midwife are waiting.
**Doctor:** I did the operation on this girl.
**Doctor:** (to the mother) You... Mother, take the responsibility of the baby, we don't want any disturbance, congratulations she had a girl.
**Mother:** (happy and joyful and makes 'betzagrit', a sound made by a woman only at extreme happiness) She received the baby.

Note: This role play script was performed by PEER researchers during the study when they were asked to perform dramas that reflect referral to health facility.
9.5 Discussion

In an ideal situation, when a pregnant woman who is in labour decides to seek care, she should have access to a healthcare facility within less than five kilometres of her that provides basic emergency obstetric and neonatal care (BEmONC) (WHO et al., 2009). This healthcare facility should provide assistance in vaginal delivery, the removal of placenta and its retained products, and provide injectable antibiotics, oxytoxics and anticonvulsants. If the woman is in need of an emergency caesarean section or blood transfusion, the healthcare facility should have be able to make an emergency referral of the woman concerned to a healthcare facility that can provide this comprehensive emergency obstetric and neonatal care (CEmONC) (Penny and Murray, 2000, WHO et al., 2009). According to the South Sudan Basic Package of Health and Nutrition Services (MoH, 2009), essential obstetric care (EOC) is part of integrated reproductive health services (IRHS) and is ‘modelled around establishment of readily accessible quality Emergency Obstetric and Neonatal Care’. Additionally, IRHS includes: women’s reproductive health services (WRHS), adolescent sexual and reproductive health services (ASRH) and men’s reproductive health services (MRHS) (MoH, 2009).

Findings of this research show that the following factors affect the physical accessibility of the first referral healthcare facility: the capacity to access funds to cover healthcare and related costs; finding an appropriate vehicle; negotiating the price; the distance involved; and the quality of the road. Ideally, such facilities should provide BEmONC. However, this is not always the case, and access to further care is determined by the functionality of these facilities and the competencies of the healthcare providers there. Four pathways to referral care were identified: ‘late or no referral, ‘zigzagging referral’, ‘referral to more than one facility’ and ‘Bypassing non-functioning facilities’. These pathways to care patterns intersect with physical accessibility barriers, in which the cycle of barriers can begin again with each referral point.

A pregnant woman needs to reach the appropriate healthcare facility as soon as possible in order for her life to be saved. Our findings indicate that outcomes are better where there is no facility available, than when the woman accesses a non-functioning facility: the absence of a healthcare provider is better than the presence of a non-competent provider. Women who bypassed non-functioning facilities and went direct to appropriate facilities survived. Visiting non-functioning or partially functioning healthcare facilities on the way serviced by non-competitive providers places the woman at greater risk of dying.
Many health systems in developing countries are failing to provide women with rapid access to emergency obstetric care (Murray and Pearson, 2006). BEmONC is not yet available in many post-conflict countries such as Sierra Leone and Rwanda (Paxton et al., 2006, Oyerinde et al., 2011a). Poor referral systems and extensive pyramidal and multilevel referral structures delay treatment and put patients at risk (Ganatra et al., 1998). Self-referral to hospital and bypassing referral structures in settings with difficult transportation and weak health systems might be the most realistic, speediest and safest option for women with obstetric complications (Murray and Pearson, 2006).

The bypassing of referral structures, which might be initiated by the user or a lower-level healthcare provider (Ohara et al., 1998), reflects a lack of confidence in the services and referral process (Murray and Pearson, 2006). Studies conducted in Africa have shown that the majority (61–82%) of delivering women at hospitals with childbirth facilities are self-referred (Dujardin et al., 1995, Jahn et al., 1998, Nkyekyer, 2000).

It is important however to mention that self-referral and underutilisation of lower-level facilities can result in congestion of hospitals, overcrowding, poor technical ability and poor quality of care, which will lead to an increase in the maternal mortality ratio (MMR) (Miller et al., 2002).

Whether self-referral to hospital increases MMR in the population continues to be a matter of debate. Despite this, many countries have prioritised an investment in hospitals over basic EmOC facilities trying to push for institutional delivery. Evidence from Sri Lankan and Malaysian studies show that bypassing the level of basic EmOC both increased access to a professional cadre of birth attendants and to hospitals and led to a reduction of MMR (Paxton et al., 2006, Pathmanathan, 2003).

BEmONC is not yet available in many parts of South Sudan, and most of the healthcare facilities there are in a poor functioning state. They lack basic equipment and most of the maternal and neonatal health workers lack the necessary skills to perform simple life-saving and nursing procedures (MoH, 2010).

In conclusion, non-functioning facilities and non-competent providers contribute to the deaths of women.
10 Chapter Ten RECEIVING APPROPRIATE EMERGENCY OBSTETRIC CARE

10.1 Introduction

This chapter describes factors influence in-hospital delays in receiving appropriate obstetric emergency care in Renk hospital that emerged from stakeholders’ interviews, PEER and CIT.

Quality emergency obstetric care is defined as a state of readiness that enables the EmOC facility to provide quality care by competent staff who are willing to respond to clients at any time, by providing prompt and appropriate emergency care according to acceptable clinical standards and protocols and in a manner corresponding to the rights and needs of all clients. Staff, equipment, supplies and infrastructure should be available, functional and adequate (EngenderHealth, 2003).

A woman reaching Renk hospital means that she has been able to overcome the barriers that occur around first and second level delays to access healthcare. However, there may be a series of delays faced inside Renk hospital: (i) delays in reaching the initial diagnosis; (ii) delays in stabilisation and preparation for her definitive treatment; and (iii) delays in receiving the definitive treatment. Human resources and clinical management were the main two themes that emerged from this study that directly affect these in-hospital delays. They are all influenced by supportive systems and environment as well as appropriateness of services offered (Figure 46).
10.2 Supportive systems and the environment

10.2.1 Availability of a functioning peripheral health service

According to the Director of Renk county’s health department, at least one rural hospital should be available in each of the four payams in Renk county, in order to oversee the delivery of primary healthcare services in their respective region. Each village in Renk county should have an appropriate number of health centres or units to implement the basic package services and ensure community participation. Basic emergency obstetric and neonatal care (EmONC) should ideally be provided by these facilities.

This peripheral structure should enable people to access healthcare and provide a supportive system linked to Renk hospital as a referral hospital that provides comprehensive emergency obstetric and neonatal care. However, such desires and targets are not supported by the reality on the ground. Facilities are unavailable, not functioning or poorly functioning.
Chapter Ten RECEIVING APPROPRIATE EMERGENCY OBSTETRIC CARE

10.2.1.1 Unavailable facilities

The geographical distribution of health facilities in the county is not distributed evenly. Some areas have no health facilities at all:

There are no studies or plans for distribution of the health facilities. Facilities are built according to the available fund and what people want. (Employee in a FBO)

For example, there are more than 15 villages in Shomodi Payam in the south east area of Renk town, and all are served by only one pharmacy and two health units.

10.2.1.2 Available but not functioning

According to the operational manager of the county’s vaccination programme, most of the health centres in villages are not functioning and most of the services are provided by Renk hospital. He claimed that Renk hospital alone cannot provide services to all women in the county, and people who live in these villages need to have services closer to them:

There are huge shortages in health services. That is because we were in war for a long time. We do not blame others or ourselves for these shortages. (Government officer)

There are 16 primary healthcare centres (PHC) and PHC units (PHCU) in the periphery (Geiger, Jalhak and Shomodi) but eight of them (50%) are not functioning (Table 14).
### Table 14 Health facilities in Renk county by functioning status

<table>
<thead>
<tr>
<th>Payam</th>
<th>Type</th>
<th>Facility name</th>
<th>Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renk</td>
<td>Hospital</td>
<td>Renk civil hospital</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Renk military hospital</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>PHCC</td>
<td>National insurance fund PHCC</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>PHCU</td>
<td>Abukadhra PHCU</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gos Fami PHCU</td>
<td>No</td>
</tr>
<tr>
<td>Geiger</td>
<td>PHCC</td>
<td>Geiger PHCC</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wanthaw PHCC</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>National insurance fund PHCC</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>PHCU</td>
<td>Koloug PHCU</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Gerbenat PHCU</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Kilo 5 PHCU</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Omduluis PHCU</td>
<td>No</td>
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<td></td>
<td></td>
<td>Dugdug PHCU</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td>Romale PHCU</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td>Kilo 15 PHCU</td>
<td>No</td>
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<td></td>
<td></td>
<td>Alaka PHCU</td>
<td>No</td>
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<tr>
<td>Jalhak</td>
<td>PHCU</td>
<td>Jalhak PHCU</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Molbuk PHCU</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Banjarg PHCU</td>
<td>No</td>
</tr>
<tr>
<td>Shomodi</td>
<td>PHCU</td>
<td>Shomodi PHCU</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latbier PHCU</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: (Ministry of Health Government of Southern Sudan, 2009)
Figure 47 Health facilities’ distribution in Renk county

Source: Adapted from (OCHA, 2010)
10.2.1.3 Available but poorly functioning

The working environment in poorly functioning health centres and units is not suitable for providing an acceptable level of health service:

The working environment in health centres is not suitable to provide an acceptable level of health service. That is why TBAs work mostly inside the villages because no one would come to the health centres in the first place. (Operational manager of vaccination programme in Renk)

They come to me or another midwife. I help as much as I can, but sometimes I don’t have medication. If there is something I can’t handle I take her to the medical assistant. If we had a doctor we would not face such problems. I get my money from the Renk government, a small salary every month. Sometimes when I deliver a woman, she gives me money. (Trained midwife at Jalhak)

The health centre in Jalhak, 80 kilometres south of Renk town, was built in the 1980s. Before the war the health centre was functioning and maternal health services were provided by a doctor, midwives and nurses. However, due to the war the centre was closed and its functions were never fully restored. Now, much more limited health services are provided through the same centre. There are also small private clinics, laboratories and pharmacies that are owned and run by health assistants and nurses:

This health centre in Jalhak was there since the 1980s. There was a doctor who treated people for free. Before the war, there were not too many health problems. After the beginning of the war, people fled the area and the health centre was just a building. After the comprehensive peace agreement in 2005, some people tried to work at the centre but could not because they didn’t live here originally. They were from other places and didn’t know how to manage the problems. Their salaries didn’t arrive on time and sometimes not at all. (Medical assistant in Jalhak)

The director of reproductive health and midwifery in Renk county noted that each health centre in the county should have at least one trained midwife to provide antenatal care and delivery, yet most of the centres have only a medical assistant or a male nurse. This reflects the shortage of trained human resources for maternal and child healthcare in the region.
There is not a single midwife in the whole county of Maban. Women there deliver with the TBAs. (Health visitor)

The midwife who is responsible for [the] Melut health centre is a male. He was trained by UNICEF for 45 days only to do deliveries. This is not acceptable that a male be a midwife. (Director of reproductive health and midwifery)

Absenteeism of health workers is one of the main concerns in the health centres. For example some stakeholders indicated that a medical assistant in one of the centres is not available most of the time. Sometimes he works in the centre but most of the time he stays in Renk town. Shortage of qualified human resources is another concern. For instance, the person who works in the pharmacy in one village is not a qualified pharmacist, but he treats people. People come to him complaining of malaria so he gives them the treatment of malaria; others come complaining of an eye infection so he gives them eyes drop.

All the health centres in Renk county don’t have doctors. They only have medical assistants. Except for Geiger, its health centre has a doctor. (Employee in a local NGO)

10.2.1.4 Available and functioning healthcare facilities

Gieger Payam is a little better resourced than other payams. It has a health centre that includes a doctor, three trained midwives and two pharmacy assistants. Another health centre, in Wunthow Joda, a village near the North Sudan border, provides maternal and child healthcare.

However, most of the functioning healthcare facilities are concentrated in Renk town. There are two centres for antenatal care around Renk town. The midwifery school manages the first one, which is part of Renk hospital. The second one is attached to and run by the Episcopal church.

In the Catholic church in Renk there are 20 midwives and one of them is the head of the midwifery services. They play an important role in providing midwifery services in the Renk city. Pregnant women call them to come to their house to help them with delivery. (Employee in a FBO)

Additionally, there are three national health insurance fund health centres that serve insured government employees in Renk county. Renk county contributes 25% of the cost of these centres. Two of these centres are located in Renk town
and one in Gieger payam. The National Health Insurance Fund belongs to the Ministry of Welfare and Social Security in North Sudan\(^3\).

\(\text{This centre is a charity. It used to be the house of an agricultural inspector. Then his son turned the house into a health centre. He provided the furniture and the National Health Insurance Fund provided the medications and the workers. We charge the very minimum and pregnancy follow-ups are free. We sometimes get folic acid and Fefol from Khartoum and from external international organisations. (Doctor in Gieger health centre)}\)

There are two hospitals in Renk town: Renk hospital and the military hospital. Most of the people go to Renk hospital, as the military hospital is reserved for military personnel. The military hospital in Renk town belonged to the Sudanese Armed Forces, and was transferred to Sudan People’s Liberation Army after the peace agreement. This hospital was not included in this study as its client base is mainly army personnel.

### 10.2.2 Infrastructure in Renk hospital

Renk hospital is the main referral hospital that serves the population in Renk county. People living in other counties in the Upper Nile state use the hospital as well. Figure 48 is a satellite view map of the area of Renk hospital. The hospital is shown in the map surrounded by a black outline. The white circle indicates the location of the maternity ward. East to the hospital there is the midwifery school (outlined in pink), and accommodation for some of the staff (outlined in blue).

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\(^{3}\) At the time of submitting this thesis these facilities had stopped working under the National Health Insurance Fund after the independence of South Sudan.
The current state of the wards is one of the main issues facing the hospital. They are small, old, crowded and poorly ventilated. Figure 49 is a sketch showing different department wards and sections at Renk hospital.

Source: Author
Chapter Ten RECEIVING APPROPRIATE EMERGENCY OBSTETRIC CARE

The maternity ward consists of three rooms (Figure 50, Figure 51). One is the delivery room, and contains one delivery bed and one normal bed (Figure 52). The second room includes four beds for eclampsia patients and postoperative patients. The third room includes eight beds for bleeding patients, those in labour, and post-delivery patients.

We have three rooms. The eclampsia room [is] where the eclampsia patients stay but it is not common. We may get one to two in a month. Another room [is] for the postoperative patients, bleeding and delivered patients, that contains four beds. Finally, the labour room has one delivery bed and a bed. If more than one patient is delivering at a time, one delivers on the delivery bed and the other is on the bed. After three pm the midwife usually calls the doctor to help in such a case. (Midwife)

The rooms are small and there are not enough windows for air circulation or light. The walls and floors are damaged. The few beds do not allow a relative to stay with the patient if she needs someone.

There are things that could be improved to make the hospital better, the mattresses, and the bathroom. The family members had to sleep on the floor and floor is dirty. (Midwife)

There is no office for doctors in the ward so it is difficult for them to be close to the patients at all times. Moreover, there is no storage area for instruments. There is only one bathroom for use by the patients and staff. There is only one source of water, a single tap in the bathroom, from where everyone gets drinking water. The floor has bumps and holes in it.
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Figure 50 Outside view of the maternity ward at Renk hospital

Source: (Pfeil, 2012 )

Figure 51 Sketch of the maternity ward at Renk hospital

Source: Author
Chapter Ten RECEIVING APPROPRIATE EMERGENCY OBSTETRIC CARE

Figure 52 Delivery room in the maternity ward at Renk hospital

Source: Author

There have been multiple robberies at the hospital; valuable medication and equipment was taken. The fence around the hospital grounds was damaged several times and has not been repaired. Access to the hospital could be more organised and controlled if the fence was in a good condition. Currently it is difficult to control who goes in and out of the hospital grounds. Moreover, patients and their families use different entrances to the hospital:

Now the hospital grounds are open. The hospital sometimes has robberies in it. You know why, because sometimes someone comes cut the wired fence with pliers. The pharmacy was robbed and once the store was robbed. (Midwife)

10.2.3 Equipment and supplies

The major issues, which were repeatedly discussed with the participants in the majority of the interviews, were: the (poor) availability of functioning equipment, the lack of regular supplies to the hospital, and the (poor) availability of free medication. Most of the equipment is very old and worn out;
the last time most of it was updated was in 1988. Before the peace agreement, Renk hospital regularly sent a representative to Rabak or Khartoum in North Sudan to bring hospital supplies. But since the peace agreement, they get their supplies from the government of South Sudan. The stock comes from Juba to the states, and then each state capital distributes it to hospitals in counties. Thus the process of obtaining medication and equipment for the hospital has become more prolonged. When there is a shortage in medication in the hospital’s pharmacy, the hospital sends a nurse to the market to buy what is needed. All of this contributes to the delay in providing treatment at the hospital.

_The population has increased and we need new equipment. The last time we changed them was in 1988. We need oxygen cylinders. We need more than the few cylinders we have._ (Surgical assistant)

### 10.2.4 Weak systems in Renk hospital

The hospital has had a series of different management personnel over recent years. According to staff, this change in management has not brought about any improvement or change in the hospital. In fact, staff members have always faced problems with management, especially in terms of hospital financial management and others aspects of hospital functioning.

There is a poor work environment in Renk hospital and a lack of encouragement for staff to stay there. The current dysfunctional situation of the hospital has affected staff collaboration and communication. It also means that no one can be held accountable for his or her mistakes. Box 17 highlights some examples of the weak systems in the hospital.

**Box 17 Different situations highlighting weak systems in Renk hospital**

- I tell the nurse that it is time for my medication. She says she is coming and she does not come because she has to go home. Her home is very far. I have to wait for the other person’s shift to start and the time of the dose is late. (Patient)
- The patient was in the hospital from eight pm but a mistake happened. There was no communications between the doctors. The doctor, who was supposed to do the surgery, didn’t do it because he didn’t remember. (Female doctor)
- The emergency room is sometimes closed with a key. And the person who has the key is the medical assistant. It happens every day. When they ask him why did he take the key he gets angry and takes it personally. (Female doctor)
- There is no consistency in the system. If they ask me I will stock up for them. I leave for the weekend to see my family. If they don’t ask me in a good time then they have to wait till I come back and submit their orders and I will give them the stock
they need. It takes two days for the paperwork so on the third day I can give the stock they ordered to them. Staff members are lazy. They always come on the last minute. Those who come on Friday I give them their orders otherwise they have to wait till Monday or Tuesday. If there is a holiday such as Christmas then I don’t give their supplies weekly. I give it to them like every two weeks depending on the occasion. (Hospital storekeeper)

Some staff members mentioned that the hospital’s management needs to take responsibility for solving the current problems and needs to pay more attention to the issues arising in the hospital. Most of the staff members have lost faith in the hospital administration and believe that even if they contribute their ideas on what can be done to improve the hospital, nothing will be done.

One staff member fears that the administration has adopted a more self-centred approach. They believe that as managers’ positions improve they begin to neglect the needs of those working around them.

As Sudanese people, when you get a good position, we look for things for ourselves first and we don’t see the others and how to benefit them. These people will never let this place grow, only after they see their own needs. That is what happened. (Hospital gatekeeper)

This has aggravated the already existing trust issues between administration and healthcare staff. One staff member narrated an incident where he felt that he was neglected by the administration. As a staff member, he was hoping to get the support he needed from the hospital administration team. However, he felt he was neglected, ignored, and humiliated. Others also shared their concerns:

In all the years I was here. There are different managers. Some managers make you feel good and some managers get you so worked up and angry. (Hospital storekeeper)

If I say I’m sick and tired, I have my reasons. Before, about two years ago, my son fell down, slipped, and broke his arm. I brought him here and showed him to the doctor. I told him the boy fell and broke his hand. There is no x-ray here in this country. He authorised SDG 300 (USD 100) so I could take the boy to Kosti (closest referral hospital is in Kosti) to get the X-ray done. So I went to the manager and the manager treated me like I was a ball. You know how a ball is passed. They tell me to go to this person, or go find the accountant or go back to the doctor and I told them I showed him the boy and the doctor gave me the receipt. I couldn’t go back to the doctor because that would be irritating to the


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doctor, I put the paper in my pocket and left. (Hospital gatekeeper)

10.2.5 Funding limitation

The Renk hospital’s budget comes from the government of the Upper Nile state, but there is an agreement between the stakeholders that the budget allocated for maternal and child healthcare is not enough. Some stakeholders described it as ‘very minimal and unnoticeable’.

*Government has financial resources but it does not spend these resources in the best way.* (Employee in a local NGO)

Most of the maternal and child healthcare services are running on the limited resources available and depend on patient fees. In this limited resource setting, financial aid from both governmental and non-governmental organisations is the main support for improving services and training. The hospital manager stated that they have no other source of revenue, so they depend on the irregular financial aid or funds that they receive from time to time:

*There is no rehabilitation and no support from anywhere else. The hospital is running on its own with its own resources, no support from anyone else. There is no funding. [The] Petrodar Oil Company built the operating room and the blood bank.* (Renk hospital manager)

*We depend completely on the higher authority – the management has to make the hospital better. At least they should pay for the medication.* (Nurse)

UNICEF was one of the big donors for maternal and child healthcare but they stopped providing funding after the peace agreement. Funding during the war was more readily available than it was after peace came.

*The donors say South Sudan is now in peace and should take care of itself. As people around the world were helping people in South Sudan, people of South Sudan should now help themselves.* (A staff member from one of the faith-based organisations)

10.3 Human resources

10.3.1 Shortage of qualified human resources

Human resources are a crucial aspect of efforts to ensure the smooth functioning of services. The limited number of staff has been attributed to the
years of conflict in the region, which had a major impact on the allocation of staff by the Ministry of Health.

Renk hospital usually suffers from a lack of consultants and specialised surgical staff. Consequently, junior doctors are left to conduct most surgical procedures, supported by one anaesthesia technician and a medical assistant trained to assist in operations.

There was one obstetrician consultant in Renk until 2006. Since that date, the doctors who are working now are junior doctors. (Employee in a local NGO)

Even though we don’t have a consultant or a surgeon, the medical officers are still capable of conducting the operation and we are trying to support them. There is only one anaesthesia technician and one medical assistant for the operating room. They work from eight am to five pm. (Nurse)

There are a few doctors in charge of all the units at Renk hospital and they are required to perform surgical operations as well as provide services in all the hospital departments: medicine, paediatrics, obstetrics and gynaecology, surgery and dermatology. During the time of this study, there were four doctors in charge of all the departments at Renk hospital, and 11 midwives.

The staff members at Renk hospital blame the Ministry of Health for the inadequate allocation of doctors to the hospital. Moreover, some of these doctors work for only one or two weeks and then ask to be reallocated. Some doctors avoid working night shifts. Some of them take holiday leave, usually for a long time. These shortages increase the workload for existing staff.

In the operating room, the shortage of staff is evident. In the emergency room, the staff is usually not available all the time. We need more staff. The more staff we have, the more intensive the work will be. They won’t get bored or tired. (Female doctor)

10.3.2 Lack of commitment to public services

The lack of commitment of staff members to public services compounds existing problems such as staff shortages and workload. Overall, the frustration of staff members affects their work, their commitment and therefore the quality of service at the hospital.
Staff described how their salary is insufficient to cover their living expenses. They often find themselves wrapped up in their personal issues, which prevent them from performing their duties effectively. There are no financial incentives for staff at the hospital, which they consider crucial for their motivation and job commitment:

“There is no money incentive. We come to work but with no intention to work. If there were money incentives, we might be able to focus on work.” (Ambulance driver)

“We had incentives but they stopped giving us and we don’t even know the actual reason why they stopped. They don’t even provide breakfast. We buy our own breakfast. We are just working. We don’t get incentives now and the salaries are bad. Very bad! We get SDG 280 per month (USD 90) and the salaries can be a month late. With the rent of the home and school fees, it’s hard to manage.” (Hospital gatekeeper)

“There is a problem with management and issues with money. They don’t give people their rights and they don’t give the doctors salaries in the right time. So the doctors always come and go back, come and go back!” (Doctor)

As a result, staff members seek employment in other places in order to earn the extra money that they need. One of the implications is that staff may at times neglect their work at the hospital. Furthermore, health personnel at the hospital hide the fact that they are earning a living apart from their work at the hospital. The general belief is that if they told others about their second job, their fellow staff members would envy them. Therefore, they avoid asking their fellow staff members to cover their shifts or share their responsibilities at the hospital:

“They don’t value the person working and his or her effort. That’s why people would say, ‘my child is sick and I can’t leave him alone’ and then they don’t come to work. Others say, ‘my baby is hungry’, so they look for somewhere else to earn a living. This is what happens and people are absent at work.” (Renk hospital gatekeeper)

“When you go home from here, your children chant, ‘my father is here, my father is here’, and your hands are empty. You have nothing to give them.” (Renk hospital storekeeper)

“The work is exhausting for the staff. How many people are there? Very few and they are working in the hospital throughout the week, in the day
and at night. The work is very hard. (Nurse at Renk hospital)

Doctors do not work in the health centres outside Renk because of financial reasons. If the doctor goes to work in a village, it will be difficult for him to open a private clinic. The salary is low and there is limited suitable accommodation. Doctors prefer to work in Renk, where after work hours they can work in private clinics. The monthly salary from the government is worth three or four days’ work in a private clinic. Even in Renk, there are limited opportunities for career development. There is no teaching, research, training or libraries.

Oh my God, the doctors that come to the hospital always end up leaving. They take two years and leave and the nurses also themselves are not comfortable so when they are fed up they leave. They leave because the salaries are not given on a regular basis. (Nurse)

10.3.3 Lack of prompt response from staff

The initial evaluation and diagnosis of the patient is a crucial step; a provisional diagnosis is established and, in case of emergency, an urgent decision is required. At Renk hospital, this is the responsibility of the doctor. In the absence of a doctor in an emergency, valuable time is wasted.

Most of the doctors live far away from the hospital, but some of them live in houses close to the hospital or within the hospital grounds. The nurses and midwives thus rely on mobile phones to contact doctors and theatre personnel in case of an emergency. However, they described this as an unreliable and inconvenient method of contact amongst the staff members. Moreover, there is no system in place for reimbursement of staff for mobile credit; hence some are reluctant to use their mobile phones, or genuinely do not have phone credit to contact others.

As for the remaining hospital staff, the majority live far away from the hospital. There is no accommodation or transportation arrangements in place and some of them have to walk long distances to the hospital. Public transport is expensive. Hospital staff tend to arrive very late to work, especially during the rainy season.

I take the history, put her in the bed, and go tell the medical assistant or the doctor to come. It may take 10 to 20 minutes to find the doctor. If I can't find the doctor I call the medical assistant until the doctor comes. If the doctor has a car, he'll be here in another 15 minutes. And if the doctor can't come he tells me to find another doctor. (Nurse at Renk hospital)
There is only one anaesthesia technician and one medical assistant for the operating room. They work from eight am to five pm. Then they go home. In this case, if a doctor gets an emergency case, the delays happen where you send for the medical assistant who will come and send for the anaesthesia technician and they go get him and sometime you don’t even find the driver. There are times that you have to get the driver and the driver will go and bring the others. Also, the other problem is there is no blood bank so you have to give the patient fresh blood. To give the fresh blood you have to go get the lab technician and he has to go get his things and then prepare for the blood. (Doctor)

A village midwife told me a story of a patient from Jalhak who was giving birth to twins. One baby was born but the second was not. The village midwife came with the woman in labour to Renk hospital at night. The doctor said, ‘I am tired and going home’ and advised the hospital midwife to monitor the patient until the morning. In the morning the village midwife talked to the doctor and said that the patient still had not delivered the second twin. The doctor said, ‘I am busy now’. The village midwife noticed that the membrane was bulging. She asked the hospital midwife to allow her to rupture the membrane, but she refused, saying, ‘let it rupture spontaneously’. The village midwife did not accept this; she waited until she was alone with the patient and ruptured the membrane. It was a footling breech, in which one foot of the baby came first. She pulled the other foot and delivered the baby smoothly. Five minutes later the placenta was delivered. When the hospital midwife came, she asked her, ‘why did you deliver her and not wait for the doctor? The village midwife said, ‘the patient is very exhausted, and if the doctor wants to deliver her she would have delivered her since yesterday’. Then they went and asked the doctor to come and see the patient. The doctor said, ‘since she delivered why do you want me to come?’ They said, ‘to make sure she is okay’. The doctor replied, ‘the other doctor will come and see her later’.

One of the employees of a faith-based organisation said to me that while driving through Wad Dakona village, he found a group of people with a woman whose nose was bleeding. He stopped and helped them to put the woman in his car and brought her to Renk hospital. They arrived at the hospital at 6pm. There
was no stretcher in the hospital to carry the woman to the emergency ward, so they carried the patient themselves. He claimed that the nurse was unwelcoming and started by asking them, ‘Do you have [a] referral letter?’ and ‘Why are you coming so late?’ and many other questions. They said to the nurse, ‘check the patient first and make sure she is alright and then you can ask whatever questions you want’. He stated that the staff members do not have the capacity deal with emergencies.

10.3.4 Lack of competency of birth attendants

10.3.4.1 Competency of TBA

The TBA is also called ‘the rope midwife’, because she uses a rope, which she fixes to the roof of the house or to a tree so that the delivering woman can hold it to help her in the delivery.

TBAs claim that they inherit experience from their mothers and grandmothers. One TBA said that she got her experience from a dream. She dreamed about a woman who was in labour and asked her to help. So she took a razor blade, cut the woman and delivered a nice baby and healthy woman.

TBAs do not know how to use scissors. They prefer the razor blade, which they buy from the market. They consider a new razor to be sterilised. They wrap one end with a cloth, and use the other end to cut the woman. They use straight sewing needles to suture the cuts.

The director of midwifery school explained that it is difficult to convince TBAs to come and stay for one year in the midwifery school. Most of the TBAs refuse to stay in the town for a long time as they do not want to leave their families and husbands. TBAs also feel that they have enough experience to do their job and do not see the need for training. They know that people around them trust them and listen to their advice. TBAs claim that if they failed to manage a case and it grew complicated, they would refer the woman to ‘those who are more experienced’ than them in the hospital. TBAs are eager to have access to drugs to prescribe during pregnancy and labour and to be taught how to use them. The drugs that they mentioned are those used to treat anaemia and to stop bleeding during labour, and anaesthesia.

UNICEF has funded a three month ‘crash course’ for TBAs. Most of the TBAs were older women. The trainer taught them to use scissors instead of a razor blade, and a suction catheter instead of suction directly by mouth. They were
taught how to sterilise, do an episiotomy, deliver a baby, and cut the umbilical cord. They were trained as well on how to identify difficult cases and when to refer them. At the end they received a medical bag, or ‘toolkit’ that included instruments.

10.3.4.2 Competency of midwives

The training of midwives takes place in two midwifery schools in the Upper Nile state, one in Renk town and one in Malakal city. Every year, the midwifery school in Renk town contacts the executive director of each payam to arrange with community leaders to nominate women from their localities for midwifery training. Attendants should be aged between 26 and 39 years. They complete a one-year training course in order to become a qualified midwife.

There are two types of trained midwives. The first type is the nurse midwife, who graduates without a midwife’s medical bag because she will work in the hospital. The other type is the village midwife who works in the village. She graduates with a midwife’s medical bag, or ‘suitcase’, hence she is called a ‘suitcase midwife’. She is also called the legal midwife, to differentiate between her and ‘the illegal’ non-skilled traditional birth attendants (TBA).

The midwifery training curriculum in Renk midwifery school commences with basic instructions on instruments like scissors and forceps, and how to use and sterilise them. It also includes how to sterilise cotton and gauze, how to clean the midwife suitcase and arrange the equipment inside it. Then they are taught about ‘dry labour’, including drugs used during labour, cervix measurements and how to determine the level of cervical dilatation during labour. After that, they are trained on ‘wet labour’, including how to cut using a scissors, and how to deliver and hold the baby and placenta. Each student must perform ten deliveries before graduating.

After the training course, the trained midwives are recruited by their county councils to work in villages. Their monthly salary is about SDG 210 (USD 70). Recently the state government dismissed many of midwives recruited in this way and stopped their salaries because of a limited budget. In addition, no training has been conducted since 2005. So while the population is increasing because of the peace agreement, there has been no increase in the number of the trained midwives in the last five years.

The director of reproductive health and midwifery in Renk county felt that the three batches of midwives who trained in these schools contributed to improving maternal health, because they know when to refer the pregnant
women to hospitals. She stated that in the past, TBAs have arrived with the pregnant women at the hospital, with the baby partly delivered (parts of the foetus, such as the head, the arm or the leg, outside the woman’s body and the rest of the body still inside).

The three groups of midwives graduated before the peace agreement. The last graduation was in 2005. Before the peace agreement, funding came from the Federal Ministry of Health in Khartoum. Currently the school belongs to the government of South Sudan and the funding should come from Juba. The Upper Nile state claims that there is not enough allocated budget from the central government in Juba to fund the training.

10.3.4.3 Competency of doctors

As most of the doctors are junior doctors with no specialised training, they face many challenges in making a diagnosis and managing cases. When they require assistance, they might consult a senior doctor in another facility by phone to guide them. The other staff members in the hospital are not well trained, so little support can be received from them.

Many stakeholders interviewed were concerned about the competency of medical staff. For instance, a health visitor [senior midwife] told the researcher a story about a pregnant woman with high blood pressure. The doctor saw her and refused to admit her to the hospital, sending her home instead. The health visitor described that as, ‘carelessness of the doctor’. She immediately advised the patient and her husband to go to Rabak hospital in North Sudan. She said to the husband, ‘if you don’t listen to my advice you will lose your wife. We just had yesterday in this hospital a maternal death due to high blood pressure’. The husband obeyed her advice and went immediately to Rabak hospital. His wife delivered safely there.

A female doctor in the hospital told the researcher, ‘we are junior medical doctors, and we can make mistakes in a diagnosis’. She argued, ‘we try to manage complicated cases by ourselves. If we couldn’t manage it, we try to phone a consultant somewhere else who we know and ask him to show us what to do over the phone’.

Doctors in the hospital complain of the poor competency levels of assistant staff. They mentioned that the people working in the pharmacy, ‘are not university graduates, and they are not competent’. Likewise staff working in the operation room are viewed in a similar fashion - ‘they are not capable of performing their work competently’.
10.4 Clinical management of patients

This section describes factors that delay healthcare providers in managing obstetrics emergencies in a prompt, appropriate and comprehensive manner.

10.4.1 Preparedness for delivery

The midwives also criticised the preparation of the labour room as being neither efficient nor effective. The midwives complained mainly about the sterilisation equipment and the shortage of gloves. They are still sterilising equipment with old methods, such as using coal and boiling the instruments. The facilities are also heavily criticised and essential surgical supplies are frequently lacking. The labour room has just one delivery bed. The midwives narrated an incident whereby once they were out of gloves and an emergency case arrived, so they had to use plastic packets as gloves to deliver the woman until the nurse got gloves. The presence of one delivery bed and the lack of proper sterilisation certainly make the midwives’ job more difficult and put patients at increased risk:

*Sometimes we have no gloves. We have to buy them when needed. When resources are not available the midwives or nurses have to get them from the pharmacy... The medicine for the caesarean is difficult to arrange. There is no blood bank. Oxygen cylinders are difficult to get. It is a hassle.* (Midwife)

*The nurse called the on-call doctor and he arrived to find that there are no sutures available and the market closes at nine pm for security reasons. She then had to call the pharmacist since the pharmacy and laboratory closes after three pm at the hospital so he can call someone he knows in the market to get permission to open his store in order to buy the sutures.* (Doctor)

There is only one operating theatre at the hospital for surgical and obstetric operations. Closing the theatre for cleaning and disinfection means emergency obstetric cases are kept waiting or eventually referred to other hospitals. There is no ultrasound machine in Renk county. The doctor refers patients to Kusti hospital in North Sudan when ultrasound is indicated:

*Sometimes the surgery department uses the same theatre as the obstetric department, which does not allow us to disinfect between the operations. You see obstetric operations may be septic. If a septic case was in the room, we need to disinfect the room. We pour formalin and we leave it for*
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72 hours. The nurses have to clean and clean. Then it will be available for us to use. And there is a chance that you have an emergency cases coming in and the theatre is closed and this may lead to the death of that patient. (Surgical assistant)

The theatre is closed these days. We stopped the theatre because it is being repaired and the new theatre is not open because it's being built and it doesn't have the complete equipment yet. (Surgical nurse)

10.4.2 Investigations

At Renk hospital, laboratory technicians complain of running out of reagents and a lack of equipment. At times this means that patients need to resort to using the private laboratory at the market. This can be an inconvenience and cause delays for the patient and their families. There are times when some patients have to wait until the morning to do their tests.

Sometimes the doctor comes and writes the investigation and the laboratory is closed here at night and the nurse doesn't know what to do or the patient maybe is really tired or in a bad state and can't go outside to do the lab test. The patient needs to go outside and there maybe you can't find transport but the patient goes anyway. Other times the patient can't go alone so the nurse takes the sample out to the lab but you have to give them something to solve the problem and find a way to manage some transport. (Nurse)

If we are three lab technicians, we divide the shifts two days for each technician per week. We work from eight am to two or three pm. Why we don't stay this is not something I would interfere with because it is something managerial. (Lab technicians)

10.4.3 Drugs

The pharmacy is not available 24 hours a day, it close before 3 pm; this interrupts the flow of management of patients. Essential medication is not usually available at the hospital. If cases requiring such medication present after it has closed, the consequences can be fatal.

We do not even have the Mg Sulphate for patients with eclampsia. We have the regular diazepam. We have to refer them to the other hospitals. (Female doctor)
So tomorrow, I am taking out my referral paper, taking the public transport bus, and going to other hospital. The doctor told me that I would not find the rest of the treatment here. (Patient)

Most of the staff members complained of a shortage of drug supplies. The midwifery school, the main provider of antenatal care services in Renk county, complained that for more than three months there was no folic acid available. Midwives in the midwifery school have been trained recently to give prophylactic antimalarial drugs and bed nets to pregnant women, but the drugs and the bed nets are not available.

Treatment for patients is delayed at different stages and in the various departments in the hospital. Delays can happen due to staff neglect, lack of medication supplies or as result of the lack of a 24-hour service. A private pharmacy just outside the hospital grounds presents a good alternative for patients seeking medication after hours. However this pharmacy closes at eight pm.

The doctor writes the treatment and gives it to the co-patient to bring from the pharmacy or from the outside pharmacy (a private pharmacy outside hospital grounds that is run by this nurse at the hospital). The pharmacy closes at eight so the co-patient goes outside the hospital. (Nurse)

When the pharmacy is closed and it is late, I start with whatever medication I can, and I tell my patients to go and get their medication from one pharmacy outside the hospital. (Nurse)

If the pharmacy is closed or the stuff is not available at the pharmacy, they would send one of their nurses to the market. (Midwife)

10.4.4 Blood bank

There is no blood bank available at Renk hospital. When a blood transfusion is needed and the patient has blood donors, the lab technician takes a blood sample to do blood grouping and cross matching for the donor and to prepare for blood transfusion. The laboratory technician is not available at night. In case of an urgent blood transfusion at night, the laboratory technician is to be called to the hospital. If there is no donor, the patient will then be referred to Kusti hospital in Sudan where there is an available blood bank.

The patient with ruptured uterus: she did not stay for too long. She spent three hours searching for a donor, and there were no donors. Then they
referred her. (Doctor)

If there is a doctor, if the theatre is ready, there is no reason for delay. The anaesthesia technician and the theatre assistant were ready, and it was the patient’s family who delayed. They had no donor, and we the doctors cannot take a risk. The doctor cannot take her to the theatre. If she starts bleeding, the patient’s family will say it is our fault. We stood by and we could not do anything. Whatever we could do we did, even the ambulance we gave them for free. (Doctor)

Construction began on a blood bank building, but it was reported that due to cultural beliefs of the local community its usability was questionable. The following quotes below provide different views in regard to blood transfusion and blood bank:

Who will donate if you build a blood bank? This is the main problem. No one will donate. Then the blood bank will be useless. We told the patients even if we make a blood bank, nobody agrees to donate blood. (Male doctor)

Blood bank! Here? No, we do not have that here. They only take a sample and make sure it’s okay. They then withdraw it and give it to who needs it. In the case where people do not want to give blood, they say, ‘what if I faint?’ So in that case neither the patient nor the person giving blood will benefit. People do not like being pressured. (Nurse)

10.4.5 Further referral

Sometimes doctors need to refer patients from Renk hospital to a bigger hospital in North Sudan. The referral process is complicated, despite it being a frequently used option of care. Patients have to pay fees for a non-equipped ambulance.

The problem is that there is nothing in the ambulance to stabilise patient. There are times when the car is faulty, and they still tell you to move with it, and you say, ‘No I can’t drive it’. They tell you that you are delaying the work and I tell them, ‘No I’m not’. (Ambulance driver)
Moreover, at times the driver is not available or the ambulance is being ‘abused’ for other jobs. Furthermore, though there are two ambulance cars for referral of patients, only one car is functioning and it requires continuous maintenance:

*There are times when we have to refer patients. The car is parked there but there is no driver. You have to go get the driver and when he comes you have to solve the fuel problem. You go ask the co-patient and they do not have cash. You then end up paying from your own pocket and that happens. Happens a lot and you pay for the fuel but the driver and nurse say they want incentives.* (Male doctor)

*The problem with the ambulance is that they need money for diesel and the driver’s fee.* (Nurse)

10.5 Appropriateness of the services

10.5.1 Affordability of the service

The hospital manager stated,

*We feel bad to charge the patients as the socio-economic status of the community is so poor, and patients would not be able to cope with any health expenses, but in the same time we have to obtain a small source of revenue through users’ fees.* (Hospital manager)

The staff and the patients considered these fees to be a financial burden on the community of Renk. Some of the charges were admission fees (children are excluded), fees for emergency and elective caesarean sections, laboratory investigations, and pharmaceutical products.

*Due to these money problems a few changes were made a few weeks ago. The file fees, admission fees, initial medication fees and intravenous line and fluids fees all cost only SDG 10 (USD 3.50). This should be paid by the patient at admission to the hospital. This instruction has been posted on all the walls so that staff members don’t try to take extra money from the patients. This has also been applied in the paediatrics ward with a lower fee of SDG 5 (USD 1.50).* (Hospital manager)
The poor socioeconomic status of the community, in addition to the lack of resources at hospital, means that women do not receive the adequate emergency obstetric care that they need. At times, the patient’s financial status meant that they and their families were left helpless.

They might come back and they say that they do not have money and the hospital cannot help everyone. Even if the hospital brings some of the things for the operation the hospital cannot bring the antibiotics for the postoperative period. (Midwife)

The hospital is running on its own with its own resources, no support from anyone else. There is no funding. All caesarean sections, whether emergency or elective, are performed with a charge of SDG 130 (USD 45). We need to do so because the money is used to buy resources for the theatre as they have no support or funding from anywhere else. Even the normal delivery cost SDG 75 (USD 25). But that doesn’t change the fact that people may be excused from this pay. (Hospital manager)

Many pregnant women have died in the hospital because of lack of money. Others might wait for a long time for their relatives to bring money before being able to receive the services they need.

Patients died because of this ambulance fee. They don’t have the money. There was this woman who aborted and then passed away because the co-patients had to call their families to send money. Her body was there for two hours. (Midwife)

A few days ago, a patient had to undergo an operation. She had no money at all. The doctors at the hospital had to come up with the money for her operation. By the time they collected the money she died. (Midwife)

10.5.2 Cultural beliefs

Cultural beliefs can hinder the functioning of services and the provision of emergency obstetric care at the hospital. It also makes it more difficult for the staff, especially in situations where time is of the essence.

The main two differences between the basic and comprehensive EmOC is that the comprehensive one provides surgery (e.g. caesarean delivery) and a blood transfusion service in addition to standard EmOC procedures. Doctors complained that they experience difficulty convincing some patients, or their families, to have surgery or care involving blood donation.
The people who are against the surgery the most are the husband and the rest. The decision is in the husband’s hands. The husband decides whether she should deliver by caesarean or not. Sometimes the husband is not here. He is somewhere else. He is working somewhere. (Male doctor)

The understanding of the health condition is a problem. The woman has a complicated labour and needs to deliver by caesarean section. They object saying, ‘why she delivers by surgery and all other women deliver vaginally’. They object to this point and say, no the woman should not go into surgery because she will deliver normally, and then the patient may pass. You cannot force people to go in. If people are not agreeing, then you leave the choice for them. (Female doctor)

Some families are reluctant to donate blood because they know that the donated blood might not be given to their relatives who are patients. Other might be afraid that if they give blood they will get complications and die.

Some people have no issues with blood donation. If the blood groups match, they donate. Even if they are approached by other people asking for blood donors, they do not hesitate to donate. Yet this is not always the case:

Some pregnant women require permission from their husband to come to the hospital. Sometimes their husbands have to come with them, so women delay the visit to the hospital until their husbands are available. Husbands, ‘particularly among Northern tribes who live in the Renk’ might not want their wives to go to hospital because a male doctor might examine her. Some husbands try to avoid the male doctor; such a husband would bring his wife to the midwife to examine her instead.

An executive director of a local NGO explained that health centres in Renk county provide free medicine in tablet form to patients. However, many people in the community do not believe that they are as effective as injections or syrup:

When you go to any health centre you will find the tablets boxes are full and available. People rarely go to health centres. The tablets are placed unsealed in big boxes and they are free of charge. That is why people don’t trust it and think they are damaged, tainted and not effective. (Employee of a local NGO)
10.5.3 Security issues

A night curfew has been in place in Renk county ever since the conflict. This affects the running of the hospital and the responsiveness of staff to an emergency case:

_The worst things that happen are at night and people do not like coming at two and three am. People worry about the security issues and they say God knows what will happen on the way to the hospital. So people worry about coming to the hospital, whether staff or patients._ (Doctor)

_They have to get permission from night curfew patrol officers to open any shop after 10 pm. When the doctor reached the pharmacy in the market, they did not find the officers. So she had to call the person in charge of those officers but he didn’t pick up either. She then decided to open the pharmacy anyway and if they were asked she would control the situation._ (Hospital manager)

10.5.4 Patient satisfaction

Most of the stakeholders agreed that the provided services are, ‘not up to the expectations of the citizens’. People are not satisfied with the health services, but ‘they are helpless’. They need to have a healthcare service nearby so they do not need to travel long distances to reach it or travel even to Rabak or Kusti hospital in North Sudan to get treated.

_The reproductive service provided at Renk hospital is still traditional. When a pregnant woman comes to Renk hospital, she is seen first by the midwife. The midwife examines her in a traditional manner, as there is no ultrasound used. So when a woman comes and discovers that she is only going to be seen by a midwife, that discourages her from coming to the hospital again._ (Medical service director of Renk county)

However, healthcare providers, government officers and employees of NGOs claim that people are very satisfied with the services in Renk and in the villages because there were no services in the past, during the years of conflict, and now people get these services almost free of charge. The view was expressed that as people had no healthcare services and are now getting some healthcare, they should be happy and satisfied. Stakeholders felt that the local people understand that the area has just emerged from a war and that they appreciate the current efforts.
10.6 Discussion

The aim of this chapter is not to provide a detailed assessment of the quality of the EmOC care at Renk hospital, which could have been done through a ‘room by room walk-through’ (Gill et al., 2005). Rather, the aim is to identify factors and barriers that influence in-hospital (third-level) delays for the patients to receive definitive treatment and appropriate emergency obstetric care.

Basic EmOC facilities are often not available in many post-conflict countries, such as Sierra Leone (Oyerinde et al., 2011a), Liberia (Kruk et al., 2010b) and other developing countries (Paxton et al., 2006). However, the availability of comprehensive EmOC facilities is usually not a major concern. The recommended minimum number of comprehensive EmOC facilities is one facility per 500,000 of population. Most countries meet this recommendation, even the least developed countries. The issue is not the availability of these facilities; the main issue is the quality and the effectiveness of care in these facilities, including the ability to provide the full function of comprehensive EmOC care (Paxton et al., 2006, Campbell et al., 2000).

Studies evaluating the quality of maternal healthcare often do not report facility-side barriers in sufficient detail (Knight et al., 2013). It has been argued that the focus on patient-side delays masks the fact that many maternal health facilities are unable to cope with obstetric complications in an effective manner (Knight et al., 2013).

Findings from this research indicate clearly that in addition to the fact that basic EmOC facilities in Renk county are very minimal and not functioning, Renk hospital provides substandard comprehensive EmOC. Provision of low quality care contributes to in-hospital delays to receive the appropriate quality of care. It is very clear that women seeking comprehensive EmOC care in Renk hospital endure significant delays before receiving definitive treatment. EmOC services are excellent indicators for measuring the performance of health systems (Dogba and Fournier, 2009), and the situation in Renk health facilities indicates the poor performance of the health system in the region and most probably in South Sudan.

Provision of quality EmOC care depends on the health strategy, finances, resources, training, appropriate facilities and staff and other managerial inputs into the health system (Gabrysch et al., 2011). A similar finding was reported in a recent systematic review, which found that human resources factors (inadequate training and skills mix, staff shortages, and low staff motivation), and issues related to the management system and resources (drug
procurement/logistical problems and lack of equipment) are the most commonly cited barriers of the third delay in developing countries (Knight et al., 2013).

WHO recognises that human resources, including knowledge, skills and motivation, comprise the most vital input into a functional health system (WHO, 2000b). Related aspects of an EmOC structure include availability of skilled care providers, qualifications and competency (Dogba and Fournier, 2009). This is particularly apparent in conflict and post-conflict periods, due to difficulties in recruitment and the unwillingness of people to work in some locations (Tulloch et al., 2011).

This research identifies four main subthemes for human resources that contribute to in-hospital delay: availability (shortage of qualified human resources), commitment (lack of commitment to public services), immediacy (lack of prompt response), and competencies (lack of competency of birth attendants). The ministry of health for South Sudan recognises that human resources for health are one of the main challenges, particularly the recruitment, remuneration, deployment and retention of staff in rural areas where the majority of the population live (Michael et al., 2007). The current health workforce is made up of a mixture of returning refugees and those who remained during the war. The main task now for the ministry of health is to integrate them and improve their competencies. This is further challenged by the lack of an enabling environment, the high level of uncertainty about the future and heavy demands on the overall infrastructure as a result of the high number of returnees to South Sudan (Michael et al., 2007, MoH, 2010, MoH, 2013, MoH, 2011b).

Improving the productivity, performance and capacity of health professionals to implement good clinical management, which can reduce facility-level delays, depends on many factors. One of them is to enhance individual capacity and their willingness through improved motivation, use of incentives, training, supervision and leadership; these changes can be achieved by providing an enabling environment, and adequate equipment and resources (Hongoro and Normand, 2006, Tulloch et al., 2011).

In addition to the supply-side barriers, patient-side factors can lead to delays in the appropriate care being provided in Renk hospital. For example, the absence of a blood bank in Renk hospital, the shortage of blood and difficulties in obtaining blood for transfusion, give the hospital no option other than
requesting women's relatives to donate blood voluntarily. However, cultural beliefs deter some people from donating blood.

The main reasons why some people avoid donating blood in South Sudan are: fears of falling ill or getting weak due to blood donation, cultural inappropriateness of donating blood to an in-law or receiving blood from a foreigner, the belief that 'blood should never be mixed as it could kill the patient' and fears of finding out they are HIV-positive (IRIN, 2012).

The reluctance to donate blood or to allow a caesarean section to be performed, among other cultural factors, can significantly contribute to delays in the provision of appropriate interventions and put the life of the women in danger. Blood transfusion and caesarean section are the main two advanced key life-saving interventions provided by the comprehensive EmOC care that make a real difference between life and death for many women (WHO et al., 2009).

A wide range of in-hospital barriers result in many avoidable maternal deaths. However, the strategy to reduce supply-side barriers in South Sudan should not focus only on establishing new services (improve availability); the focus at this stage of state-building should be on improving the quality of care, particularly the comprehensive EmOC care approach. The focus on creating demand, improving social determinants of health and easing access to maternity care will be useless if it is not accompanied by improvements to the quality of care a woman receives once she arrives at a hospital as starkly illustrated in the following two scenarios (Box 18 and Box 19).
There was a time there only two doctors. The rest of the people were not there. They brought a woman for caesarean section. This was at night, really late at night and we are of course women. The pharmacy is closed and we do not have any medicine or sutures. The pharmacies close early at eight pm. It is 10 pm, after 10 pm there is no pharmacy open. Dr Z started freaking out. She called Dr Y, we don’t know what happened with him, he refused or his phone was switched off. Then Dr. Z called someone at the military hospital. He said no problem; if it is a surgery, I will come and do it. Now the problem was with the sutures, there is no pharmacy opened without the permission of the night curfew patrol officers. We have to get permission from them. She called the driver and his phone was switched off. She then called some guy who works in the laboratory. All of this was happening at night at two am. Then they went and got the permission from the night curfew patrol officers so they can open the pharmacy. Until dawn, the people were roaming around here and there. This is the problem when you do not have doctors, especially male doctors. They also called the anaesthesia technician and he did not answer. She kept trying and trying and he did not pick up at all. Dr Z started to panic because she could not hear the foetal heart anymore so she thought the baby was dead. Finally, the anaesthesia technician picked up and he apologised because the mobile phone was inside the house and he was outside on the front yard. After all that hassle, they managed to perform the operation. The doctor from the military hospital came to conduct the surgery at four am. Dr Z was also there. The patient was lucky, the mother and the baby were okay. She made it but the people all went through so much hassle and trouble. The patient was in the hospital from eight pm but a mistake happened but there was no coordination between the doctors. The doctor, who was supposed to do the surgery, did not do it or he did not remember. (Doctor)

There was case, she had sepsis, she was a primigravida, and the baby was big, and they delayed her in Malut hospital. They brought her here approximately at midnight. The doctor, who was on call, did not take the patient to theatre because there was no donor. He said I will not take the risk. There is no guarantee for blood. He said maybe this patient had a ruptured uterus. Her family wanted to refer her but they did not have the money. After that the doctor waited until the morning and they still did not find a donor. He said no problem we will take her into theatre, and inshallah (if God wills) there is no problem. Her relatives do not want to donate blood and they cannot go to the other hospital, so they took her to theatre early morning, around six am. When the doctor opened the uterus, it was very offensive and the baby had died. When they took her out of the theatre she died straightaway. The main reason of course is the septicaemia. The baby had died before she arrived here. (Doctor)
Chapter Eleven STAKEHOLDERS’ PERSPECTIVES ON MATERNAL HEALTHCARE ACCESS

1.0 Introduction

The previous chapters described determinants and delays to accessing maternal healthcare services. This chapter addresses two questions. The first one is: To what extent do stakeholders understand the social and cultural context in which they provide their services? The second question is: To what extent has this understanding been used in planning accessible health service designed to reduce maternal mortality? Data in this chapter are from the interviews with stakeholders.

11.1 Understanding the context

According to the director of reproductive health and midwifery in Renk county, rates of maternal mortality and complicated labour are high in the county: they have at least 10 maternal deaths every month due to anaemia, eclampsia, obstructed labour or bleeding. However stakeholders shared varying levels of understanding of the local social and cultural context in relation to maternal health and access to appropriate emergency obstetric care. Attitudes range across denial, blaming the victims, making excuses, admitting the reality and understanding the context (Figure 53).

Figure 53 Stakeholders’ understanding of the local cultural context
11.1.1 Denial

‘I never saw a single maternal death’

Some stakeholders in the county department of health and TBAs completely deny the problem of maternal deaths in the region. They base their opinions either on their personal experiences, which might be limited, or on the available data that are produced by a weak health information system.

The director of Renk County’s health department stated, ‘in the last three months we did not receive any notification of any maternal death in Renk county, and according to these data that we have from our health centres I can say that we do not have a problem of maternal death’. S/he went on to say:

I evaluate the maternal health based on the information and statistics from the health centres. According to these data I can say that we don’t have a problem of maternal death. Maternal health in Renk county is not bad. (Director of Renk county’s health department)

One TBA who was interviewed strongly denied the existence of maternal death in her community. She claimed that during her last nine years working as TBA she never saw a single maternal death:

There is no maternal death here. I never heard about a woman who died giving birth. I have being working for the last nine years, and I never witnessed any death during labour. (TBA)

‘The money is not an issue’

Some healthcare providers and TBAs believe that the cost of maternal services does not prevent women from accessing the services, and that lack of money is not the main reason why people deliver at home:

[The] hospital doesn’t charge that much, not more than SDG 50 (USD 17) for delivery fees and routine laboratory tests. Some time we provide the services and drugs if available free of charges. (Doctor)

Lack of money will not prevent women from going to hospital. They go and explain to the doctor that they have this complication all of a sudden; they fear that they might die, and they don’t have money in their hands. The doctor will understand and help them. They can pay him later. (TBA)
Chapter Eleven STAKEHOLDERS' PERSPECTIVES

Other stakeholders noted that, 'the money is not an issue' and said that people have their own coping strategies to cover the cost associated with pregnancy and delivery: support from relatives and seeking fund from local organisations:

"The money is not an issue. If the family doesn't have money, people will help and support them. Relatives and the community members are very helpful and supportive. They are generally generous. They don't let a woman die if they can help. They stand beside each other and provide help and financial support." (Renk county executive)

‘Traditional healers don’t exist nowadays’

Some stakeholders denied the existence of any cultural barriers that might influence or prevent pregnant women and their families from accessing health services:

"All cultural barriers that you are talking about are from the past; these don’t exist nowadays. It is not the reason. People now are religious. Some of them became Christian and others became Muslims, so they left the culture of Kujur (spiritual healer) and the traditional healers." (Director of reproductive health and midwifery)

‘There is no difficulty to reach health facilities’

Some of the stakeholders completely denied that there could be difficulties in reaching the health facilities in Renk county. They believe that all the areas are now connected with roads and that transportation is available:

"There is no difficulty to reach the health facilities in Renk county. All areas are linked with roads. Transportation is available. It is very rare for a village to be out of reach. Inability to reach the services is not an excuse." (Employee in a local NGO)

"It is easy to reach the hospital if you are near to Renk city, because transportation is available." (Doctor)

Other stakeholders mentioned that oil companies in the region help people in remote villages to have access to ambulances:

"In some areas people might be lucky to have someone in the village [who] has a car so they might request from him to help. In some areas like Melut there are oil companies that provide ambulances to the nearby villages." (Health visitor)
11.1.2 Blaming the victims

Blaming the women

Some stakeholders tended to blame the women for arriving very late in her delivery when it is very difficult to intervene to save the mother and child. Some wondered, ‘why women don’t go to the midwife for antenatal care when they are available?’

Women are ignorant. They don’t attend follow up. We advise women who come to follow up with us on maternal health issues, but we can’t help those who don’t come to us. (Doctor)

Blaming the men

Some of the stakeholders mentioned that men in the community are not aware of the importance of taking care of women, and that the rate of violence against women is very high in some tribes in Renk county. Some stakeholders stated that in some tribes, husbands take care of their women, and come with them to antenatal care:

[The] health of women and children in South Sudan is not a priority. Pregnant woman here carry water and wood on their head. When we try to say this is not right, the husband threatens us. He says that ‘women are married to serve in the house’. He doesn’t care if that will affect her health. So we say to him it is up to you, the woman and the baby are yours, if anything happens you are the person responsible. (Director of reproductive health and midwifery).

When I ask the husband, ‘why did you hit your wife?’ He says, ‘I married her and paid many cows, she should make food for me. That is why I hit her’. I wondered, ‘Why didn’t you request gently?’ He said, ‘we don’t request gently’. This is how they behave. (Health visitor)

Blaming the people

Some stakeholders, who cited distance to health facilities as one of the main barriers, blamed people for not living near the facilities and choosing to live far away.

Distance to health services is the main barriers to utilise the services. People do not live near the facilities; they chose to live far away from the facilities. They do not have money, and they do not have means of
Some stakeholders blame the community for the fact that the health of women and children is not a priority for them, and that pregnant women do not have special consideration.

*Uneducated people were blamed because, ‘they feel there is no need to go to the hospital if pregnant women are healthy, even if they have money’. (Health visitor)*

### 11.1.3 Making excuses

*People [are] used to living in this situation*

Some stakeholders argued that people were born and raised in this environment. They lived in a war situation where health services were not available, but women continued to live, become pregnant and deliver. They were getting help from TBAs. These stakeholders argued that this was the norm. They described how local people talked about their parents’ lives, in the past, when they did not use the health facilities and survived. They feel that there is no need to use the health facilities.

*People say…, ‘since 1920 our grandmothers delivered at home safely, and there was no problem’. At that time there were no health services available and they used to live in that way. So they keep the same concept in their minds, and they don’t see any need to change the way they live. This affects their access to any new health services. (Director of county health department)*

*People use traditional medicine and healers to treat their illnesses. People believe in the traditional way of delivery. They say that we were born by this way, why should we change it. So they don’t see the need to use the health facility. (Employee in an NGO)*

Some stakeholders consider that services are better now than in the past. They attributed this to the fact that “trained midwives and services are available in villages”. Women who need to come to hospitals will find the services available.

*‘They will be safe with me’: the TBA*

TBAs asserted that women do not go to the hospital to deliver their baby because they are assured that they will be safe with the TBAs because of the ‘previous positive experiences and successful outcomes with TBAs’. They
claimed that the only reason women would go to hospital is, ‘when the baby refuses to be born’. TBAs do not accept anyone coming from outside their village to compete with them and work in their area. They feel that they can manage the labour and if there is any complication, they refer the women to the doctor at hospital immediately:

> Women don’t go to hospital. Even if she has millions of pounds, she will not go. They are used to deliver at home. They prefer to deliver here with me. I am the person who takes the decision. If her baby is not well, or her pelvis is narrow, I decide that the woman should go to hospital, to a person more knowledgeable than me. I then tell to her husband, father-in-law, brother or the one who is responsible for her. They all respect my decision and go immediately to hospital. (TBA)

11.1.4 Admitting the reality

‘Women die before reaching the hospital’

Few stakeholders admitted that many maternal deaths occur before reaching the hospital, though they agreed that some women die in the hospital, including in the operating room.

‘There is nothing free here’

Some stakeholders perceived that women prefer to deliver at home to avoid any extra cost. They stated that there are many people who are very poor, particularly those who live outside Renk town. They depend on agriculture for their income, which is seasonal. They cannot even afford the cost of the drugs. Even those who live near the hospital but do not have enough money cannot go to hospital:

> Many women are complaining of lack of money. If they are truly sick they are not able to access the right treatment because they don’t have money for it. They might go to see the doctor but after that they might not be able to get the medicine. That goes with the fact that women here have not been to school, and they have no jobs, unless they just get a job whereby they can sweep and clean, and those can only be taken by a few people in the society. (Teacher)

> There is nothing free here. If they don’t have money, instead of going to a private clinic that provides a good care, investigation and treatment, they end up going to the public hospital where the quality of services is
not good. They spend all their money on the doctor fees. The fees for the doctor in the public hospital are not that much, but it is too much for the poor people. They might wait for [a] few days to find money to buy the drugs. They might take the drugs from the pharmacy and pay later. (Employee in a local NGO)

‘Women prefer TBAs’

Most of the stakeholders agree that there are many TBAs in the rural areas and villages, and most of the women prefer them because they ask for a small fee, while the trained midwife asks for a much larger fee to cover her expenses and to ‘replace the suitcase contents such as cotton and anesthesia’. ‘They don’t come to me unless delivery is complicated’: the midwife

Stakeholders acknowledged that people do not go to hospital unless they become very ill and have no other option:

When the midwife refers the women who live in the rural areas and villages to come to Renk, they refuse. They do not come until they reach a very late stage of complication. (Health visitor at the school of midwifery)

People carry her to the nearest road

Some of the stakeholders mentioned distance to facilities as one of the main barriers to access the services:

Most of the maternal deaths are from Maban and Melut because there are very far from Renk hospital. (Director of reproductive health and midwifery)

Most of the time the distance between the place of living and the health facility is long. Travel to reach health facilities for those who live far away cost them much money. And because of that it might be difficult for them to reach the service. The health facility should be within a distance of two kilometres. Some people now travel for 80 kilometres to reach the facility, like people living in Jalhak. This might take up to three hours driving. This might prevent many pregnant women to access the services and prefer to stay and deliver at home. (Director of Renk county health department)
In addition, the quality of roads worsens during the rainy seasons, when there is also a lack of transportation:

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\text{In rainy seasons it might be very difficult to travel because of the bad roads. (Employee in an NGO)}
\]

‘Patients do not go to trainee doctors’

Stakeholders admitted that Renk hospital has a shortage of specialised doctors, and most of the complicated cases are referred further to Kusti hospital in North Sudan.

Some stakeholders cited the shortage of qualified doctors and interaction between the health personnel and the patient as the main barriers that prevent patients from utilising the facilities:

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\text{The doctors in Renk hospital are trainees. They come here to practice. They don’t have experiences. So when patients go to hospital and discover that the doctors are just trainees they will not come again to the hospital. (Employee in a local NGO)}
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\[
\text{People in the rural areas have many health facilities near by them, but there are no doctors there. (Director of Reproductive health and midwifery)}
\]

11.1.5 Understanding the community

Some stakeholders argued that the health services personnel are aware of the obstacles, problems and barriers that prevent people from accessing healthcare services. The stakeholders believe that since most health service personnel are from same area as their clients, the staff know about the culture and tradition of the community and they know how to deal with their patients. The stakeholders believe that the health staff have enough knowledge of the needs and problems of the people they serve, because ‘they are exposed to the people complains and requests for health facilities and doctors’.

\[
\text{The head of tribe in Jalhak always talk about need for a hospital. He went to the county government many times and asked to have a hospital built here. (Community leader in Jalhak)}
\]

\[
\text{To understand the people and to be aware of their context you need to be close to them. (Director of Renk County health department)}
\]
Determinants of poor maternal health

Some of the stakeholders noticed that when a woman is pregnant she becomes concerned about many things. She may say, ‘I weaned my child very early and he might die’ or, ‘I might die during labour and my children will be orphans’. She will always be concerned until she delivers safely. Women do not eat well to protect their health. They are financially poor, and continue to do heavy work during pregnancy. Many are not aware of what they should do in pregnancy to maintain their health, and do not attend follow-up care. Overall, some stakeholders believe that the high maternal mortality rate is due to the lack of antenatal care and the limited utilisation of existing healthcare facilities.

However, in contrast, a few stakeholders argued that the women in Renk county have witnessed many complicated deliveries and maternal deaths in their villages. This has resulted in them being more alarmed about childbirth and being aware of the complications. Women now prepare themselves in advance, and they know where and how to deliver, but they depend on the TBA for follow-up care and to determine the time of the delivery.

Some of stakeholders are aware of the role traditional healers and spiritual healers play in people's lives. While the Catholic Church prohibits people from doing ‘Kujur’, black magic, and going to spiritual healers, there is no objection regarding the use of traditional medicine. Instead, the Church encourages them to use the hospitals.

I know someone who was trying to access a traditional healer to fix his dislocated arm, because otherwise he has to go all the way to Kosti hospital. There are many people who are able to do that traditionally, although you are not sure really how good they are. (Teacher)

Affordability of maternal cost

Some stakeholders perceived that people prefer to spend their money on living expenses rather than spending it on maternal issues because they do not value the benefit of the maternal services. People do not spend money on going to antenatal care if the pregnant woman is healthy.

Some of the stakeholders perceived that rich people take care of their wives and spend money on their health, whatever it costs:

If rich people feel ill they go to private clinics in ... Renk. There are more than six private clinics in Renk city and each one sees not less than 50 cases per day. People feel that the private clinic and services are more
Some of the stakeholders noted that the nomads value money more than their health. They have cattle, chickens, milk and margarine but will refuse to sell a cow or a sheep to pay for their pregnant wives to get treated. While the woman of a household is important for them, they value their cattle more. That is why their pregnant women are very weak, and anaemic:

*People have money, cars, big houses but they don’t come to hospital. I know a well off man who has a big house and a nice car. He lives in Renk city. His wife had twin pregnancy. When the labour pain started, he refused to let her to go to hospital, although the hospital is very near. She delivered the first twin, but the second twin didn’t deliver. He was still refusing to let her go to hospital. When [the] labour [became] complicated, they moved to the hospital. When they reach the gate of the hospital the woman died. (Health visitor)*

**Availability of facilities**

Most of the stakeholders agreed that the majority of women do not utilise healthcare facilities due to limited availability of such facilities, various social determinants and the dilemma regarding TBAs and trained midwives, described above.

Most of the stakeholders perceived that the availability of a healthcare facility determines the level it is used. They felt that if healthcare facilities and services were available and people knew about them, women may be more likely to use them. They argued that people living in Renk town are near to the healthcare facility and have no problem using it, while those who live in rural areas, where such services are not available, do not access them unless they are forced to do so, after first trying traditional medicine.

*About 70% of women in Renk city utilise the maternal health services such as maternal care, treatment, and surgical operation. There is a high demand on the public and private facilities in Renk city. (Employee in a local NGO)*

*It is far away for women who live in rural area to come to Renk for antenatal care. (Health visitor)*
Social determinants impacting use of healthcare services

Many stakeholders identified a number of broader social issues that impact health service utilisation: lack of awareness, illiteracy, and the negative role played by men. They believe that most of the people concerned are not educated and that they take things for granted so many women get pregnant and deliver many times without even seeing the hospital:

> Women in rural areas do not have information about antenatal care and complications that might arise during pregnancy and labour. They do not know about anaemia. That is why they come to hospital very late.
> (Doctor)

> Poverty, lack of awareness and illiteracy are the main barriers to utilising the services. They are all due to the long period of conflicts and wars. (Employee in a local NGO)

Some stakeholders argued that people do not utilise the services available, not because they think hospitals are bad, but because they do not see the need to go there. One health visitor noted that women do not value their lives, and they do not see the benefit of the services: ‘Even if utilise the service they do not recognise its benefit’. She also mentioned that if a midwife decided to refer a woman to Renk hospital, her relatives might refuse to let her to go, and insist that the woman deliver at home.

**Box 20 Health visitor’s account**

I know a trained midwife in Jalhak. She was called to deliver a woman. It was [her] first time to see her. She did not go to antenatal care. She examined her and found that she was very young, primigravida and her pelvis was narrow. She said to them, 'This woman can’t deliver here, bring a car to take her to hospital'. Her husband refused. She went and talked with the woman’s uncle. She described to him the situation and the need to refer her. She also talked with the police office to convince them. At the end they moved to the hospital. On the way, the baby started to come out. They stopped the car. The midwife ran into the nearby village to bring water. The midwife came and found that the woman’s aunt (TBA) [had] pulled the baby. The baby died. Her bladder was full, and ruptured. The midwife was very upset, and blamed her aunt. Her aunt said, ‘I wanted to relief her quickly’. She said to them, ‘let us go quickly to hospital’. They refused. They said, ‘Since she delivered there is no point to go to hospital’. They went back home. The midwife went to Renk hospital to notify them. Fifteen days later, the woman started to complain that she was passing urine and faeces through her vagina. They came to the midwife, who apologised to them saying that, ‘I am not responsible for this’. They went to Rabak hospital in the north and they referred her to Khartoum hospital for an operation.
TBAs versus trained midwives

Some of the stakeholders agreed that women, particularly those who live in rural areas, feel that TBAs have enough experience to enable them deliver safely at home without the need of the health services. They do not go to the trained midwife unless they are forced to do so. Those who develop complications during labour go to the trained midwives or to the hospital.

Stakeholders felt the situation is difficult for the nomads as well. Nomads do not have trained midwives because their villages are small, not more than 15 houses. Therefore, it is difficult to provide them with a trained midwife. They depend on the TBAs:

_They go to the trained midwife as she is indigenous, because they trust her more, consider her as [a] secret keeper, and there is no hard feelings with her._ (Employee in a local NGO)

In contrast, a number of stakeholders believe that women deliver with trained midwives more than with the TBAs, especially after the training of many of the midwives by the midwifery school:

_Most of the villages now have trained midwives, and about 70% of the women deliver with them._ (Employee in an FBO)

Some stakeholders supported TBAs, and they argued that some TBAs are good and that they refer pregnant women to the trained midwife if there is a need. They claimed that many TBAs requested the midwifery school to train them, and that the midwifery school has promised to consider them in future training:

_I know a TBA in Wantong village who, whenever a pregnant woman calls her, she goes with her to a trained midwife in the nearby village. This TBA calls me every time and asks me when we are going to train her. I tell her that we don’t have fund[ing] now, maybe in the future._ (Health visitor at the midwifery school)

You need to summarise this section in terms of stakeholders understanding of hindrances and facilitators to maternal health care access and introduce next section.

11.2 Perceptions on how to improve maternal health

Stakeholders have a range of perceptions on how to improve maternal healthcare access and utilisation from ‘nothing can be done’ to ‘plans that do not match the needs’ or to ‘focus on one side of the problem’.
11.2.1 It is too difficult to make a change

Stakeholders reported that policy makers and government officials are aware of community problems and that the officials are agents for change, but the healthcare situation is in such poor condition that they cannot address all the issues. This often leads to the officials feeling disillusioned, with no hope of improving things, so they do not change anything. The stakeholders felt that this was particularly the case in relation to providing adequate services within the limited budget available to them and the existing shortage of resources. By contrast, others said that the government officials do not care much about maternal healthcare services and that it is not one of their priorities:

*People were promised that their health will be a priority, but government didn’t work for that. They are not responsive to the needs of the people.*

*(Employee in an FBO)*

11.2.2 Plans do not match the needs

Many stakeholders agreed that most of the time health-related plans, projects and activities do not match the needs and expectation of the local people. The county health department spends money on activities that the community does not want. For example, the director of HIV and sexually transmitted diseases stated that the Ministry of Health conducted exercises to raise community awareness about maternal and child health, HIV and food security. The community said to them, ‘the things that you are talking about are not useful for us and we will not benefit from it’.

The director of the county health department stated that a maternal health programme had been carried out in Shomodi, where people drink water from wells that often get polluted. When the programme started, people rejected it, saying that they wanted the government to pay attention to their needs and that solving the water issue is people’s priority rather than other health issues.

11.2.3 Focusing on one side of the problem

Most of the stakeholders suggested working on supply-side barriers to improve maternal health and the accessibility of healthcare services. The director of the county health department perceived that the way to improve maternal health is by improving human resources training and having more specialised doctors. He stated that people would feel reassured if they know that there were available staff members in healthcare facilities:
We need to train more staff members. We need to have more doctors and nurses and community health workers. Health should be the priority of the government. (Employee in a FBO)

There is a need for specialised and trained human resources. People need to be aware of their health issues. (Community leader in Jalhak)

Most of stakeholders believe that the only solution to increasing access to health services is to make these services available, by building more hospitals and health centres, and providing medical equipment that assists the health personnel to do their work:

Providing the services is the most important things to make the people utilise it. If the Ministry of Health, organisations and, [in] goodwill, people work together to provide good services, the people will automatically and definitely use them. The Ministry of Health is responsible to take the initiative and build these facilities according to the needs. (Employee in a FBO)

The activities should be done in a wide scale of stakeholders’ partnership. This partnership will let the health services cover a wider area. These services should be accompanied by announcement and advertising, otherwise no one will come. Inform and involve the legislative and executive authorities and domestic administration, so they facilitate the work and provide protection. Approach the communities through their leaders, because if you ignore them, you can’t work. People trust them and obey their advice. (Employee in a local NGO)

Very few stakeholders mentioned working on the demand-side barriers as a way to improve maternal health. They perceived that poverty is the main hindrance, and if the economic situation of the people could be improved, they would have better access to health services. They also perceived that in order to improve the health of the people, there is a need to work on human development and education. In order to increase people’s awareness, there is a need to go to the level of the community, meet with its members, and inform them of the benefit of these services. When the people understand the benefits, they will use the services.

A few of the stakeholders suggested that the only way to influence behaviour is to remind people of real cases of complicated pregnancy or maternal death. Improved education and awareness of the benefits of accessing (alongside
potential problems of not accessing) healthcare facilities would be required to counteract this situation:

Get down to the community and increase the awareness of the people. Humanitarian aid commission and Ministry of Gender, Child and Social Welfare could delegate the work to that organisation to work at community level. (Government officer)

11.3 Discussion

The data presented in this chapter provides a snapshot of the mismatch between some of the stakeholders’ views on healthcare access and the reality facing service users. When examining stakeholders’ perspectives on access to maternal healthcare in Renk county, this chapter finds evidence of mismatches and divergence in views regarding actions needed to improve maternal health in the region, some totally a mismatch, but others quite insightful and understanding of what communities face.

We should not only be concerned with where healthcare facilities are located and whether they are accessible to local people; we should also consider whether stakeholders are aware and understand the context of the people they serve. To the extent that views and perspectives of stakeholders are not well matched to the needs of the community, mismatches in the provision of maternal healthcare to women are likely to occur. The development of actions and plans that are unsuited to the existing need will be a poor remedy for low utilisation of maternal healthcare services, no matter how well they are designed and implemented.

Mismatched actions are the cumulative product of many separate and disconnected decisions that government and non-government organisations make about which programmes, services and initiatives they should support in Renk county. Intuitively, one might think greater expenditures on these activities would eliminate barriers to maternal healthcare services in the Renk region. However, while greater resources would improve these interventions, simply spending more will not alter their impact on improving maternal health because they do not address existing need.

Understanding the social and cultural context of the local people should be the key consideration in planning interventions that can increase access to maternal healthcare. Consultation between different stakeholders and local people is a crucial aspect of the process, throughout all of the components of health service planning cycle (Queensland Health, 2013). Evidence shows that
one of the main reasons for non-utilisation of new facilities providing maternal healthcare services is the mismatch between the services offered and the actual needs of local people (Kanté and Pison, 2011).

A lack of understanding and coordination before the implementation of programmes or healthcare facilities between policy makers, health officials, affected populations and other stakeholders in the health system and beyond often greatly jeopardises these initiatives. This lack of coordination usually leads to low prioritisation of important matters and missed opportunities due to the non-consideration of socioeconomic, cultural and geographical factors (Kanté and Pison, 2011, Badr et al., 2013, Girard et al., 2012).

Poor communication, lack of effective collaboration, weak alignment and unclear roles have been found to be some of the main challenges in addressing maternal and newborn deaths (ICF Macro, 2010).

While policy makers, healthcare providers and community leaders can recognise that access to maternal healthcare is a critical issue in Renk county, the degree to which stakeholders understand the context is shaped by their capacity to communicate with local people, and to generate and utilise reliable available information. Whether or not stakeholders are able to do this is determined by the availability of a platform to facilitate it. There is relatively little data or research to indicate whether such platforms are properly used in post-conflict situation to improve maternal health.

The next chapter discusses the action-based part of this research study. It aims to change and improve the existing situation so that people are in a better position to access healthcare services by building on the capacity of the stakeholders, as well as of the local people, and by generating a platform to ensure integrated knowledge translation.
Chapter Twelve OUTCOME OF THE PARTICIPATORY ACTION RESEARCH

12.1 Introduction

This chapter illustrates the outcome of the participatory action research process that aimed to change and improve the existing situation, so that people are in a better position to access healthcare services. It also describes the evaluation of the impact on IPHE participants, community members and senior officers.

12.2 Methodology

Based on the experience and contextual understanding gained through first Phase of this study, the researcher developed two participatory action research interventions, which aimed to effectively engage two groups (community members and senior officers) to promote women’s health in Renk County.

The two participatory action research interventions started with the step of ‘diagnosis of the problem’, by prioritising maternal health issues in Renk County using different scoring criteria. The second step was action planning, in which the community members developed context-friendly educational materials, and senior officers developed project proposals. The third step was about taking action; community members delivered the materials they developed to the community, and senior officers wrote and presented the developed proposals to the community members. The fourth step was the evaluation.

The first action research intervention is called ‘innovative participatory health education’ (IPHE). Ten of the 14 PEER researchers worked together with two employees of a local NGO and 10 local theatrical band members to identify important issues related to women’s health in their community. They developed context-friendly material, which they presented in the form of pictograms, songs and drama.

The second action research intervention is called ‘participatory reproductive health project management’ (PRHPM). Here, the researcher targeted 10 senior officers in the Health Department of Renk county to strengthen their capacity to develop, implement, monitor and evaluate reproductive health projects. They used the list of maternal health issues generated by the PEER researchers to develop two reproductive health project proposals. In the last day of the workshop, the researcher brought together the IPHE participants and senior
officers to discuss maternal health issues in the area. The senior officers presented the two proposals to the IPHE participants who gave them feedback and comments (Figure 54).

Figure 54 Participatory action research steps of IPHE and PRHPM

Diagnosis of the problem

Action planning

Taking action

Evaluation

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**IPHE**

**Prioritisation**
Quadrant analysis / Decision box and pair wise Ranking according to feasibility and impact

**Materials development**
Developed context-friendly material

**Materials delivered**
Delivered to a local community in the form of pictograms, songs, and drama

**Evaluation**
Evaluation of participants and audiences

---

**PRHPM**

**Prioritization**
Scoring according to priority, cost, political acceptance, public acceptance, risk assessment, feasibility and personal readiness

**Proposals development**
Two reproductive health project proposals completed.

**Share proposals**
The senior officers presented the two proposals to the IPHE participants.

**Evaluation**
Self-evaluation
IPHE participants’ feedback.
12.2.1 Innovative participatory health education approach (IPHE)

12.2.1.1 Participants

This project involved three categories of participants: local women, local NGO employees and local theatrical band members (Table 15).

Table 15 Participants in IPHE project

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of participants</th>
<th>Male</th>
<th>Female</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local women</td>
<td>10</td>
<td>-</td>
<td>10</td>
<td>Local women, who are ordinary members of the community, with minimum formal education from 10 different villages, were chosen by village leaders.</td>
</tr>
<tr>
<td>Local NGO employees</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>Employees of local NGOs that work with women for empowerment and capacity building.</td>
</tr>
<tr>
<td>Local theatrical band members</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>Church faith-based secondary school students, between 18 and 22 years old with no previous professional drama training. They work on holidays and official ceremonies; their work is mainly focused on traditional plays and songs.</td>
</tr>
</tbody>
</table>

**Local women:** The 14 women who were trained in PEER were contacted and asked to participate in this project as they had collected the data that was analysed initially, were familiar with the relevant health issues, and had experience with working with the research team. Ten of the women agreed to participate.

**NGO employees:** Two women employed by a local organisation “Women’s Organisation for Development and Capacity Building” that works with women to improve their living conditions and address their different problems participated in the project.

**Theatrical band members:** This local church-based theatrical band was formed by secondary school students with no formal theatrical training. They mainly perform traditional drama and songs at local events and celebrations. Ten members of the band, five males and five females, participated in the project.

This project was conducted in four stages: diagnosis, action planning, action taking and evaluation, as described below.
12.2.1.2 Stage 1: Diagnosis – Prioritising important issues regarding women’s health

The maternal health issues that were identified by PEER researchers in the first Phase of this study were introduced to the participants in a plenary session where modifications and rephrasing of the maternal issues were agreed. The participants were divided into two groups of 11 persons. The issues were read out, and the participants asked to select the issues with the highest priority to be addressed. This was done in two stages: first they were put through a quadrant analysis / decision box, then the selected issues were compared, based on which was more important, by pair wise ranking. More detailed information is provided in Appendix 6.

12.2.1.3 Stage 2: Action planning

12.2.1.3.1 Transforming the priority issues into action messages

The participants came up with action messages for each of the priority issues. These messages were formulated in their local dialect and in simple language so that everyone could understand them. Participants identified five final action messages that were clear, brief sentences, easily memorised and which could be repeated by their local community (Appendix 7).

12.2.1.3.2 Developing context-friendly educational material

Based on the action messages, participants developed educational materials in the form of a song, a drama and five pictograms. It was explained that these materials should suit the local cultural context and be acceptable to the community. They should also convey the messages in a manner that would affect their audience and induce change. More detailed information is provided in Appendix 8.

12.2.1.4 Stage 3: (Action taking) – Delivering the educational materials to the community

12.2.1.4.1 Preparation

The day before the event, the participants and the researcher visited Geiger, a nearby village of Geiger payam in Renk county (20 kilometres north of Renk city). The following day they were to deliver the materials they developed to the community in Geiger.

The objectives of the visit were to: (i) introduce the study topic to the mayor, (ii) obtain permission to conduct the assigned activities and present the
developed materials, (iii) start preparations by choosing the venue and time, and (iv) publicise the event and distribute invitations.

The local leaders were informed officially about the project and the event. Appropriate permissions and security clearances were obtained. The community leaders were asked to gather people the next day in an empty space in their village, where the participants would perform at a convenient time to facilitate maximum attendance by the locals.

12.2.1.4.2 Engaging

On the day of delivering the materials, the group’s first stop was the mayor’s house where they were welcomed. The group then headed to the centre of the village. The theatrical band came along the road banging their drums (nogara) for more than an hour, and people gathered around in the middle of the road, in an area that would accommodate the huge audience that came. The audience grew; men and women from all age groups and children followed the show with interest. The participants started by performing traditional music and cultural dances to draw the audience’s attention. The audience enjoyed the entertainment; many were clapping along and some even joined in with the dancing!

12.2.1.4.3 Delivery of the material

The team set up their stage of four chairs, with drums to one side. The 10 theatrical band members then performed their play. The play tried to address the five health messages in a culturally appropriate and context-friendly way. The play was a mix of comedy and drama. It ended with a big round of applause. After that the participants sang their song, calling on the audience to sing along with them. They asked some of the people to come onto the stage to learn the song and sing along. Children stood in a circle around the singer trying to memorise and repeat the phrases.

The five developed pictograms containing the five health messages were displayed and presented to the people. Adults and children were challenged to identify ‘the voice of the pictogram’ and the health message portrayed by each pictogram.
12.2.1.5 Stage 4: Evaluation

The researcher used several evaluation techniques to evaluate the impact on IPHE participants and on the community members.

12.2.1.5.1 Evaluation of IPHE participants

Evaluation was done through observation, informal group discussions, and semi-structured interviews. The participants’ observations were based on completing the tasks assigned and meeting the goals within the timeframe, information and knowledge gained and provided, and personal interaction and engagement with others in the groups. The informal group discussions took place during breaks. The researcher discussed with participants their own personal evaluation of their progress during the project. At the end of the workshop, semi-structured interviews were conducted with each participant. Each interview lasted 30 to 45 minutes, and aimed to evaluate personal understanding, feelings about the workshop, change in knowledge, increase in experience, change in personal behaviour, and future plans regarding maternal health issues in Renk County. The interviews were digitally recorded. The answers were aggregated, coded and divided into text units, where the themes were extracted by thematic analysis. The observations and the themes were put together to complete the picture and form a more accurate evaluation.

12.2.1.5.2 Evaluation of community audiences

The researcher evaluated the impact on the community in Geiger village where the developed materials were delivered. The evaluation was conducted after the material, as developed into the forms of drama, song and pictogram, was displayed. The method of evaluation was a qualitative assessment. Members of the community from the audience were approached at the end of the play and interviewed through semi-structured interviews, group discussions and pictogram testing (see Table 16). The interviews were digitally recorded, transcribed, divided into text units and coded using an analytical framework of five domains: increasing awareness; involvement of all community members; willingness to change behaviour; how the approach was innovative; and clarity of the message delivered.
Table 16 Characteristics of community member interviewees

<table>
<thead>
<tr>
<th>Domains</th>
<th>Tools</th>
<th>Number of interviewees</th>
<th>Gender</th>
<th>Age variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictograms</td>
<td>Pictogram testing</td>
<td>17</td>
<td>Both genders</td>
<td>8–60 years</td>
</tr>
<tr>
<td></td>
<td>Group Discussion</td>
<td>5</td>
<td>Women</td>
<td>24–36 years</td>
</tr>
<tr>
<td>Drama</td>
<td>Semi structure interview</td>
<td>2</td>
<td>Men</td>
<td>17–25 years</td>
</tr>
<tr>
<td></td>
<td>Group Discussion</td>
<td>5</td>
<td>Women</td>
<td>30–50 years</td>
</tr>
<tr>
<td>Song</td>
<td>Semi structure interview</td>
<td>9</td>
<td>Both genders</td>
<td>6–40 years</td>
</tr>
<tr>
<td>Package as</td>
<td>Semi structure interview</td>
<td>1</td>
<td>Women</td>
<td>30 years</td>
</tr>
<tr>
<td>general</td>
<td>Group Discussion</td>
<td>5</td>
<td>Women</td>
<td>18–35 years</td>
</tr>
<tr>
<td>Total Number of</td>
<td></td>
<td>44 interviewees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2.2 Reproductive health project management workshop (RH-PM)

The researcher developed a short course on reproductive health project management with the help of the directors of a Masters of Public Health and a Masters of Business Administration programmes in the University of Medical Sciences and Technology (UMST) in Khartoum. The researcher delivered the course with support from five students of the Masters of Public Health. The course was designed to introduce the candidates to the planning, implementing, executing, monitoring and evaluation of reproductive health projects.

A four-day workshop was conducted at the Ministry of Health in Renk town. The participants were given a series of lectures, group exercises, class discussion and assignments. By the end of the course, the participants applied their basic project management skills to write two proposals addressing prioritised maternal health issues in Renk County, which they presented to the IPHE participants who gave them feedback and comments. UMST issued certificates of attendance to the participants.

Details of the workshop and its teaching sessions and materials are not described here. Instead, focus is placed on the participatory action research aspect of this process, in which the participants diagnosed the problems, planned their actions and shared their proposals with the IPHE participants.
12.2.2.1 Participants

One year prior to this stage of the fieldwork, the researcher had discussed the idea of the course with the director of the county’s health department. He was very supportive and announced the course to the staff of the health department. Ten candidates applied and were accepted onto the course. Most of the participants were in senior positions (Table 17).

<table>
<thead>
<tr>
<th>Position</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. County health department director</td>
<td>Male</td>
</tr>
<tr>
<td>2. Director of HIV and sexually transmitted disease</td>
<td>Male</td>
</tr>
<tr>
<td>3. Director of Expanded Programme on Immunization (EPI) and Surveillance</td>
<td>Male</td>
</tr>
<tr>
<td>4. Director of laboratory services</td>
<td>Male</td>
</tr>
<tr>
<td>5. Public health officer</td>
<td>Male</td>
</tr>
<tr>
<td>6. Laboratory services officer</td>
<td>Male</td>
</tr>
<tr>
<td>7. Civil organisation employee</td>
<td>Male</td>
</tr>
<tr>
<td>8. Director of reproductive health and midwifery</td>
<td>Female</td>
</tr>
<tr>
<td>9. Director of nursing</td>
<td>Female</td>
</tr>
<tr>
<td>10. Public health officer</td>
<td>Female</td>
</tr>
</tbody>
</table>

12.2.2.2 Stage 1: Diagnosis–Prioritisation of working area to improve maternal health

Participants worked in groups and identified what they perceived to be the ten most important maternal health problems. Then, in a plenary session, the researcher introduced to the participants the maternal issues that were identified by PEER researchers. Participants commented on issues, compared them with their own list, and reflected on how they previously looked at maternal health from a service point of view and not from any other perspective.

Participants identified and prioritised the important working areas to address these issues using seven prioritisation criteria. In groups, they brainstormed working areas that they saw as most appropriate for addressing the issues raised by the PEER researchers. Each group presented its working areas to the other groups. Further discussions took place until final priority working areas were agreed by consensus.
12.2.2.3 Stage 2: Action planning – Project proposals development

The objective in this phase was for the participants to develop two reproductive health project proposals. Participants identified priority activities that could be done in Renk County to improve maternal health. They also identified individuals, groups and organisations in Renk County that influence maternal health. In addition to that, they identified potential obstacles that they might face when addressing the priority working areas.

12.2.2.4 Stage 3: Taking Action – Writing and sharing proposals with the IPHE participants

Participants were asked to apply basic project management skills in writing two project proposals to address the issues identified and prioritised by the PEER researchers. They worked in two groups and discussed ideas and activities to be done within the priority working areas. They agreed that one group would develop a proposal to address the demand-side issues, while the other group would develop one addressing the supply-side issues. They were asked to present their proposals both in written format and as an oral presentation.

A member of each group presented the project proposals in front of the facilitators, other group members, and IPHE participants. They were given 15 minutes to briefly describe their proposed objectives, activities, obstacles and expected outcomes.

12.2.2.5 Stage 4: Evaluation

Each senior officer participant was asked to reflect on how they benefitted from this workshop. After the presentation of proposals the IPHE participants were asked to give feedback and comments. Thematic analysis was applied in which the reflections and comments were aggregated, divided into text units, coded and the emerged themes were stated.
12.3 Outcomes of the stages of the action research

12.3.1 IPHE perspectives on maternal health issues

In the first phase, during the PEER researchers’ workshop, the PEER researchers discussed the key issues that emerged from their interviews and provided their own interpretation of the data. They identified 15 important maternal health issues in Renk county. During the second phase, participants shortlisted these important issues into seven issues, chosen because of their high impact on maternal health and ease of improvement. Then they prioritised four maternal health issues to work on further in their projects (Table 18).

Table 18 Maternal health issues identified by women during the three research phases

<table>
<thead>
<tr>
<th>No.</th>
<th>Maternal health issue</th>
<th>Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>The pregnant woman does not go to follow-up care unless she is sick.</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>The pregnant woman often has poor nutrition.</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>Some pregnant women are mistreated by their husbands who might be drunk.</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>The woman has lots of chores to do such as carrying wood and water.</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>Spending money on a sack of beans is better than going to follow-up care.</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Unsafe abortions can occur.</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>Malnourishment results in a weak baby of low weight.</td>
<td>✓</td>
</tr>
<tr>
<td>8</td>
<td>An emergency budget should be available in case of illness.</td>
<td>✓</td>
</tr>
<tr>
<td>9</td>
<td>Beating and attacking happens as a result of illegal relationships and ends with the couple being forced into marriage, which has a negative effect on the woman.</td>
<td>✓</td>
</tr>
<tr>
<td>10</td>
<td>Locals encourage high fertility rates to ensure that they have children who are healthy, as many often die young. They do not encourage spacing between pregnancies and it is difficult to convince them otherwise.</td>
<td>✓</td>
</tr>
<tr>
<td>11</td>
<td>Many women go to TBAs either because they do not have a village midwife or they do not have enough money to pay her.</td>
<td>✓</td>
</tr>
<tr>
<td>12</td>
<td>Lack of antenatal care results in problems during labour, such as haemorrhaging, ending in a caesarean section.</td>
<td>✓</td>
</tr>
<tr>
<td>13</td>
<td>Due to certain living circumstances, such as the absence of a husband, some women have to do lots of chores, affecting pregnancy.</td>
<td>✓</td>
</tr>
<tr>
<td>14</td>
<td>Having many children without spacing weakens the mother and affects her health.</td>
<td>✓</td>
</tr>
<tr>
<td>15</td>
<td>The villagers go to TBAs because the village midwife is far and demands fees.</td>
<td>✓</td>
</tr>
</tbody>
</table>
12.3.2 IPHE context- friendly educational materials

Based on the priority issues, participants created two short stories (Table 19) to help them to come up with five action messages (Table 20). These messages were formulated in their local dialect and in simple language so that everyone could understand them. Participants translated these action messages into a song (Table 21), drama (Box 21) and five pictures (Figure 55 to Figure 59).

Table 19 Case stories generated by IPHE participants

<table>
<thead>
<tr>
<th>Story 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once upon a time, there was a 20 year old pregnant lady called Khamysa. She lived with her husband and did not have anyone to assist her with her daily chores. The married couple had daily quarrels, which often resulted in him beating her. Her husband refused to give Khamysa money to go to the antenatal clinic for follow-up care or to eat well. Eventually she had an obstructed labour and passed away from complications. Her baby was not healthy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Story 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was a family whose father was unemployed and an alcoholic. The wife used to do all the heavy work, from carrying the wood and water to selling it. There was no chance for her to go to the clinic for follow-up care. Her husband would demand that all the money be spent on food and alcohol. Whenever the wife spoke to her husband she was beaten up because he was drunk. This physical abuse caused her to have a miscarriage.</td>
</tr>
</tbody>
</table>

Table 20 Final action messages

| 1. Fathers, you should make sure pregnant women attend regular antenatal follow-up care for their and their babies’ wellbeing. |
| 2. Families, we should provide healthy foods for the pregnant women that would benefit the babies in their bellies, like fruits, vegetables, eggs and milk. |
| 3. Do not hit pregnant women; solve all problems without violence. |
| 4. Problems between a husband and his wife should not affect the wellbeing of the baby nor prevent the wife from going for regular follow-up care. |
| 5. Prevent pregnant women from doing heavy chores. |
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Table 21 Translation of the lyrics of the song

| 1.  | Oh father, don’t hit my mom.                                | 9.  | Our families, let us provide good healthy foods for the pregnant woman. |
| 2.  | My mom is carrying us in the womb.                         | 10. | This could help her baby a lot?                                      |
| 3.  | Leave aside all the problems.                              | 11. | Mom, foods like vegetables and fruits, eggs and milk, and your health becomes well. |
| 4.  | Mom, and dad too.                                         | 12. | A lot of heavy chores, people, is not good for the pregnant woman.     |
| 5.  | Don’t let problems affect us.                              | 13. | Let her rest, and her baby becomes well too.                          |
| 6.  | Come on mom, go to your check-up in time.                  |     |                                                                     |
| 7.  | Our fathers, follow up with our mothers.                   |     |                                                                     |
| 8.  | When they are pregnant take them for check-up.             |     |                                                                     |

Box 21 Extract from drama script

**Characters:** Pregnant woman, daughter, husband, uncle, doctor.

**First scene: At the family’s house**
A pregnant woman enters her house carrying water over her head looking exhausted.

**Pregnant woman:** I am tired, why this child is late?

The daughter comes in bringing her mother some money she got from selling wood.

**Pregnant woman:** Give your father a glass of water.

**Husband:** Did I say I want a glass of water? I want money; I drink other kind of drinks.

**Pregnant woman:** What? Money!! There is no food and I am tired and I have only five pounds from the wood that I sole.

Husband makes a fuss and asks for money.

**Pregnant woman:** What?! You want everything to be like what you want!
She gives him the money and he leaves. Now she is depressed.

**Pregnant woman:** Your father took all the money.

**Daughter:** Mom, what can we do? Just be patient.

**Pregnant woman:** Let’s go and sell the rest of the wood and bring food by the money.

**Second scene: Outdoors**
Pregnant woman and her daughter are carrying wood.

**Pregnant woman:** The weather is hot, my daughter.

Pregnant woman and her daughter sit to sell the wood. Someone buys it for three pounds.

**Pregnant woman:** I am going. Bring the food with you. I will meet you late at home. I have become tired from this work sitting under the sun in this hot weather and selling wood and in the end my husband comes and takes the money.

Pregnant woman leaves.

**Third scene: Family’s house**
The husband comes home drunk. Daughter comes in.

**Daughter:** Did you arrive, dad?
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**Husband:** No I didn’t arrive yet (Teasing her) Where did you come from?
**Daughter:** From the market.

Pregnant woman arrives.

**Pregnant woman:** Why the house is very messy like this?
**The husband:** Where are you coming from?

**Pregnant woman:** You, where are you coming from?
**The husband:** I think I am the husband

They get into an argument and he pulls her hair.

**The husband:** I want money, you know I am unemployed, you are working you have to give me money. If I am working I will give you money.

**Pregnant woman:** Is this a new rule? Are women responsible for men?!

He hits her, she falls to the ground, she is crying. Her daughter comes to help her up.

**Daughter:** Father, my mother is bleeding.

**Husband:** What is new in that? All women bleed!

**Daughter:** Father, you have to take her to the hospital.

**Husband:** I have no business with that. This is your problem. Do you see me wearing a white coat?

Daughter goes to call her uncle for help. They come back in and take her out.

---

**Fourth scene: At the hospital**

The daughter and her uncle come in, supporting pregnant woman. The husband follows them.

**Uncle:** This pregnant woman had vaginal bleeding.

**Doctor:** Take her to the other room.

They take her to a side room and the doctor follows them. They leave her and come back. Daughter complains to her uncle.

**Daughter:** I swear to God, my father is so mean.

The doctor comes back.

**Doctor:** This pregnant woman had a sign that she has been beaten, hit in her right side and now she has miscarried and I think her work involves heavy duties.

The play ends. After it, the doctor gives advice.

**Doctor:** When you get married and have kids there are important things like certain treatments. So audience, and if you did this or not you have to know, pregnant woman must go for antenatal care. We say that antenatal care is important.
Figure 55 Pictogram (1) If there are problems between a couple this should not affect child health or prevent pregnant from go to ANC

Figure 56 Pictogram (2) We should reduce heavy work for pregnant women

Figure 57 Pictogram (3) Fathers! You should take care of pregnant women and bring ANC for mother health and her pregnancy

Figure 58 Pictogram (4) the family should provide nutrition for pregnant and good food benefit the child like vegetables, fruits, egg and milk

Figure 59 Pictogram (5) Don’t hit pregnant women and solve all problems without violence
12.3.3 Senior officers’ perspectives on important maternal health issues

Table 22 illustrates the ten most important maternal health problems identified by senior officers in Renk county. When introduced to the 15 maternal issues that were identified by PEER researchers, these officers commented on issues raised, compared them with their own list, and reflected on how they had previously looked at maternal health from a service (supply-side) point of view and not from the perspective of the client (demand-side).

Table 22 Identified maternal health issues by healthcare providers

<table>
<thead>
<tr>
<th>No.</th>
<th>Maternal health issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ineffective maternal health centres</td>
</tr>
<tr>
<td>2</td>
<td>No nutrition centres</td>
</tr>
<tr>
<td>3</td>
<td>High prevalence of diseases</td>
</tr>
<tr>
<td>4</td>
<td>No drugs for HIV</td>
</tr>
<tr>
<td>5</td>
<td>No family planning services</td>
</tr>
<tr>
<td>6</td>
<td>Low coverage of antenatal care centres in relation to the population size</td>
</tr>
<tr>
<td>7</td>
<td>Unqualified healthcare providers</td>
</tr>
<tr>
<td>8</td>
<td>No nutrition programmes</td>
</tr>
<tr>
<td>9</td>
<td>Early marriage and early pregnancy</td>
</tr>
<tr>
<td>10</td>
<td>No sexual knowledge</td>
</tr>
</tbody>
</table>

Senior officers prioritised certain important working areas for addressing maternal health issues (Table 23), and they agreed on activities, relating to both the supply-side and the demand-side to improve maternal health (Table 24).

Table 23 Priority working areas to improve maternal health issues by healthcare providers

<table>
<thead>
<tr>
<th>No.</th>
<th>Priority working areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase the awareness of youth and women at reproductive age.</td>
</tr>
<tr>
<td>2</td>
<td>Sensitize the community toward maternal health.</td>
</tr>
<tr>
<td>3</td>
<td>Reduce the rates of maternal mortality and morbidity.</td>
</tr>
<tr>
<td>4</td>
<td>Reduce the rates of miscarriage and unwanted pregnancy.</td>
</tr>
<tr>
<td>5</td>
<td>Reduce the rate of sexual transmitted disease.</td>
</tr>
<tr>
<td>6</td>
<td>Conduct more research in the area of reproductive health.</td>
</tr>
</tbody>
</table>
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Table 24 Priority activities to improve maternal health

<table>
<thead>
<tr>
<th>No.</th>
<th>Priority supply-side activities</th>
<th>Priority demand-side activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rehabilitate reproductive health centres.</td>
<td>Encourage community mobilisation.</td>
</tr>
<tr>
<td>2</td>
<td>Provide ANC services that include vaccination and STI prevention.</td>
<td>Provide health education to community members.</td>
</tr>
<tr>
<td>3</td>
<td>Provide postnatal care to mothers and neonates.</td>
<td>Promote breast feeding.</td>
</tr>
<tr>
<td>4</td>
<td>Establish counselling clinics</td>
<td>Increase awareness about reproductive health.</td>
</tr>
<tr>
<td>5</td>
<td>Invest in human resources training.</td>
<td>Support capacity building of women at reproductive age.</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Increase awareness of women and men about family planning.</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Promote condom use.</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Involve men, young people and civil societies in reproductive health activities.</td>
</tr>
</tbody>
</table>

They identified stakeholders relevant to maternal health in Renk county (Table 25) and the obstacles that they might face in addressing these prioritised working areas (Table 26).

Table 25 Identified stakeholders relevant to maternal health in Renk county

<table>
<thead>
<tr>
<th>No.</th>
<th>Identified stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>2</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>3</td>
<td>Ministry of Youth and Sport</td>
</tr>
<tr>
<td>4</td>
<td>Ministry of Culture and Information</td>
</tr>
<tr>
<td>5</td>
<td>Local government</td>
</tr>
<tr>
<td>6</td>
<td>Civil authorities</td>
</tr>
<tr>
<td>7</td>
<td>Community leaders</td>
</tr>
<tr>
<td>8</td>
<td>International NGOs</td>
</tr>
<tr>
<td>9</td>
<td>Local NGOs</td>
</tr>
<tr>
<td>10</td>
<td>Civil societies and unions</td>
</tr>
<tr>
<td>11</td>
<td>Women’s union</td>
</tr>
<tr>
<td>12</td>
<td>Societies of singers and artists</td>
</tr>
<tr>
<td>13</td>
<td>Religious leaders</td>
</tr>
<tr>
<td>14</td>
<td>TBAs and midwives</td>
</tr>
</tbody>
</table>

Table 26 Obstacles that they might face when address the priority working areas

<table>
<thead>
<tr>
<th>No.</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Difficult physical accessibility</td>
</tr>
<tr>
<td>2</td>
<td>Low demand for ANC</td>
</tr>
<tr>
<td>3</td>
<td>Disaster and conflict</td>
</tr>
<tr>
<td>4</td>
<td>Security issues</td>
</tr>
<tr>
<td>5</td>
<td>Migration of trained personal</td>
</tr>
<tr>
<td>6</td>
<td>Non-commitment of stakeholders</td>
</tr>
<tr>
<td>7</td>
<td>Occurrence of disease epidemics</td>
</tr>
</tbody>
</table>
At the end, they developed two proposals as an exercise to explore how such issues could be tackled. One addressed issues on the demand-side and was called, ‘Youth awareness campaign on reproductive health’. The second addressed the supply-side and was called ‘Rehabilitation of the reproductive health centres in Renk county’ (Table 27).

Table 27 The projects’ proposals

<table>
<thead>
<tr>
<th>First proposal: Youth awareness campaign on reproductive health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The group members suggested that this project could be conducted over three months. They activities proposed included radio programmes, mobile messages, group discussions with young people, public announcements through mobile microphones, conducting seminars and cultural nights, and health education sessions in schools, universities, churches and mosques. They also proposed mobile teams to talk with people and perform dramas in public spaces such as markets and other gathering places. They expected that these activities would spread information about reproductive health, involve young people in the reproductive health projects, promote condom use, and reduce the rates of miscarriages, unwanted pregnancies and sexual transmitted diseases.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second proposal: Rehabilitation of reproductive health centres in Renk County</th>
</tr>
</thead>
<tbody>
<tr>
<td>• This project was expected to be conducted within a period of four years. The proposed activities include mobilisation of the community by media, community leaders and religious leaders in order to increase the community members’ demand for healthcare. Other activities include rebuilding and staffing of health centres to provide antenatal and postnatal care, including tetanus vaccination, malaria prophylactics, promotion of breast feeding, family planning, and neonatal care. They suggested that health centres should play a role in increasing the awareness of women and men about reproductive health and family planning by conducting seminars and lectures in the centres and in the villages.</td>
</tr>
</tbody>
</table>
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12.4 Evaluation of the impact of the action research

12.4.1 Impact on IPHE participants

Being part of this intervention left an impact on the IPHE participants in a number of ways.

12.4.1.1 Change in their perception of pregnancy

IPHE participants said they were seeing pregnancy with new eyes. Pregnancy and labour were no longer viewed with indifference but were now considered significant events. They have a better understanding of situations in which pregnant women require care. They stated that being part of this research made them realise how important a pregnant woman is, and brought to their attention how much women around them suffer in pregnancy and childbirth.

The substantial effort required to conduct this project with the aim of promoting maternal health highlighted to the participants the importance and sensitivity of maternal health:

The maternal health issues are essential problems that have a large effect here in the Renk. People do not pay attention to pregnant women much, only a few people do, but the majority don’t. (PEER Researcher)

This project has made me understand that the pregnant woman is really important and we should take care of her. (Male drama performer)

12.4.1.2 Increased awareness of maternal health issues through group interactions

Generally, involvement in this project led to an increase in participants’ knowledge. They felt that through the workshops they benefited from hearing the points of view of others and from learning things they did not know beforehand. They also stated that some of the issues were already known to them but they were not aware of how much they impacted maternal health.

They also realised how some of their cultural and daily practices may contribute to the problem. So overall they developed a better understanding of the importance of maternal health and the extent of the present issues of concern in South Sudan:

There were things I did not know but now I know them, and I have benefited from them. Like about the pregnant woman who is hit, I have never considered this before. The things they do or their attitude is wrong. (PEER researcher)
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No doubt these issues are really present in the community and in large magnitudes; the problems we stated are a lot. In our community, honestly, we have to admit this, man does not care about this, and he doesn’t think that the woman is like him, he puts in mind that the woman is brought to work at home and give birth, nothing more. (Female drama performer)

I have benefited a lot, a lot! I understood that a pregnant woman should go for follow-up, a pregnant woman should eat good food, that her man should not hit her and when she reaches the advanced months of her pregnancy she should get someone at home if she were alone so they would help her. (Female drama performer)

12.4.1.3 Change is possible

IPHE participants used to feel overwhelmed by the issues of concern regarding maternal health. While women get pregnant every day, and many go through uneventful pregnancies, others develop complications and may die. This made them feel helpless. But this has changed. They now feel that they can make gradual progress by addressing the issues that can feasibly be changed and that would have a measurable impact on maternal health. Furthermore, delivering the key messages in the form of drama, songs and pictograms would make it possible to spread them across a wider sector of the community. It would also guarantee a certain degree of sustainability.

There are problems that you find in the nature of people you can’t change overnight. We will do what we can and some of the people would understand and some won’t. Of course we can’t perform in front of an audience of people and no one understands. Three or four at least would go out understanding and they could tell people at their homes. This way we would get out with four to five houses that are fixed, and from five houses to five houses they will change, and with time people would practice it and know that there are many things that should be done. (Female drama performer)

If you come back later to check you will see they have changed. The man will change what he does. If his woman is pregnant, he takes her to the hospital, she does not carry heavy things, yes and he sees and watches her and brings her things to eat and takes care of his children till later God delivers her safely, and the baby is out. (Male drama performer)
12.4.1.4 Sense of ownership and responsibility

Being part of every step of the process, from identifying the issues, prioritising them, discussing how to best address them through action messages, developing educational materials in the form of plays, songs, drawings and, finally, delivering them to the community, gave the PEER researchers a sense of ownership. The effort they put into this process resulted in them feeling responsible for spreading what they learned to others and for stressing the importance of maternal health and how better outcomes can be achieved by changing some of the old practices in a way that could be acceptable to the community:

We are a band, aren’t we? We could do plays from this, according to all what you have said and we heard, we could do three or four plays, and we could do educational days we could work normally and do programmes and plays as advice. We are called in for celebrations concerned with such things, we could perform the plays then we could pass a certain message to the community. I [will] say the things I learned, I will never just keep to myself no matter what the price is, I will do every effort to convey the knowledge. (Female drama performer)

If I saw a bad situation I could make them aware not to do a bad thing. If for example I was faced by a situation where the pregnant lady is not going for follow-up I could tell her and make her understand. (PEER researcher)

12.4.1.5 Empowerment

IPHE participants stated that this experience has influenced their personal behaviour. Actively participating throughout the different phases of this intervention and the knowledge they have gained from this experience has resulted in them being empowered and motivated to take action.

By the end of the intervention, when the PEER researchers delivered the educational materials that they had participated in developing to their own community, they had a great sense of achievement when they saw how positively people responded. They felt this added to their new sense of empowerment and motivation. They now believe they are capable of making change happen. Moreover, this has added to their credibility, so when they return to their social circles, people are likely to be more accepting of what they say because they now know more than others.
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It renewed everything in me, I am happy when I am here seeing myself as part of the community. The corrupted community with everything bad in it, I am part of it, and I should show them; and since I am the educated one who knows, I have the ability to fix the community. So if I got the opportunity to do anything I would do it to change the community. This is truly my vision and dream, that the community changes everything bad in it, and that people get an education and knowledge. That human rights and women’s rights are preserved, so people live life and they are equal with no classes in the society and no people are considered better than others. And so if a situation passes by me and requires that I speak, and I have a role in it, I wouldn’t hold back and I would perform my role because the community needs me, okay. (Female drama performer)

12.4.1.6 Acceptability of the information being conveyed

When asked about the educational materials that they developed and the method of delivery to their community, PEER researchers’ responses show that they consider these methods to be innovative. They had not experienced them previously in this manner. Delivering health education in this form would appeal to the crowd and draw their attention. As members of the community, they felt they would convey the educational messages in a simple way that could lead to behavioural changes, and as they would be repeated over and over again, this would strengthen and sustain the educational messages.

If people performed the play and they see it and then perform the song and they hear it, people will believe it. When they see the pictures they would benefit, they are understandable. Some people have never seen such drawings, but they know what it means. (PEER researcher)

If there is a campaign or so, people here get pictures and people understand a lot from them, but the idea of the theatre is new we did not do it before. (Male drama performer)

12.4.1.7 Gaining communication skills to address their community

This project was perceived as giving participants an insight into the various ways they could benefit their community and contribute to promoting the health of women in pregnancy and childbirth. The participants explained that they have become more community-oriented. They have become more focused on what is important to the community, through ranking issues to prioritise them, and then making sure that the action messages they developed were formulated in their local language to be understood by the local community.
When they were developing the materials they were keen on matching them to their local context. It was obvious that as the process went on they developed the understanding that, in order to change the old ways of doing things, they would have to approach the community in a way that was acceptable to them and, as members of the community, they would be able to see themselves in each scenario:

_They will think and later when the one sits with himself he will actually apply what he saw or heard from the play or song, he would know he is mistaken doing something wrong._ (Male drama performer)

### 12.4.2 Impact on the community members

#### 12.4.2.1 Increasing awareness

The approach taken in this study was perceived to be a good way of increasing awareness among community members, because it gave the information in a simple and attractive way that anyone can understand: the song and the drama were performed in the local language, and the material was generated by members from the local community coming from the same culture.

The community found this approach to mirror their life and it was easier to connect with than other health promotion materials or events they had previously encountered or attended, without feeling threatened or reprimanded. The educational messages were displayed in an attractive way. That is why people gathered to participate in them, despite there having been no prior announcement or invitation. They were able to attend the entire programme without losing interest. Moreover, the different materials used formed an integrated package. If you did not understand a message shared via one medium, you might understand it through another medium. This helped to increase awareness:

_The messages are from our own lifestyle and very close to our language. Even those who do not speak Arabic or their Arabic is poor they still get the message._ (A 32 year old married woman)

_The person who sees those pictures will understand what they are expressing. For example: he realises that here is a pregnant woman carrying wood and doing heavy chores like bringing water. All of that he can understand from the pictures._ (A married woman)

_The play and the song were complementary to each other. The song completed the message of the play. The things that were not acted in the_
play were said in the song. (A single woman)

This approach encouraged the participants to invent and perform context-oriented health educational materials. According to one woman, ‘It has not happened before; It is the first time to have such a play’. The audience recognised it as an effective approach to change their behaviour. Contrary to conventional methods, the adviser is at the same level as the community, which makes it more acceptable and applicable to them:

This way is effective. When you come down to the middle of the community like today and sit with us in the simplest places. All the people accepted your visit and everyone came. (A 40 year old married female)

All the community members – women, men and children – participated.

The people who are attending your programme, now some of them are pregnant ladies, some are women who are about to be pregnant and some are single girls who will get married one day and pass through this stage. All are gathered here and they got the message rooted into their minds. (A married woman)

What I like is one thing – that the men attended, because it’s enlightening to the community and that’s a good thing. I hope that you can come from time to time to enlighten our community. (A 40 year old married woman)

12.4.2.2 Willingness to change behaviour

This approach ultimately aimed to change the behaviour of the community. They recognised how behaviour can adversely influence outcomes. So they would hesitate to commit such actions again. The evaluation itself was a discussion point to let them reflect:

If there is a man between the audience who used to humiliate his wife and he sees the shot of the play where the man humiliates the woman, he would not humiliate or beat his wife again. (A 32 year old married woman)

The solution is to display such plays all the time, to reflect these right concepts everywhere. If it was displayed in three places and attended by people they might be touched. It can also be displayed in the television. (A married 43 year old woman)
12.4.2.3 Clarity of the message delivered

The aim of the play was perceived to be clear by the community. The audience understood the messages as being displayed in a culturally-oriented manner. They noticed and mentioned every message shown. The participants suggested displaying the drama in other villages and in the media. They even saw it as a way of helping to resolve some health issues:

*Regarding the play I can see that it gives the information in a simple way for people to understand. It gives it in the form of instructions or how to deal with the pregnant lady at home and also it gives advice to the family members but it was mainly to the father. This southern community does not care about the pregnant lady, which means she works and cleans while the man is sitting comfortably asleep and the woman at the same time is bringing everything, which means he depends on her and that's what hurts the individuals.*  
*(A single woman)*

*The message was not to do heavy chores and the pregnant lady should take some rest and follow up with the health units and take care of her nutrition.*  
*(A 17-year-old male)*

Community members stated that because the songs were developed in their local language, the lyrics were very clear and simple. The community members understood the messages in the song. Even the children of the community understood the messages very well and remembered the lyrics. ‘I understood that the man shouldn’t beat the pregnant lady,’ said a 10 year old child.

*The songs were about the fact that the woman should have protection, not to be beaten nor insulted and provide her with food for the baby’s sake, to be nourished and grow and to be in good health.*  
*(A 40-year-old married woman with children)*

The locals understood the messages conveyed by the pictograms. It was noticed that the youngest understood the pictograms better than the others. The children found the pictograms more comprehensible than the adults did. They identified what was happening in the pictograms immediately. ‘The pregnant lady here is going for check-up,’ observed by one of the children correctly. They also understood the pictogram about how important nutrition is for the pregnant woman and her foetus; as they said, ‘this food is the baby’s nourishment’. They also picked up on the issue of domestic violence from the pictograms: ‘This man beat her and she fell on the ground, which later on affected the baby’. Talking about the pictogram depicting the issue of pregnant women and heavy chores, they said, ‘The pregnant woman should never hold
something heavy’. The men also understood the message of the pictograms and they found it a strong and expressive way of opening their eyes to the issues.

How can I miss it, here the father is holding a stick for the mother and the child is trying to stop him. (A 25 year old single man describing a pictogram)

The pregnant lady takes care of her nutrition. Besides that, the man should bring it to her so she wouldn't go and get tired. The caring should be more from the man because he is the only provider of the family. (Single woman describing a pictogram)

In this picture [Figure 57] the pregnant lady must be followed up as she has to start the follow-up from the beginning of the pregnancy, from the first month to the last month. (A 42 year old single woman)

12.4.3 Evaluation of senior officers’ proposals

12.4.3.1 Involvement of the community/collaboration of community and stakeholders

IPHE participants gave comments and feedback to senior officers about the project proposals. They were delighted that the maternal health issues that had been identified by them were used by the senior officers to plan for future services and projects. They stated that by working together and in collaboration, they could solve many problems and improve the health of women and children.

In the last year we knew a lot about maternal and child health issues from our communities, and we shared it with you. I am really grateful that we benefited you, and you used that to plan for our future services. (PEER researchers)

These proposals showed many details that affect the mother. Now we know that there are many problems and we all will try to solve them together, and we will hopefully succeed and all the community and all Sudan will live more safely. (Male drama performer)
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The senior officers recognised that this approach strengthened their relationship with the local people, and enhanced the contribution of marginalised communities in identifying needs, and planning and designing future health services in this post-conflict setting.

I like to strengthen our relations with the team that was trained last year (PEER researchers), this year and the theatre team (IPHE participants) as this will bring new things to our life. (Director of the county health department)

I benefited a lot from this workshop, and I will benefit others. Civil organisations now can work with the community, to increase their awareness. God bless and help you. (Civil society organisation employee)

12.4.3.2 Capacity development: Looking through the community’s eyes

The senior officers said that this approach helped them to identify the maternal health issues through the lens of the local community, and that this will influence their future decision-making process. They stated that most of their existing activities and programme content did not match the needs of the community, and that they think about issues from a service provider’s point of view. They acknowledged that such ways of collaboration and sharing with local people will enhance their capacity and improve their skills to do projects that match the needs of their local people:

After we know what our people want, we hope that you will hear about our projects that will be done here soon. (Director of laboratory services)

I did a research before, but it was not scientifically sound. Now we learned a lot from the local people about maternal health in our community, and we will collaborate with them strongly. (Public health officer)
12.4.3.3 Enhanced confidence and competency

Many of the officials feel that they were not qualified to do their jobs when they were recruited, and they acknowledged the benefit of the workshop for their careers, their confidence and competencies. They noted that they were doing many projects and writing many reports but in a non-scientific way, and that now they have acquired some of the basic skills to manage a project:

We were weak in our training, but now after this workshop when we work we will know how to plan and to implement. (Director of HIV and sexually transmitted disease)

Sometimes you are hired in a job, but you are not well qualified. Accidents may occur, but you cannot deal with it. You only could raise reports, without contributing. Now you can determine the goals, objectives and evaluation. (Public health officer)

This workshop was amazing. I tend to do the extended programme of immunisation (EPI) projects in a non-scientific way, as we say ‘dafori’ (like playing a football). (Director EPI and surveillance)

I studied this in the university, but I forgot it. Now I [am] refreshed [in] it all. I am glad to have a link with the university through this workshop. God will give you more and more. There are fees for this course, but you provided it free for us. (Director of county health department)

We learned it before but we forgot it. Now we know how to write the time plan and budget. We also worked as a team. (Director of nursing)

12.4.3.4 Seeking further training

Some of the participants felt that the duration of workshop was short, and that they would look for more training and collaboration:

We still need more leading and guidance in order to unleash our power. (Director of laboratory services)
12.5 Conclusion

This action research has been selected as one of the top 10 educational initiatives and solutions improving the lives of girls and women worldwide by the global advocacy organisation, Women Deliver (Women Deliver, 2012). It has also been identified by Training in Tropical Diseases special programme (TDR) and the WHO as an example of a qualitative implementation research approach for improving the lives of girls and women worldwide (TDR, 2014).

This action research process has been considered as a means of capacity strengthening for researchers and policy makers (Elmusharaf and O'Donovan, 2012), and as an approach for: knowledge translation and multilevel capacity building (Elmusharaf et al., 2013); promoting the health of hard-to-reach conflict-affected women (Elmusharaf et al., 2011); and teaching women lifesaving health solutions (Elmusharaf and O'Donovan, 2012).

Video 1 Introduction to IPHE: YouTube video

Link: https://www.youtube.com/watch?v=NxLzC8uW9_I
13 Chapter Thirteen DISCUSSION: ACCESS TO MATERNAL HEALTH SERVICES AND DEVELOPING CAPACITY TO PARTICIPATE

1.0 Introduction

This chapter reflects upon the research findings presented in previous chapters to highlight the overarching issues that have emerged. Two critical issues that arose during the research process are discussed: 1) access to maternal health in post-conflict settings; and 2) knowledge into action: understanding the context.

13.1 Access to maternal health in post-conflict settings

Health services during post-conflict settings are stressed as clinics are damaged and unstaffed, and health workers remain scarce (Rubenstein, 2009, Michael et al., 2007). Moreover, the combination of poverty, loss of livelihood, and breakdown of social support systems damages the health of the population (Waters et al., 2007, Pedersen, 2002).

Enough knowledge has already been gained to inform global action about strategies to improve maternal health in post-conflict situations. Some of these strategies are family planning, antenatal care with provision of misoprostol for prevention of postpartum haemorrhage at home births, skilled birth attendants, referral systems that included basic and comprehensive emergency obstetric and neonate care and postnatal care (Ronsmans and Graham, 2006, Ahmed et al., 2012, Prata et al., 2010). However a more essential issue is whether women actually have access to these interventions and whether they benefit from these strategies.

People have the right to a health system that is effective, that encompasses underlying determinants of health, that is responsive to national and local priorities, and that is accessible to everyone (Hunt, 2007). Early investments in the health system to make it functional, accessible and equitable can have important health and state-building benefits in post-conflict countries (Kruk et al., 2010a). But one of the main factors that contributes to the failure of maternal health programmes is the mismatch between the actual needs of the people and the circumstances in which healthcare is provided (Kanté and Pison, 2010). Little is published in this area in post-conflict settings.

Based on the findings of this research, there is a need for South Sudan to agree on priorities for maternal health that focus on the right to health, feasibility, and
understanding the contexts in which women live. However, considering other factors such as scarce resources and the needs of other sectors, peace-making and state building, it might be difficult for South Sudan to make maternal health a priority.

Furthermore, other priorities in South Sudan may push the agenda away from health. Policies and plans to strengthen the health system in South Sudan and other post-conflict settings need to be implemented during relief as well as development phases. Moreover, they should be integrated into peace and state building stages, and to be part of the short-term and long-term goals of the government, NGOs and other players.

High coverage with essential maternal healthcare services does not necessarily reduce the maternal mortality rate (Souza et al., 2013). Utilisation of maternal healthcare services in South Sudan could be improved by employing bottom-up approaches to strengthening the health system, investing in both supply-side and demand-side interventions, employing cooperative needs assessments, and engaging different stakeholders, including the local community.

13.2 Knowledge into action: understanding the context

The fragility of post-conflict countries arises mainly as a result of a failure to adequately balance the expectations of the people and the expectations of the state and the inability to consider the context when delivering services (OECD, 2008a). While understanding the context (historical, political, sociocultural and economic) is crucial when working in post-conflict fragile states, there is often little reliable health and contextual information available to facilitate this understanding.

Many women in Renk county and in the rest of South Sudan are hard to reach and are excluded from the health system, due to cultural factors, lack of education, geographic remoteness and other factors. There is no emphasis on reaching them or on creating a platform to incorporate their voices in addressing their future maternal health (Langer et al., 2013). This is what this research tried to do.

What comes out strongly from this research is the lack of understanding of many of the health system actors in relation to challenges faced by mothers and their families in terms of accessing their first choice of maternal healthcare, the magnitude of the maternal health problems, and the barriers that affect access to maternal care. As they admit themselves, they are very ‘supply oriented’; their focus is on building more facilities and buying medical equipment.
Additionally, they stated that most of their programmes do not match the needs of the community.

This research indicates that some stakeholders deny that maternal deaths occur in the region. They are not aware of socio-cultural determinants that might influence access to care. They underestimate the difficulties faced by people in reaching facilities. Many examples of this have been provided in previous chapters, clearly reflecting how stakeholders are misled in terms of their understanding of the reasons for delays in obtaining healthcare.

It is clear that neither the planning nor implementation of maternal health services is influenced by an understanding of the context of the community in Renk county. Money has been spent on activities that the community does not want. This lack of understanding of the local context, the lack of reliable information, the limited capacity, experience and responsiveness to research findings has hugely disturbed programmes and services in South Sudan (Sabuni, 2011). One of the reasons for this is the lack of a platform where stakeholders and community can meet, exchange knowledge and debate in order to find common ground so that mutually beneficial decisions can be made.

The challenge in finding common ground is that the capacity of community members to participate in such forums is often assumed. Additionally, the capacity of decision makers to make informed decisions is also equally assumed. So there are three main issues that need to be developed:

1. The capacity for communities to participate in research and action;
2. The capacity of stakeholders to utilise information they have access to; and
3. Forums / mechanisms where both parties can meet and fruitfully exchange knowledge and trust for action to occur.

This research dealt with all three areas.

13.2.1 The capacity of communities to participate in research and action

Many scholars criticise participatory action research approaches for ignoring the contextual structures in place that may leave participants vulnerable to power exploitation by the research team (Cleaver, 2001, Francis, 2001). Such approaches have also been critiqued for a lack of clear procedures and mechanisms, and inadequate understanding of power relationships (Kapoor, 2002). Capacity development is required to overcome these constraints and to tackle issues of responsibility, knowledge and access to resources (Jonsson,
Facilitating community members to share, reflect on and evaluate their knowledge eventually enables them to plan and act (Chambers, 1994).

For instance, a major aspect of participatory research is for participants to adapt to oral communication and recognise its value in research. This is not as simple as it might seem (Slim and Thompson, 1993). Developing genuine listening skills, tools and techniques is not easy. Denzin et al (2005) highlight the important implications of using practical, progressive approaches to interpretive research that focuses on indigenous participatory theatre. Mda (1993) has long advocated for ‘theatre-for-development’ as a means to enhance ‘between the centre and the periphery, and within the periphery itself’.

This is where PEER excelled: the initial steps in PEER were to address the capacity of PEER researchers to participate and to enhance their reflective practices. People involved in action research, particularly in post-conflict settings, need to be able to reflect on the changing context as their needs and situation also change (UN, 2013, UNDP, 2010). This level of capacity development is critical because it enables individuals to bring about change not only at an individual level but also at a community level. This is further enhanced by including community members as the researchers, whose mode of communication was that of the community under investigation.

Developing this capacity is common in some of the recent participatory approaches, but with PEER this capacity extended to all aspects of the research process, including the design process, conduct of interviews and analysis of data. This capacity development was essential in order for the researcher participants to participate in a genuine dialogue.

The empowerment philosophy is based on fact that women should have the capacity to make choices (Feste and Anderson, 1995). So if those who have been denied the ability to make strategic life choices are to be empowered, they need to be involved in a process that facilitates acquiring such ability (Kabeer, 1999). The involvement of women in the process of PEER provided them with a space for dialogue and reflexivity about maternal health issues in their community and made what is invisible visible to them.

PEER researchers clearly stated that PEER enhanced their credibility. They were more confident about their ability to influence change. Participation in research design, data collection and data analysis was highly valued by them. When they returned to their social circles, people were more accepting of what they said because they were perceived to know more than others.
PEER did not only give them the opportunity to collect and analyse the data, but it built their capacity to do so. While the PEER workshop trained them to be researchers, reflecting and analysing the data made them evaluators. The networks that they established in their community made them change agents. Twelve months after the PEER workshop, 10 out of the 14 PEER researchers were able to lead work on health communication (in the IPHE project) with employees of local NGOs and local theatrical band members.

This demonstrates how PEER helped in developing their capacity, mobilising the community, ensuring sustainability and increasing the level of readiness to participate in such activities. Figure 60 illustrates the process of the capacity development and empowerment of PEER researchers.

PEER helped both in gaining an in-depth understanding of the social, economic and cultural contexts in which people live; and it engaged and empowered marginalised women in hard-to-reach communities to participate in a community-directed reproductive health intervention. PEER researchers became lay experts in maternal health in their community and could be involved in future programmes. This ensures that the capacity remains at community level to introduce changes as they arise.

Figure 60 Capacity development and empowerment of PEER researchers
13.2.2 Capacity of stakeholders to utilise information

The capacity of stakeholders and the kind of expertise that they bring to the research process should be recognised and acknowledged. Stakeholders bring their accumulated experience, their local knowledge as well as their own desire and intentions to the research process (Taylor et al., 2006). However, these capacities can be unproductive unless stakeholders have the appropriate absorptive capacity to utilise the generated knowledge (Deng et al., 2008). Absorptive capacity can be defined as the, ‘ability of a stakeholder to recognise the value of new, external information, assimilate it, and apply it’ (Cohen and Levinthal, 1990a).

As part of this action research, the reproductive health project management workshop strengthened the capacity of senior officers to be more responsive and absorptive to the generated knowledge. Using the findings of PEER as study materials for the workshop helped the senior officers to link and relate to the local context and reality. It sensitised them to the local needs and prepared them to work with community members. Initially the challenge was for the senior officers to present their project proposals that they developed as part of the workshop to the IPHE participants. They not only presented, but also received feedback and comments, and discussed their proposals with the local people. The local people reported that they did not feel competent to give comments and feedback for senior officers, but after the capacity-building process both groups, the knowledge producers and users, were able to overcome these challenges to work more closely together.

13.2.3 Developing a mechanism for knowledge brokering

Enhancing the relationships between stakeholders and local people increases the capacity of health services (Ridley and Jones, 2002). There is a need to develop a mechanism for engaging with local people, particularly marginalised groups who are often socially excluded from public debate on policy issues. It is often assumed that capacity development starts from within individuals, but capacity also comes about through interaction between actors (Acquaye-Baddoo et al., 2010). However, one of the main challenges is to develop effective partnerships and create a balance in knowledge-sharing capability (Barnes et al., 2003).

The common approach to generate knowledge in health research is that researchers approach participants from the community using quantitative or qualitative methods to generate relevant information. Then the researchers transfer the results from this research to providers and policy makers with the
hope and intention that they will utilise this information to influence their practice. This researcher-push approach is common in developing countries. It lacks the interaction between those who are doing research and those who might be able to use it. This approach is described as having a wide knowledge-to-action gap (van Kammen et al., 2006, Lomas, 2000, Graham et al., 2006).

Transferring the results of research alone will not close this gap. Newman and Conrad (2000) suggested a framework of knowledge flows, which includes four main areas: knowledge creation, retention, transfer and utilisation. However, there is a need for interactive processes and capacity-strengthening approaches that encourage knowledge users (policy makers and healthcare providers) to be more responsive and absorptive to research findings (van Kammen et al., 2006, Cohen and Levinthal, 1990b). There is also a need to bring together researchers and healthcare providers in a collaborative, dynamic process to facilitate knowledge translation (Baumbusch et al., 2008). 'Knowledge interaction’ has been suggested as an interactive and contextual approach that emphasises social, dialogical and interpretative ways of knowing (Davies et al., 2008).

This participatory health system research (Figure 61) generated a dynamic platform for knowledge brokering. The PEER approach enabled the participants to be knowledge generators. The IPHE project gave them the chance to utilise the generated knowledge and make actions in their community, thus becoming knowledge utilisers. By involving them in the reproductive health project management workshop by letting them facilitate the transfer and exchange of the generated knowledge with the stakeholders made them knowledge brokers. On the other side, the reproductive health project management workshop enabled the senior officers to be knowledge utilisers.
13.3 Conclusion

Access to maternal healthcare in a post-conflict setting is a complex issue. Priority is not always given to maternal health, services do not usually match the needs of the people, most of the facilities are not functioning and many healthcare providers are incompetent. The voices of hard-to-reach populations are usually excluded or not heard. Social issues hugely influence access. Women usually do not take informed decisions and even if they do, they either do not act on them or only do so at a very late stage.

Improvements in access to maternal health in South Sudan will slow unless we take care of women in local communities, and unless women are empowered to make decisions about their care at the right time, without waiting for others to make the decision for them. An enabling environment for this decision making process is required.
14 Chapter Fourteen CONCLUSIONS

This chapter concludes the thesis in four sections, with reflections on: the main research findings, the research contribution, limitations of the research and future research.

14.1 Main research findings

This section summarises the main research findings which address the research objectives listed in chapter 1:

Objective 1: To gain an in-depth understanding of how women and their families make the decision to seek maternal healthcare;

Renk County and surrounding regions were affected by violence, unrest and conflict during Sudan's civil war, and remain very unstable and volatile. The long civil war killed many men, left a lot of widows, and resulted in fear and instability. People are under pressure to reproduce the nation, compensate for the large death toll and prepare for upcoming unpredicted war by having more children.

The conflict-associated social determinants worsen existing circumstances, aggravate longstanding poverty, put more limitations on women’s mobility, and force them to undertake new social and economic roles that may make them more vulnerable if they are isolated, exposed to violence and face a lack of resources. The value of social coherence and the importance of supporting each other, facing and solving problems together, are deeply rooted in the culture of South Sudan and play major roles in preventing many maternal deaths.

People are aware of maternal health and danger signs during pregnancy and childbirth because most of them have either experienced or witnessed many maternal events that are highly prevalent in the community. There is a low demand for formal maternal healthcare, which is influenced by cultures, norms and customs of pregnancy and childbirth.

Acceptability is a complex issue that needs to be contextualised in the social structure and belief system to better help us to understand the decision-making process regarding maternity care. Affordability of the incurred costs of maternal health services, including informal payments, indirect cost and opportunity cost, is one of the main determinants of decision making for maternity care. Household resources and cash flow within a society determine its affordability. The prioritisation of women's health in the household, in
relation to daily purchases, plays an important role in prioritising household spending.

Taking the decision to seek maternity care is not an individual decision; rather it is a process that involves individual interaction within a social network. It occurs in stages, across a network and depends on the emergency of the situation. The husband, mother, in-laws and the midwife all play different crucial positive and negative roles in the decision-making process. The decision includes negotiation and balancing between the perceived severity of the maternal situation and the need for referral to hospital on the one hand, and the cost and disturbance associated with it on the other. This raises the issue of the perceived capacity and skills of available healthcare providers.

The decision to seek care in an emergency usually takes a long time to make, up to three or more days. Severe bleeding and convulsions during labour are considered by the community as alarming signs and the presence of these signs might shorten the decision-making process, while prolonged and obstructed labour may take a longer time for a decision to seek care. Families usually lack the capacity to recognise danger signs at the right time and do not anticipate the time it might take for them to find a means of transportation and to reach a functioning healthcare facility.

Seven situations in which women give birth were identified: alone in the field without assistance; alone at home without assistance; at home with family assistance; at home with the help of a TBA; at home with the help of a village midwife; on the way to the healthcare facility; and at the hospital. This diversity is influenced by many contextual factors, accumulated experiences, cultural beliefs, social pressure, and access to an emergency fund. Often the place of delivery is not the planned place of delivery.

**Objective 2: To identify access pathways to healthcare services that pregnant women undergo during emergency obstetric situations;**

The physical accessibility of the first referral-point healthcare facility depends on access to funds, to an appropriate vehicle, negotiating the price, the distance involved and the quality of the road.

Four patterns of pathway to care were identified, based on the functionality of the facilities and referral competencies of their providers: ‘late or no referral, ‘zigzagging referral’, ‘referral to more than one facility’ and ‘Bypassing non-functioning facilities’. These pathways to care patterns intersect with physical accessibility barriers, in which the cycle of barriers could start again with each referral. Maternal outcomes are often better where there is no facility than
where there is a non-functioning facility involved. Absence of the provider is also better than presence of a non-competent provider. Women who bypass non-functional facilities and go directly to appropriate facilities are more likely to survive. Visiting non-functional or partially functioning healthcare facilities with non-competent providers on the journey placed the woman at greater risk of dying before completing their journey.

**Objective 3: To identify determinants of in-hospital delays in receiving timely and appropriate obstetric emergency care;**

Basic EmOC facilities in Renk county are very minimal and often not functioning. Renk hospital provides substandard EmOC. It is very clear that women seeking comprehensive EmOC in Renk hospital endure significant delays before receiving definitive treatment. The low quality of clinical management and poor infrastructure, the low availability of human resources, the lack of competencies, delayed responses, and a lack of commitment all contribute to in-hospital delays. Patient-side factors can also cause delay in accessing appropriate care in Renk hospital, such as reluctance to have a caesarean section carried out or to donate blood.

**Objective 4: To investigate the extent to which the health system’s actors understand the context of the community and integrate this understanding into service planning;**

When examining stakeholders’ perspectives on access to maternal healthcare in Renk county, this study found evidence of diversity and mismatches between views, as well as volatility, in terms of actions taken for improving maternal health in the region. Against a high maternal mortality rate, stakeholders’ understanding of the local people’s context varied widely. Attitudes ranged from denial, blaming the victims, making excuses, admitting the reality to a true understanding of the context.

**Objective 5: To identify strategies to strengthen individual and community-based capacities and health systems to improve maternal healthcare in states recovering from conflict.**

Learnings emerging from the rich data (PEER) including the songs and drama (IPHE) and health officials data (RHPM), helped to effectively engage two groups (community members and senior officers) to promote women’s health in Renk County.
The participatory health systems research approach strengthens capacity at multiple levels, ensures integrated knowledge translation, engages marginalised communities and enhances their contribution to identify health needs, and to plan and design future health services.

14.2 Research contributions

14.2.1 Methodological contribution

The goal of this qualitative study was to gain a rich and contextualised understanding of access to maternal healthcare. The conceptualisation of qualitative study designs and the combination of different qualitative methods led to in-depth, rich and detailed findings. The nature of these qualitative findings is not exclusive to that particular setting. Concepts developed and understanding are transferable and the rich description of events provided here allows for adequate extrapolation (Groleau et al., 2009, Misco, 2007). In order to allow the reader to draw inferences in terms of extrapolating the findings to other settings, the researcher provided detailed and thick description. This helps the reader to understand the context and to judge the proximal similarity of study contexts and their own context (Campbell, 1986, Sandelowski, 1997, Polit and Beck, 2010).

Conducting research in post conflict settings is a challenge because of the lack of trust, lack of power, lack of capacity, lack of literacy and lack of effective communication between the researcher and the participants. The participatory action research that the researcher implemented was novel because it dealt with hard-to-reach, marginalised and uneducated women and overcame these challenging issues.

This methodological approach addressed the scarcity of health system research and provided an example of research that applies a bottom-up approach in a post-conflict setting. It also helped to build trust between the local people and the researcher, gain contextualised and localised knowledge, build capacity at multiple levels, empower women, facilitate knowledge brokering and promote maternal health in the community. All of this was done at the time of the independence referendum and separation of South Sudan, one of the most critical and tense times in the history of the region.
14.2.2 Theoretical contribution

The researcher contributed to a theoretical understanding of access to maternal healthcare by explaining how access is conceptualised and encapsulated within the context of a post-conflict setting. The theoretical contribution comprises a conceptual framework and a discussion on how to use it to understand access to maternal healthcare.

This conceptual framework evolved throughout the research process. Initially the first delay was assumed to be the delay in making the decision to seek care. But without an in-depth understanding of the wider contexts, including living conditions, social institutions and other socio-cultural determinants of health, it was very difficult to understand the decision-making process and to be able to contextualise it. These structural and cultural contextual factors needed to be incorporated and integrated into the framework to facilitate our understanding of how populations engage with health systems (Mackian et al., 2004b). It also gives us an idea of how the broader context could be integrated with human, social, natural, physical and financial capitals to look at access to and utilisation of healthcare services (Obrist et al., 2007).

But understanding these contextual factors was not enough. Understanding the cultural acceptability of maternity healthcare in the form of perceived need and perceived severity, and understanding the acceptability of different maternal care providers was also necessary. Understanding the way women adapt themselves to pregnancy, the cultural practices around antenatal care, labour and the postpartum period, their knowledge and awareness about problems in pregnancy and childbirth, recognition of danger signs, and affordability of maternal care were all key issues that needed to be examined before attempting to assess access to maternal healthcare. This is partially supported by the health belief model (HBM), which includes the perceived severity of illness, and the perceived benefits of seeking healthcare as constructs that influence readiness to take an action (Hochbaum, 1958).

Taking the decision to seek care was not straightforward. Rather, it was a complex process (Andersen, 1995), preceded by a whole process that led to making this decision. This decision-making process was influenced by many factors and involved many people around the pregnant woman, each with different influences and roles to play. Two decision-making processes occurred during labour: the decision to call for initial assistance and the decision regarding the place of delivery. Both stages were dynamic, reactive and interlinked. Decision making could also be looked at from a wider perspective, in which the decision is not only to seek healthcare but also to decide to ‘be
healthy, to make healthy decisions and to be able to act on those healthy decisions’ (Santarelli, 2010).

The researcher assumed in the initial conceptual framework that there is a clear distinction between each delay, but this was not reflected in the findings. The first delay in making the decision did not end by the decision to seek care for antenatal care. Women took decisions every time they visited the antenatal care facility (or chose not to visit). The decision to seek care, therefore, is a continuous process that occurs alongside the journey of pregnancy and childbirth. This decision does not end by deciding to seek care during childbirth. There were decisions that needed to be made by the pregnant woman (and her relatives) when she requested to be, or was transferred from, one healthcare facility to another, such as from a health centre to a rural hospital, and from a rural hospital to district hospital. There were also decisions that needed to be made whilst in hospital, such as the decision to donate blood or to consent to surgery. Hence, conceptualising decision making as one, isolated and prolonged delay that occurs and stops may not be accurate; it overlaps with other decisions, which in themselves lead to other delays.

Likewise, the second delay does not end with the woman reaching a functioning healthcare facility. Reaching a non-functioning health facility could mark the beginning of a new cycle of the three delays. Therefore, the theme of ‘reaching the healthcare facility’ does not stop until a pregnant woman reaches an ‘appropriate’ health facility. This extension of the second delay overlapped and interacted with the third delay: accessing services.

Another example of overlapping that occurs is between the demand-side and supply-side barriers. The researcher assumed that ‘acceptability’ and ‘affordability’, as demand-side barriers, would mostly affect the decision-making process to seek care. But they affected the second and third delays as well, which the researcher had assumed to be mainly affected by supply-side barriers. For example, ‘affordability’ affected the decision-making process regarding getting to facilities and accessing services. The decision-making process was clearly not only influenced by demand-side barriers, it was also influenced by supply-side ones. ‘Availability’, which is mainly a supply-side barrier, affected the third delay and also affected the decision making around reaching the facilities. There were interactions between these different domains, and each domain was affected by many factors and affected other domains. This has been recently described in the literature in which geographical accessibility, availability, acceptability and affordability overlap with demand-side and supply-side barriers (Bart Jacobs et al., 2011).
14.2.3 Health system implications

14.2.3.1 Promoting maternal health

Many health education approaches have been used to promote women’s health in post-conflict settings. Most of these approaches are developed with a limited understanding of the complexity of social institutions and cultures in which behaviour is contextualised. The readymade solutions and interventions that are handed down from outside sources, not rooted in the culture, and lacking local ownership have repeatedly failed and in some cases, have done more harm than good (Lush et al., 2003, Merzel and D’Afflitti, 2003).

The IPHE project brought together local women, researchers, and development workers who identified pressing maternal health issues and developed a live music and theatre program to inform and educate those in the hardest-to-reach rural communities. Through the tradition of song and drama, IPHE helped influence traditional views on maternal health and to educate communities about lifesaving solutions for women and girls.

Learning and behavioural changes happened during the process of developing and delivering the educational materials. IPHE provided an opportunity to enable local people to increase control over and improve their health. It also mediated between different stakeholders for a common goal. Such an approach provided opportunities for ownership and sustainability.

The IPHE project was recognised by Women Deliver as one of the top 10 educational initiative ideas and solutions for improving the lives of girls and women worldwide in year 2012 (Women Deliver, 2012).

14.2.3.2 Strengthening a people-centred health system

The notion of a people-centred health systems is a major shift in thinking, moving towards encapsulating the needs, wants and expectations of people through four main core values: empowerment, participation, engaging in the process of development and without discrimination (WPRO, 2014).

People-centred health systems support the promotion of health literacy through access to health information and equitable access to health systems, through developing skills that allow control over health and engagement with health systems. It also supports mutual and respectful collaboration with local communities in goal setting, decision making, problem solving, resources allocation, health system organisation and health policy (WHO, 2013).

The participatory health system research method, which the researcher employed in this research, strengthens these core values and principles. It can
play a role in promoting a people-centred health system by enabling people to promote their health, increasing responsiveness, developing communities’ research capabilities, and engaging communities in identifying and addressing their own health concerns. Additionally, this research not only generated systematic and rigorous knowledge, it also created platforms for knowledge translation, worked with health system actors, engaging them in identifying and acting on opportunities for improving access to maternal health and for health system strengthening.

14.2.3.3 Post-conflict state-building

Years of violence and destruction during conflict weakens the social fabric and regulatory mechanisms, and destroys trust, identity and social ties (Pouligny, 2005). Peace building ideally takes these issues into consideration. Although there is no commonly agreed definition of post-conflict peace building (Tschirgi, 2004), the United Nations originally defined it as ‘an action to identify and support structures which will tend to strengthen and solidify peace in order to avoid a relapse into conflict.’ (UN, 1992).

Many approaches for peace building have been identified, both military and non-military (Tschirgi, 2004). One of the non-military approaches involves engaging with, supporting, and developing local communities, helping their local endeavours on their own terms (Sampson and Lederach, 2000) and strengthening the role of social structures and community cohesion (Pouligny, 2005).

Within this framework, community development strategies have emerged to further enhance peace building. A participatory approach is one of the main elements connecting development and peace building in post-conflict settings (Zolondek, 2010). It strengthens the capacity of the community to organise themselves to determine and act on their own priorities (Eade and Williams, 1995).

The participatory approach that the researcher used in this research developed the skills and abilities of local people to enable and empower them (Kahssay and Oakley, 1999), provided the tools and training that enhance ‘human capital’ (Putnam, 2000), and provided the platform to facilitate networking, cooperation and social interaction that enhance ‘social capital’ (Fred-Mensah, 2004). Human capital and social capital are crucial for building social transformation and for helping people manage change, promote reconciliation and build peace (Zolondek, 2010, Matějů, 2002). They are also crucial for equitable and inclusive sustainable development (UN, 2012). The role of women in promoting peace and reconciliation can be further enhanced by
engaging them in this participatory research (Garasu, 2002, NPWJ, 2011, Sørensen, 1998).

14.3 Research limitations

PEER can be critiqued in regard to the validation of the data from two perspectives: the difficulty in ensuring that the interviewees are telling the truth about their lives and behaviour, and the fact that the researcher will be removed from the source of the data as s/he will not usually have the time to learn the local language in this rapid ethnographic approach.

The researcher cannot completely verify with any degree of accuracy that PEER researchers recorded and retold the interviews accurately, as well as the possibility of bias in the PEER process due to use of third party interviews. This is where the major linguistic and interpretative challenges arise. In previous studies, PEER researchers had to be sufficiently literate to record the interview data. This could create a bias of excluding the illiterate, who are likely to be one of the more vulnerable groups in the community. In this study, the researcher overcame this problem by using symbols and drawings as a way to prompt the conversation and to follow up on key issues that took place between PEER researchers and interviewees. In addition, the debriefing was done in a series of three sessions over six weeks for each PEER researcher. Each debriefing session covered only one theme. This helped the PEER researchers to focus their reporting and manage remembering and retelling the interviews.

As the PEER researchers are trusted members of the community there was potential for greater participatory dialogue. Furthermore, the existing relationships between PEER researchers and their friends helped to gain more in-depth and insightful information than if this information had been collected by an outside researcher. PEER took place informally in an everyday living environment. No artificial setting was used to conduct the research, as may be the case in other studies to create the environment for collecting data (Price and Hawkins, 2002).

PEER offers advantages over other participatory methodologies. Many ethnographic or participatory approaches require extensive time and resources to develop trusting relationships with the community in order to understand the local context and the social networks they form. Without this contextual background participants in the interview may only represent certain groups in that society and interpretations of data collected may be misleading (Mosse, 1994).
Chapter Fourteen CONCLUSION

Qualitative researches are often critiqued for ‘promoting the production of a consensus view and normative discourse from participants’ (Price and Hawkins, 2002). This can be attributed to poor interview techniques, especially in focus group discussions, which are particularly vulnerable to the generation of normative information. But it is likely to be due to the composition of the sessions where plenary presentations typically represent a consensus view, rather than the divergent views held and tensions between them (Mosse, 1994).

Conflicting and divergent views were expected in PEER and as such the researchers asked questions not about individual experiences, but rather about ‘other people like themselves’ in the third person format without naming the person (Price and Hawkins, 2002). This approach enables different perspectives to be heard on social behaviour, without opinions on what ‘ought’ to be happening.

The other issue is the domain of language and interpretation. In previous PEER research studies the main linguistic and interpretative issue arose at the level of ‘meta-analysis’ (Price and Hawkins, 2002). In the case of this study, the researcher debriefed the peer researchers in the Juba Arabic language. This ‘pidgin’ language is derived from Sudanese Arabic that people from both North Sudan (where the researcher comes from) and South Sudan can speak and understand (Holm, 1989). The researcher considered it of great importance that the interviews and debriefings were conducted in the local language.

Another criticism is about ensuring that PEER researchers are representative across all of the community groups and levels. The researcher recognises that it was neither feasible nor appropriate to use random sampling techniques. However, the criteria used for recruiting the PEER researchers and the involvement of different stakeholders in the recruitment process facilitated representativeness across different community groups and villages.

The other issue is the involvement of men in the research process. In PEER, the researcher recruited only women. This is because the main essence of PEER is to build on the trust between PEER researchers and women in their social networks and to be able to discuss issues related to them such as pregnancy and childbirth. Involvement of men during this process might interfere with the nature of the study. Men were involved in the next phase of the research: IPHE and RHPM. Delaying the involvement of men until the second stage gave PEER researchers time to develop their capacity to engage with men and other stakeholders in the action research and to express their voices in their own social networks freely. IPHE facilitated the interaction and expression of male and female perspectives regarding maternal health issues in their community.
When the researcher started this study, South Sudan was part of Sudan. It was in a post-conflict status. Shortly after that, during the research process South Sudan began preparing for the referendum. By the time the researcher finished the fieldwork, South Sudan was an independent country. Before the researcher submitted the thesis, conflict had begun again in South Sudan, and the outcome for the people of South Sudan is unpredictable. This constantly changing situation put some limitations to applicability of the research findings. Conflict is constantly in flux; as conditions change, local people and health system actors change and adapt in dynamic and sometimes unpredictable ways. Therefore, no comprehensive description can ever be formulated about a particular setting. Any attempt to extrapolate the findings of this research in terms of understanding of access to healthcare must take the dimensions of context and conflict status into account.

14.4 Future research

14.4.1 Methodological approaches

The process and results of this research indicate that the PEER approach helped to overcome many challenges in doing research in a post-conflict setting. Further research is needed to look at using PEER in different settings and to integrate it with other approaches such as women's groups practicing participatory learning and action (Victora and Barros, 2013).

Further research is needed to look at how best to promote the voice of citizens in post-conflict settings. Particular attention should be paid to research investigating how to include and activate the voices of hard-to-reach people, marginalised women, children, youth, men and community leaders. Attention should also be paid to looking at methodological approaches that, while collecting information in post-conflict settings, builds the capacity of local people to engage in research, and to express and exercise their views effectively.

14.4.2 Health system research

The researcher noticed that regardless of remoteness, lack of electricity and absence of clean water, two things are often available and penetrate even the most remote villages in Renk county: Coca-Cola and mobile phones. Health systems research is needed to learn from corporations such as Coca-Cola on how to collect real time data, and to create global network of marketers and distributors that could penetrate every remote village and reach hard-to-reach populations. Likewise, further research is needed to look at the use of mobile
phone technology to improve, sustain and strengthen the maternal health system in post-conflict settings.

Research is needed to look at reproductive health rights in post-conflict settings. The researcher noticed that domestic violence against women and girls is widely prevalent in South Sudan and that it is part of the culture and norms. Behavioural changes and policy research are needed to look at the best approach for addressing these issues.

Communities in South Sudan and other post-conflict settings have a great potential to play an important role in the health system; however, their level of readiness to participate may vary and can be influenced by many factors. Research is needed to look at the determinants of community readiness and how best to increase the level of readiness.

The health system in South Sudan operates in a context characterised by fluidity of political situation, changes in the conflict status, and surfacing of internal divergence. In such a context, future health system research needs to address the emergence of stigma and discrimination of stakeholders.

14.5 Conclusion

Health professionals, medical students, programme designers, policy makers, executive officers and health system actors in general focus on supply-side factors: building new facilities, investing in human resources for health, improving the quality of services, and providing evidence-based medicine. On the other hand, many health facilities and services in developing countries and conflict-affected fragile states seem to be underutilised. This is evident by low utilisation of family planning methods, a low rate of caesarean section, a low rate of institutional delivery, and a low rate of delivery under the assistance of skill birth attendants.

Women should be able to stay healthy, to take healthy decisions, and to act on those healthy decisions. Decision making at the level of household to seek appropriate healthcare is a very complex process. Behaviour is contextualised by the complexity of social institutions and cultures, which determine the health outcome of people in each community. Each community has its own unique context, which we need to understand in order to address their needs and plan for accessible maternal healthcare services that can reduce the rates of maternal mortality and morbidity.
Working at the community level and gaining an in-depth understanding of the local needs, social and cultural behaviours are essential to understand the context of hard-to-reach communities. By doing this, appropriate services and interventions can be tailored to fit the community and will, therefore, be more likely to be accepted and utilised by them. Involving the community, empowering women, and encouraging stakeholders to focus on demand-side barriers will create demand for healthcare services and respect for their rights.

This study makes several contributions in the field of health system research in post-conflict settings. First, it answers the call for more health system research on access and equity for maternal health in post-conflict settings. Second, it provided a methodological approach that could be used in post-conflict settings to overcome many challenges, obtain information, empower people, and facilitate knowledge brokering and translation. Third, the study identifies delays, determinants of access to maternal healthcare, and strategies to strengthen individuals, community coping and health systems to improve maternal healthcare in states recovering from conflict. Apart from generating important findings, this study should act as a catalyst for others to encourage participatory health system research in conflict-affected fragile states.
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Appendix 1: Training of PEER Researchers

During the four-day workshops PEER researchers were introduced to the concept of PEER research. They discussed and identified important maternal health issues in their communities. They identified key themes and sub-themes for the research and developed ‘drawings’ to guide their interviews. They practiced ‘third-person interviewing’, asking open-ended questions, probing, asking for stories, and asking for consent from their friends to take part. In this section the researcher illustrates the capacity-building process for recruited women to be ‘qualitative researchers’ able to design research instruments, and collect and analyse qualitative data.

Managing expectations

The first step was to manage expectations. PEER researchers were asked to introduce themselves and to describe why they were there, their understanding of the role of the workshops, and what they hoped to get from being part of this study. Any point of difference was clarified in order to manage expectations.

Introduction to PEER

The concept of PEER was described to the PEER researchers as a method of research that involves ordinary people from communities, people like themselves, gathering and interpreting stories in order to inform health policies and programmes. They were assured that no prior skills were needed, and that they would be trained in everything they would need over the four days ahead. They understood that they would be going to three of their friends to gather stories and experiences related to maternal health in the area, and that the researcher would then have ‘feedback’ sessions with them to hear about what they learned. It was very important to convince them that there were no right or wrong answers, that the research team wanted people’s perceptions, opinions and stories, and that the PEER researchers are seen as representatives of their communities.
They understood that we would be sharing the results of this research with them and that we would be asking them to help explain the meaning of these results. They were assured that the findings would be shared with policy makers in order to contribute to the development of good maternal health policies. In addition to that, they appreciated that they would also gain skills and experience that might help them in their everyday lives, that they would learn things about their community they perhaps they never knew, and that they would receive certificates at the end of the study.

**Getting good information from friends**

The PEER researchers were taught that during the interview they should maintain privacy and not judge the women they interviewed, and that they were to go, listen, ‘chit chat’ and come back and share. They were taught not to ask leading questions, not to lead their friend into the answers, and not to give answers or tell the women what to do. They were trained on asking questions in the third person format, and how talking about other people in the community can make it easier for people to protect their privacy. They were also trained to ask follow-up questions to understand more, so if an interviewee became silent, for instance, the PEER researcher should wait, give her time and then try asking in another way, but not to answer the question herself. They were introduced to the concept of 5 Ws in Arabic (what, where, why, when, how) so if an interviewee became quiet they could use those questions to encourage them, and if they remained quiet they could ask them for a story. Every question contained three parts: the main question, follow-up and the story. They were also taught about how to introduce the study as ‘a study about maternal health with no personal details’, how to seek permission, and how to arrange a good time for conducting interviews with their friends.

**Demonstrating good versus bad interviews**

The PEER researchers were introduced to the concept of good and bad interviews. Examples of ‘bad’ interviews include those with no introduction, that were not prearranged, that are judgemental and leading, rushed, and that involve poor listening and body language skills. On the other hand, ‘good’ interviews are prearranged, with permission having been sought, involve using the third person format with no names involved, and the interviewees understand their right not to answer any question they do not want to answer.

PEER researchers brainstormed on the basis of what they were told about good interviewing. They worked in groups to draw pictures of a good interviewer,
which they presented to the other groups. This exercise started to demonstrate how the women use images and the role of symbols in their lives.

The first group’s drawing had many features: eyes because the good interviewer must have eyes to look at people; ears to listen (‘open your ear and listen’); a mouth to smile all the time; a watch to take note of the time, arrive on time, take the right length of time and not to stay too long; a heart to guide the researcher and remember that what she thinks and feels should stay on the inside; and a tongue for the importance of transmitting the right information. Beside the body there were flowers as symbol of happiness and relaxing, a door to knock on before entering, and a circle representing the fact that the researcher will not ask about the woman herself but about the people around her.

The second group drew a female researcher. She held a notebook and pen for summarising what is said. She had eyes to look at a person, and see what they are saying; a mouth that opens to connect with the person that must be smiling; ears to hear a lot; and hands to help facilitate the conversation and help to take notes.

‘We will give open questions so we can just sit back, relax and listen to what she says.’ (Second group)

The third group drew a path to the house and two people sitting. They explained that you must take this path, knock and wait to be welcomed. The two people sitting symbolised hospitality with tea, introducing the study well, and talking about stories not people.

The fourth group’s drawing showed eyes and ears because they are the most important, hands to keep track of time, no mouth because the good researcher ‘listens rather than talks’, and because ‘the researcher should take the information given and keep it in her heart so no one else hears and makes a fuss about it’.
Appendix 2: Developing research instruments

Understanding the key issues

The purpose of the 'Understanding the key issues' session was to develop understanding of what 'maternal health' meant to PEER researchers. This included what factors might affect pregnancy and birthing experiences and related to the decision-making process. This helped them to develop the questions that they would use in interviews with their friends. In four groups, PEER researchers brainstormed about 'what comes to mind when we say': daily life, family and family size, pregnancy, and childbirth. Key words that PEER researchers mentioned in each group were written down, and later the key words were shared with other groups that had not already explored that topic, so they could add new ideas to their list. The 'findings' were presented to the whole group and discussed so that the PEER researchers could agree the most important issues and the least important ones.

In the theme of daily life, the important findings were: education for themselves and their children; collecting water from the river; and responsibility for domestic tasks and childcare. They stressed the importance of children ‘as they grow up to be useful’ and that men want a lot of children and ‘women don’t want much children, because it’s tiring, the pregnancy process’.

The man says have lots of children, don’t worry about the food, I will bring it. The problem is it is the woman that suffers... Since my son was born I feed him, I take him to the hospital, and my husband doesn’t do any of this. (PEER researchers)

In the ‘family and family size determinants’ theme, the main theme was the need for a big family (‘You can’t be by yourself, you need a big family’, and ‘When they grow-up children help you, if you educate them, they get a good job and support you’). They shared their belief that family size is determined by God:

You don’t get to decide what number of children you have, you just have as many as you can.

It is up to God how many he will give you... you might have 10 but some will die.

You have many children because you can’t guarantee they will all be
In the pregnancy theme, the important topics were: pain of delivery; fear of the outcome; happiness; fertility concerns; influence of past experiences (‘If first pregnancy good, don’t worry about others’); and, as one participant put it, a ‘healthy woman mean healthy child’.

In the birth theme, the main topics were: happiness; fear; pain (‘labour is like war either life or death’); the outcome being in God’s hands (‘If easy birth you don’t remember God, but if difficult they pray to God’); worry about reaching the health centre in case of difficulties; young mothers at risk of difficult delivery (as girls might get married as young as 13 years); and fear of complications like swollen body, seizures, and bleeding.

Women were asked to act out four role-plays about some of the issues discussed in ‘Understanding the Key Issues’ session.

The first play was about family. In it, the mother got up first to prepare food; the children ate and went to school. The mother continued cooking. The children came from school in the noon break. The mother helped them and tested them while they eat. The children went back to school for the afternoon. The father came back from work late and the wife was upset. When the whole family was together the children sang a song they had learned in school. The proud father declared his family as strong and successful.

The second play was about a midwife. A woman with labour pains was surrounded by her husband and mother-in-law. The woman was told to drink something for the pain, but they got worse. She wanted a midwife. The man just sat there, so mother-in-law got the midwife. The woman did not like the midwife prodding her stomach, and wanted to go to hospital, but the midwife said, ‘no, all is okay’. Eventually the baby came. They celebrated the baby’s arrival. The new mother was dizzy so she was given drinks. She bled a lot but it stopped eventually. The father and mother-in-law distributed celebratory sweets to neighbours; it was a baby boy.

The third play was about pregnancy and birth. A woman, seven months pregnant, felt pain. She and her mother went to the doctor. The doctor said she was not eating or resting but continuing to work and cut wood! She had also not been attending the antenatal clinic; she must go to the midwife. The woman said the pain had lasted for two days but just came to the doctor because they live too far away. First the midwife checked the baby, then the doctor did his
check-up. The woman delivered preterm because she had been working too hard during her pregnancy.

The fourth play was also about family. The sons did not want to go to school, especially one, who did not go. The bad son, who did not go to school, was beaten by his father. The bad son left home. The group tried to demonstrate the importance of having multiple sons, as they do not know which child will be good and which will be bad.

**Developing questions**

The final themes were: family and determinants of family size; experiences of pregnancy; and experiences of childbirth. The challenge was to develop good questions to be used by the PEER researchers to ask their friends that related to the research themes. The key findings from ‘understanding the key issues’ were presented under the three themes. The PEER researchers were asked to develop two questions for each topic while working together as a big group. Then they split into three smaller groups to brainstorm one topic each for 30 minutes. They rotated the topics two times so that each group worked on the three different themes.

Then the set of questions for each group was shared and discussed with the women altogether, in one group. Each question was read out, one at a time, and the PEER researchers were asked to comment on whether they thought the question was good or bad, whether it could be improved in some way, and whether it was something they could ask women in their villages. Modifications were made to the vocabulary and the order of the questions, and some questions were edited or deleted.

**Developing drawings**

**Draw the drawings**

Because most of the PEER researchers do not read and write, we needed to develop images that would help to remind them what they wanted to ask. Each PEER researcher was asked to draw an image for each of the questions as they were read out, keeping in mind that they would use those images to remember the questions later. The final drawings were collected and all drawings representing a question were grouped together in envelopes.

**Choosing which drawings to use**
Afterwards, the drawings were filtered by the research team. Drawings that did not reflect their full intended meaning or that were very similar to other drawings were taken out. The rest of them were then ranked by the research team and the five drawings that best reflected each question were chosen.

**Refining the drawings**

The PEER researchers were put into three groups to finalise the drawings within each theme. Each allocated drawing was passed around the group, and the PEER researchers were asked to relate it to a question. The drawings that did not clearly reflect the question were taken out. The remaining drawings were discussed and refined after combining ideas.

**Testing the drawings**

The groups switched and continued the same activity using the other group's drawings. The final drawings were tested by showing each group those drawings developed by the other groups and asking: what was the question that this picture represented? Was there anything they would change to better represent the question?

**The final drawings**

At the end, the participants were brought together to agree on the final drawings. Several copies of the drawings were then drawn again clearly by the women. (see Figure 62, Figure 63 and Figure 64)
Figure 62 Pictograms for theme 1 Family and determinants of family size
Figure 63 Pictograms for Theme 2 Experiences of pregnancy

**Q11**: Who takes care of the pregnant woman?

**Q12**: Who gives the pregnant woman advice?

**Q13**: What are the things the pregnant woman does to remain healthy?

**Q14**: How does pregnancy change the daily life of a woman?

**Q8**: What are the concerns of pregnant women?

**Q7**: How do people feel/react when they hear that a woman is pregnant?

**Q9**: What makes a pregnancy bad?
Figure 64 Pictograms for Theme 3 Experiences of childbirth

Q15: How do people feel/react when they hear a woman gave birth?

Q14: What determines the outcome of the pregnancy, whether it will be good or bad?

Q17: What are the things that make women die or get sick during delivery?

Q18: Where do women give birth, and why?

Q19: When a woman gives birth, who is with her?
What is the role of each person present?

Himm al-mahatta lihi mibtul 'umr sharah?
Q20: What are the concerns a mother feels for her baby?

Q21: What does a woman do to protect her baby?
Appendix 3: Guidelines for the de-briefing sessions

**What are the de-briefing sessions?**

This is when the PEER dataset is actually created – these notes will be analysed at the end of the research. The de-briefing sessions could be seen as a kind of ‘key informant interview’. In anthropology, a key informant interview is an interview with a local person with whom the researcher has developed a relationship of trust, and who is well informed about the local situation and can offer insights. So although the researcher is collecting data from them concerning what their friends said to them, the researcher often ends up discussing and interpreting they said too – and this is also valid data to include in the dataset.

It is not necessary for all of the PEER researchers to be perfect key informants. The researcher needs to take care not to criticise or exclude anyone. The researcher provides constructive criticism but also praises each participant as generously as the others.

**How often, how long?**

After finishing each theme (i.e. after they have interviewed all three friends about the theme), peer researchers meet up with the researcher to tell him what they have discovered. If there are concerns that a PEER researcher has not understood the process well, or has difficulty remembering the data, then the researcher meets them more regularly than this.

The researcher arranges a time slot with a PEER researcher for at least 1.5 hours – though it might not always take that long – in a private location. Some contingency time is set aside when planning the de-briefing sessions; this is because some PEER researchers will miss their appointments or come late. The researcher anticipates there to be cancellations, ‘no shows’ and people wanting to leave early. This ‘contingency time’ allows the researcher to avoid stressful situations arising, both for himself and for the PEER researchers.

**Where?**
De-briefing sessions should take place somewhere private and convenient for peer researchers: at their home, at the office, at a guesthouse, etc.

**Providing coaching**

During the de-briefing sessions, the role of the researcher is to gather the data from the PEER researchers’ interviews, and to support them in following the principles of PEER (third person, no names, collecting stories, etc.). If PEER researchers do not provide detailed data in the first de-briefing session, the researcher should give them constructive feedback, encourage them to get as many stories and examples as they can next time. Usually, their performance improves at the next session. The first de-briefing session should be seen as a practice interview, so it does not matter if they make mistakes.

**What to do during de-briefing**

- Spend the first few minutes just having a general chat about how their interviews went, and any problems/questions they may have (make a note of what they say).
- Make sure you have a copy of the relevant prompts (e.g. questions for Theme 1). Say, 'right, so what did your first friend say about question 1?' and then let them talk.
- Follow up with prompts as required (e.g. did she mention any examples or stories about that?).
- Add an extra questions such as, 'what do YOU think she meant by that?' or 'why do YOU think that happens?'
- Move on to Friend 2, and then Friend 3.
- If you want to clarify a point they have made, repeat back what they have said in their words – or ask them to explain it again. Don’t summarise what you think they said in YOUR words, and ask if you have interpreted correctly – they are more than likely to just say ‘yes that’s right’ even if what you say is different from what they meant.
- When you have collected the data from all three friends, give the peer researcher a copy of the questions for the next theme, go over them again with him/her, making sure s/he understands the questions, and arrange the time for the next de-briefing session.
- In at least one de-briefing session, gather some basic information about the peer researcher and their friends (this will help with a more in-depth analysis later). Perhaps their age, village, ethnicity/tribe, religion, number of children (if not too sensitive), a couple of indicators of socioeconomic status (e.g. house construction materials, electricity, gas stove). In a standard PEER study you might not need to capture too much as you won’t explore everything in lots of depth but if you are doing a more in-depth analysis you might explore relationships between these factors and what women say further. REMEMBER however this is not a quantitative study and the relationships are not necessarily statistically significant etc. Thus do not over-interpret emerging patterns nor attempt to quantify them.

**Note taking**

- Write as detailed notes as possible.
- Type directly onto a laptop if possible (if you can type at a decent speed), otherwise, write your notes by hand and type them as soon as possible afterwards (you will need to leave longer gaps between interviews in your timetable if this is the case).
- Make sure you note the date, name of the de-briefer, and question and theme numbers in your notes.
- If possible, keep the data from the different friends separate – but they may find it hard to remember which friend said what – in which case it isn’t too important if the data get a bit mixed up.
- Notes may be taken in any language, but they should reflect closely the words and phrases used by peer researchers.
- Write down what the peer researchers actually say, not what you think they want to say. E.g. don’t write ‘there was a feeling that...’ – write what they actually said.
- Make field notes: What signs and adverts do you see relating to the research question? What do you see or hear on the streets? What do people talk to you about, before or after the de-briefings, or during the training?
- Try to capture the local words for some of the key concepts, e.g.:
  - Words for pregnancy
  - Words for new baby
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- Words for midwife
- Words for illnesses experienced during pregnancy/birth.

- Put your own comments or ideas in square brackets []
- Put the peer researchers’ comments or explanations in normal brackets () or type them in italics.
- Make a table with the characteristics of the peer researchers, their informants, and who is doing the note taking and interview. You will need this to keep on top of the notes (if there are several of you typing up etc) and also to describe the peer researchers and their interviewees’ characteristics in the methodology section of the report (e.g. there were five men and five women, who interviewed 13 men and 17 women, ages ranged from x to y, etc).
- Don’t stop taking notes when you have finished the questions! Some of the most interesting data may come when you stop the de-brief officially, but they keep talking.
- If a peer researcher wants to tell you something really personal make sure you ask permission to write it down and stress their name won’t be attached to the data. Remember, they are your key informant – you can ask them extra questions, and ask them what they thought of the data.
Appendix 4: PEER researchers’ analysis workshop

After the data collection and debriefing, a one-day workshop with PEER researchers was conducted. This workshop aimed to get insiders’ interpretation of the data that they had collected. The PEER researchers discussed the key issues from their interviews and provided their own analysis of the data. The researcher worked with them to explore the meaning of their findings and to explore how findings might best be translated into action in a ‘forward vision session’. In order to bring research findings to life, PEER researchers were encouraged to represent some of the main findings by means of telling profile stories and dramas. They also provided feedback on their experience of being involved in the study, clarified any outstanding issues and explored any new questions that arose during the study. They were publicly thanked and presented with certificates. The main outputs of this workshop were the identification of most important findings, profile stories and a series of dramas. This was followed by a question and answer session called ‘forward vision session’, in which the research team checked their comprehension of the main issues raised, and asked further questions to clarify matters.

‘Analysis’ session

The aim of this session was to identify the most important findings for each question. The PEER researchers worked in three groups and then worked together in a big group. In small groups, each PEER researcher shared her main findings for a particular question; the group then discussed their findings within their small group and agreed the ‘top line findings’ for each question. The groups then came together in a plenary session to agree on the most important findings for each question and came to a consensus about their agreed final most important findings.

Profile stories and dramas

The aim of the session was introduced and explained to the PEER researchers as the need to reflect on the study’s themes by creating a story. They were asked to sit together in three groups to develop a story, in a manner that represented the reality in their communities. Representatives of each group
narrated their story in front of their fellow PEER researchers. After that, each group was asked to prepare and present a drama that reflected their findings. They role played these dramas in the presence of all the other PEER researchers.
Appendix 5: Questions for key informants’ in-depth interviews

**Background information**
- Could you please introduce yourself?
- For how long have you been working as a (........)

**Introduction**
1. What are the main problems facing women in South Sudan?
2. What are the main problems facing women’s health in South Sudan?
3. What is your evaluation of the health of pregnant women in Renk and in South Sudan?

**Acceptability**
4. To what extent do southern women utilise the health services in Renk?
5. In your opinion, what are the barriers that prevent southern women from utilising the health services in Renk?
6. To what extent do women in South Sudan accept the existing maternal health services?
7. Are there beliefs or cultures that might have an influence on pregnant women’s access to health facilities and use of it?
8. What is the role of the communities in the existing maternal health services?
9. To what extent do communities engaged in maternal health services?

**Affordability**
10. What is the cost associated with the childbirth?
11. Do you think that the cost of maternal care services prevent women in South Sudan from fully utilising the services?
12. Do you think that families in South Sudan / Renk can afford the cost associated with receiving maternal healthcare?
13. Do you think that families in South Sudan / Renk are willing to pay the cost associated with receiving maternal healthcare?

**Accessibility**
14. How easy is it for the people to reach the health services in Renk County?
15. What are the barriers that make it difficult for the people to reach health services in Renk County?

**Availability**
16. What is your evaluation of the geographical distribution and coverage of the healthcare facilities in Renk County?
17. What is your evaluation of the availability and quality of healthcare professionals working in maternal health?
18. Is there a budget and are there means to provide good maternal health in Renk County?

**Quality:**
19. What is your evaluation of the quality of maternal health services at the level of the midwives, health centres and hospitals?
20. What is your evaluation of the ability of the healthcare professionals in hospital to diagnose and treat pregnancy and childbirth problems?
21. What is your evaluation of the ability of trained village midwives to diagnose and treat pregnancy and childbirth problems?
22. What is your evaluation of the ability of traditional birth attendants to diagnose and treat pregnancy and childbirth problems?
23. To what extent are the people in Renk County satisfied with the health services?

**Understanding the context**
24. Do you think the health system and people responsible for the health services are aware of the beliefs, culture and barriers that might prevent the southern women from accessing health services?
25. To what extent is this awareness and understanding being useful in planning for maternal health services in Renk County?
26. How are the decisions, policies and plans for maternal health in Renk County made?
27. In your opinion, what are the solutions and strategies to provide better maternal healthcare at the levels of villages and city?
28. In your opinion, what are the solutions to making the southern women fully utilise the health services of the midwives and of the hospitals?
Appendix 6: Prioritisation of the important issues related to women’s health

The participants were divided into two matched groups of 11 people. The maternal health issues were read out, and the participants were asked to select the issues with the highest priority to be addressed. This was done in two stages: first they were put through the quadrant analysis / decision box and then the selected issues were compared, based on which emerged as more important through pair-wise ranking.

Quadrant analysis / Decision box

Here the participants categorised the issues according to the practicability and feasibility of solutions and impact on maternal health from their perspective. An issue can fall under one of four combinations: it could be: of high impact and easy to improve; of high impact and difficult to improve; of low impact and easy to improve; or of low impact and difficult to improve. Each group discussed each issue as to which category it should fall under. This was followed by a plenary discussion, during which participants debated their analysis.

Table 28 Instructions given to each group for quadrant analysis / decision box

| Identifying priority maternal health Issues using quadrant analysis / decision box: |
| - You have now a list of maternal health issues. |
| - Make a priority decision based on two criteria: Impact and improvement where impact could be 'high' or 'low' and improvement could be 'easy' or 'difficult'. |
| 1. Easy to improve means that the maternal health issue can easily be improved through IPHE. |
| 2. Difficult to improve means that the maternal health issue is difficult to change through IPHE |
| 3. High impact means that the issue has a high effect on maternal health. |
| 4. Low impact means that the issue has low effect on maternal health |
| - Assign each health issue to the quadrant, in the category you think fits it best. |

<table>
<thead>
<tr>
<th></th>
<th>High impact</th>
<th>Low impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to improve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficult to improve</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pair-wise ranking

The topics agreed upon as high impact and easy to improve issues were then compared by each group separately based on importance. In order to do so they were compared against each other, given a score between zero and three and then prioritised according to the issue with the highest score.

Table 29 Instructions given to each group for pair-wise ranking

<table>
<thead>
<tr>
<th>Identifying priority maternal health issues using paired comparisons:</th>
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</thead>
<tbody>
<tr>
<td>1. From the first exercise, you have a list of maternal health issues where each issue is assigned to a letter (A–G).</td>
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<tr>
<td>2. You are going to compare issues based on which is more important.</td>
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<td>3. Cells where you will compare an option with itself and where you will duplicate a comparison have been shaded out.</td>
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<td>4. Based upon the importance, identify which of the two options ‘wins’ and write the letter of the winner in the appropriate cell.</td>
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<tr>
<td>5. Then score the difference between the two options on a scale from zero to three. A score of (0) means no difference and (3) is a major difference. Beside the letter of the winner write down the score.</td>
</tr>
<tr>
<td>6. Add up the totals for each letter.</td>
</tr>
</tbody>
</table>

Table 30 Pair-wise ranking matrix and score

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<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Issue</th>
<th>Score</th>
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<tr>
<td>A</td>
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<td>G</td>
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</tbody>
</table>
Appendix 7: Transforming the priority issues into action messages

The objective here was for the participants to come up with action messages for each of the priority issues. These messages were to be formulated in their local dialect and in simple language so that everyone could understand them. They were also to be clear, brief sentences that are easily memorised and could be repeated by the local community.

The participants were divided into two matched groups. Each of the groups was asked to integrate the issues into a case scenario reflecting what actually happens in their community. One member of each group told the story (Table 19). The groups brainstormed solutions or actions that seemed most appropriate to address the issue concerned. After agreed on the scenario and solutions, each group formulated one action message for each issue and presented their messages to the other group. Further discussions took place and a final format for the action messages was agreed upon.

There was a lively plenary session where participants commented on each group’s story. The groups debated on the need to address nutrition and regular follow-up care for the first story. The second story highlighted violence against woman and mistreatment by the husband. Keywords were identified from the case scenarios listed and were discussed. The researcher introduced the participants to the concept of the action messages, and he asked them to formulate action messages from the key issues identified previously. They came up with five final action messages (Table 20).
Appendix 8: Develop context-friendly educational material

In this phase the participants developed educational materials in the form of a song, a play and five pictograms. It was explained that these materials should suit the local cultural context and be acceptable to the community. They should also convey the messages in a manner that would affect their audience and induce change. The participants were divided into three groups. At a later stage all the participants contributed to development of the final material.

The song

Group A wrote lyrics for songs based on the action messages. Writing the lyrics in their own words reflected their everyday life, cultures, beliefs and dangers, confirmed by the action messages. They wrote the lyrics, shared it with other participants in a plenary session and received feedback. They then composed and sang the music and developed the final production in simple Arabic language (Juba Arabic) (Table 21).

The drama

Group B used drama to convey the action messages. They decided that each action message could be an episode in a series. The group then acted the play several times and received feedback and comments each time. An example of the comments on the acting was, for example, to carry the woman while she was bleeding and not to let her walk. At the end all the participants agreed on the concept and scenario of the play.

The pictograms

Drawing the pictograms

The researcher asked the participants in group C to make drawings representing each of the five action messages, keeping in mind that they would be aimed at the whole community, all of whom should be able to understand them without words. The final drawings were collected and all pictograms representing an action message were grouped together.
Choosing the pictograms

Afterwards, the researcher filtered the pictograms; drawings that did not reflect the full meaning or were very similar to other drawings were taken out. The rest were then ranked and the five pictograms that best reflected each message were chosen.

Refining the pictograms

The participants were then put into two groups to finalise the drawings. The first group had drawings of three action messages and the second had the remaining two messages. Each of the chosen five drawings was passed around the group, one by one. Without being given any indication of which message the drawings were supposed to reflect, they were asked to describe the message portrayed in each one. The pictograms that did not clearly reflect their action message were taken out. The remaining drawings were discussed and refined after combining ideas.

Testing the pictograms

The facilitators then switched groups and continued the same activity using the other group’s pictograms. The final pictograms were tested by showing them the drawings developed by other group and asking: ‘What was the message they got from each?’ ‘Was there anything they would change to better represent the message?’

Finalising the pictograms

Finally all the participants were brought together to agree on the final pictograms. Several copies of the pictograms were then drawn again, more clearly.