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**Reconceptualising Health Systems:**

**A case study of lived health systems in urban informal setting in northern Nigeria**

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

School of Health and Related Research

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For Aisha, Bilqees, Abdullahi and Habiba

# Declaration

I certify that this thesis submitted for the degree of Doctor of Philosophy is the result of my own research, except where otherwise acknowledged. No portion of the work presented in this thesis has been submitted for another degree or qualification to this, or any other, university or institution.

Muhammad Saddiq

# Abstract

Despite growing interest in health systems strengthening among key global health actors, there is considerable debate about how to conceptualise health systems and about what the best strategies are to strengthen them. Existing conceptualisations of health systems are usually presented as static models in which the formal provision of services is central. Yet it is increasingly apparent that these conceptualisations do not constitute a complete model of how existing health systems work, and fail to capture the complex interactions between people, families, households, health services, and the wider societal context, particularly in urban informal settings in low and middle income countries where formal (state-regulated) health systems are relatively absent. This thesis critiques existing conceptualisations of health systems and develops an alternative understanding, based on detailed empirical research and the ‘lived’ experiences and perspectives of people experiencing health problems in one particular case study of an urban informal setting – Tudun Jukun in northern Nigeria.

The thesis is underpinned by critical realism, integrates ideas and methods from a range of empirical studies about health and health seeking practices from the fields of medical anthropology and sociology, and draws on fieldwork conducted in Tudun Jukun between June-September 2012, which used a variety of qualitative methods (observations, interviews, focus groups, and document sampling). Using an innovative analytical approach, which involved developing detailed narratives about episodes of health problems, the thesis explains how people in this urban informal setting understand and experience health problems; the strategies they apply (or do not apply) in solving these problems; the factors that influence (enables/prevents) the choice of strategies and how they are negotiated; and, based on people’s ‘systems of meaning' and expectations, what strategies worked.

The thesis presents an alternative conceptualisation of health systems as a ‘landscape’, in which health systems are structured by conceptualisations of health, context, prevailing beliefs or value systems, and power dynamics among individuals in a given context, which are all themselves intimately connected and inter-dependent. The thesis argues that power dynamics and existing forms of knowledge or expertise in solving health problem are crucial in defining health systems in a given context. These knowledge and expertise are distributed among different actors and access is governed by the different kinds of relationships that exist (family ties, friendship or market transactions) and networks of resources that individuals can draw upon. Distinct processes take place as people work to access knowledge and expertise: interpretation, decision-making, enabling and provision. It is argued that units of accountability or collectivity are fundamental in shaping how all elements within a health systems landscape are organised. In Tudun Jukun, the home is the most common unit of collective action on health issues.

These findings raise questions about current policy action to strengthen health systems such as relying on (the relatively ineffective) state-led institutions and the uncritical use of existing theoretical conceptual frameworks. This study suggests alternative forms of action that are needed in order to design more context relevant health systems strengthening interventions through recognising what people value or not value and why. This can result in, for example, broadening the scope of health systems to recognise landscapes such as the home and patent medicine vendors as legitimate health systems landscapes and make them safer and more effective. It can also involve recognising and creating wider supporting networks for collective action on health issues in places where such collectivity is non-existent or too small to deal with prevailing health problems.

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**Conference presentations in support of this thesis**

Saddiq, M I. Harris, J. Barnes, A. Jones, G. (2014) Conceptualising people-centred health systems: The experience of "real" health systems in an urban informal settlement in northern Nigeria at the Third Global Symposium on Health Systems Research, Cape Town, South Africa, 30 September - 3 October 2014. (Poster) <http://hsr2014.healthsystemsresearch.org/sites/default/files/ProgrammeFinal.pdf> (page 90)

Saddiq, M I (2014) Conceptualising Health Systems: The experience of ‘real’ health systems in an urban informal settlement in northern Nigeria at the 11th International Conference on Urban Health, Manchester, United Kingdom, March 4th – March 7th 2014. (Oral) <https://www.icuh2014.com/Resources/Abstract-Book-WEDNESDAY-ORAL-new.pdf> (page 24)

Saddiq, M I (2013) ‘Important considerations in conceptualising real health systems from the perspective of people living in an urban informal settlement in northern Nigeria’ at The Global Politics of National Health Systems Conference Tuesday 17th September 2013 at ICOSS (Interdisciplinary Centre of the Social Sciences), University of Sheffield, UK. (Oral)

Saddiq, M I (2011) Building new theories and understandings of how health systems operate for the poor: a case study of Rigasa, Northern Nigeria, Power and Empowerment Conference June 2011, ICOSS University of Sheffield (Oral)

# List of Abbreviations and Acronyms

ABU - Ahmadu Bello University

ABUTH-REC - Ahmadu Bello University Teaching Hospital - Research Ethics

Committee

CAS - Complex Adaptive Systems

DFID - Department for International Development (United Kingdom)

FMoH - Federal Ministry of Health (Nigeria)

HPSR - Health Policy and Systems Research

HSDP - Health System Development Project

HSDP II - Second Health Systems Development Project

KMoH-REC - Kaduna State Ministry of Health - Research Ethics Committee

LGA - Local Government Area

LMICs - Low- and Middle-Income Countries

NHREC - National Health Research Ethics Committee (Nigeria)

NHS - National Health Service (United Kingdom)

NICE - National Institute for Health and Care Excellence

NGO - Non-Governmental Organisation

PATHS 2 - Second Partnership for Transforming Health Systems (Nigeria)

PMV - Patent Medicine Vendor

PHC - Primary Healthcare Centre

PRINN MNCH - Programme for Reviving Routine Immunization in Northern Nigeria

Maternal, Newborn and Child Health

SAVI - State Accountability and Voice Initiative

TBA - Traditional Birth Attendant

USA - United States of America

WHO - World Health Organisation

WHO PAF - World Health Organisation – Performance Assessment Framework

WHR - World Health Report

# Glossary of Some Hausa Terms

|  |  |  |
| --- | --- | --- |
| *awo*  | - | Antenatal care |
| *habbatussauda*  | - | Fennel flower |
| *kajiji*  | - | Witchweed |
| *lafiya*  | - | The word with the closest meaning to health, but has very broad meaning that is closer to the concept ‘balance' in English. For example, there can be *lafiya* of the body (absence of disease) or *lafiya* of the town (peace) and so on. |
| *layu*  | - | Amulets |
| *Magajin Gari* | - | The representative of the district head |
| *Malam* | - | An honorific title for men |
| *marke*  | - | Chewstick tree (*Anogeissus leiocarpus*) |
| *rubutu*  | - | An ink solution prepared by washing a wooden writing board inscribed with therapeutic verses from the Qur’an |
| *ruqya*  | - | Using prayer from the Qur’an and other hadith in the treatment of illness and in particular to expel evil spirits from the body. |
| *sadaqa*  | - | Charity |
| *shawara, basir, amosani*  | - | No English equivalents – (each of these is a container word for constellations of symptoms such as yellowness of the eyes, fever generalised body weakness, anal bleeding and piles) |
| *sunna*  | - | Teachings of the prophet of Islam |
| *tazargade*  | - | Fragrant medicinal herb |
| *tofi*  | - | Blowing of a verse on a part of the body affected or into water that is then drank) |
| *turare*  | - | Inhalation of medicinal vapours from a steaming mixture or smoke from a fire |
| *Ulama*  | - | Religious leaders |
| *zaxi*  | - | “Show” – when the plug of mucus from a pregnant woman cervix comes away as a sign that labour is about start |

# Chapter 1: Introduction

The themes of health systems and health systems strengthening currently dominate the global health policy agenda. This is because of the pressing and recognised need to have effective health systems in order to reach global health goals and deal with emerging health threats ([Bennett et al., 2011](#_ENREF_14), [Hafner and Shiffman, 2013](#_ENREF_65), [Boozary et al., 2014](#_ENREF_23), [Richard et al., 2011](#_ENREF_145)). Despite this policy interest, however, there is considerable debate about how to conceptualise health systems and about what the best strategies are to strengthen them. Existing conceptualisations of health systems are usually presented in the form of static models in which the formal provision of services is central, such as the World Health Organisation (WHO) building blocks ([WHO, 2007](#_ENREF_201)). Yet it is increasingly apparent that these conceptualisations do not constitute a complete model of how existing health systems work, particularly in low- and middle-income countries (LMIC), because they fail to capture the complex interactions between, for example, people, families, households, health services, and the wider societal context ([de Savigny and Adam, 2009](#_ENREF_43), [Newell, 1975](#_ENREF_121), [Berman et al., 1994](#_ENREF_16), [van Olmen et al., 2012b](#_ENREF_187)). Indeed, Health Policy and Systems Research (HPSR) more broadly tends to ignore the role that households and communities play in addressing health issues and how their health-related actions contribute to shaping the very nature of health systems. Particularly, in the ever-present urban ‘shanty’ towns in LMIC where formal (state-regulated) health systems are relatively absent. In other words, existing understandings of health systems are inadequate as they fail to capture the realities of health systems as experienced by the people in these contexts. In order to address this problem, this study attempts to develop a new way of conceptualising health systems by exploring what a health system is based on the ‘lived’ experiences of people within an urban informal settlement in northern Nigeria. To do so, the study draws on ideas and methods from a range of empirical studies about health and health seeking practices, specifically from within the fields of medical anthropology and sociology, as these reveal more about ‘lived’ health systems than the existing dominant HPSR literature.

This introductory chapter has been divided into three further parts: the background which establishes the context of the study, the aim and the research questions that guided the study, and a brief overview of the remaining chapters of the study. These topics will now be addressed in turn.

## Background

In the past decade, the global health community has paid increasing attention to health systems and health systems strengthening, particularly within LMIC settings. [Hafner and Shiffman (2013](#_ENREF_65)) present a case history of this, identifying many factors that have been responsible for the emergence of health systems strengthening at the top of the global health policy agenda. One of the key factors here has been concern over the slow progress in achieving the health-related Millennium Development Goals (MDGs). Another important concern is with the adverse effects on national health systems of stand-alone or disease-specific programmes that have dominated the global health landscape, especially in LMICs ([Travis et al., 2004](#_ENREF_180)). The 2014 outbreak of ebola in Sierra Leone, Liberia, and Guinea has further heightened the sense of urgency among the global health community about the necessity of strengthening health systems in order to deal with the current outbreak and avoid similar health crises in future. Even though no cure exists for ebola, it has been argued that the outbreak could have been effectively contained, with fewer deaths, if it had occurred in countries with better health systems ([Boozary et al., 2014](#_ENREF_23)). There now appears to be a broad consensus among the global health community that effective health systems are necessary to achieve global health and development objectives as well as tackle new health threats, especially in sub-Saharan Africa and other LMICs.

Despite this apparent consensus, there is a persistent lack of agreement on how health systems can and should be conceptualised, and/or effectively strengthened. Though there are a multitude of competing conceptual health systems frameworks ([Hoffman et al., 2012](#_ENREF_69)), the dominant discourse about health systems, both in academic literature and policy documents, is functionalist in nature ([Frenk, 1994](#_ENREF_54)). Here, health systems, and indeed society as a whole, are understood and defined in terms of the functions of their constituent elements ([Parsons, 1951b](#_ENREF_134)). Within this perspective, health systems are understood to comprise of a set of building blocks, including: the health workforce, service delivery, information, medical products, financing and leadership ([WHO, 2007](#_ENREF_201)). Increasingly, systems thinking has been applied to this building blocks framework in an attempt to understand the complex and dynamic characteristics and interrelationships between the components, as well as the wider socio-economic and political environment within which they are situated ([Atun and Menabde, 2008](#_ENREF_7), [de Savigny and Adam, 2009](#_ENREF_43), [Hill, 2010](#_ENREF_68), [van Olmen et al., 2010b](#_ENREF_186)). More recently, there has also been a re-emergence of a relational health systems perspective that had originally been put forward by, for example, Evans (1983) and Frenk (1994), in which health systems are defined as both a set of actors and their relative relationships (Bloom and Standing et al 2008). These different bodies of literature are critically reviewed in more detail in the next chapter of this thesis (Chapter 2) in terms of their respective contributions to the way health systems are currently understood and practically applied to strengthen health-systems. Despite the existence of these different understandings of health systems in the literatures described above, the predominant discourse in the field of Health Policy and Systems Research ([Bennett et al., 2011](#_ENREF_14), [Gilson et al., 2011](#_ENREF_59), [Sheikh et al., 2011](#_ENREF_161)) tends to be *for* health systems and not *on* health systems. In other words, it tends to be taken for granted that we already know what a health system is and therefore the focus is on what should be done in order to strengthen them. Furthermore, health systems are seen mainly as formal (state-regulated) systems, with problems that can be fixed through technocratic solutions involving reasoned, planned and impersonal re-organization of the different building blocks of the health system. This dominant understanding and the associated models that have been produced to describe health systems are not grounded in extended study of how health systems *do* work in real and varied contexts. Rather, they are more conceptual (theoretical) models of how health systems *should* work.

As a result, there is a big gap between the oversimplified conceptualisations of health systems that the key global health stakeholders put forward and the messy realities of health systems experienced by many people, especially in LMIC settings where the state is either unable or unwilling to support health systems. Indeed, there are very few studies that have attempted to conceptualise health systems based on extended empirical research. Where they do exist they are mainly from the fields of medical anthropology and sociology ([Kleinman, 1978](#_ENREF_83), [Mechanic and Volkart, 1961](#_ENREF_107), [Gilson, 2003](#_ENREF_56), [Colvin et al., 2013](#_ENREF_36), [Leach et al., 2008](#_ENREF_92), [Scott et al., 2014](#_ENREF_156)) and, for the most part, are tangential to the field of health policy and systems research, as they do not explore the implications of micro-level processes in shaping the health system as a whole. They do, however, reveal some of the most important problems with the prevailing conceptual models.

First, this medical anthropology and sociology literature shows that people (and not functions) are important: they are interested, knowledgeable and concerned about their health, and actively work to solve health problems. It emphasises that the interactions between people, what they perceive, the strategic choices and actions they take, and what outcomes emerge as they learn about and attempt to solve health problems, fundamentally shape the health system. These studies show that people are strategic in terms of how they act and that patterns exist in the way people respond to health problems. The pattern often depends on their priorities and, importantly, the resources available to them ([Pescosolido et al., 1998](#_ENREF_139), [Jasper, 2004](#_ENREF_78), [Pescosolido, 1992](#_ENREF_138)). Examples of resources include: the type of community people live in; what they know about their health and their local context; their network of relationships with others; their assumptions about their social world; and their prior experiences and capabilities ([Baum, 2007](#_ENREF_10), [Sen, 1999](#_ENREF_157), [Leach et al., 2008](#_ENREF_92), [Scott et al., 2014](#_ENREF_156), [Jasper, 2004](#_ENREF_78)).

Second, the literature illustrates how health systems are embedded within social and political contexts. This is supported by the work of [van Olmen et al. (2012b](#_ENREF_187)) who demonstrate the changing perspectives in conceptualising health systems in reaction to the prevailing political context. Finally, this literature provides the insight that formal health systems are a construction of relatively intact social and political structures, a conceptualisation that is at odds with experiences in many LMICs or fragile states. In other words, there tends to be a universal assumption that the government can or will deliver health services to the majority of the people, as occurs in countries with strong institutions. This does not hold for most LMICs, especially for the poor in these countries.

It is becoming increasingly difficult to ignore the consequences of the currently dominant conceptualisations of health systems because how we understand health systems determines what we do (or will seek to do) to strengthen them. For example, the dominant, building blocks-type frameworks have been used by major Global Health Initiatives (such as the Global Fund to Fight, AIDS, TB and malaria) as the basis for funding health systems strengthening interventions ([Shakarishvili et al., 2010](#_ENREF_159), [Shakarishvili et al., 2011](#_ENREF_160)). A review of these interventions indicates that they are not producing the expected results and may even be undermining health systems in the long-term, particularly in LMICs ([Marchal et al., 2009](#_ENREF_101)). It is clear therefore, that there is a considerable need for new ways of conceptualising health systems that will better reflect realities. As suggested above, doing so will require mindfulness of the importance of the way people behave as strategic actors, and how interactions, ‘systems of meaning’ (perceptions and representations about how the world works which directs the way people act), choices and emerging learning about outcomes shapes what happens on the ground.

## Aim of the study and research questions

In order to address the issues mentioned above, this study has sought to develop a new way of conceptualising health systems by looking empirically at how health systems are enacted through the lived experiences of people in an urban informal setting in northern Nigeria. Tudun Jukun – an unplanned urban area adjoining Zaria City in northern Nigeria – was selected for this study (more details are provided about the selection of this area in Chapter 3).

The research seeks to understand how health systems work in this type of informal setting, where the state is either unable or unwilling to provide or regulate health services. The aim is to understand what works for people living in such settings as they experience health problems on a daily basis and work to resolve them. In other words, the study seeks to explore what *real* health systems are, and how they operate in practice. It considers the interactions between people, the strategic choices they make when tackling health problems and how these constitute and shape the real health system in a locality. The key research question can be summarised as follows:

How and why do individuals and institutions as strategic actors interact when dealing with health problems, and what does this mean for our understanding of how real health systems work in particular localities?

This will be explored by answering the following sub-questions:

* How do people understand and experience health problems?
* What strategies do people apply (or not apply) to solving these problems and how are they doing this?
* What influences (enables, prevents) the choice of strategies and how are they negotiated?
* On the basis of the people’s ‘systems of meaning’ and expectations, what strategies worked, how and why?

## Structure of the thesis

Having established the importance of developing new conceptualisations of health systems and introduced the research questions this work seeks to answer, the thesis has been divided into five further chapters, as follows.

Chapter 2 explores the different bodies of literature that are concerned with conceptualisations of health systems. This is a detailed critical review of existing literature about health systems. It provides an overview of definitions, concepts, frameworks and models that have so far dominated discourses, interventions and the evaluation of health systems, and discusses their implications for health systems research. This chapter argues that there are two major systematic and valid ways of conceptualising health systems. The first uses cognitive (theoretical) models to set out what idealised health systems might look like. The second approach starts off by exploring health systems empirically, and seeks to develop a model/form of understanding through empirical work – although there is very few that conceptualise health systems in this way. The chapter further explains that the theoretical literature, in the field of health policy and systems research, can be considered as belonging to three main traditions, namely functional, complex adaptive and relational. It further argues that the second body of literature, mostly from disciplines outside health policy and systems research, engages with different elements that are relevant to the conceptualisation of health system. These include anthropological studies of medical systems and micro-sociological studies of access to health services and health seeking behaviour. The chapter highlights the insights and contributions of each of these bodies of literature to conceptualisation of health systems as well as gaps and problems with each. The chapter also considers new insights that are emerging from the relational tradition of conceptualising health systems from the perspective of the knowledge economy. The chapter provides the essential background on the subject of conceptualisation of health systems and forms the basis on which this research confronts the problem with existing conceptualisations.

Chapter 3 moves on to set out the research methodology in detail. It presents the philosophical assumptions underpinning the research, introduces the research process and data collection techniques, and also considers the study’s limitations. Crucially, the chapter highlights the philosophical perspective through which this study has approached health systems: a critical realist approach. The chapter outlines the characteristics of a critical realist approach and reflects on how this approach can be differentiated, both ontologically and epistemologically, from the wider literature discussed above and in Chapter 2. The chapter then describes the research process and methods, which were qualitative in nature, and explains how the process embeds and reflects a critical realist approach. Further detail is provided about the involvement of research participants in Tudun Jukun and why this urban informal setting in Northern Nigeria was chosen as the site for this study. Reflections are also included about the role of the researcher in influencing the research process, including, for example, how this might have shaped the way research data has been interpreted. The chapter sets out a series of challenges that were encountered during the research process, including: securing access to the research site in the absence of formal gatekeepers, and ethical dilemmas associated with applying standard guidelines in a Northern Nigerian cultural context. This is followed by a description of the data analysis, which involved a somewhat innovative technique of building up comprehensive narratives about episodes of a health problem to uncover the underlying mechanisms at play: a process of retroduction.

Chapter 4 is the first findings chapter. It describes Tudun Jukun and the variety of health problems and issues that are encountered in the area, including, for example: the problem of an appropriate place for childbirth, pregnancy and childbirth complications, childhood illnesses and deaths, ways of regaining shape after childbirth, ways of improving resilience and strength, named medical and surgical conditions, and ways of dealing with refuse. The chapter goes on to highlight the overlaps and discordance between participants’ and health professionals’ views about what constitute a health problem. The chapter also presents the various options that have been utilised by respondents to address these problems using the concept of ‘health systems landscapes’. Landscapes are shown to include: the home, local health professionals, traditional birth attendants, primary health care centres, medicine vendors, neighbours and friends, traditional healers, spiritual healers, hospitals, private diagnostic services, and shops selling medical supplies. The chapter highlights the relative absence of the state in Tudun Jukun, which sits in stark contrast to the assumed role of the state in dominant conceptualisations of health systems. The final part of the chapter presents the different ways in which participants have made sense of actions that they have taken in relation to health problems.

Chapter 5 is the second findings chapter. It details the importance of four processes involved in people’s strategic selection of solutions to health problems. These processes are: 1) interpretation of the problem, 2) decision-making, 3) ability to take advantage of solutions, and 4) the availability of services. The chapter starts by looking at interpretation and, in particular, the role of belief systems in shaping not only interpretation, but also the other three processes (decision-making, and availability and ability to utilise services). This is then followed by a more detailed exploration of the decision-making processes, and subsequent consideration of the factors that enable taking advantage of preferred solutions.

Chapter 6 presents a critical discussion of the research work and brings the thesis to its conclusion. It integrates the outputs of the two main empirical chapters (Chapters 4 and 5), discusses the findings in relation to existing literature and emphasises how this study has advanced the conceptualisation of health systems as well as the methods for studying them. The chapter summarises the main findings and highlights their significance. It explains how the findings may be applied in global health practices, as well as implications for future policy and future research. The chapter includes a consideration of the potential limitations of the findings. Finally, conclusions are offered and policy and research recommendations are presented.

# Chapter 2: Literature Review

## Introduction

The World Health Organization (WHO) defines health systems as “all the organizations, institutions, and resources that are devoted to producing health actions”, whose goals are (a) improving health, (b) reducing financial burden of illness and (c) increasing satisfaction with health services ([WHO, 2005a, p. xi](#_ENREF_200)). On the surface, this definition looks all-embracing, but closer consideration suggests a narrow focus on the instrumental role of health systems, which ignores many of the different reasons for people’s interactions with health systems. This definition derives from a functionalist approach to conceptualising health systems. A functionalist approach is one of three major ‘storylines’ ([Greenhalgh et al., 2005](#_ENREF_63)) that emerge in existing literature on conceptual frameworks of health systems from within the field of health policy and systems research. The first, and arguably the most prominent and most influential, is the functionalist storyline also described by [Frenk (1994](#_ENREF_54)) as the ‘inventory approach’, which sees health systems as “a set of elements that are more or less associated by a common function, without specifying the nature of their interrelations”([Frenk, 1994, p. 23](#_ENREF_54)). Most health systems frameworks list different components that together make up the health system such as in [Roemer (1993a](#_ENREF_150)) and [WHO (2005a](#_ENREF_200)). The second, and more recent approach, which has been influenced by complexity theory, conceptualises health systems as ‘complex adaptive systems’ ([Hill, 2010](#_ENREF_68), [Adam et al., 2012](#_ENREF_4), [Sturmberg et al., 2012](#_ENREF_177), [Atun and Menabde, 2008](#_ENREF_7), [de Savigny and Adam, 2009](#_ENREF_43), [van Olmen et al., 2012a](#_ENREF_184)). The complex adaptive systems approach sees health systems as characterised by a shared vision but in a state of continuing self-organisation without well-defined boundaries, and shaped by non-linear interactions and multiple feedback loops ([Sturmberg et al., 2012](#_ENREF_177)). The third storyline or tradition can be described as a ‘relational’ approach ([Frenk, 1994](#_ENREF_54)). Here, health systems are conceptualized on the basis of actors, their interrelations and exchanges ([Evans, 1983](#_ENREF_51), [Frenk, 1994](#_ENREF_54)).

This chapter reviews the definitions, concepts, frameworks and models that have been used in these three bodies of existing literature about health systems. The chapter illustrates how these three literatures conceptualise health systems, outlines the various contributions each perspective makes and also the gaps. The chapter argues that each approach sheds some useful light on particular aspects of health systems and is therefore suitable for specific purposes in studying or evaluating aspects of health systems performance. However, all are, for the most part, based on preconceived frameworks or rational-theoretical models which have not been grounded in, or robustly tested in and through extended empirical study. As a result, they fall short of providing a clear picture of how health systems operate in the real world. The discussion that now follows will give more detail about each of these storylines or approaches to health systems in turn (for a summary see Table 2-1), before moving on to put forward an alternative ‘realist approach’ as a way to define and conceptualise what real health systems are.

Table 2‑1: Summary of broad approaches ("storylines") to conceptualising health systems

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Broad approaches** | **Overall perspective** | **Key characteristics and examples**  | **Main contributions/insights** | **Gaps/issues** |
| Functional  | Health systems are made up of different components that perform different functions which together are expected to result in the achievement of the predefined goals.The most widely agreed goals among different authors of health systems framework are (a) improving health, (b) reducing financial burden of illness and (c) increasing satisfaction with health services. | Health systems have defined boundaries that are drawn based on predefined goals.Therefore, health systems are instrumental in natureHealth systems are approached through a “structure-process-outcome” framework.Examples:Roemer ([1993b](#_ENREF_151))McPake and Kutzin et al. ([1997](#_ENREF_105)) Unger, Macq et al. ([2000](#_ENREF_182))WHO 2000Murray and Frenk ([2001](#_ENREF_115))World Bank ([2007](#_ENREF_208))WHO 2008Kruk and Freedman ([2008b](#_ENREF_87))Dussault ([2008](#_ENREF_48)) Roberts, Hsiao et al. ([2009](#_ENREF_149)) | Shared languageEnable structured and strategic thinking about how to improve health systemsMobilise political and financial support for health systems strengtheningDesign and development of health system strengthening programmesFormed basis for courses on health systems strengthening (e.g. The world bank “flagship course”)As benchmarks for evaluating the performance of health systems strengthening programmes | individuals, households and communities agency not recognised (top-down in approach)Does not explain how the different parts relate to one another and to their social context.Ignores many of the different reasons for people’s interactions with health systemsIgnores power dynamics and the influence of the health systems on perpetuating social inequities  Focus on what health systems should be and not what they are Focus on formal health systems as the coreApolitical: Ignores or downplays public realm issues - the clash of public and private interests - who does, and who should profit?  |
| Complex adaptive | Health system is more than the sum of its parts  | An action taken by an agent in a system upsets the system’s equilibrium and triggers reactions from other agents to restore the system balance.Systems are governed by feedback, which is the influence of one element on another. Distinction is made between positive feedback which results in amplifying response and negative feedback which leads to balancing response.Relationships between different parts and between parts and the context as the source of complexity Because of time delays, actions may not be immediately followed by effects, further worsening the complexity and therefore makes learning from certain actions difficult. The relationship between cause and effect may be non-linear, as same causes may lead to different effects and also different causes may result in same effectThey are open systems, as parts of the system interact with the environment, unlike closed systems that are independent and autonomousThey are dynamic and complex because they are made up of many interconnected and interdependent elements which form extensive networks of feedback loops with time delays and non-linear relationships.Examples:Atun and Menabde ([2008](#_ENREF_7)) van Olmen, J., B. Criel, et al. ([2010a](#_ENREF_185)).  | Added context within which health systems functionUnderstanding of dynamic complexity of health systemsSome description of the relationship between different componentsRecognises the role of the population as producers of health | Still operating under functionalist paradigms of systems The concept of equilibrium discounts the role of power in structuring relationships therefore not adequately accounting for changeContext seen as separate from the system For the most part, top-down in approach (“levers for policy makers”) even though the role of other stakeholders are recognised  |
| Relational(a broad term covering a variety of approaches) | Health systems to constitute multiple actors interrelating within health systems, and exchanges across these relationships are underpinned by certain values. | Actors: The relational approach is based on the view that ordinary people are engaged in social processes through which the effects of their actions and interactions aggregate to higher levels of social organization. “Social phenomena are composed, constituted, and propertied by the activities and interactions of individual actors” (Norman Long). Health systems are made up of numerous actors, with different interests. Network/relationships:Based on this approach, the interaction between different actors is the basis of health systems and therefore the object of health systems research. This is drawn from theories of social relations where human actions are considered to vary according to social contexts and the effects they generate on other actors (Max Weber 1922)Exchanges: ‘Social behaviour is an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige’ (Homans ([1958](#_ENREF_70)). Knowledge sets: Knowledge is a social product rather than something generated through the operation of a privileged scientific method. "Knowledge," then, is embodied in a variety of material forms (Law 1992).Plurality:Plurality is generated in health systems by the variety of actors and the underpinning knowledge sets, the relationships and nature of exchanges between them. Examples:Evans ([1983](#_ENREF_51))Hurst ([1991](#_ENREF_75))Frenk ([1994](#_ENREF_54))Cassels ([1995a](#_ENREF_33)) | Revealing some of the relationships that underpin exchanges within health systems e.g. Hurst’s fund flow or Frenk’s “eligibility”.Tools to analyse the performance of health systems using the criteria of allocative efficiency, technical efficiency, income distribution and technical progressBetter understanding of how the health systems operate in different contexts.Takes into account other sectors that produce services with health effect as key actors in the health system.Recognises plurality (multiple typologies of health systems) | Only limited set of actors, relationships and nature of exchanges have been considered Although not inherent to this approach, existing work done so far tended have a top-down view and focused on intact societies with well-defined roles for each actor  |

## The functionalist conceptual framework of health systems

The essence of a functionalist approach is that health systems exist to achieve defined functions or goals. Therefore, a weak or poor health system is one which lacks the capacity or is failing to reach these predefined goals. This can be understood from the broad perspective of structural functionalism in sociology which sets out to interpret society as a structure with interrelated parts. Functionalism addresses society as a whole in terms of the function of its constituent elements ([Parsons, 1951b](#_ENREF_134)). Although not explicitly stated by their authors, most health systems frameworks tend to take a functionalist approach and indeed a functionalist perspective has arguably dominated discourses about health systems to date. This approach is, for example, embedded within the thinking of the most influential global health system actors such as the WHO and World Bank, and is reflected in the global health systems strengthening initiatives that they promote, support or fund ([Shakarishvili et al., 2011](#_ENREF_160), [Adam et al., 2012](#_ENREF_4), [Hill et al., 2011](#_ENREF_67)). A range of different terms – such as components, elements or building blocks - have been used by different authors to describe the separate parts comprising the health system ([WHO, 2007](#_ENREF_201), [Roemer, 1993a](#_ENREF_150), [World\_Bank, 2007](#_ENREF_208)). Examples of authors that have conceptualised health systems using this approach will be reviewed in the discussion that follows, but first some key concepts will be outlined that are fundamental to the understanding of the functionalist health system frameworks.

### Key concepts that define the functionalist frameworks

There are a range of key concepts that define functionalist health system frameworks. Of particular prominence however, are the concepts of boundary and structure-process-outcome. Boundary is considered a central issue in defining the health system by most authors of health systems conceptual frameworks. [Murray and Frenk (2000](#_ENREF_114)) defined the boundaries of health systems, and their boundary definitions seem to be accepted by many subsequent authors on the subject. [Murray and Frenk (2000](#_ENREF_114)) visualised health systems as systems that are bounded by the concept of ‘health action’([WHO, 2000](#_ENREF_199)); where health action is defined as “any set of activities whose *primary intent* is to improve or maintain health” ([Murray and Frenk, 2000](#_ENREF_114)). This view underpins the World Health Report 2000, a landmark document on current debates about health systems ([WHO, 2005a](#_ENREF_200)).

Defining the boundary is very important to this approach based on the assumption that it delineates the sphere of control for the health system and therefore the scope of accountability for performance. Historically, performance has not always enjoyed prominence in health systems literature and practice, but it is a product of the New Public Management era of the 1980s when market oriented management principles were introduced into the public sector with the expectation that it will lead to greater cost-efficiency for governments ([Hood, 1995](#_ENREF_71)). Based on this perspective, performance itself is taken for granted as concerns regarding whether it should be the basis of accountability and who should define it are not considered problematic. However, accountability could be defined in other ways, for example, citizens’ political ownership of health services. Rather than this type of political or democratic accountability ([Brinkerhoff, 2004](#_ENREF_27)), what seems to be the major concern for the protagonists of this approach is the tension that exists in attaining predefined health systems goals. Who defines these goals is not seen as a problem, instead the focus is on the tension between what is within the boundaries of the health system and therefore ‘under their control’ and what is outside the boundaries therefore not ‘under their control’ but at the same time can achieve the ‘greatest impact’ on health ([Murray and Frenk, 2000](#_ENREF_114)).

Structure-process-outcome is another key concept of functionalist health systems frameworks. Most functionalist health systems conceptual frameworks are based on Donabedian’s ([1972](#_ENREF_46)) “structure-process-outcome” conceptual model that provides a framework for examining health services and evaluating quality of care. One of the defining characteristics of this approach is that the system is thought of as having a well-defined “structure” made up of different components that perform different functions, which together are expected to result in the achievement of the predefined goals. The elements that are commonly included in the different conceptual frameworks of health systems are: (1) stewardship also referred to as governance or oversight, (2) financing, (3) management of human and physical resources, and (4) organization and management of service delivery. Crucially the “processes” of health care delivery or service provision are at the core of the functionalist view of health system. This feature of health systems is differently organised in different conceptual frameworks but mostly consists of national policies and strategies that form the basis of primary care services where prevention, treatment and health promotion services are provided for most diseases prevalent in an area, secondary care where more sophisticated medical services including biomedical tests can be provided, and a tertiary level where specialised medical services are provided. All other components of the health system are thought of as providing economic and logistic support to this basic unit. Finally, all conceptual frameworks under this category have a set of predefined “outcomes” or goals or some form of output functions that are taken for granted and thought to be globally accepted ([Shakarishvili et al., 2010](#_ENREF_159), [Papanicolas and Smith, 2010](#_ENREF_132), [Hoffman et al., 2012](#_ENREF_69)).

### Examples of functionalist frameworks

It is useful to give some brief examples of some of the key insights from functionalist frameworks about health systems, so as to more fully set out this approach. One key example of a functionalist framework is exemplified in the work of [Murray and Frenk (2000](#_ENREF_114)), the performance assessment framework (PAF). Here health systems are defined as “resources, actors and institutions related to the financing, regulation and provision of health action”, while health action is defined as “any set of activities whose primary intent is to improve or maintain health” ([Murray and Frenk, 2000](#_ENREF_114)). The key concern of the PAF is ‘what are health systems for?’ and not “what are health systems?” In order to answer the question ‘what are health systems for?’ the PAF uses the concept of intrinsic goals (valued in themselves) as different from instrumental goals (a means to another end). Based on these categories three intrinsic goals have been formulated for health systems: 1) improvement of the health of the population, 2) responsiveness, and 3) fairness of financial contribution.

The functionalist conceptual frameworks have concentrated on different things. For example, [Roemer (1993b](#_ENREF_151)) first described health systems as consisting of some principal component parts which are: resources, organizations, management, economic support and delivering services. He further added that in each country each of the elements and how they relate is determined by the historical, economic, political and ideological leanings of the state. He went on to classify health systems based on “degree of market intervention by government… going from least market intervention to most” as entrepreneurial, welfare-oriented, comprehensive, and socialist ([Roemer, 1993a](#_ENREF_150)).

[Unger et al. (2000](#_ENREF_182)) were interested in how the structural organisation of Ministries of Health impede health systems strengthening efforts particularly those that apply decentralisation as national health policy. Their model is based on Mintzberg’s ([1994](#_ENREF_110)) concept of divisionalised adhocracy and envisioned health systems to consist of 5 components: the strategic apex which is the national health policy in which goals are defined; technostructure which is responsible for standardisation and training; middle line where all components are integrated; supporting staff who provide the system with administrative and logistics support; and operating core which is responsible for service delivery.

A further example of this approach is the ‘building blocks’ framework ([WHO, 2007](#_ENREF_201)), where the components of the health systems identified in the World Health Report (WHR) 2000 ([WHO, 2005a](#_ENREF_200)) were modified to produce one with six interconnected parts functioning together to be effective. However, the way that the six building blocks work together was not explained in the model. These six building blocks are 1) service delivery, 2) health workforce, 3) information, 4) medical products, vaccines and technologies, 5) financing, and 6) leadership and governance. Conceptually, there are no differences between this and the WHO PAF.

Some other frameworks within this tradition are based on the WHO PAF as their core structure but focus on particular components depending on the authors’ areas of interests:

* [Kruk and Freedman (2008a](#_ENREF_86)) use the WHO PAF to develop a set of indicators that could be used to evaluate performance of health systems at different levels.
* [Dussault (2008](#_ENREF_48)) applied the framework to analyse health human resources in different countries.
* [Roberts et al. (2009](#_ENREF_149)) consider the ‘the building blocks’ as a given; their focus is on “control knobs” as levers that policy makers could use to influence outcome and this includes the following: financing, macro-organization, payment, regulation, and education/persuasion.
* [McPake and Kutzin (1997](#_ENREF_105)) is based on WHO PAF but focused on drivers of reform, reform objectives and reform implementation.
* The World Bank ([2007](#_ENREF_208)) framework is also similar to WHO PAF but re-specifies resource generation with a broad concept resource management based on their areas of interest. The functions are resource management, service delivery, financing, and stewardship.

### Insights and contributions

Functionalist frameworks offer a range of insights and contributions. Viewing health systems through the lens of the functionalist approach provides a shared language to examine each ‘building block’ in detail and can be usefully applied to highlight problems with each element of a system. The approach has also been used by major Global Health Initiatives and funding bodies to mobilise political and financial support for health systems strengthening especially for LMIC. As a result, functionalist assumptions form the basis for the design and development of a number of health system strengthening programmes. For example, most countries submitting proposals to key global initiatives like GAVI and The Global Fund, design interventions based on the key components identified in the building blocks framework ([Shakarishvili et al., 2011](#_ENREF_160)). There is even a flagship course “The Challenge of Universal Health Coverage – Health System Strengthening and Sustainable Financing” underpinned by the functionalist analytic framework targeted at mid- and high-level health policy-makers from different low and middle income countries ([WBI, 2014](#_ENREF_193)). The course is established by and based on the World Bank ([2007](#_ENREF_208)) framework. It aims to enable structured and strategic thinking about how to reform health systems and is supported by a range of high profile global health institutions such as [Harvard](http://www.harvard.edu/) and [Oxford](http://www.ox.ac.uk/) Universities, as well as the [WHO.](http://www.who.int/en/) Finally, functionalist frameworks, particularly the PAF, are also used as benchmarks for evaluating the performance of health systems strengthening programmes ([Shakarishvili et al., 2011](#_ENREF_160)). Such benchmarking is crucial in judging progress. The influence that the functionalist frameworks have is mainly due to entrenchment in the thinking of most influential global health system actors such as the WHO, the World Bank and other key funders of global health systems strengthening initiatives, but also because alternative models are not as developed.

### Gaps and issues

While functionalist health systems frameworks are useful for the reasons highlighted above, they can be critiqued in several areas, including: 1) they tend to present an ideal picture of how health systems should be and not how they are already in use in real places; 2) they do not take into account conflict as all components are working towards the predefined goals thereby ignoring the role of power dynamics in shaping health systems; 3) the predefined goals are too narrowly defined to account for other important roles health systems play in different contexts; 4) people are largely absent among the list of components even though health systems are social systems and cannot exist without the people; and 5) they also do not explain how the different parts relate to one another and to the wider environment. These criticisms will now be explored in greater detail.

The functionalist approach has idealised views of how health systems should be organised rather than explaining how they work in practice. For example, the formal or state-led or regulated health system is considered “the health system” without accounting for agency and context, let alone considering fragile states where the formal systems are virtually non-existent ([Adam et al., 2012](#_ENREF_4), [Bloom et al., 2008](#_ENREF_22), [Cassels, 1995b](#_ENREF_34), [Jones, 2009](#_ENREF_80)). Furthermore, since health systems are viewed as technical and apolitical, the political system is considered outside the system to be analysed alongside other contextual factors. Based on this assumption, policy makers are understood to automatically work to reduce inequities if they are made aware of the consequences and therefore, the primary task for health systems experts is to develop the tools that will highlight these consequences.

A major critique of functionalism as whole is the inability to account for conflicts, thereby ignoring the role of power dynamics within a society in perpetuating social inequities. By predefining a set of goals that all actors are expected to work towards, those who cannot conform to this normative arrangements are seen as ‘deviants’. As shown by [Sicotte et al. (1998](#_ENREF_165)), even within the so called supply side the possibility of divergence from the norms in health care organisations are very high because of their “extremely complex and pluralistic” nature. The authors argue, for example, that at the operational level, work in health systems may involve “emergency or non-deferrable activities, permits little tolerance for ambiguity or error, and utilizes professionals whose primary loyalty belongs to professional values rather than to a rational mechanistic organizational view” ([Sicotte et al., 1998](#_ENREF_165)). In such a system, those with relatively less power, particularly the poor, are unable to assert their interests when they conflict with established norms. Individuals with greater power (resources and knowledge) end up attracting more resources and the underprivileged become even more disadvantaged.

Another issue with the functionalist approach is the narrowly defined boundaries that are drawn based on predefined goals of improving health, reducing financial burden of illness and increasing satisfaction with health. Improving health is typically thought of from the perspective that biomedical knowledge and technology can eliminate most diseases either in individuals or in the wider environment and the major reason why health problems are persisting is because of people’s lack of resources and awareness of how to take advantage of this knowledge or technology. There are at least two problems with ‘boundaries’ and narrowly defined goals of health systems. First, they exclude a wide variety of roles that health systems fulfil within societies. For example, Frenk ([1994](#_ENREF_54)) identified some of the wide variety of roles the health system plays to include:

* a source of institutional differentiation in the society (taking over traditional roles of individuals, families etc.)
* an expanding complex with distinctive authority structures
* a channel of resource generation and distribution
* a focus for technological innovation
* a prime site where the common citizen comes into personal contact with science
* a vigorous sector of the economy
* an arena for political struggle among parties, interest groups, and social movements
* a set of cultural meanings for interpreting fundamental aspects of human experience
* a space where many of the key ethical questions of our times are framed and sometimes answered

Additionally, strengthening health systems is also seen to be one way of promoting the social contract between society and state, and therefore enhancing governance and ultimately state-building ([Whaites, 2008](#_ENREF_197)).

Secondly, the narrowly defined boundaries of health systems ignore the considerable amount of work on social determinants of health which demonstrated that living conditions including housing, sanitation, water supply and education are crucial in affecting health outcomes, more than any change in health services could realise ([Marmot et al., 2008](#_ENREF_103), [McKeown and Record, 1962](#_ENREF_104)).

The frameworks described above do not include the population as one of the key components of health systems. People are considered to be ‘engineered’ (rather than actors) to access “the health system”. They are to be persuaded to take action towards what has already been designed and is thought to improve their health. Therefore, any action by the people not in line with this idealised view is perceived as resistance or ignorance which is dealt with technically without understanding the meaning of their action. This view of individuals, households and communities devalues their capability to recognise and act in their own interest. Some frameworks attempt to resolve this by looking at the health system as a dual system with a demand side and supply side. For example, [Janovsky (1996](#_ENREF_77)) considered all activities happening at the individual, household and community levels as the demand side whereas resources and service providers are thought of as the supply side. The two sides are thought to interact through the mediation of government or some other institutional purchasers of services. For [Kleczkowski et al. (1984](#_ENREF_82)), the health system is made up of target areas and people on the demand side with output functions and health systems infrastructure on the supply side.

There are functionalist health systems conceptual frameworks that are focused on people or the ‘demand’ side of health systems. For example, [Dahlgren and Whitehead (2007](#_ENREF_40)) considered health systems to be made up of government and providers on the supply side and the public on the demand side. The framework they developed, however, focused on the demand side. The Dahlgren and Whitehead ([2007](#_ENREF_40)) framework describes four options available to individuals, households and communities that are in ‘need of care’. The framework starts with people with predefined health problems (need for care) trying to access care within their geographical and financial limits and results in getting ‘no care’, ‘informal care’, ‘professional care’ or ‘quality care’. Furthermore, the choices they make may be inappropriate for the kind of problem they have and these could have health and social consequences. The role of the health system working through policy instruments is therefore, to ensure that options taken are matched by the need expressed and thereby reduce adverse health and social consequences of each choice. While frameworks that explain the so called demand side have extended our understanding of health systems by including what happens on the side of the population, they are still limited by all the other shortcomings highlighted above that are associated with the functionalist framework.

Another key concern with the functionalist frameworks is that they list components of the health system without explaining how the different parts relate to one another and to the environment. Some of the frameworks have tried to address this weakness. For example, [Londoño and Frenk (1997](#_ENREF_97)) used payment schemes and enrolment systems to define the relationship between different components. [Murray and Frenk (2000](#_ENREF_114)) used vertical (one organisation is responsible for more than one function) and horizontal (where one function is performed by more than one organisation) integration. A more detailed description of relationships between components was provided by [Sicotte et al. (1998](#_ENREF_165)). They used Parsons' social system action theory to improve the functionalist approach by suggesting some relationships between the different components as well as between the health system and its context in order to address the fragmented view of the health system. They focused mainly on Health Care Organizations (HCO) such as hospitals or Ministries of Health. The bidirectional relationships between different components were described in terms of six different types of alignments. Strategic alignment between adaptation and goal attainment; operational alignment between culture and value maintaining function and production; contextual alignment between adaptation and culture maintaining function; tactical alignment between production and goal attainment; production and adaptation are related through allocation alignment while culture and value maintaining function is related to goal attainment through legitimisation alignment.

The foregoing discussion has provided a detailed critique of functionalist health system frameworks. It has shown how this approach, for the most part, takes a somewhat static view of health systems, which ignores the complex and dynamic interactions that occur within health systems. Recent developments in conceptualising health systems have sought to address some of the shortcomings of the functionalist approach, through the adoption of ‘systems thinking’, which is based on the idea that the whole is greater than the sum of the parts. Having outlined the functionalist approach and discussed contributions and issues with it, the chapter now moves on to consider the systems thinking approach in more detail.

## A systems thinking approach to conceptualising health systems

A systems thinking approach is influenced by systems theory, which has its roots in many disciplines including engineering, computing, cybernetics, and cognitive psychology amongst others. Systems thinking emerged as a new way of scientific thinking. Many early systems theorists wanted to find a theory that could explain the behaviour of complex phenomena in all fields and to move closer toward a unity of science. One of the early proponents of this approach was the biologist Ludwig von Bertalanffy who in 1928 developed the General Systems Theory, he writes:

“...there exist models, principles, and laws that apply to generalized systems or their subclasses, irrespective of their particular kind, the nature of their component elements, and the relationships or "forces" between them. It seems legitimate to ask for a theory, not of systems of a more or less special kind, but of universal principles applying to systems in general” ([Von Bertalanffy, 1950, p. 28](#_ENREF_189))

[Plsek and Greenhalgh (2001](#_ENREF_140)) drew attention to the need for new conceptual frameworks that incorporate a dynamic, emergent, creative, and intuitive view of the world to replace the traditional “reduce and resolve” approaches in health research. The use of systems thinking, particularly complex adaptive systems theory, has now become very popular in the health systems research field. The recent (August 2014) special issues of the *Health Research Policy and Systems* journal is dedicated to advancing the application of systems thinking in health systems policy and research.

Within a systems thinking approach, a system tends to be defined as “a configuration of parts connected and joined together by a web of relationships” ([Laszlo, 1974 cited in Midgley, 2002a](#_ENREF_108)). Systems theory concentrates on the interrelationship between components and the relationship between components and their environments. These interrelationships are recognized as the primary source of complexity. Earlier versions of systems theory were concerned with self-regulating systems or closed systems where the relationships between parts are thought of as static especially in describing natural systems such as the physiological systems of the human body, ecosystems, climate and even some social systems like human learning processes. Progressively, not just within social systems but also in natural systems, the conventional closed system view was questioned as the dynamic nature of interactions between components of a system was recognised leading to the development of the open systems approach ([Midgley, 2002b](#_ENREF_109)). It is this type of open systems approach that has become embedded in the field of health systems research, and of particular interest has been the notion of a complex adaptive system.

John H. Holland, Murray Gell-Mann and others identified special cases of complex systems and coined the term Complex Adaptive Systems (CAS) to describe them ([Midgley, 2002a](#_ENREF_108)). Complex adaptive systems “are complex in that they are diverse and made up of multiple interconnected elements and adaptive in that they have the capacity to change and learn from experience” ([Midgley, 2002b](#_ENREF_109)). The concept of complex adaptive systems has been widely applied across disciplines ranging from engineering, management, urban planning, education, environmental science and more recently in describing and analysing health systems. Within health care it has been applied in areas such as organizational development, work force development, service delivery, behaviour change and clinical analysis and only recently in conceptualising the health system as a whole ([Hill, 2010](#_ENREF_68), [Adam et al., 2012](#_ENREF_4), [Sturmberg et al., 2012](#_ENREF_177), [Atun and Menabde, 2008](#_ENREF_7), [de Savigny and Adam, 2009](#_ENREF_43), [van Olmen et al., 2012a](#_ENREF_184)). This approach rejects the simple ‘cause and effect’ assumption of the dominant functionalist approach and recognises the difficulty in predicting outcomes from interventions. Additionally, it focuses on relationships between different parts as well as between parts and the context as the source of complexity and holds the view that the health system is more than the sum of its parts. The CAS approach also suggests new possibilities for change by way of equilibrium, a condition of a system in which competing influences are balanced ([Atun and Menabde, 2008](#_ENREF_7)).

### Key concepts that define the systems thinking approach

There are a number of key features and concepts of a system thinking approach to health systems. Of particular importance are the concepts of dynamic complexity, non-linearity, feedback loops, equilibrium, and context. These are all explained in the work of [Atun and Menabde (2008](#_ENREF_7)) who illustrate that complex adaptive systems are

* Governed by feedback, which is the influence of one element on another resulting in system activity. Distinction is made between positive feedback which results in amplifying response and negative feedback which leads to balancing response.
* Composed of agents whose action upsets the system’s equilibrium and triggers reactions from other agents to restore the system balance.
* Characterised by time delays where actions may not be immediately followed by effects, further exacerbating the complexity and therefore making learning from certain actions difficult.
* Regarded as systems where the relationship between cause and effect may be non-linear, as the same causes may lead to different effects and also different causes may result in the same effect
* Open systems as parts of the system interact with the environment, unlike closed systems that are independent and autonomous.
* Dynamic and complex because they are made up of many interconnected and interdependent elements which form extensive networks of feedback loops with time delays and non-linear relationships.

### Examples and main insights

Key examples of health systems conceptual frameworks based on systems thinking and particularly complex adaptive systems view include the work of Atun and Menabde ([2008](#_ENREF_7)) and the work of van Olmen, Criel, et al. ([2010a](#_ENREF_185)). Atun and Menabde ([2008](#_ENREF_7)) claim that health systems exhibit ‘dynamic complexity’ similar to that outlined for complex adaptive systems above. Their main concern is to understand this dynamic complexity so that leverage points in the system can be identified where performance could be improved and resistance to policy could be avoided. The core of the model they proposed is similar in all respects to the WHO PAF and other functionalist conceptual frameworks described above. The framework retains the three intrinsic (ultimate) goals (health, financial risk protection and consumer satisfaction) and the four functions (stewardship, financing, resource allocation and service provision) of the health systems which are described as levers available to policy makers. However, the authors added the context within which health systems function. The health systems context is categorised as demographic, economic, political, legal and regulatory, epidemiological, socio-demographic and technological.

[van Olmen et al. (2010a](#_ENREF_185)) developed a framework for health systems which they described as ‘a complex adaptive system’. Their framework has all the components in PAF but adds four other ‘elements’ 1) goals and outcomes, 2) values and principles, 3) the population, and 4) the context. Like the PAF, service delivery is at the centre of the health system and an attempt was made to describe the relationship between different components. This is an improvement in many ways over Atun and Menabde ([2008](#_ENREF_7)) within the systems thinking approach. First, they explicitly recognised the role of the population as producers of health and therefore key components of the health system. However, this role is mainly thought of as health seeking from the demand side of a binary health system, similar to the other demand and supply frameworks. Secondly, they also considered the relationship between different components of the health system. This is however dominated by a bureaucratic approach to relationships through public authority and an incentive system. They suggested that “it is a governance task to determine the optimal delivery models for different health services in society” ([van Olmen et al., 2010b, p. 10](#_ENREF_186)). Other forms of relationship described by the authors are professional values within professional groups and also trust and accountability between population and health providers.

###  Gaps and issues

Both [Atun and Menabde (2008](#_ENREF_7)) and [van Olmen et al. (2010a](#_ENREF_185)) attempted to incorporate the arguments of systems thinking in order to produce a different view that would improve significantly on the functionalist model of health systems. They have not however, done so adequately, because they do not question the fundamental assumptions underlying the functionalist approach. Instead, new elements such as population and context were added and relationships between the components were suggested, while still incorporating all of the assumptions of the functionalist frameworks. This is not surprising as systems theory itself started within a functionalist paradigm, but has since evolved, especially in the field of Management Cybernetics, to incorporate other viewpoints. The earlier ideas about systems are described as hard systems thinking which is based on an understanding of systems as entities existing in the real world, in contrast to soft systems thinking which treats the notion of system as an analytical tool ([Checkland, 1981 in Midgley, 2002b](#_ENREF_109)). For example, the meaning of social action based on hard systems thinking fits very well with functionalist definitions of ‘goal seeking’ and this contrasts with the Interpretive or soft systems thinking view as ‘sense making’ ([Checkland, 1981 in Midgley, 2002b](#_ENREF_109)).

The existing CAS models of health systems did not incorporate some of the more recent key assumptions of systems thinking theories advanced in other disciplines. For example, on the one hand people are absent or only recognised as seeking health from the supply side of a binary health system similar to the other demand/supply frameworks. On the other hand, the interpretive approach to systems theory puts people at the centre of any social system and considers their values, beliefs and interests. In addition, the present CAS frameworks did not adequately explain relationships between different components, unlike the developments in soft systems theory which considers interrelationships between systems elements as paramount. The bureaucratic approach to relationships is dominant, thought of in terms of public authority and an incentive system as well as a top-down view , that is, ‘levers available to policy-makers’ ([van Olmen et al., 2010b](#_ENREF_186)). Moreover, they retained in most respects all the key assumptions of the functionalist conceptual frameworks such as the WHO PAF including the three intrinsic (ultimate) goals (health, financial risk protection and consumer satisfaction) and the four functions (stewardship, financing, resource allocation and service provision) of the health systems which are described as levers available to policy makers.

The CAS models recognise the dynamic nature of the complexity of the health system and used the concept of equilibrium to explain the balance between competing influences. This suggests that shocks, for example the 2008 economic crisis, are met with changes that return things to their initial state. This view discounts the role of power in structuring human relationships. There is evidence that without intervention social systems tend to reproduce power relations that existed before the destabilising phenomenon but the unpredictable nature of human action can lead to altogether new relationships ([Houchin and MacLean, 2005](#_ENREF_73)).

The role of context is also acknowledged as a source of additional complexity, but seen as separate from the health system. For example, Atun and Menabde ([2008](#_ENREF_7)) listed a number of contextual issues that influence the health system to include demographic, economic, political, legal and regulatory, epidemiological, socio-demographic and technological. [Russell et al. (2013](#_ENREF_152)) systematically reviewed health systems frameworks and identified only a few that integrated social determinants of health within health systems.

At the level of the underlying theory, a key problem with the complex adaptive systems approach is the way it accounts for change. It considers change to be a product of instability, which the system responds to through adaptation. Adaptation is brought about by feedback loops which work to return the system to the previous state, and restore equilibrium. In reality though, health systems are not impersonal apolitical self-regulating systems. Indeed, human action can be unpredictable and has resulted in transformation at different times and in different places such as the discussions that led to the birth of the National Health Service (NHS) in the UK ([1943](#_ENREF_1)), a completely different arrangement from what existed in the country before.

While the foregoing discussion has illustrated that there are a number of drawbacks to the existing systems thinking approaches (of [van Olmen et al. (2010b](#_ENREF_186)) and [Atun and Menabde (2008](#_ENREF_7)) in particular), there are however, newer and more promising frameworks that seem to be emerging under this tradition, such as the work of [Sturmberg et al. (2012](#_ENREF_177)), which have taken into account people’s experiences and the role of different agents in shaping the health system. These newer frameworks are better aligned with the relational perspective of health systems which will now be described in detail.

## The relational conceptual framework of health systems

The third tradition that applies to literature on health systems conceptual frameworks is the relational approach. The relational approach conceptualises the health system as made up of multiple actors interrelating in connection with health issues, and highlights that exchanges across these relationships are underpinned by certain values ([Evans, 1983](#_ENREF_51), [Cassels, 1995b](#_ENREF_34), [Frenk, 1994](#_ENREF_54)). This can be better understood when considered in the light of actor-oriented views of social reality. The actor-oriented analysis views human systems as multiple realities and made of different social interests and cultural perceptions in a state of continuous political and social struggles that take place between the social actors involved ([Long and Ploeg, 1989](#_ENREF_99)). Another formal theory that is relevant to this approach is the theory of social behaviour and exchange. [Homans (1958](#_ENREF_70)) revived the old theory of social behaviour and exchange to explain the bases of relationships among actors. He summarised that “Social behaviour is an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige” ([Homans, 1958, p. 606](#_ENREF_70)). The value systems that underlie the exchange relationship vary with different contexts. The literature on health systems that takes a relational approach uses different value systems as the bases for exchange in describing their models, mainly based on intentions for which the model is developed but heavily influenced by the particular ideological perspective of the authors. For example, [Evans (1983](#_ENREF_51)) looked at market relationships between different actors in health systems while [Frenk (1994](#_ENREF_54)) focuses on bureaucratic relationships.

### Key concepts

The relational approach to systems is an entirely different way of conceptualising systems to the approaches described above and, as such, embeds different key concepts. Based on the relational view, there are no fixed “components” or “building blocks”; instead health systems are made up of networks of entities or actors. Different entities come on board in an existing network of relationship or entirely new networks may be formed around different activities that are of interest to the constituting actors. The relational approach is based on the view that ordinary people engage in social processes through which the effects of action and interaction aggregate to higher levels of social organisation. The focus of attention is on the crossing point between actors, which can be considered as the “actor interface” ([Long, 2004](#_ENREF_98)). The actor interface is the point where different interests, relationships, modes of rationality and power intersect ([Lehmann and Gilson, 2012](#_ENREF_93)). Through investigating this interface, it becomes possible to consider how:

“…processes of planned intervention enter the life worlds of the individuals and groups affected and come to form part of the resources and constraints of the social strategies they develop… In this way interface analysis helps to deconstruct the concept of planned intervention so that it is seen for what it is – namely, an ongoing, socially constructed and negotiated process, not simply the execution of an already-specified plan of action with expected outcomes” ([Long, 2004, p. 72](#_ENREF_98)).

This approach to conceptualising health systems considers the system to be made up of numerous actors, with different interests. The interactions between these different actors are the basis of health systems and therefore the object of health systems research. This view is drawn from theories of social relations where human actions are considered to vary according to the social contexts and the effect it generated on other actors ([Weber, 1922](#_ENREF_194)). The exchanges, which can be of material but also non-material goods such as the symbols of approval or prestige, that occur across these relationships ([Homans, 1958](#_ENREF_70)).

### Examples and key insights

[Evans (1983](#_ENREF_51)) laid a foundation for a very useful way of conceptualising health systems, mainly focusing on interrelationships rather than on subcomponents. Evans ([1983](#_ENREF_51)) conceptualises health systems as consisting of actors and market and non-market relationships between the actors. Subsequently, Julio Frenk ([1994](#_ENREF_54)) expanded the concept beyond economics and explained that the functioning of health systems may be better understood within a relational framework specifying principal actors, their exchanges and the bases for their interrelationship.

Evans ([1983](#_ENREF_51)) was concerned with the (mis)use of market structure in analysis of the health care industry even for countries like the United States of America (USA) where health care markets are still much in evidence. He described the traditional market relationships as consisting of either arm’s-length exchange or command structure.

The doctor-patient encounter was the core of the model described by Evans. Based on market exchange relationships Evans identified five key actors in the health system:

* Consumer-patients, who utilise care;
* First-line providers, contacted directly by consumers;
* Second-line providers, whose output is either used by consumers under the direction of first-line providers or supplied as intermediate products to first-line or other second-line providers;
* Insurers/third-party purchasers, suppliers of insurance or purchasers of risk associated with health care use; and
* Governments, which exercise or delegate regulatory authority over healthcare.

Evans’ emphasis on interrelationships rather than delimitation of boundaries between sets of elements was very useful in explaining the behaviour of the health systems albeit from a limited economic angle. The model also places people appropriately at the centre of the health system even though assigned a limited and narrow role of consumers or patients passively receiving or buying products or services of the health system.

Hurst ([1991](#_ENREF_75)) used the model developed by Evans ([1983](#_ENREF_51)) and described how funds flow between actors. He applied the concept to analyse the financing arrangement of seven Organisation for Economic Co-operation and Development (OECD) countries (Belgium, France, Germany, Ireland, the Netherlands, Spain, and the United Kingdom). Through that analysis he was able to elaborate a typology of health systems in these countries based on the exchange relationship between the third-party purchaser and the patient-consumer (mode of payment in exchange for health service). Different third party financing approaches were identified in the different countries and they are voluntary/private health insurance and/or compulsory/public health insurance or tax-based payments. The fund is then paid by the third party purchaser directly to the provider as fee or capitation, indirectly through reimbursement of the patient or vertically integrated systems (command structure) through provider salaries and global budgets. Hurst identified out-of-pocket payment (a relationship excluding the third-party) to be present at least in a supporting role in each of the countries to supplement the third party payment methods (a role played by patient-consumer missing on the Evan’s framework). Out-of-pocket payment dominates in most low and middle income countries.

As stated earlier Evans’s ([1983](#_ENREF_51)) conceptualisation of the health system in terms of constituent actors was very innovative and has revealed some of the relationships that underpin exchange within it. This concept was broadened beyond narrow market exchange relationships at the level of patient-provider-state relationship by Frenk ([1994](#_ENREF_54)) to gain better understanding of how the health system operates in different contexts.

[Frenk (1994](#_ENREF_54)) focus was on interrelationships among certain actors because of his interest in reform and particularly from the perspective of government. The framework he developed is expected to help countries better understand the reform process of their health systems in order to better respond to the impact of ‘health transition’. Health transition is a term used to capture a multidimensional problem including the rising burdens of endemic diseases, newly emerging diseases, rising cost of health care, scarcity of resources especially health human resources, rising public demand for health services, doubts about effectiveness of state intervention and promotion of market-based approaches. The framework proposed by Frenk ([1994](#_ENREF_54)) tends to present the neo-liberal, New Public Management views of these problems, as well as ways of addressing them ([Hood, 1995](#_ENREF_71)).

Based on this perspective, a health system is conceived as a set of relationships among five major groups of actors: the health care providers, the population, the state as a collective mediator, the organizations that generate resources, and the other sectors that produce services with health effects ([Frenk, 1994](#_ENREF_54)). This is an improvement in many ways on Evans’ model. First the entire health system is the object of analysis rather than a health care system typified by doctor-patient encounters as in ([Evans, 1983](#_ENREF_51)). Consequently, Frenk included other sectors that produce services with health effects as key actors in the health system. Secondly the model takes into account the multidimensional and heterogeneous nature of each actor and the basis of exchange within the relationship. As a result of this, more roles could be observed by different actors than the model by Evans will allow, and multiple typologies of health systems could be found in one country which is closer to what is obtained in reality. For example, the population could be seen not just as consumers of healthcare but also the source of personnel, money and data for the system. Frenk ([1994](#_ENREF_54)) explained that none of the actors operate in isolation, instead they belong to various organizations and groupings that shape their interaction. In addition, he goes beyond market relationships as the basis of exchange between actors. For example the basis of relationship between state and population was described based on a concept of ‘eligibility’.

The concept of ‘eligibility’ introduced by Frenk proved helpful in better understanding the relationship between the state as a collective mediator and the population in a given health system. He identified four different bases of eligibility historically and the implication of each.

* Purchasing power – considers health care as just one more element of the market economy. Here the relationship is similar to what was described by Evans, where the patient brings money to the system in exchange for clinical or supportive services. The state is principally responsible for regulating the relationship as a private enterprise with potential benefit to state revenues.
* Poverty – the basis of public assistance through which the state provides certain services to those who do not have the means to obtain them. Here the patient exchanges clinical and supportive services from the health care provider for goodwill or their votes for whoever pays for the service. The goodwill of the poor is valued by the “charitable” health provider, purchaser or state. The role of the state here could range from regulating private charities to financing services for the poor or delivering public service directly to the poor.
* Socially perceived priority – this could apply to social security systems that allow certain strategic groups to make financial contributions, entitling them to health services and other benefits. In this case, the state can regulate company-based services, finance incipient health insurance or deliver services as a social security responsibility.
* Citizenship – here the value system underpinning the relationship is health as a social right. The population exchanges universal access to health care with participation as citizens of the particular state. Depending on context the state is responsible for regulating comprehensive social insurance, providing financing for national health insurance or delivering a socialized health service directly, for example the NHS.

The resulting typologies for each set of relationships constitute what Frenk described as ‘modalities’ of the health system. He, however, did not engage with the relative power of different groups within societies in determining which of these ‘modalities’ a country adopted.

Another relational approach to conceptualising health systems was one developed by Cassels ([1995a](#_ENREF_33)), who is concerned with the prescriptive approach to reforming health systems, and how transferable experiences are between developed and less developed countries. He argued that “the extent to which the experience of industrialised nations is relevant in the political, economic, social and institutional context prevalent in the developing world remains controversial, especially the uncritical promotion of managed-market mechanisms by international agencies”([Cassels, 1995b, p. 329](#_ENREF_34)). He suggested a more constructive approach that reflects the realities of the problems in the developing countries.

Cassels’ framework like Evans’ and Frenk’s, is focused on the relationship between the different actors in the health system. Although the actors were described as key institutional components they were described in terms of their interrelationships and their exchanges. These key institutional components fit closely with Frenk’s key actors except that institutional purchasers were added as a separate category unlike in Frenk ([1994](#_ENREF_54)) where they are considered among the heterogeneous actors described as *Resource Institutions*. The institutional purchasers define health needs for discrete populations and purchase clinical and support services from providers. Part of this activity, purchasing clinical and support services, is carried out under Evans’ model by the third party payers. Additionally, Cassels identified more roles for populations: (a) produce health benefits through individual and collective actions; (b) receive health care; (c) purchase health care; (d) employed to provide services; and (e) influence the form, content, cost or quality of services.

Using ([Evans, 1983](#_ENREF_51)) framework, which is underpinned by neo-classical economics, it is possible to analyse the performance of a health system using the criteria of allocative efficiency, technical efficiency, income distribution and technical progress depending on how the relationship between the consumer, the first line provider and the third party payer is structured. Frenk (1994) links change at different levels (systemic, programmatic, organisational, or instrumental) with desired outcomes such as allocative efficiency, technical efficiency, income distribution and technical progress. Changes at the systemic level are concerned with institutional arrangements and equity; changes at the programmatic level could improve allocative efficiency through specifying priorities of the system; changes at the organizational level where the focus is on production of services could bring about improvement in technical efficiency; while changes at the instrumental level through information, research, technological innovation and human resource development (similar to technical progress in Evans) could improve performance.

Another relational approach considers the relationships that are organised around accessing knowledge and expertise embodied in people as well as in products in order to address health issues instead of the relationship being between different actors ([Bloom and Standing, 2008](#_ENREF_21)). This is the knowledge economy approach where knowledge is considered as a social product, embodied in a variety of material forms, rather than something generated through the operation of a privileged scientific method ([Law, 1992](#_ENREF_90)). This approach to conceptualising health systems appreciates the contributions as well as the limitations of different knowledges, that the knowledges can be organised differently instead of always intensifying efforts to recreate existing ones, and it is a more robust account of the plurality that characterise the messy realities of health systems, especially in fragile settings.

These relational conceptual frameworks as described so far have looked at a relatively narrow range of possible relationships and exchanges that might exist within health systems. Nevertheless this approach offers much more when the broader perspectives on social behaviour relationships are taken into consideration. For example, in the same paper, Frenk ([1994](#_ENREF_54)) identified a number of values that different actors could exchange as they interact within health systems even though these were not included in the conceptual model of the health system that was presented. For example, the expansion of health systems to take over traditional roles of families, as a tool of state authority, source of employment and therefore a source of livelihood for many, a vigorous sector of the economy (e.g. health tourism), or arena for social struggles. Limiting the relationships and exchange possibilities in a social encounter to just state policy on eligibility or economic relations has significantly reduced the sophistication of these relational frameworks in explaining some of the complex relationships observed in real health systems.

Table 2-2 below specifies the principal actors, their exchanges and the basis for their interrelationship. In the table below, Evans’ ([1983](#_ENREF_51)) typology of actors where available will be used and the key differences with the others will be highlighted under each category.

Table 2‑2: Principal actors, exchanges and interrelationships

|  |  |  |
| --- | --- | --- |
| Principal actors | Exchanges | Basis of relationship |
| Consumer/patients and first-line providers | Based on Evans’ economic model this relationship is complicated, actors integrating vertically or reaching through vertical integration of the first-line provider who reaches through the relationship and takes over the decision-making power of the consumer patient. He views the exchange here in terms of passive consumers receiving clinical services and providers enabled to practice their profession. While for Frenk direct exchange does not exist here, it is mediated through the collective mediator, which is the state. The consumer still receives clinical service as part of public service by state and the provider collects money on behalf of state depending on the eligibility arrangement. | In Evans’ this relationship is professional but he feels it is erroneously analysed as economic. While for Frenk the relationship is governed by state policy on eligibility |
| Consumer/patient and government  | For Evans’ there is no direct exchange between these two, however by enabling other relationships the state gains money through tax and the consumer gets state protection from exploitation. For Frenk this is the defining relationship in the health system and what is exchanged depends on the defined eligibility criteria by the state. It could be reward for citizenship, social security or public service in exchange for political capital, vote, and money through tax or other forms of contributions. | For both Evans and Frenk state policy is the basis for this relationship. While for Evans’ it is indirect through regulation of other actors, for Frenk it is direct on the basis of eligibility criteria defined |
| Consumer/patient and insurers/third party purchasers | Risks are exchanged for profit | Economic |
| Consumer/patient and second-line provider | Health care goods in exchange for money | Economic |
| First-line provider and government | Labour in exchange for money (wages). Also professional independence and authority for self-regulation in exchange for citizens’ safety  | Economic and ethical  |
| First-line provider and insurers/third party purchasers | The providers are conceptualised as serving as conduits to consumers for the purchasers and get money in return | Economic |
| First-line provider and second-line provider | The providers are conceptualised as serving as conduits to consumers for the second-line providers and get practice inputs (goods) in return | Economic for second-line providers and professional for the first-line providers |
| Government and insurers/third party purchasers | The government provide market access and investment security for the insurers/third party purchasers in exchange for money (tax) | Economic |
| Government and second-line provider | The government provide market access and investment security for the second-line provider in exchange for money (tax) | Economic |
| Insurers/third party purchasers and second-line provider | The second-line provider bring features that the insurers/third party purchasers can exchange with consumers through the first-line provider in exchange for money  | Economic |
| Population and the organizations that generate resources | Not featured in Evans’ Framework. The population can provide the personnel needed by resource generators to produce the health resources needed by the population | Social  |

### Gaps and issues

The table (Table 2-2) highlights important exchanges and relationships in health systems that could be deduced from the frameworks described.

Although a very promising approach, the relational frameworks described so far have been limited by the narrow perspective of the values that underpin relationships. Moreover, even though the relational approach lends itself to analysis of power differentials in constraining exchange in a relationship, existing models are particularly deficient in explicating that role. In addition, in studies in fragile countries, where governments are virtually absent or where the administrative system itself is highly informal, it is unlikely to have actors with clearly defined roles and responsibilities which match all the three models presented ([Boozary et al., 2014](#_ENREF_23), [Richards, undated](#_ENREF_146)). In Northern Nigeria and similar contexts where Western-type institutions and cultural norms are not dominant, these clearly defined roles may not exist. Besides, the roles of other forms of institutions such as informal providers and traditional healers that play significant part in health systems in these settings are for the most part ignored.

## The “storylines” and the need for an empirical approach

Each of the above three traditions of conceptualising health systems has contributed in advancing the debate about health systems. The functional models have been applied in analysing performance of individual building blocks even though they are weak in explaining relationships between change in one component and its effects on other components or on the overall goals of health systems. Health systems are narrowly defined, static, ahistorical and apolitical. The complex adaptive systems approach highlights the complexity of health systems and is interested in the interrelationships between each subcomponent. Even though CAS as a science has gone the furthest in explaining non-linear behaviours, and fundamental shifts and transformations, its application in conceptualising health systems is still in its infancy. The CAS work by Atun and Menabde ([2008](#_ENREF_7)) and van Olmen and Criel, et al. ([2010a](#_ENREF_185)) has sought to bolt complexity science onto a functionalist framework without really rethinking the fundamentals of conceptualising health systems. The existing CAS health system models are therefore still functionalist in outlook, apolitical, and ahistorical, and although social context is recognised, it is still considered as separate from health systems. Consequently, the current state of the CAS approach cannot explain some of the transformational changes that have shaped some health systems, such as the birth of the NHS in the UK. In contrast, relational approaches are perhaps good at explaining relationships between different actors within health systems, such as different eligibility criteria between the state and the population shaping health systems in different countries and can also explain how changes could be effected. However, relationships have, for the most part, been restricted to those of economic or bureaucratic interactions, which hide the cultural and underlying political nature of these interactions. Relational approaches are further undermined by the tendency to ignore the plurality of value systems underpinning relationships between actors, which can vary significantly in each encounter and context.

While there is an increasing realisation of the need for a shift in paradigm in conceptualising health systems, the dominant perspective especially among the most influential global health actors still lags behind. For example, the complexity and context-specific nature of health systems has increasingly featured in literature on health systems. However, this has not been followed by a commensurate shift away from the dominant perspectives of health systems. Secondly, the multiple roles of the population as active participants in health systems are recognised more and more, as is the call to put people at the centre of health systems ([Sheikh et al., 2014](#_ENREF_164), [WHO, 2007](#_ENREF_201), [Marmot et al., 2008](#_ENREF_103)). However, this vision of people-centred health systems is still far from realised. Moreover, it is recognised that health systems have a multiplicity of purpose in different contexts; however authors of different concepts of health systems consider the three predefined goals as a given for all settings. Above all, the three existing literatures outlined above have tended to take a rational-theoretical approach to conceptualising health systems, with only limited empirical testing and therefore grounding of the concepts employed. Little of the work discussed above has come from empirical insight, based on the real everyday and lived experiences of people in different or particular settings. The next section will look at the underlying philosophies that guide these theoretical conceptualisations of health systems and their implications.

## Lack of empirical grounding of health systems conceptualisation literature

The preceding review showed that existing conceptualizations of health systems are for the most part based on abstract, theoretical ideas of what health systems should be. There is a considerable gap between the accounts of these studies about how health systems should operate and the realities on the ground, especially in most low and middle-income countries. Theoretical models are influenced by authors’ experiences and cultural factors ([van Olmen et al., 2012b](#_ENREF_187)). They rely on individual intuition and are therefore heavily influenced by cultural understanding and experience of health systems. The focus is often therefore on instituting systems similar to those they have previously been familiar -- for example, the prevalent prioritisation of market-based ideas such as health insurance, managed-care and performance management in health systems by predominantly “western” institutions to LMIC.

Within the three literatures discussed above, health systems tend to be seen as objective and from a positivist outlook. Even if there are some slight differences in what constitute health systems (different configurations of the building blocks) and the nature of relationships underpinning the systems, there are actually few studies that approach health systems from an interpretivist perspective. Where studies have sought to undertake so-called interpretivist research on health systems, for example, ([Sheikh and Porter, 2010a](#_ENREF_162)) there has still been assumptions of some sort of external reality.

Health systems research is therefore dominated by a positivist outlook. Health systems are taken for granted as known and the focus is on examining different aspects of the health systems. There is an absence of studies on health systems themselves, that is, studies that seek to define what health systems are or what health systems are for. A typical example of health systems research is for example, Björkman and Svensson’s ([2009](#_ENREF_19)) study of the effectiveness of community-based monitoring of public primary health care providers in Uganda. Positivist approaches assume that social reality exists independent of the researcher and can be objectively measured ([Berger and Luckman, 1967](#_ENREF_15)). These approaches are suited to answering questions, for example, about effectiveness, within defined parameters but are not suitable when deeper understanding of meanings underlying how the health systems are constituted is required. While researching about health needs, demand and supply of health services or effectiveness of intervention provides and will continue to provide useful information for planning health services in relatively intact systems, there is an increasing need to better understand how and why health systems are working (the actual, ongoing ways that people and organisations are dealing with health issues) the way they are, especially in fragile and challenging contexts, and these issues require a different approach to research. Indeed, even in relatively intact systems the positivist approach only gets you so far, for example, most “Western systems” are in serious crisis, struggling to match resources and expectations, reconcile widening inequalities ([Stuckler et al., 2010](#_ENREF_176)) and therefore require serious thought about their underpinnings if they are to continue to remain relevant.

A few studies about different aspects of health systems, however, draw upon diverse philosophical assumptions including realist and relativist paradigms of knowledge ([Gilson, 2012](#_ENREF_58)). For example, [Marchal et al. (2010](#_ENREF_102)) used a realist perspective to assess the human resource management practices in a well performing hospital in Ghana. They considered what works, for whom, in what circumstances, and derived an external reality independent of the researchers ([Pawson and Tilley, 1997](#_ENREF_135)). However, this reality could only be uncovered through the researchers’ interpretations of the social processes that are embedded in social relations and context and accounting for the changes that were observed ([Pawson and Tilley, 1997](#_ENREF_135)). [Riewpaiboon et al. (2005](#_ENREF_148)) used an interpretive analysis of patients’ narratives of their obstetric encounters to study the roles of trust in medical transactions in the Thai healthcare system. Similarly, [Sheikh and Porter (2010b](#_ENREF_163)) used an interpretivist paradigm to highlight how actors’ putative roles in implementation of national policies are undermined very often by their discrete 'systems of meaning'. Interpretivist approaches, which are increasingly recognised in health systems research, assume that social reality cannot be separated from the individual observing it (Berger and Luckman 1967). Therefore, research findings are interpretations of social reality based on the researcher’s subjective understanding of the situation. However, health systems studies that have been identified as interpretivist tend to recognise the existence of structures beyond subjective meanings of individuals interacting in the research. For example in the study by [Riewpaiboon et al. (2005](#_ENREF_148)) above, it is clear that the authors considered ‘the Thai healthcare system’ to be real, independent of the researchers’ or the patients’ interpretations. Similarly, a study by [Sheikh and Porter (2010b](#_ENREF_163)), considered national policies as given, but that the different actors involved in the research have different understanding of their roles in implementing these ‘national policies’. Therefore, even the so called interpretivist research on health systems still assumes some sort of external reality and therefore should be more appropriately considered as realist.

While these realist studies about different aspects of health systems are few, they have revealed the most important lessons for strengthening health systems that previous more positivist approaches could not. [Riewpaiboon et al. (2005](#_ENREF_148)) for example have provided a better understanding of the roles of trust and other non-financial incentives in healthcare transactions. [Sheikh and Porter (2010b](#_ENREF_163)) revealed the yawning knowledge gap in the implementation of public health policies between country-level public health functionaries, the practical knowledge of practitioners and the universalist knowhow of international agencies.

Furthermore, even though these realist empirical approaches mark significant progress towards understanding how health systems operate in particular contexts, they are still limited by dominant functionalist understanding of health systems. Most of the studies are limited to the tight boundaries of the functional categories of formal health systems as defined by the WHR 2000 ([WHO, 2005a](#_ENREF_200)) such as human resources and financing, and are concerned mainly with policy making within these formal health systems. As a result, they ignore important socioeconomic and political processes that define health systems. Even within the formal health system, politics rather than function tend to define roles. For example, [Waxler-Morrison (1988](#_ENREF_192)) examined the difference between Ayurvedic and Western medicine in Sri Lanka and found no significant divergence in nature of practice between the two. Conversely, she found, “Ayurvedic and Western medicine continue in Sri Lanka because they, as institutions, are linked to the social, economic and political structure of the society. Thus, survival is based, not on what a physician does in his practice but upon the power of his medical profession to control medical territory” ([Waxler-Morrison, 1988, p. 531](#_ENREF_192)).

Most pertinent to this study however, these empirical studies are *about* health systems and not *on* health systems (that is, what they are or what they are for). There are few studies that attempted to conceptualise health systems based on extended empirical study, mainly from the fields of medical anthropology and sociology ([Kleinman, 1978](#_ENREF_83), [Wall, 1988](#_ENREF_190), [Kleinman, 1980](#_ENREF_84), [Colvin et al., 2013](#_ENREF_36), [Leach et al., 2008](#_ENREF_92), [Pescosolido, 1992](#_ENREF_138), [Scott et al., 2014](#_ENREF_156)). Empirical studies from the field of medical anthropology and development studies show that people respond to health problems by following a sequence of events dependant on their priorities and the resources available to them ([Sen, 1999](#_ENREF_157), [Pescosolido et al., 1998](#_ENREF_139)). These resources include the community they live in, what they know, their network, their assumptions about the social world, their experience and capabilities. The way these combinations of factors play out over time in a particular locality will result in established patterns that specify what the existent health system is. This study takes the perspective that health systems are essentially socio-cultural systems, therefore much more than an inventory of functional components. Health systems bear the imprints of human activity and would not exist at all but for the actions of human beings ([Bauman and May, 2001](#_ENREF_11)). Therefore, through understanding the activities of people and how they relate with others and the institutions that exist in the setting as they experience health problems and work to resolve them health systems in the actual sense can be explicated.

These realist empirical studies also show that health systems are what people have reason to value when dealing with health issues. Different people have different views of what should be within the scope of health systems. The next section will look at empirical work in different disciplines that are relevant to conceptualisation of health systems.

## Realist empirical conceptualisation of health systems

There are a wide range of empirical studies on health systems, especially within the fields of medical anthropological and sociology, and the first to be discussed is the health care utilisation literature. There is over 6 decades of research on access, utilisation, or health seeking behaviour within sociology literature. These include work on the special position of the sick ([Sigerist et al., 2012](#_ENREF_166)), the sick role ([Parsons, 1951a](#_ENREF_133)) and illness behaviour ([Mechanic and Volkart, 1961](#_ENREF_107)). Within this literature the focus is on “the way in which symptoms are perceived, evaluated, and acted upon by a person who recognises some pain, discomfort or other signs of organic malfunction"([Mechanic and Volkart, 1961, p. 52](#_ENREF_107)). Several theories from different disciplines have been developed to explain health seeking (or illness-avoidance) behaviour e.g. structural/functional, interactional, economic, geographic, psychological, cultural and social network theories. These literatures provided insights regarding the tension between the approaches of the medical establishment and the patient regarding illness behaviour; the need to focus on wider issues of social, psychological and cultural sources of behaviour; and the fact that there are observable patterns in the way people respond to illnesses.

There are, however, considerable gaps in terms of linking these individual level processes to the understanding of how the health system as a whole operates. The focus of the health seeking literature is mostly on tackling the barriers of getting access to the biomedical establishment. The role of the social researcher is limited to that of an instrument for the medical establishment to ensure compliance with their instructions. The health seeking behaviour, access and utilisation literature does not question the dominant conceptualisation of health or health systems. They also tend to have a demand-supply view of health systems with the population (as patients) on the demand side and the biomedical institutions (mostly hospitals) as the supply side of health systems. The literature on health seeking tends to think of hospital or services within the formal health sector as the end point (everything that happens in between is mainly considered as delaying or creating barriers to access) and other forms of provisioning are not seen as legitimate health systems landscapes. This view does not recognise the plurality of options for dealing with health issues, the agency of the population and the consequences of power imbalance between the population and the medical establishment who may be themselves influenced by other factors outside their professional role (e.g. encroachment of corporate interest into the decision of the physician).

However, empirical literature from the field of medical anthropology engaged with “lived” health systems. The anthropological literature values people’s cultural values, norms and meanings in seeking help regarding health issues. [Kleinman (1978](#_ENREF_83)), for example, developed the concept of explanatory models of illness to distinguish between patients and families’ interpretations of their illnesses from those of health practitioners. [Kleinman (1980](#_ENREF_84)) went further and developed the remarkable work on three structural domains of any healthcare systems. These structural domains are: popular (family, social network and community), folk (nonprofessional healers), and professional ([Kleinman, 1980](#_ENREF_84)). These structural domains align very closely with the perspective that considers health systems through looking at the underpinning knowledge systems. Based on these understandings of health systems, multiple sources of knowledge and expertise in addressing health issues are recognised and the health professionals’ perspective is a valued source among other possibilities ([Pelto and Pelto, 1997](#_ENREF_137)). This idea is now being revived and increasingly recognised within mainstream health systems literature as an alternative way of conceptualising health systems as knowledge economies ([Bloom and Standing, 2008](#_ENREF_21), [Bloom et al., 2008](#_ENREF_22)).

Recent studies in this tradition ([Colvin et al., 2013](#_ENREF_36), [Leach et al., 2008](#_ENREF_92), [Scott et al., 2014](#_ENREF_156)) question the dominance of biomedical knowledge as the only authentic source of knowledge about health issues. Illness and healing are studied as “lived” events and individuals are therefore recognised as active decision makers, selecting and deciding from a series of alternatives. Consequently, there is more scope for recognising plurality in health systems, thereby presenting an even handed view of medical pluralism ([Cant and Sharma, 1999](#_ENREF_32)). There is, however, little focus in these kinds of literature which concentrate on individual, family and community level processes rather than exploring the implications for health systems as a whole.

These existing empirical literatures (micro-sociological and anthropological literature on health seeking) have highlighted important features of real health systems but they are tangential to health systems as they did not engage with exploring the implications for the health system as a whole. Most reviews of conceptualisation of health systems ([Shakarishvili et al., 2010](#_ENREF_159), [Papanicolas and Smith, 2010](#_ENREF_132), [Hoffman et al., 2012](#_ENREF_69)) did not include these types of research even though they provide crucial conceptual and methodological insights into developing health systems frameworks that are more in tune with lived realities. There is, however, a growing body of work that has advanced the debates on defining or conceptualising health systems that takes into account the empirical realities of health systems, especially in low and middle income countries, particularly where the state and markets are dysfunctional. These studies approach health systems from the perspective of knowledge economies. [Bloom et al. (2008](#_ENREF_22)) defined health systems as knowledge economies which produce and mediate access to health knowledge embedded in people, services and commodities and which can potentially be organised in different ways. They have taken actor-centred and relational approaches by focusing on what underpins health systems. This approach recognises the messy realities and the increasing plurality in health systems landscapes in terms of training (knowledge-base), ownership, relationships and the regulatory framework ([Bloom, 2014](#_ENREF_20)). There is no one knowledge system that is privileged as this depends on context. A key concept under this approach is the recognition of the historical context and path dependency of institutions such as health systems. The knowledge economy approach highlighted the difficulty in transplanting institutional arrangements to different political economy contexts and therefore the need to avoid policy prescriptions. By embracing plurality and respecting other knowledges, relationships, and regulatory regimes that underpin transactions within health systems, this approach recognises alternative arrangements as innovation to fit reality, for example, how new technologies such as mobile phones are changing the health systems landscape in LMIC. This approach also recognises the changing context of encounters between people and other actors within health systems including changes in the dynamics of trust, power, marketisation and regulatory regimes. There is however scope for further development of this approach, particularly the focus of analysis on the dichotomies between formal and informal, or state and market. Nevertheless this is a fresh perspective on health systems conceptualisation that marks a departure from the dominant functionalist approach.

Examining health systems in this way enables us to ask fundamental questions about how the health sector operates in pluralistic settings as well as weigh options for change by identifying the wider range of stakeholders ([Standing and Bloom, 2001](#_ENREF_174)). This approach has also stimulated a return to earlier thoughts about health systems, in line with the periods around the Alma Ata declaration ([Newell, 1975](#_ENREF_121), [WHO, 1986](#_ENREF_198)) as well as host of literature that looked at household production of health ([Berman et al., 1994](#_ENREF_16)).

## Summary

This chapter has explored theoretical and empirical approaches to conceptualising health systems within the field of health policy and systems research. Theoretical or cognitive models appear to dominate, with three distinct traditions (or storylines) - functional, complex adaptive and relational. These existing theoretical models have provided us with useful terms for describing health systems, thereby providing a common language to enhance communication between scholars, policy makers and practitioners. Moreover, these frameworks have been used by major Global Health Initiatives and funding bodies to mobilise political and financial support for health systems strengthening, especially for LMIC ([Shakarishvili et al., 2011](#_ENREF_160)). However, the three traditions include hidden assumptions about the nature of health systems (i.e. what a health system is), conceal socioeconomic and political agendas that shape the dominant cognitive models, and distort the context-specific nature of health systems as social phenomena, making them challenging to apply in different social contexts in strengthening health systems ([van Olmen et al., 2012b](#_ENREF_187), [Bloom and Standing, 2008](#_ENREF_21)). It has been argued that there is a lack of grounding in empirical reality within the dominant health systems conceptualisation literature. Consequently, there is a need for a realist, empirically driven approach to conceptualisation of health systems. This empirically grounded approach to conceptualisation can draw on vast empirical studies in the fields of medical anthropology and sociology ([Colvin et al., 2013](#_ENREF_36), [Leach et al., 2008](#_ENREF_92), [Scott et al., 2014](#_ENREF_156), [Kleinman, 1978](#_ENREF_83), [Pescosolido et al., 1998](#_ENREF_139)). These existing empirical literatures have highlighted important features of real health systems but they are tangential to health systems as they did not explore the implications for the health system as a whole. It has been further argued that the emerging knowledge economy approach, which builds on the relational approaches, tends to present a better fit with realities on the ground, especially in fragile settings (Bloom and Standing 2008). The next chapter will explore ways in which we can try to identify and use an appropriate ontological and epistemological framework for serious empirical work on health systems in challenging contexts.

# Chapter 3: Methodology

## Introduction

In the previous chapter of this thesis it was argued that most of the conceptual literature and research on health systems takes an implicitly positivist ontological and epistemological perspective. This lack of attention or awareness by the dominant health systems literature does not take away the impact of whatever implicit perspectives they may have about health systems on shaping what is known or knowable. It was further argued that there seems to be a shared view on "what health systems are", for example, the convergence of their purposes and boundaries ([Shakarishvili et al., 2010](#_ENREF_159)). The focus of health systems research tends to be about examining different aspects of health systems, taking for granted that “what they are” is already known. These hidden ontologies perpetuate the power imbalances between the dominant views about health systems over other perspectives. It was also argued in the last chapter that since health systems are sociocultural systems and are therefore context-specific, there are potential incompatibilities between interventions developed based on the dominant views when applied to other contexts, where the views on health systems are different. It is, therefore, crucial to highlight the philosophical perspective through which this study approaches health systems. This chapter starts by presenting the philosophical assumptions underpinning this research. It reflects on how this approach can be differentiated, from an ontological and epistemological perspective, and from the wider literature discussed in the previous chapter. The chapter then moves on to explain the process by which the research was carried out as well as the limitations of the study design in the context of the limitations of similar studies.

## Ontology and Epistemology

The philosophical assumptions underlying this research come from the tradition of Critical Realism originally proposed by [Bhaskar (1975](#_ENREF_17)). As indicated in Chapter 1, the aim of the study is to understand how real health systems are working in an urban informal setting through studying detailed activities of people and the context of these activities. Moreover, the aim is to study in depth diverse incidents of health problems in order to understand, as comprehensively as possible, the range of perspectives and strategies used by the people in the area to address these problems. In so doing, this study utilises a broad view of health systems. They are understood primarily as socio-cultural systems: they are the social arrangements that people use to make sense of and resolve health issues ([Frenk, 1994](#_ENREF_54)). The ideas, meanings and strategies that people in particular places apply to address health issues interact over time and result in established patterns that define the real health systems in those localities. The health systems thus generated in turn shape people’s ideas, meanings and strategies dialogically. [Bauman and May (2001](#_ENREF_11)) explained that socio-cultural systems (therefore health systems) bear the imprints of human activity and would not exist but for the actions of human beings. Thus, through understanding the actions of people and how they relate with others and the institutions that exist in their environment as they experience health problems and work to resolve them, the health systems can be explicated.

Studying real health systems raises the question: What is real? There are different ontological positions about what constitutes reality. Positivist approaches, which (as indicated in Chapter 2) dominate health systems research, assume that social reality exists independent of the researcher and can be objectively measured ([Berger and Luckman, 1967](#_ENREF_15)). These approaches are suited for answering questions about effectiveness, within defined parameters. They are not suitable, however, for developing deeper understanding of the underlying mechanisms or interactions contributing to the functioning of health systems. Research about, for example, the demand and supply of health services and the effectiveness of interventions provides useful information for planning services in relatively intact systems. Furthermore, there is an increasing need to know more about how and why health systems are working, particularly in fragile and challenging health systems contexts. Understanding the ways that people and organisations are dealing with health issues in such contexts will require a qualitative approach.

As indicated in Chapter 2, there are health systems studies that have been carried out from within the tradition of critical realism ([Riewpaiboon et al., 2005](#_ENREF_148), [Sheikh and Porter, 2010a](#_ENREF_162)). Even though these studies were identified as interpretivist or constructivist by their authors, they both located themselves within a given reality, for example, a given country’s ‘national policies’ or ‘health system’. Therefore, a totally constructivist or excessively relativist ontology as envisaged by the interpretivist view of reality ([Berger and Luckman, 1967](#_ENREF_15)) does not seem to exist in health systems research.

This study approaches the social world from a critical realist perspective ([Bhaskar, 1975](#_ENREF_17)). From the perspective of critical realism, reality is complex and made up of three distinct layers: the “real”, the “actual”, and the “empirical” – as illustrated in Figure 3-1 ([Bhaskar, 1975](#_ENREF_17)). The first layer, the real, cannot be perceived and can only be accessible to the observer through the effects that it causes ([Warner, 1993, p. 312](#_ENREF_191)). People’s norms and meanings are among a variety of causal mechanisms because they have effects. For example, in societies where childbirth is considered as ‘normal’ process, women may not see the need for going to hospital to deliver if there are no problems during the process. The second layer of reality, the actual, consists of events that are governed by causal mechanisms in the real. For example, the woman giving birth at home instead of a hospital is an event that may be born out of the particular societal norm about the scope of hospitals with regards to childbirth. While the third layer, the empirical, is made up of experiences and depends on what the observer can perceive using a range of human senses; however, perceptions can sometimes be misleading or unreliable ([Bhaskar, 1975](#_ENREF_17)). Watching the birthing process or hearing the description of it in the above example will be within the realm of the empirical. For example, through the stories that the women narrate in interviews or observations of events surrounding births, the researcher, guided by theory, can access the real layer ([Bhaskar, 1975](#_ENREF_17)).

Figure 3‑1: The three layers of reality based on critical realism

The theories that are used to guide access to the real do not alter it, but they are a systematic attempt at capturing and expressing the way the real behaves into thought structures ([Bhaskar, 1975](#_ENREF_17)). Based on this view, the starting point is a human experience, for example, the experience of childbirth at home, but recognising that this starting point already presupposes a lot of things, for example, a given social structure. These social structures are not static; they are changing even though some social structures endure. Without recognising that the events go far beyond what is experienced, there is a risk of confusing the empirical with the real. In the particular case of giving birth at home, the researcher may ask whether level of formal education determines location of birth (at home or hospital). However, this already assumes that individual attributes and thus a methodological individualism can be valid for determining the location of birth. This assumption ignores the complexity of the real decision context such as intra-household power dynamics that could play a significant role in these types of choices as well as wider societal conceptualisations of the problem and what a meaningful outcome might be.

Critical realism recognises social structures but not in a deterministic way. They are understood as dynamic and are therefore, difficult to observe. However, some aspects of the social structures endure and it is through carefully looking at “cause” and “effect” that some of their enduring features can be observed. Critical realists, unlike post-modernists, do not avoid naming the agents at work to bring about change. However, the view is that each explanation is contestable but some are more valid than others. Based on this perspective the object of knowledge is therefore to uncover these enduring social structures and processes that exist independent of the researchers’ knowledge, experience or the conditions under which they were accessed ([Bhaskar, 1975](#_ENREF_17)). In this study, the focus is on the enduring structures that give rise to the existent health systems in the study location and not the specific health practices observed or their conceptualisations.

The study begins by looking at health problems that are embodied in the people within the study setting, while remaining cognisant of the social structures in which they are situated. Additionally, it is recognised that the distribution of problems and opportunities favours certain individuals and groups; for example, women and children may be more likely to have health problems than men in this setting because of the patriarchal nature of the society. These problems are therefore not randomly distributed. It is also recognised that things exist in the environment that facilitate or hinder the realisation of the purpose that individuals set out to achieve. For example, a woman may prefer to give birth in the hospital but because of the social structures that govern gender relations she may be prevented from realising her choice if her husband refuses to grant permission or provide payment.

Health problems are particularly suitable starting points to understand the causes of decisions and actions taken by people because they accentuate interdependencies. They make us conscious of how dependent we are on others and indeed in everyday activity we always rely on others. Health problems make this more obvious to us and sometimes more urgent.

In summary, this study considers health systems as *social systems for dealing with health issues*. Like other social structures, they are messy and fluid, and are transformed and reproduced by social actors, their ideas, meanings and strategies as they deal with everyday health issues in their localities. Therefore, some aspects of these health systems endure and through carefully looking at “cause” and “effect” some of their enduring features can be observed. The health systems thus generated in turn shape people’s ideas, meanings and strategies. As social arrangements, health systems are dependent on people’s conceptions of them and what they might do. Consequently, health systems are highly context specific.

## Methodology

Abstraction and retroduction were used in this study as tools to interrogate empirically generated texts about health systems ([Peirce et al., 1931](#_ENREF_136)). There are three elements of retroduction ([Outhwaite, 1987](#_ENREF_130)). The first step is the direct explanation of what was observed. For example, the observation can be - women prefer to give birth at home in some settings. The next step is to consider existing theories that may explain this observation – what are the existing theories about why women give birth at home (ignorance, poverty or poor service quality)? The final step is to question the evidence itself – is there an empiricist bias to the evidence? For example, are women considered to be making these choices rationally, independent of the social structures in which they are situated? The explanation that produces a better fit with the particular purpose of the research is giving higher precedence during the process of retroduction ([Rorty, 1982, p. 248, cited in Outhwaite, 1987, p. 34](#_ENREF_130)). Retroduction is consistent with the critical realist views of social reality where observation is followed by intuiting. It is helpful in finding out what can be known whilst recognising the possibility of multiple interpretations of one scene, each of which may be viable, but of different social import. "Factual" statements usually embody layers of meanings and thus are contestable. An explanatory claim can be made about the factual statement ([Peirce et al., 1931](#_ENREF_136)).

In other words, using retroduction for the example above about an observed pattern that women tend to give birth at home, one explanatory claim might be that they do not consider birth as something requiring medical scrutiny. There might be other explanatory claims however. For example, health professionals may argue that they are ignorant of the benefits of hospital birth. Using retroduction, the relative merit of each claim is assessed, and precedence is given to the explanation that provides the better fit with the observed phenomenon based on the available data.

Researchers exploring or trying to understand these claims using inductive methods would have a different approach. They would take data on characteristics of the women and look at those associated with delivery at home and based on this make a general statement about home birth. One of the problems with induction is that the future need not be like the past, even if trends are stable up to the present ([Patomaki, 2006, cited in Olsen, 2010](#_ENREF_128)). Those using deduction, on the contrary, would take a general statement, for example, women below certain income levels deliver at home and use that to see if it applies to a particular instance. One of the problems with this analysis is that, many real cases are unique, one-off situations ([Sayer, 1992, cited in Olsen, 2010](#_ENREF_128)). Therefore, causal mechanisms are not deterministic.

In this research, the different elements of each incident of a health problem narrated by an interviewee are grouped in a table under the following headings: ID (identifying code), Age Category (years), Sex, Designation of the incident, Description of the nature of the problem, Measures implemented, Expectations and meanings of the results (see Table 3-3 in section 3.8.2). These headings are populated with relevant segment of the data for each incident to create the case study database (Appendix IX). A number of these incidents were written up as vignettes (Appendix X). The starting point for finding the causal mechanism in this research is, therefore, to identify in each incident the different representations of the problem by the respondents. This step is then followed by looking for the decisions and actions taken eventually to try and address the problem. This decisions and actions are the outcomes of interest in the analysis (O) ([Westhorp, 2014](#_ENREF_196)). Once the outcome of interest has been identified in a particular incident then each incident is then reconstructed from the narrative accounts of the respondents to get into the reasoning (the mechanisms) behind the decisions and actions taken (M) ([Westhorp, 2014](#_ENREF_196)). This approach generally reveals the different mechanisms (M) that could be responsible for producing the outcome (O) and the main mechanisms for each outcome. The main mechanisms are those that are common and significant enough to contribute to the pattern of outcomes (that is decisions or actions taken to address the problem at hand). An important principle of realism is that the ‘causes’ of outcomes are not simple, linear or deterministic and there may be multiple mechanisms involved. Some mechanisms are obvious, some are less obvious, and some are not anticipated ([Westhorp, 2014](#_ENREF_196)). These mechanisms are triggered by certain features of the context (C) and different social contexts are quite likely to generate different patterns of outcomes in those different contexts. The next step is to identify the main features of the context that are generating the mechanism(s) in each incident. Each incident is then summarised using a CMO description, for example, the local context in relation to the health issue (C), attitudes, feelings, reactions related to it (Mechanisms), and actions taken (Outcomes) ([Westhorp, 2014](#_ENREF_196)). These CMOs are populated on a table to identify patterns (see Table 3-4).

This study looked at human behaviour such as decisions and actions taken to deal with a particular health issue (the empirical layer) to understand the causes of that behaviour by looking at theoretical insights that provide some answers. The remaining steps of retroduction will then be applied to reach the best-possible explanations, however, there is no ‘one true theory' ([Outhwaite, 1987](#_ENREF_130)). In this study, for each event that was observed, a number of possible explanations were considered and one is adopted if the explanation is supported by the data and provided more information about the underlying mechanisms causing the event. Explanation was sought within health systems research literature in the first instance then to other disciplines if none were found in the health systems literature. New explanations were then added as supported by the data.

Based on these assumptions, health systems are seen as ‘becoming’: “they have not always been the way they are at present; nor have they been ‘made’ in the sense of being the unmediated result of a conscious design – instead, they have emerged as part of a structured process of development, the course of which can be studied precisely and systematically” ([Goudsblom, 1977, p. 148](#_ENREF_62)).

## Methods

A case study research approach (in-depth investigation of a phenomenon within its real-life context) was used to explore how health systems are working in urban informal settlements in low and middle-income countries (LMIC). Tudun Jukun, an unplanned neighbourhood located in the outskirts of Zaria city in northern Nigeria, was selected as the study site. The fieldwork lasted three months from June – August 2012. During the fieldwork, interviews were conducted with 19 different individuals (index participants - IP) each dealing with different types of health problems. Another 15 individuals and 3 groups (primary participants – PP) that were or became involved with the index participants, either as a result of the health problem or the actions that they had taken to resolve the problem, were interviewed. Community gatekeepers were used in identifying and recruiting index participants (IPs), while ‘snowballing’ was used to recruit the primary participants for the study.

### Justification of the case study approach

This study used a case study design because it is better suited for the type of questions posed. A case study is defined as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” ([Yin, 2009, p. 18](#_ENREF_211)). [Yin (2009, p. 18](#_ENREF_211)) argues that, “in general, case studies are the preferred method when (a) “how” or “why” questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context.” There are some important characteristics of the case study design that made it the preferred choice for this research. First, one of the key characteristics of a case study design is that it allows the researcher to take into account multiple variables that are important in understanding a phenomenon ([Yin, 2009](#_ENREF_211)). Health systems are complex social phenomenon with multiple variables that could all be potentially important. This study seeks to understand how these complex social phenomena (i.e. health systems) are working within the real-life context of the study setting. In this research, the case is the health system and how it operates in the selected site. Second, case study design is anchored in real-life situation and provides a rich and holistic picture of the phenomenon ([Yin, 2009](#_ENREF_211)). The aim of this research is to build a better understanding in a holistic manner the ways in which health systems are working in a particular locality, through exploring the ideas, meanings and strategies that people apply to address health problems in real-life. Third, case study design is also suitable for applied research where it can bring about understanding that in turn can affect and perhaps even improve policy and practice ([Yin, 2009](#_ENREF_211)). A primary goal of this research is to produce new knowledge about the ways in which health systems work within the context of the study location in order to improve the design and development of effective health systems strengthening interventions.

In this research, the case is health systems and how they operate in the selected site. The unit of analysis within the case (as illustrated in figure 3-2) is: an index participant (IP) who is the individual directly experiencing some form of health problem and various primary participants (PP) who are other individuals or institutions that the IP relates with in understanding or addressing the health problem. Examples of primary participants include different health providers (formal/informal), transport operators (e.g. motorcycle taxi riders), medicine vendors, traders or retailers of health products.

Figure 3‑2: Diagram representing an example of a unit of analysis for the study

This study used a single case approach because the health systems in Tudun Jukun represent a typical case of how health systems in urban informal settings operate. It is important to study health systems in these types of setting because they are increasingly becoming the norm for most LMIC.

### Selection of the study location

As indicated in chapter 2, health systems literature tends to focus on individual components of the formal healthcare systems such as financing, human resources and, at times, on the internal relationships between the different components ([Adam et al., 2012](#_ENREF_4)). Approaching health systems in this way neglects the challenging environments – such as urban ‘shanty’ towns – where poverty and ill-health tend to be concentrated, and formal systems are mostly absent.

Urban informal settlements are increasingly becoming a home for the majority of the population in LMICs particularly in sub-Saharan Africa. The 2009 report of the United Nations Human Settlements Programme (UN-HABITAT) showed that sub-Saharan Africa is rapidly urbanizing and, already, the majority of the population in the continent live in urban areas, and the trend is sharply increasing ([UN-Habitat, 2009](#_ENREF_181)). Therefore, an understanding of how health systems operate in these rapidly growing urban settings is immensely valuable. Findings from this can be relevant to policy and practice as concepts can be applied in similar settings in other low-income countries.

This research is interested in how health systems are working in these settings especially as the state is often unable or unwilling to provide health services (the so called fragile states). The aim is to understand what works for people living in such settings as they experience health problems on a daily basis and work to resolve them. Tudun Jukun – an unplanned urban area adjoining Zaria City– in northern Nigeria was selected for this study. Besides its relative security compared to similar settings at the time of the study in northern Nigeria (see Appendix II Security Assessment), a number of characteristics were taken into consideration when selecting this particular study setting.

First, urban informal settings have very low coverage of formal (state regulated) health systems. In Nigeria, formal health services coverage has remain consistently less than 30% on the average across the country ([NBS, 2014](#_ENREF_119), [World\_Bank, 2012](#_ENREF_210), [NPC and ICF\_International, 2014](#_ENREF_124), [NPC and ORC\_Macro, 2004](#_ENREF_125), [NPC and ORC\_Macro, 2009](#_ENREF_126), [WHO, 2011](#_ENREF_204)). Because most studies on health systems tend to focus on these formal (state-run or -regulated) health services, these studies neglect the real health systems experienced by most Nigerians especially those in poor urban informal settings such as Tudun Jukun. Selecting urban informal settings, with an acute absence of state-led or regulated health services, significantly increased the chance of identifying aspects of the health systems that are invisible in the dominant studies and perspectives about health systems (see Chapter 2).

Second, the study setting, like many urban deprived neighbourhoods in LMICs, is characterised by poor living conditions and high concentrations of factors that adversely affect people’s health, including: overcrowded housing, inadequate infrastructure and services, poor sanitation, low income due to unsecure daily wage employment for most residents, and almost complete absence of formal social amenities including education and health services ([NBS, 2012a](#_ENREF_117), [NBS, 2012b](#_ENREF_118), [UN-Habitat, 2009](#_ENREF_181)). As a result, people in the area are likely to encounter a wide range of health problems. Each health problem may reveal a different aspect of health systems which would not have been observed if such problems were not present or considered. Therefore, this setting provides a comprehensive picture of health systems; more so than areas with a narrower range of health problems.

Third, being close to the better planned and serviced parts of Zaria city increases the range of services that people in the area could potentially use depending on their means. A wide range of providers exists including: private; public - primary, secondary and tertiary hospitals; informal orthodox, traditional, and religious providers. This study has looked at a more comprehensive understanding of the role that these diverse actors play within the health systems. Fourth, Tudun Jukun is socioeconomically diverse, consisting of individuals from different backgrounds and different levels of wealth and social status ([NBS, 2012a](#_ENREF_117), [NBS, 2012b](#_ENREF_118)). However, in comparison to the rest of Zaria city it is more deprived overall. Therefore, it is suitable in uncovering mutually constraining social interactions that generate and sustain inequalities and injustices in the distribution of health systems benefits. Finally, Tudun Jukun is also a strategic choice, for the researcher has rich local knowledge of the setting. (I attended university and lived in Zaria for over ten years and still maintain contacts with colleagues that are still living in Zaria. I also had family members living in Zaria close to the study site).

### Background about the study location

Having set out the justification for selecting the study site above, it is now important to give some more details about Tudun Jukun – what the area is like, economy, people – but first where it is located within the Nigerian state. Presently Nigeria is subdivided into 36 states and one federal capital territory (FCT). These states and the federal territory are further divided into local government areas (LGA). There are currently 774 local government areas recognized by Nigerian Constitution ([1999](#_ENREF_2)). The states enjoy substantial levels of autonomy and exercise significant influence on the administration of the LGAs. Tudun Jukun is located in Zaria LGA (one of 774) in Kaduna State (one of the 36). Nigeria has a very large population (the highest in Africa – 140 million counted in 2006 census) which is rapidly growing, very young (over 40% are under the age of 16, only 3% above 65 years), with declining death rate and massive shift in population to urban areas, now accounting for half the population ([World\_Bank, 2011](#_ENREF_209)). Even though agriculture is the dominant economic activity in terms of employment (70% of employment) and linkages with the rest of the economy, Nigeria has estimated proven oil reserves of 32 billion barrels, and at current rate of production; these reserves are sufficient to last about 37years ([NBS, 2011](#_ENREF_116)). Oil export now accounts for over 90% of government revenues and it is mostly from this that the hospitals, health departments and agencies of government as well as other public services are funded ([NBS, 2011](#_ENREF_116)).

The quality of data on health in Nigeria is poor. However, the estimates from sources such as the WHO and UNICEF showed that death rates are still very high even though declining ([WHO, 2011](#_ENREF_204)). Birth rates too are declining, but there is still very high fertility rate of 5.8 births per woman ([WHO, 2011](#_ENREF_204)). Life expectancy at birth is low (46 years in 2010) but rising slowly over the decades. Premature deaths are very high as on average only about 40% of the population survive to 65 years. Communicable diseases are still responsible for 81% of deaths in Nigeria, while increasing non-communicable diseases and injuries are responsible for 14% and 5% of deaths respectively ([WHO, 2011](#_ENREF_204)). Maternal deaths are among the highest in the world with ratio of 840 per 100,000 live births ([WHO, 2011](#_ENREF_204)). The maternal deaths are worsened by high birth rate, low coverage with antenatal care (45%, 2008) and skilled health worker attending births (38%, 2008) ([WHO, 2011](#_ENREF_204)).

Data from the WHO Global Health Observatory ([WHO, 2011](#_ENREF_204)) show the following. Large health disparities exist among the population on different levels such as age, gender, region, place of residence as well as socioeconomic categories. As this study is concerned with poor neighbourhood in an urban area, only key differences for this category will be highlighted. Urban residents have more access to improved-drinking water (80%, 1990) compared to rural areas (25%, 1990). The access to drinking water is improving for rural areas where it is about 40% in 2010 while deteriorating for urban areas (70%, 2010). Only 20 – 30% of the population have access to improved sanitation facilities and this is deteriorating for both urban and rural areas. Births attended by skilled health personnel are 28% and 65% for rural and urban areas respectively. Immunization coverage is 34% for rural and 59% for urban areas that mirrors under five mortality rates of 191 and 121 per 1000 live births for rural and urban areas respectively.

However, when urban poor data was disaggregated from the total for urban areas, the urban poor tend to fare a lot worse than rural areas. While on average urban communities fare better than their rural counterparts in Nigeria, there is a rapidly growing urban poor population that live in informal settlements whose level of deprivation is even worse than those in rural areas. For example, there is a worsening trend for the health situation for both urban poor and rural populations. However, the deterioration is a lot worse for the urban poor experiencing drop from 69% to 34% (urban) and 50% to 35% (rural) for access to antenatal care and measles vaccination over 13-year period. The proportion having access to safe water (35%) among urban poor showed the wide gap that exists between them and wealthier residents in the urban area (the average for the urban area is 70% in 2010) ([WHO, 2011](#_ENREF_204)).

The colonial history of Nigeria significantly shaped the current structure of the formal health services provision of the country ([Schram, 1971](#_ENREF_155)). During the pre-colonial era, different population groups that made up present day Nigeria had some form of traditional practices around illnesses and afflictions ([Schram, 1971](#_ENREF_155)). The traditional medicine-men were very influential in some communities beyond their healing craft. Key community events were decided and performed under their leadership. Barber-doctors were a recognised specialist professional category among the Hausa as far back as 1800s. Surgical practices such as circumcision and reduction of bone fractures were routines. The barber-doctors are also responsible for some rituals during and around childbirth, such as cutting off the uvula and parts of the female genitalia. Postnatal ablution was done as a rite of passage with near boiling water ([Smith, 1954](#_ENREF_169)). Most of these practices are still present in Nigeria alongside conventional medical practice especially in poor areas such as Tudun Jukun.

The concept of diseases and their management by the western medical practitioners during the 19th century when they first arrived in West Africa were themselves radically different from what it is today. It was a period when miasmic theory guided understanding of diseases and their management. During this period, there was not much difference between western medical practice and traditional medical practice in Africa in terms of the scientific basis. Up to the middle of the 20th century western medicine did not have much influence on natives, whatever services that were available then were for the Europeans and later extended to their native staff ([Schram, 1971](#_ENREF_155)). From 1850 to 1900 saw the establishment of the Missionary Movement in the West, most of the western medicine brought to what is now Nigeria was through the activities of these groups and the medical services they provided at that time were mainly restricted around the coastal area. Subsequently, what was to become Nigeria’s health service was the West African Medical Service ([Schram, 1971](#_ENREF_155)).

In response to the agitations of the nationalists, the colonial government established the Ministry of Health of Nigeria in 1946 to coordinate health services throughout the country including private, military and government health facilities as part of the first national development plan covering the period 1945 – 1955 ([NEEDS, 2004](#_ENREF_120), [Vision\_2010, 1999](#_ENREF_188)). However, it was not until the third post independent development plan (1975 – 1980), at the beginning of the oil boom that an attempt was made to set up a national health system with an allocation of US$1.7 Billion ([Vision\_2010, 1999](#_ENREF_188)). A National Health Implementation Plan based on primary health care was developed with the assistance of the WHO ([Vision\_2010, 1999](#_ENREF_188)). The current structure of the health system is based on what was proposed later in the 1988 national health policy ([FMOH, 1988](#_ENREF_53)). The policies were based mainly on the ideals of the Alma Ata declaration on primary health care ([Ransome-Kuti, 1998](#_ENREF_142)). Primary health care was placed under the jurisdiction of the LGA, secondary health care under State control and the Federal Government to take care of tertiary health care consisting of teaching hospitals ([Ransome-Kuti, 1998](#_ENREF_142)). Based on this policy, the coverage with health care was said to have increased from 30% in 1980 to 67% by end of 1990 ([Ransome-Kuti, 1998](#_ENREF_142)). In spite of this, the system remains weak and has since deteriorated and what is left of it presently is unclear ([Ransome-Kuti, 1998](#_ENREF_142)). The World Health Organization in 2000 ranked Nigeria’s overall health system performance as 187th among the 191 Member States ([WHO, 2005a](#_ENREF_200)).

During the period 2002 – 2016, a range of development assistance partners (DAPs) in Nigeria have spent and committed over US$1.152 billion on health systems strengthening projects ([World\_Bank, 2012](#_ENREF_210)). Despite this massive investment, the past decade has seen rising inequities in access to healthcare services among Nigerians, as well as stagnation or indeed deterioration of the health system ([NBS, 2014](#_ENREF_119), [NPC and ICF\_International, 2014](#_ENREF_124), [NPC and ORC\_Macro, 2004](#_ENREF_125), [NPC and ORC\_Macro, 2009](#_ENREF_126)). Important indicators clearly demonstrate that health systems performance is getting worse instead of better. For example between 2003 and 2008, the percentage of children under one year old that are fully immunised fell from an abysmal 10.6% to 9.8%, and that of pregnant women attending antenatal care declined from 60.1% to 57% ([NPC and ORC\_Macro, 2004](#_ENREF_125), [NPC and ORC\_Macro, 2009](#_ENREF_126)). Notably, and with significantly poorer socioeconomic conditions and recent political and security problems, the north of the country fares substantially worse with respect to health outcomes and overall living conditions. In addition, in the north where available, formal services may not be affordable or socially acceptable to the population.

Tudun Jukun represents a typical example of urban informal settlements that are increasingly becoming a home for the majority of populations in developing countries particularly in sub-Saharan Africa. There are no relevant data available but based on estimates by the district head the average land area of Tudun Jukun is about 3.4 sq. Km and the population could be up to 160,000 (the lowest geographical unit census data is disaggregated in Nigeria is the LGA. Therefore, no precise figures are available for Tudun Jukun). Tudun Jukun lies outside and to the north of the old walled Zaria city. Both Zaria city and Tudun Jukun had expanded and linked with other settlements to form the greater Zaria conurbation.

Tudun Jukun has one District Head representing the traditional institution of Kaduna State under the leadership of the emir of Zaria. The district head is represented in his absence by the *Magajin Gari* (MG) who is effectively the de facto district head as the official district head lives and conducts his business in Abuja (Nigeria's capital), and he only comes to the neighbourhood occasionally. Officially they are considered as ceremonial titles but they exercise significant influence on public opinion. The District Head has five Ward Heads representing him in different wards within Tudun Jukun. Other important community structures within Tudun Jukun are the religious leaders (*ulama*) who operate independent of the district head or the official local or state administration. The *ulama* operate through their denominational mosques and occasionally collaborate with the traditional leaders during important community events such as Eid (religious and cultural ceremonies that hold twice in a year in the predominantly Muslim community), naming and wedding ceremonies, and observing burial rites. Officially, Tudun Jukun is an administrative ward under Zaria local government area (LGA). It is represented by a councillor at the Zaria legislative council.

The majority of Tudun Jukun residents are Muslims. There are two major Islamic sects in the area, the Sufi brotherhood, a form of a religious order based on more personal or mystical relations to the supernatural, and the Salafi revival that emerged in Nigeria in the 1960s and tends to define itself by uncompromising opposition to Sufi orders. The much older sect, the Sufi *ulama* have been part of the ruling elite, serving as judges, ministers, scribes, and counsellors to traditional rulers officiating in Islamic public rituals, instructing Muslims in Islamic precepts, and interpreting and administering Islamic law. In Tudun Jukun as in most parts of Nigeria, the Sufi *ulama* tend to align with the traditional rulers and the older generation.

### The role of the researcher

From the perspective of critical realism, the researcher is not a passive receiver of information and therefore has impact on the nature of data generated. S/he has her/his own personality needs that must be met in some degree if s/he is to carry out the research successfully ([Whyte, 1955, p. 279](#_ENREF_206)). The role of the researcher in the generation of qualitative data is acknowledged to be of central importance because their previous experiences and positionality influence both the interaction within interviews and the interpretation of data ([Bryman, 2004](#_ENREF_28)). ““Being there” is an inseparable part of research, and reminds researchers that doing research is not all that happens when research is done. The researcher is also there in her/his capacity as human being, woman, man, university lecturer, journalist, writer, cultural tourist, wanderer in search of something, seeking solace, even escape” ([Hannabuss, 2000, p. 100](#_ENREF_66)). As [Whyte (1955, p. 279](#_ENREF_206)) explains, “a real explanation, then, of how the research was done necessarily involves a rather personal account of how the researcher lived during the period of study”.

This research account is therefore a combination of my theoretical interest about how conceptualisations of health systems are undermining efforts at strengthening health systems especially in fragile states. My interest in this research is stimulated by my experience of working for over a decade to deliver disease-specific (malaria especially) interventions in northern Nigeria without much success. Moreover, having lived in that part of the country, I have a thorough inside knowledge of the area and this has helped my interaction with the residents during the fieldwork.

To give some more detail, I qualified as a medical doctor in Zaria town where the study setting is located and previously worked as a clinical, and later as public health, practitioner in government departments and later the World Health Organisation. As a result, I have come into contact with people similar to those interviewed; mainly while working in clinical practice but infrequently while supervising and monitoring public health services, delivered mainly in primary care centres. This may have influenced my interpretation of the participants’ responses but care was taken to avoid assumptions of shared understanding ([Bryman, 2004](#_ENREF_28)). For this reason, I introduced myself as a research student. I tried to suppress my connection with the medical profession in order to minimise my former role and the perceived power this might create, although this was not always successful. Some participants still asked clinical questions or requested advice on how to deal with their problems ([Bryman, 2004](#_ENREF_28)).

Other important considerations are my religion, fluency in the local language and familiarity with the local culture which makes me an “insider”. In contrast, being formally educated to postgraduate level and studying and living “abroad” makes me an “outsider”. For example, when I asked interviewees about what the most important health-related problems that they are most worried about in the area and what they think will make things better. Often, they tend to look puzzled – appearing to wonder why I asked such a question or appear to feel whether it is some kind of ‘trick question’. My being from that part of the world (insider) and having studied to this level (outsider), their expectation is that I should be the one to tell them what the problems are and how they might be solved. However, after explaining my reasons for asking the question they will then give their answers.

Through active reflexivity, I constantly considered my role in the research and its impact on the data generated, seeking a balance between avoiding bias whilst maintaining rapport ([Silverman, 2007](#_ENREF_167)). Critical realism “is helpful in finding out what can be known, whilst recognising that the various standpoints of insiders within a social situation are likely to produce vivid disagreements and the possibility of multiple interpretations of one scene, each of which may be viable but of different social import” ([Olsen, 2010, p. xx](#_ENREF_128)). Critical realism provides the general perspective from which incidents are described in this study.

### Negotiating access

Having decided on the choice of location, the next challenge was getting access to the place and the people to be interviewed. One of the defining features of urban informal settlements is the relative absence of formal institutions of state. Therefore, there are no formal (official) gatekeepers through who the population could be reached. However, there are informal systems of traditional leadership that exist before the Nigerian state and partly persist in most parts of Nigeria especially in the north. The traditional leaders have no formal constitutional role but are recognised as influential institutions in the community that the government and international NGOs have utilised frequently to increase acceptability of their interventions. Traditional rulers have been mobilised for example to support polio eradication campaigns after serious setbacks in the region ([Renne, 2010](#_ENREF_144)).

My existing connection with Zaria and Tudun Jukun through former colleagues and family presented some advantage during the initial phase and throughout the period of the fieldwork. It provided me with access to the community as well as an opportunity to be present in the study site outside scheduled interview appointments. “Being there” contributed a lot to the observations made about the place and contributed to making sense of the data collected through the interviews.

The first task following administrative approval (required for all health research and provided by the Ministry of Health in Kaduna State) was to get in touch with the district head of the area. This was done by contacting a friend who lives in the area and now works as a lecturer at our Alma Mata, Ahmadu Bello University Zaria. Through his contacts, I was introduced to the representative of the district head (the *Magajin Gari*) who is actually a de facto district head. The official district head lives and conducts his business in Abuja (Nigeria’s capital), and only comes to the neighbourhood occasionally. After explaining the details of my research and how I planned to go about it, the *Magajin Gari* agreed to provide whatever help I require in recruiting participants. Most of the participants (the women, traditional healers, older residents of the area, spiritual healers, traditional birth attendants, and traditional barber-surgeons) in the early stages of this research were identified and recruited through him. Further participants were suggested to him by me for recruitment as a result of referrals from those involved in the initial set of interviews. The *Magajin Gari* contacted each potential participant individually, sharing the research information sheet which explained the aims and objectives of the research and enquired whether they would be interested in participating in the study.

### Recruitment of participants

As is perhaps implicit in the discussion above, recruitment of participants for this study was approached as a process of relationship building ([Yin, 2009](#_ENREF_211)). Previous work in this and similar communities have shown that trust and sensitivity to cultural norms are imperative in establishing and maintaining relationships ([Danmusa et al., 2007](#_ENREF_41)). The initial stages of this research focused on building relationships based on these values through community engagement work with the key gatekeepers described. This community engagement effort helped in building trust as well as an opportunity to discuss details of the research and what it intends to achieve.

The recruitment plan was modified in the field as it became clear that I was unable to select one index participant and follow through with primary participants as initially conceived. Rather as I interviewed an index participant other index participants were lined up including few primary participants relating to previous interviews. Some individual interviews had to accommodate husbands of the participants because it will be culturally unacceptable to ask them to leave while I interview their wife and in some instance other members of the family and the *Magajin Gari* himself all of who interfere in some ways during the interviews were present. I also could not determine the venue of the meeting and therefore no control over the setting. Sounds from goats, sheep, chickens and grinding machines could not be avoided as well as interruptions by noises from other members of the household of the interviewee and visitors who would occasionally gather to eavesdrop. Confidentiality is, therefore, a tricky concept in this situation. These and other ethical challenges and their mitigation are described below in the section on Ethical Challenges.

A different category of important gatekeepers in the area are the religious leaders (*ulama*). The majority of Tudun Jukun residents are Muslims. There are two major Islamic sects in the area, the Sufi brotherhood, a form of a religious order based on more personal or mystical relations to the supernatural, and the Salafi revival that emerged in Nigeria in the 1960s that tend to define itself by uncompromising opposition to Sufi orders. The much older sect, the Sufi *ulama* have been part of the ruling elite, serving as judges, ministers, scribes, and counsellors to traditional rulers officiating in Islamic public rituals, instructing Muslims in Islamic precepts, and interpreting and administering Islamic law. In Tudun Jukun as in most parts of Nigeria, the Sufi *ulama* tends to align with the traditional leaders and the older generation. Some of the participants recruited by the *Magajin Gari* belong to this category. In contrast, the Salafi *ulama* tended to have more influence on younger and more formally educated members of the community. I got in touch with one of the Salafi *ulama* through one of the mosques in the area where I attend regular prayers in order to recruit younger and formally educated participants as well as elders that identify with the Salafi sect. This has enabled me to explore intergenerational and sectarian nuances in defining health problems and patterns of addressing them. They tend to be stricter about mingling between sexes, so none of the women that participated in this research were recruited through them.

A third category of participants was health professionals, informal medicine sellers, hospital directors, wealthy members of the community, and LGA health officers. They were selected if mentioned by the first set of interviewees as having played a part along the trajectory of a health problem that is being explored (primary participant Figure 3-2). They were contacted directly by me based on the planned study protocol. They were provided with the information sheet which has my contact details on them. We (MG and I) called at their homes a week later to find out if they want to take part in the research. Those that provided consents were then contacted, and interviews were arranged mostly in their offices.

Finally, one participant contacted me and requested to be interviewed after hearing from other women who had participated in the study. I explained the details of the research to her and asked her to discuss with her family and friends before deciding. After one week she called and agreed to be interviewed. It was one of the most productive interviews during the entire fieldwork.

## Ethical challenges

As indicated above, my study site was located in a poor urban informal settlement in northern Nigeria. The majority of the participants in my research live below the poverty line. The National Bureau of Statistics estimated that 60.9% of Nigerians in 2010 were living in "absolute poverty" (<US$1/day) - this figure had risen from 54.7% in 2004 ([NBS, 2011](#_ENREF_116)). Many of the participants suffer from a range of health problems that they are unable to address and have to live with them because of the severe deprivation in the area. This, along with several other factors including weak governance systems in Nigeria, presented a number of ethical concerns during the research which will now be explored in greater detail.

### Dilemmas related to research governance

First, there was an apparent absence of sound research governance structures in the study location and in Nigeria generally. One of the first challenges encountered before starting data collection was deciding where to apply for local ethical review in Nigeria. At least three choices were available: National Health Research Ethics Committee ([NHREC](#_ENREF_122)), Kaduna State Ministry of Health Research Ethics Committee (KMoH-REC) and Ahmadu Bello University Teaching Hospital Research Ethics Committee (ABUTH-REC). None of the options available provided sufficient oversight or involve local communities in decisions about benefits and risk of research and they do not have any mechanism to safeguard individuals from exploitation by researchers. However because it is mandatory based on the University of Sheffield ethics policy, the three options were weighed carefully. KMoH-REC was selected on balance of advantages based on the extent of meeting some of these criteria: the existence of a well-articulated guideline; jurisdiction over research site; robustness of processes and procedures (composition, oversight, efficiency and understanding of research context); cost; and explicit signposted processes to follow (See Appendix III: Weighting of relevant ethics committees in Nigeria).

Second, the burden of complying with multiple institutional reviews for institutionally affiliated participants because there is no mutual recognition of procedures between different organisations. For example, each hospital in the area will demand that I go through their ‘ethics procedure’ before interviewing any of their staff. My research seeks perspective from institutional actors to build a better picture of their relationship with the population in the study site in addressing health problem. Some of those that were to be interviewed are based in: various departments of the Local Government Area such as primary healthcare, environment; different hospitals including a tertiary hospital owned by the federal government, two faith-based hospitals patronised by many people from the study site; and private hospitals and pharmacies. All these institutions demanded some form of review or approval process before I could interview their staff.

For the tertiary hospital some of the challenges of getting ethical review as highlighted for ABUTH-REC (See Appendix III: Weighting of relevant ethics committees in Nigeria) made it unrealistic to go through that process. The options were to exclude participants from that hospital from the research, which will leave a significant gap in the data or to find alternative ways of including them that are ethical and does not involve going through the ABUTH-REC. For the LGA Departments, proper review systems do not exist. Personal networks were needed to connect with the individuals concerned as well as when making connections with most of the private hospitals and pharmacies. For the latter, their biggest concern is time away from work for staff participating in interviews. In the two faith-based hospitals, one has a management system that values and understands the need for research and the process was formal but efficient, while the second relied more on personal contacts with the head of the hospital.

Among the organisations presenting the most challenges, the most ethically challenging was dealing with the staff from the tertiary hospitals. Here again, personal relationship with individuals working in the hospital played an important role. The participating institution recommended that the most efficient route for ethics approval were either to apply to ABUTH-REC and use the acknowledgement of receipt of application and proceed with the research on that basis as is the tradition with most ongoing research at time in the institution or approach individual Heads of Departments where relevant staff that were to be interviewed are located and interview the staff based on their department’s approval. The latter option was taken, and four departments were approached out of which 3 agreed and in 2 of these the heads of the departments themselves were interviewed while in remaining one a representative of the Head of Department was interviewed.

### Dilemmas in accessing participants

There were a number of ethical dilemmas in accessing participants. First, the minimal presence of state in the study setting brings about competition to fill in the vacuum where old power bases (such as traditional rulers) and new contenders (such as Salafi *ulama*) will seize the opportunity to claim or reclaim authority. The district head of the settlement served as one of the gatekeepers and was used in recruiting participants in the initial stages of the research. The traditional rulers in this study site are at the lowest hierarchy of the traditional leadership system so their relationship with the public is more of friendship built on mutual respect rather than a dependent relationship. Therefore, it is unlikely that individuals will cooperate with them if they do not wish to. However, because of the good relationship, people are more likely to trust the judgement of the representative of the district head regarding harm or benefit of participating in the research than any information sheet provided irrespective of how well articulated. As this interviewee said, for example: “without the introduction from this man [*Magajin Gari*] I wouldn’t have spoken to you”. (IP014; 80+ years; Pensioner)

Another key gatekeeper group in the study site was the religious leaders. The majority of the population in the study site are Muslims and Imams play important religious and communal role in the area. The particular Imam that was approached during this study appears to be content and happy to recommend anything that he believed will benefit members of his congregation. The most important point is that, their words and those of the district head regarding benefits and harms of the research counts a lot more than any information sheet, a requirement of the ethics review process for this research.

Second, there was an issue about getting written informed consent as recommended by the ethics committee, which is problematic in this setting. Evidence from research in similar contexts suggests that “oral cultures such as those in various parts of Africa attach importance to personal social relation in contrast to literate and technologically developed ones where relations are impersonal, highly segmented, and formal. The requirement of informed consent in writing does not go down very well in African societies that are still steeped in oral tradition unlike in European contexts where this is embraced and/or demanded”([Erinosho, 2008, p. 9](#_ENREF_50)). People were reluctant to sign documents during the fieldwork. This problem was addressed by obtaining written consent whenever doing so was not contentious and verbal consent where contentious. Verbal and non-verbal cues from the participants were also monitored closely during the consent process and the interview.

Moreover, community rather than individual consent was found to be the most feasible option in this context. Whole communities tend to accept, tolerate, reject or actively mobilise against an intervention ([Diallo et al., 2005](#_ENREF_45)). Research is often not distinguishable from services associated with the organisation from which the researcher is perceived to come. Therefore, irrespective of the message conveyed in information sheets (which are often not recalled by participants), in this context evidence suggests that research subjects tend to have their own separate understanding of what the ‘research’ is about and form their judgements whether or not to participate based on these reasons ([Bhutta, 2004](#_ENREF_18)). The reasons are often entirely different from the researcher’s objectives or the expectations of ethics review committees which are often couched in terms of informed consent jargon – understanding of risk and benefits, freedom, privacy and confidentiality.

Another issue with respect to consent is the expectation from the ethics review committee that participants must be given a period not less than 24hrs to decide if they would like to participate in the research was another concern. This requirement was difficult to fulfil because it conflicts with social and cultural norms of the study setting. In Tudun Jukun, traditional hierarchies are respected. These hierarchies and structured by age, gender and traditional authority and are very influential in shaping peoples' freedom with respect to decisions about certain aspects of their lives including, for example, whether or not they can take part in this research. A wife, for example, would be violating her normative role in that context if she decides against participating in research that her husband had already consented to, and such action could have long-term consequences beyond the life span of the research. For example, there was an occasion when one of the gatekeepers warned that my insistence on further seeking individual consent after he had secured same from the participants would undermine his position in the community.

Third, as described above (see dilemmas related to research governance), recruiting institution affiliated participants such as staff of the Local Government Area (LGA) health office and Hospitals presents a considerable challenge in meeting requirement of the ethics committee at the University of Sheffield.

### Dilemmas in adhering to standardised ethical procedures

Adhering to prescribed ethics procedures such as ensuring privacy and confidentiality also presented significant challenges, I did not have control over the interview location (as explained above). One female interviewee, for example, requested that we wait for her husband to come in first before we can start the interview (PP002; 61-70; Traditional birth attendant). Occasionally during interviews family members could get in. Several interviews were interrupted by family members or neighbours coming in during an interview, and they ensured that they went through the lengthy traditional greeting with everyone that was present before the moved on.

### Dilemmas about giving money to participants

There were ethical dilemmas around paying interviewees and its impact on consent and future research. The information provided to respondents clearly stated that there was to be no financial payment for participating in the research, except to pay for their transport costs if the meeting was outside the area. Nevertheless, there were some interviewees that openly demanded to be paid. One of the interviewees (IP006; 31 - 40 years; Trader), for example, initially insisted that he be paid first before I could interview him. However, when I explained to him the nature of my work including that there was no any fee involved and that it was purely on a voluntary basis he later agreed, and the interview was then started. Another interviewee (PP006; 61 - 70 years; Male herbalist) said towards the end of the interview: “what I am going to ask you is, give me money for groceries”. A different interviewee (IP014; 80+ years; Pensioner) was less direct about the way he went about it but the expectation here too was to be given some money. As he said: “like you now that came and see that I am not well and you brought out and say here is N1000 (~£4). You have shown compassion. Haven’t you?”

### Dilemmas about role conflict

There were a number of times when potential role conflicts had to be tackled during the fieldwork. This conflict was primarily between my roles as a researcher (a scientist trying to understand how things work without interfering) and as a medically trained, professional and caring person. As Tudun Jukun has very high burden of health problems and diverse collection of ‘help’ providers with different motives and intentions, there were several occasions that I encountered practices that could evidently cause harm based on my professional training. For example, one of my interviewees described in detail how he conducted female circumcision that based on my professional training I would consider harmful for the babies. There were also a number of times where I would suggest a particular service that I thought would be beneficial to my interviewees based on my assessment of their condition. However, whether or not they followed any advice was not included in the analysis. There were also a number of occasions where interviewees would ask for my suggestions on what they should do to address the health problem being discussed. For example, one interviewee said: “so, now what about me with this legs, is there anything that can be done to for me regarding the leg?” (PP002; 61-70 years; Traditional birth attendant). Another interviewee said: “you in your position doing this work, is there any help that you can give us on this problem?” (IP014; 80+ years; Pensioner). After the interviews, I have recommended what I thought might be helpful from my biomedical perspective.

## Sampling

As explained in section 3.2 above, critical realism recognises that the social structures that exist in a society affect the distribution of (health) problems as well as resources to address them. This may prevent disadvantaged groups in different societies from realising the purpose they set out to achieve in any given situation. The study setting was therefore selected in line with this perspective because places such as Tudun Jukun can reveal some of the social structures that are producing and maintaining the disadvantage. Within Tudun Jukun, a purposive sampling strategy was adopted initially, focusing on identifying potential index participants from different demographic and socioeconomic categories as well as incorporating a variety of health issues prevalent within the study population, while allowing adaptation and evolution of the sampling approach as the fieldwork proceeded as explained above under section on recruitment ([Silverman, 2007](#_ENREF_167)). The first set of health problems selected were those identified to belong to one of these five categories: individuals with chronic illness, birth-related health issue, accident or acute illness, child health issue or an environmental health issue. These categories are modification from four categories identified by [Russell and Gilson (2006](#_ENREF_153)) as eliciting different types of strategies for addressing health problems. They are therefore anticipated to capture comprehensively the different strategies that participants in Tudun Jukun use in dealing with health problems. The starting point, based on a critical realist perspective, was to select obvious medical problems and subsequently the selection was varied to cover other non-medical health problems, both considered as embodied in the index participant (figure 3-2). However, these individuals are recognised as embedded within the social structures that shape the experience of the problem including the strategies to be used in dealing with them. Those that are relating with the index participant and have a role at any point during the trajectory of the problem-solution are considered as the primary participants (see figure 3-2 above). The primary participants were selected using a snowballing sampling strategy from each index participant ([Bryman, 2004](#_ENREF_28)). Each index participant and the network of primary participants interrelating around a specific problem form a unit of analysis. Therefore, each unit of analysis consisted of an index individual or group dealing with a specific health problem in any of the five health-problems categories above and a network of individuals or groups they are directly relating with, that is, the primary participants (see figure 3-2 above).

The inclusion criteria for individual index participants were adults (male or female) having a health problem who are competent to provide informed consent or for children with health problems, the index individual is either or both parents or guardian, preferably the mother. Additionally, the person affected by the problem must have lived in Tudun Jukun for at least six months and capable of articulating the experience. For primary participants, they have to be providers of health or related services or relate directly with the index participants as a result of the specific health problem being discussed and need not be resident. Table 3-1 below shows the breakdown and characteristics of individual participants.

The inclusion criteria for the focus groups were formal or informal organisations that are based in Tudun Jukun and have conducted health related activity within the past one year in the area or are directly impacting health or health problem-solving strategies in the area even if not located within the geographic boundary of Tudun Jukun. Table 3-2 below shows the characteristics of group participants.

### Sample size

The concept of saturation ([Glaser and Strauss, 1967](#_ENREF_60)), when the collection of new data does not shed any further light on the issue under investigation, was used as a guiding principle during data collection. A total of 15 index participants with a variety of health problems (see table 3-1 below) were interviewed. This number is not equivalent to 15 units of analysis which changes over the course of the problem and some index participants narrated more than one episode of health problem. Therefore, the total numbers of health problems for which there was enough description (an adequate description of the problem, the measures taken to address them, the underlying relationships and the results achieved) from the interviewees to be eligible for analysis were 40 (Appendix IX: Snapshot of database of problems encountered). Primary participants, however, overlapped across index participants and consisted of 20 individuals or institutions and three groups. For example, one primary participant, the private medicine vendor, was mentioned by nearly all index participants. Flexibility was maintained throughout the fieldwork, and the aim was to achieve comprehensive representation of the different perspectives and experiences of the underlying relationships as people interact while trying to solve a health problem. Index individuals or groups were recruited into the study from the five different categories of health problems. This recruitment was stopped when no new set of health problem-solving strategies were emerging ([Glaser and Strauss, 1999](#_ENREF_61)).

## Data Collection

### Interviews

A total of 34 semi-structured interviews were conducted with men, women, elders and youth, including a variety of health service providers such as doctors, nurses, traditional healers, spiritual healers, and local barbers, resident in the Tudun Jukun area (see details on Table 3-1 below and Appendix VII for full List of Interviewees). The interviews were guided broadly by the research aims and questions, including themes of: How do people in the study setting understand and experience health problems? What strategies do people apply (or not apply) to solving these problems and how? What influences (enables/prevents) choice of strategies and how are they negotiated? And on the basis of the peoples ‘systems of meaning' and expectations: what strategies worked? How and why? However, the interviews were conducted in a flexible manner in order to facilitate spontaneous and unanticipated responses in order to allow participants to direct their responses towards the areas that were most relevant to their experiences ([Bryman, 2004](#_ENREF_28)). Interview questions were open-ended, allowing room for new ideas and concepts to emerge, and interviewees were encouraged to narrate episodes of health problems from beginning to end. The interviewer used probes and sought clarification where appropriate. The interview guide (see Appendix VIII: Interview Guide) served mainly as a tool to keep the discussion from deviating too far from the substantive research area and to ensure that key areas of the research question are covered. Interviews took place in a range of settings, including people’s homes, mosques, or the district head’s house, depending on the choice of the participants. All interviews were recorded with the permission of the interviewees using a digital recorder. The recordings were then transferred to an encrypted external storage device. Each interview lasted about 1 hour.

In each case, beliefs about causation, experience of the problem, specific patterns of behaviour, decisions concerning strategic choices in dealing with the problem, actual strategies applied, and evaluation of outcome were elicited. The focus was to find out the social meaning of the illness and how that influences the choice of action.

Table 3‑1: Key characteristics of participants involved in in-depth interviews

|  |  |
| --- | --- |
| **Characteristic** | **Total (n=34)** |
| Gender |  |
|  Male | 19 |
|  Female | 15 |
| Age |  |
|  <30 | 2 |
|  31-40 | 7 |
|  41-50 | 8 |
|  51-60 | 6 |
|  61-70 | 6 |
|  71-80 | 1 |
|  81+ | 4 |
| Health related problem or role  |  |
|  Index Participants  |  |
|  Long standing (chronic) illness | 5 |
|  Birth-related health issue | 2 |
|  Accident/acute illness | 2 |
|  Children’s health issue | 3 |
|  Environmental health issue  | 2 |
|  Primary Participants\* |  |
|  Traditional healer/barber | 4 |
|  Spiritual healer | 1 |
|  Local government health management agent | 2 |
|  Community leader | 2 |
|  Physician | 6 |
|  Nurse/midwife/community health worker | 4 |
|  Medicine shop operator | 1 |

\* Primary participants (PPs) were recruited based upon reference in interviews with the Index Participants (IPs)

### Focus group discussions

Three focus group discussions (FGDs) were conducted, encompassing: (i) a group of young men; (2) a group of older men; and (3) a group of motorcycle taxi operators (see Table 3-2). These groups were interviewed for different reasons but were mentioned in most of the individual interviews as playing a role addressing health problems. Most of the interviewees mentioned their sons as crucial in creating the link between them and different providers outside Tudun Jukun through paying for the services, arranging transport and communicating with the provider. Motor-cycle taxi was the primary means of transport mentioned by interviewees as the try to get to services outside the area. Older men tend to be the guardians of societal norms, for example, their views about services provided especially by hospitals such as contraceptives, immunisation, and hospital delivery have impact on the rest of the residents. The FGDs were restricted to naturally existing groups as identified in the inclusion criteria for groups. The same principles as in the individual interviews above were applied when conducting the FGDs.

Table 3‑2: Characteristics of three sets of Focus Group Discussions

|  |  |
| --- | --- |
| **Characteristic** | **Total participants per group** |
| Young people (30-45 years) | 9 |
| Elderly community members ( >60 years) | 8 |
| Motorcycle taxi operators (Achaba) (30-45 years) | 7 |

All interviews and FGDs were conducted in-person, mainly in Hausa, audio-recorded with permission and then idiomatically translated and transcribed into English by me. Raw data in the form of the audio recordings were encrypted, transferred and stored onto a computer. All files were password-protected

### Document sampling

Individual and group interviews were supplemented ([Bowen, 2009](#_ENREF_24)) with purposively selected documents that provided additional contextual explanation regarding the basis for dominant beliefs, attitudes and practices that are shaping health problem-solving strategies in the area. These documents, for the most part, provided background information about the health systems context of the country. However, they were also used as a triangulation strategy for ensuring quality of research especially with respect to specific cultural or religious texts mentioned by interviewees. Relevant documents included were:

* Government health policy, guidelines and development plans ([FMOH, 1988](#_ENREF_53), [Vision\_2010, 1999](#_ENREF_188)).
* Reports of evaluation of health systems strengthening projects and programmes in Nigeria ([World\_Bank, 2012](#_ENREF_210)).
* Books and journal articles on the historical development of Nigeria health service ([Schram, 1971](#_ENREF_155), [Ransome-Kuti, 1998](#_ENREF_142)).
* Cultural references such as relevant religious text specifically mentioned by interviewees ([al-Jawzīyah and Jauziyah, 2003](#_ENREF_6)).

### Being there

Being in the study site offered me first-hand experience of some aspects of the environment, problems, language, practices, and social relationships of the people living in Tudun Jukun. My previous knowledge and experience also come into the research through shaping the framing of the research question and in interpreting the data that was generated. Therefore, “being there” was an important means of collecting data in this research, it contributed a lot to the observations made about the place and contributed to making sense of the data collected through the interviews. Some of these observations were tracked through the use of detailed field notes about my reflections during the interviews, focus groups and the research process more broadly. Process notes were kept of day to day activities, methodological issues, and decision processes. These include records of my feelings and thoughts in the form of reflective notes to explore the potential influence of what occurs during the time in the field and these provided much of the material used in describing the research process.

## Data analysis

### Transcription and translation

All interviews and FGDs were conducted in-person by me, mainly in Hausa (this is my second mother tongue besides Fulani). They were all audio-recorded. I listened to the audio recording of the interviews and concurrently translated and transcribed the message into English. ‘Free’ (idiomatic) translation which follows the conventions or rules of the target language (English) was used to ensure that the words of the participants in the source language (Hausa) are as accurately as possible expressed the same meaning in English as the participant intended. The choice of idiomatic translation was considered appropriate because it made the translation easily readable in English.

The choice to do the translation myself was considered appropriate because translation between languages involves interpretation which is fundamental to the validity of qualitative research ([Squires, 2009](#_ENREF_172)). Based on critical realist epistemology there is no uncontested interpretation. One interpretation is better than the other to the extent that it captures the meaning that is closest to the experience being described by the participants. The aim was not to be an objective transmitter of messages but to bring my cultural awareness, being an ‘insider', to the understanding of specific terms and concepts that are being translated. Concepts in one language may be understood differently in another language ([Squires, 2009](#_ENREF_172)). I also recognised that “social reality as experienced is unique to one's language, that is, those who speak a different language would perceive the world differently” ([Chapman 2006 cited in van Nes et al., 2010, p. 314](#_ENREF_183)), and this was taken into account throughout the translation process.

There were very few language problems during data gathering as there was no language difference between me and the participants. As the data is translated and concurrently transcribed into English to give access to the supervision team, the challenge of understanding the meaning as experienced in the source language (Hausa) and then getting it to the best English wording to give as close as possible meaning as in the source language became clear. For example, there were names of frequently mentioned conditions/illnesses which have no English equivalents – *shawara, basir, amosani* (each of these is a container word for constellations of symptoms such as yellowness of the eyes, fever generalised body weakness, anal bleeding and piles). Another source of confusion that became clear right from the beginning of data gathering but more so during the translation/transcription phase is the concept of ‘health' itself. In Hausa, the word with the closest meaning to health is *lafiya*. However, *lafiya* has very broad meaning that is closer to the concept ‘balance' in English. For example, there can be *lafiya* of the body (absence of disease) or *lafiya* of the town (peace) and so on. Whenever interviewees are asked about health (using the word *lafiya*), they often ask, the balance of the body or that of the town? A concern about ‘peace’ was particularly important as the study was conducted at the time when security situation has deteriorated in the area. This was particularly challenging to deal with as I also did not want to restrict their responses to my questions about health narrowly to ‘absence of disease’ by replying them saying ‘the *lafiya* of the body' when my interest is in the broad concept of health. Another word that is often used to describe health in Hausa without limiting it to the absence of disease is *Kuzari*, this however approximate ‘strength’ in English rather than health or wellbeing broadly.

In order to deal with some of the challenges presented by translation especially as it affects the validity of the research, some additional measures were followed. Throughout the process of translation, I strove to maintain a balance to preserve the meaning as experienced by participants in the research and the meaning as interpreted in the findings by going back to the Hausa audio recording ([Polkinghorne, 2007](#_ENREF_141)). In order to remain faithful to the voice of the participants, extracts from the transcripts are also checked against the audio recording. This closeness to the participants' voices was however balanced by sharing my interpretation with the supervision team which is essential to maintain some distance from the data that provides the opportunity for cross-cultural meanings to be appreciated. Additionally, in line with critical realist epistemology, the strategy adopted was to use fluid description of meaning recognising that word meanings vary with context. Furthermore, meanings of words and phrases identified as problematic were resolved through consultation with another bilingual colleague (Hausa/English fluent University of Sheffield Ph.D. student in the Department of Sociology). A sample of the transcripts and audio recordings (5 individual and 1 group interviews) was also shared with the same person who reviewed and agreed that they are an accurate representation of the interviews.

### Analysis

Interview transcripts were imported into the software package Nvivo10® ([QSR International Pty Ltd. Version 10 2012](#_ENREF_3)), in order to facilitate data organisation and retrieval ([Bazeley, 2013](#_ENREF_12)). I read and re-read the transcripts on an ongoing basis, to become immersed in the data. Considerations for data analysis started quite early in the research process through sampling of the research participants who were selected based on the research questions. The initial focus of the analysis was identifying and interpreting three important details generated from the data:

a) The nature of health problems (that informed sampling as described above) and the position of the interviewee in whom the problem is embedded. However, the interviewees were considered to be part of a network of relationship with others that contribute to the interpretation of the problem and decisions and actions to address the problem;

b) The nature of the strategies adopted to deal with the health problems (the outcome) and the causes and mechanisms that shaped these choices (the context and mechanisms).

c) The meaning of the outcome to the participants and their criteria for success.

These different elements of the narrative were extracted using the template (Table 3-3 below) as described in section 3.3 above.

Table 3‑3 Different elements of each incident of a health problem

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Age Category (years)** | **Sex** | **Designation of the incident**  | **Description of the nature of the problem** | **Context** | **Measures implemented** | **Expectations and meanings** |
| IP015 | 61 - 70 | Female | Birth tear (daughter in-law of respondent)  | Yaryaya developed tear during the delivery | …and Fatima (a nurse living in the neighbourhood) suggested that she will repair the tear by stitching it but they refused | …and opted for home treatment which involve sitz bath with solution of *Bagaruwa* (a local herb) and Dettol™.  | …she got healed within 7 days and is presently six months pregnant [again].  |

Burke's ([1945](#_ENREF_30)) dramatism – “act, scene, agent, agency, and purpose” provided a useful heuristic device in the initial exploration of the accounts of the interviewees. The pentad - “act, scene, agent, agency, and purpose”, was utilised in unpacking the data and maps closely to - Description of the nature of the problem/Context/Measures implemented/Expectations and meanings, which was used in describing the different elements of each incident of a health problem (see column headings of Table 3-3, page 75). This was the template that was used to populate segments of narratives into the incidents database (appendix IX) and also the basis for writing up the vignettes (appendix X). Health problems, strategies applied to address them, and the meaning attached to outcomes achieved were identified not based on how frequent but how typical. The stories made accessible in this way provided the empirical basis for the rest of the analysis.

The next step in the analysis was to identify the range of strategies and actors that were involved in addressing the problem. For each health problem category and main strategy, the actors mentioned were mapped out, and the relationships between the actors were described as explained by interviewees. These relationships were then compared across problems and strategies to identify the most influential actors and relationships in addressing health problems.

Analysis of vignettes was used to identify the way health systems are working in the area. The causes or mechanisms behind the observed events are also identified from the stories. The relative power of the index individual over the strategy to be used in addressing the problem was identified by looking at what was implemented and their position with respect to the choice.

The analysis involved finding and aligning evidence to explain the outcomes (specific action taken to address a health problem in each incident), the mechanisms that caused these outcomes, and the contextual features that generate these mechanisms (ref). This process is guided by critical realism in that it involves examining the enduring features of the social structures that constraint human activity by looking at cause and effect. These enduring structures and mechanisms exist independent of the researcher’s knowledge, experience or the conditions under which they were accessed (ref). The process of guided interrogation of the data proceeds in stages after thorough familiarisation with the data. The starting point of the analysis is – what was the problem? That is, in what ways have the respondents represented the problem? This involves addressing these four key questions for each incident:

1. Who are the powerful and most influential actors in addressing the health problem?
2. What are the most influential ideas that shaped decisions and actions?
3. What are the most important relationships in addressing different types of health problems?
4. What structural positions are most/least influential in addressing the health problem?

Answering this question by examining each incident allows in-depth description of the trajectory of events, the crucial actors, relationships and resources that matter in dealing the health problem.

The next step was to look at what they did eventually to address the problem, that is, the outcome (O) of interest in this research (looking out for the evidence for this outcome). This is then followed by looking out from the range of factors in the respondents’ narratives, what caused this outcome? That is, the evidence linking the outcome to the hypothesised mechanism (M). The narratives are then examined to find out what is generating the mechanism in that context (C). Are there other contextual factors that matter in arriving at the decisions and actions taken to address the health problem? Evidence linking the contextual trigger(s) to mechanism(s) is then identified. This information is populated on another table (see Table 3-4 below).

Table 3‑4 Template for extracting text on context, mechanisms and outcomes from the data

|  |  |  |  |
| --- | --- | --- | --- |
| **Incident** | **Context** | **Mechanism** | **Outcome** |
| **Broad** | **Specific** |
| Birth tear (daughter in-law of respondent)  | Pluralism - able to afford the stitching by the nurse but considered it inferior to the norm of using herbsSocial - age hierarchy between mothers in-law and daughters in-lawTechnology - the norm of applying traditional medical practices for these types of conditions  | Respect decisions of older women in relation to birth and birth related condition young inexperienced mother  | Do what is normally done in this circumstance based on their understanding and experience | Home treatment - applying a solution of traditional herbs and Dettol™ for sitz bath  |

The final stages of the analysis involve integration of the CMOs by looking across mechanisms to identify patterns, contradictions and compared with similar incidents and across different incidents. Multiple interpretations are possible which is also in tune with critical realist perspective. For each observed strategy, a number of proposed explanations were considered. Therefore, comparison was made across episodes or incidents of problems to identify which interpretation provided a more complete explanation of what was going on. The focus here was on identifying the ideas and social structures that shaped choices of strategies and expectations.

This type of analysis is particularly suited for the study because it provides a holistic picture of how the health systems are working in the area. Individuals present their experiences as causal stories ([Stake, 2010](#_ENREF_173)) unlike other qualitative data analysis techniques such as thematic analysis that fragments the picture. This analysis technique also allows for multiple interpretations as different individuals involved in an event have their perspectives about what was going on which is in line with critical realism. Understanding how people construct and interpret events can help us to uncover the underlying causes and mechanisms behind their choices by looking at what is emphasised, what is omitted, relationship between the teller and the audience, as well as the purpose of the story.

This analysis approach is also empathic and respectful of reality portrayed by the story teller. However, the researcher decides what leads to understanding of the phenomena of interest. The account is the researcher’s dressing of the teller’s story ([Stake, 2010, p. 174](#_ENREF_173)).

The way the interviewees were asked to describe episodes of the problems also enable key actors that were relevant in addressing the problem to emerge. As have been demonstrated in previous research, when asked discrete questions about the influence of others in their decision to seek care for medical problems, respondents downplay the role of others. However, when respondent are asked to recount in an open-ended "story" their entry into care, they “included many others who suggested, cajoled, nagged, pressured, and brought them into the treatment system” ([Pescosolido et al., 1998, p. 277](#_ENREF_139)).

## Research rigour and limitations

This study was guided by the need and desire to be rigorous. The criteria for “trustworthiness in naturalistic research” ([Guba, 1981](#_ENREF_64)) were applied throughout the research process in the way the participants were selected, the data was interpreted and the findings were presented. There were some limitations that were encountered during this study and some of this will be explained in detail now.

First, and in the light of the underlying philosophy of the research (critical realism where reality can only be accessed through the empirical), the stories told by participants represents the means by which the phenomenon of interest (i.e. how health systems work in this particularly setting) was accessed. Through these stories the real, i.e. mechanisms behind the observed phenomena of interest can be uncovered. Therefore, there are possible limitations due to the reliance on participants’ own accounts of events as well as the possibility of loss of meaning during translation and interpretation of participants’ accounts. The study is therefore, vulnerable to each interviewee’s capacity to remember the episode as when it happened and also their ability to recount it accurately and honestly. There may be a difference between how individuals perceive and report what they do in the face of illness and what they actually did ([Pescosolido et al., 1998](#_ENREF_139)). There are many possible reasons for this including limitations of human memory; insufficient understanding about what was happening, especially in settings where providers may use technical language or unfamiliar procedures; bias against certain types of providers which may result in presenting a different account from the actual intentions of the provider, or trying to prejudge what the researcher wants. Furthermore, during the process of translation new meanings could be introduced that may not reflect the authentic account of the participants. Moreover, these are only a few among very many health problems that are encountered on a daily basis by the people in the study setting. The selected incidents are, however, indicative of the variety of problems that exist and they were purposely selected for a full analysis of lengthy interactions among multiple players with numerous decisions by each as they worked to address health problems. This is a useful way of beginning to understand how health systems are operating in the real world.

While all these concerns can potentially affect the results presented, care was taken during the research process to minimise these. Right from the step of selecting index participants, as much as possible, characteristics such as individuals that are presently experiencing a problem was a requirement for inclusion. For conditions where this was not possible, such as acute illnesses or problems related to pregnancy and childbirth, interviewees were asked to speak about the most recent or the episode that stood out. Several other measures were taken to address the concerns with credibly of the data. My prolonged experience working in the area (studied and worked in Zaria for over 10 years and familiar with the culture and language of the place), for example, has made it easier to establish a rapport with the respondents. It was also clarified at the beginning of each interview that participation is absolutely voluntary and that there will be no adverse consequence or direct reword for taking part in the research. The aim is to ensure as much as possible that interviewees motivation are align with the objectives of the research. Moreover, I applied a number of measures including on the spot checking of meaning, iterative questioning and a style of questioning that allowed respondents to narrate their stories without them knowing which aspects are of interest to the research and therefore preventing them from converging on what they thought I want or do not want to hear ([Guba, 1981](#_ENREF_64)). Interviewees have repeated some stories several times during the interview, other residents present at some point of the interview sometimes affirm what is been said and sometimes the specific interpretations of what was said becomes clearer as result. Additionally, extensive reflective notes were made and shared with the PhD supervision team to test growing insights and redirecting questions in subsequent interviews to address critiques of initial insights. After the fieldwork a consistent framework was used in analysing the data that focused on identifying information within the data that focus on specific words and phrases that clearly represent the phenomena of interest such as names of specific actors or providers that respondents have interacted with during the course of the health problem. Also disconfirming interpretations were explored and included as part of the analysis and reporting. During the translation process, peer review of translation was done by another Hausa/English fluent University of Sheffield PhD student to ensure fidelity to respondents meaning. The analysis was guided by a well-established framework using thick description of context, leaving an audit trail, continuous reflection on my position (see Section 3.4.4 above) and extensive use of quotes from the respondents to supply evidence that support interpretation. The categories generated during analysis were found to align very well with previous research on similar subjects, for example, e.g. factors shaping decision-making similar to those of [Pescosolido et al. (1998](#_ENREF_139)).

Second, another concern is how my perspective as a researcher could have shaped the way that data was collected and interpreted to arrive at the findings of this research. The philosophical underpinning of this research is critical realism which recognises that there is observable reality irrespective of the researcher however, this reality is layered. There are causal mechanisms behind what has been observed. The object of research is to uncover these mechanisms. The uncovering process is influenced by the observer’s position and value systems and there is no one final theory. Throughout the research I have reflected on my positionality (see section 3.4.4 above) and values that shaped my approach and interpretation and described all the process as detailed as possible to enable confirmability of the findings.

Finally, the attempt to empirically explore as comprehensively as possible the range of actors and strategies and the most salient of relationships that are valued in dealing with health problems has to be balanced against the depth of the explanation that would have been achieved should the study focus on a specific health issue. On the one hand, too many and too varied incidents and episodes of health problems were included which resulted in less detail on each. On the other hand, the diversity of health problems provided a broader and more comprehensive picture on the reach of the health systems in the area. The balance in this study is therefore tilted toward comprehensiveness, without ignoring the necessary details needed to understand what was going on. For example, identifying the key actors, strategies, underlying relationships and outcomes in a given story about an episode of a health problem was crucial in determining which accounts were included in conducting analysis and these elements are crucial in defining health systems in this context. This comprehensive approach can be followed up in future studies using specific health problems that can then be explored in greater depth.

## Summary

This chapter has looked at the dominant philosophical assumptions underlying health systems research and argued that for the most part, they are positivist in outlook. The chapter then argued that when deeper understanding of how and why health systems are working, particularly in fragile and challenging health systems contexts, then a realist approach is required. The chapter then described the research process from the point of view of critical realism. The reason for selecting an urban informal setting was provided along with reflections on the role of the researcher in influencing the research process and the implications of this on how data were interpreted. The challenges of accessing research site in the absence of formal gatekeepers and the ethical dilemmas of applying standardised ethical guidelines in different cultural contexts were also explained. It has been described that the research utilised a case study approach looking at the real-life context applying qualitative research techniques such as interviews, focus groups, document sampling and “being there” during a fieldwork that lasted over three months (June – September 2012) in Tudun Jukun, an urban informal setting in northern Nigeria. The methods that were applied to capture in-depth diverse incidents of health problems in order to understand as comprehensively as possible the range of perspectives and strategies used by people in the area to address health problems were also described. Data analysed using the technique of building comprehensive narratives of each episode of a health problem described by the residents was explained. Where each narrative was examined and interpreted to identify the nature of the problem, the strategies adopted, how results of the strategies adopted were interpreted, and the context of the problem and the strategies (the most influential actors, ideas, relationships and social positions in addressing the issue). The next chapter will describe the study settings and present the variety of health problems encountered in Tudun Jukun that have met the eligibility criteria for inclusion in the narrative analysis (an adequate description of the problem, the measures taken to address them, the underlying relationships and the results achieved).

# Chapter 4: Findings – The Context for the Study

## Introduction and chapter structure

The previous chapter described the methods that were used in the research in order to build a better understanding of how health systems are working in a particular locality, through exploring the ideas, meanings and strategies that people apply to address everyday health problems. Diverse incidents of health problems were identified in order to develop an in-depth understanding and as comprehensively as possible the range of perspectives and strategies used by people in the area to address health problems. The data was analysed by building comprehensive narratives of each episode of a health problem described by the residents. As shown in Tables 3-3 and 3-4 in chapter 3, the analysis focused on identifying and aligning evidence to demonstrate that particular mechanisms generate particular outcomes and to demonstrate which aspects of the context matter. Overall a total of 40 stories of different incidents and episodes of health problems were selected because they included a number of elements - an adequate description of the problem, the measures taken to address them, the underlying relationships and the results achieved. Table 4-1 below provides a summary of these different elements.

This chapter presents the important contextual features that shape the health systems landscape in Tudun Jukun. The chapter starts with a summary of the health problems encountered in Tudun Jukun during this research, the nature of the problems are themselves important contextual features and shape decision and actions in finding solutions. More detailed accounts of incidents of the problems encountered are captured as vignettes (Appendix X: Vignettes 1, 2, 3 and 4) and databases of incidents (see a snapshot of the database at Appendix IX: Snapshot of database of problems encountered). Having summarised the health problems encountered in Tudun Jukun, the chapter then explores the wide variety of settings associated with treatment or healing, and the improvement or maintenance of health and wellbeing ([Williams, 1998](#_ENREF_207)) - utilised by residents to address these problems. These different varieties of “providers” represent the plural nature of the health systems landscape, a key contextual feature of the health systems in Tudun Jukun. This is followed by exploration of whether the actions taken to address health problems produced expected results, what happened when expected results were not achieved, and if there are aspects of the health systems landscape that seem to be associated with better perceived results. After explaining the plural context, this chapter will then cover a number of other interrelated contextual features that characterise the health systems landscape in Tudun Jukun and these are the different manifestations of the absence of an accountable authority (the so called “fragile states”), the economic realities of Tudun Jukun characterised by high levels of poverty and the lack of reliable payment arrangement for accessing care, and the different social norms and values that structure relationships within Tudun Jukun.

## Health problems observed in Tudun Jukun

A diverse range of health problems were encountered in Tudun Jukun based on the interviews with residents. The health problems can be viewed broadly under two categories: 1) those related to pregnancy and childbirth; and 2) those related to a variety of other illnesses. A database containing a summary of the health problems (as described by the residents) and the measures that they took to address them, as well as their interpretation of the results of their efforts was developed (Appendix IX: Snapshot of database of problems encountered). To demonstrate in greater depth the complexity of the problems and the variety of ways people have tried to address these problems, a short description of about four different accounts (using pseudonyms) from the database are presented as vignettes (see Appendix X: Vignettes 1, 2, 3 and 4). A summary of the two broad categories of health problems encountered is now presented.

### Problems related to pregnancy and childbirth

For the most part, interviewees that brought up issues related to pregnancy and childbirth (mostly women) tended to focus on the appropriate place for delivery, whether at home or in a hospital. The majority of these interviewees indicated preference for giving birth at home for a variety of reasons. The main reason however, was that childbirth is thought of as a normal process needing no help, except on the few occasions when problems that would necessitate help may arise. Whenever a problem was identified during childbirth, all interviewees said that they had gone or attempted to go to a hospital where they believed they could get the help they need. A number of situations were identified as problems that might favour hospital birth over home birth. As explained by one of the interviewees:

"like when it (birth) comes with some difficulties such as when it comes very strongly as if the child is going to be delivered, but there is no sign that that is going to happen. There is no any wetness coming out, the one that is called *zaxi* (show). There is no any sign except excruciating pain" (IP015; 61-70 years; Older woman).

Other reasons identified by interviewees as childbirth problems and therefore as reasons to go to the hospital included preterm labour, bleeding or preterm leakage of birth fluid.

Apart from the interpretation of birth as a normal process and therefore not needing going to the hospital, other reasons for choosing to deliver at home were unacceptability of some of the practices related to how births are conducted in hospitals and the attitudes of the health workers. Interviewees talked about how the hospital staff were particularly mean to women that have not registered their pregnancy with them earlier. For that reason, "they always say try and get a card and keep it. Hide it somewhere. Keep it where people can find. If they see [self] delivery have failed, then they will say, take [her] to the hospital" (IP002; 61-70 years; Housewife). Being registered, they believed, would safeguard them against humiliation by hospital staff should the need to deliver at a hospital arise. The women were also uncomfortable with the practice of frequent vaginal examination done in the hospital to check the progress of labour especially if the attending doctor is a man. One of the interviewees neither understands nor agrees with the practice that someone should see or put their hands inside “the secret of a lady” (IP015; 61-70; Older woman). She further explained: “just like the pregnancy was gotten in private so too should the birth be in private” (IP015; 61-70; Older woman). To this interviewee it does not make sense that people should have their deliveries naked and in the presence of others in communal birth rooms where people, including male health workers, could enter the room without notice.

There were issues related to pregnancy and childbirth that however appeared not to be considered as health problems by residents of Tudun Jukun; or at least not in the same way as health professionals would define them. For example, the concerns about the health consequences of giving birth to too many children or early marriage for girls. One of the interviewees, for example, believed that the number of children a woman should have is not under anyone's control as only Allah can decide that. This she believed Allah had predetermined for every woman as a woman "has to expel all the eggs she swallowed" (IP002; 61-70 years; Housewife). Regarding the age at which a woman should marry, although she had associated early age at marriage with problems during childbirth, based on her explanation 12 years is too early while 15 years is not. She said: "I got married at the age of 15 years. [...] my sister that got married at the age of 12 years has had problems during childbirth" (IP002; 61-70 years; Housewife). This view is shared by some of the other interviewees.

### Other health problems

Interviewees in Tudun Jukun discussed a diverse range of illnesses and other kinds of health problems that they reported they had been or were working to address (see table 4-1). This study relied on interviewees to identify what conditions are eligible to be considered as health problem. This was done during the analysis of the narratives where a health problem is identified as a condition for which the interviewees have sought some help to deal with within the health systems landscapes (see below for discussion on landscapes). The conditions they described included some that fitted and others that did not fit with diagnostic categories of health professionals. The conditions loosely fitted into two categories: [1) conditions being managed for months or even years; and 2) conditions often of sudden onset that lasted for days or weeks. First, interviewees have been managing some conditions for months or even years such as hypertension, stroke, convulsions, poorly treated open fracture that became infected, diabetes, non-specific generalised body pains, problems with eyesight, piles, stomach aches and the progressive loss of mobility and functions in the legs and hands as well as a non-specific condition described as "salt" illness. These conditions were mostly encountered in men (see table 4-1 for details). An example is a non-specific generalised body pain which was described as follows: "When it hits me, then after a short time I became nauseated, and immediately the muscles of the body and the joints will melt. Then I will come and lie down. When I come and lie down, I will sleep, no, I will lie down. While lying down... then it will become quite.... and I’ll feel nothing" (IP003; 71-80 years; Pensioner). Another example is "salt" illness which was described this way: "at night, I could go out to urinate like 100 times! And anytime I go to urinate it will come out a lot as if I had not urinated [the previous time]" (IP009; 61-70 years; Pensioner). A further example under this category was described as follows: "it was sudden, I was making an effort to get up and go everywhere and come back like this and it became I had to sit down and drag myself on my buttocks to go and perform ablution and come back and pray. It deteriorated and when the hands became affected I couldn't even get up again. Now when you see me here, I was brought out. That's it all the time. If you see me here, it is children that brought me out. In the morning about 11 o'clock I will come out here, and I will not go back into the house until after the evening prayer at 8 o'clock that's when I leave this place" (IP014; 80+ years; Pensioner).

The second category are conditions that were often of sudden onset that lasted days or weeks such as fever, abnormal behaviour, vomiting and diarrhoea, and a cough which was later found to be tuberculosis. Another problem under this category is the frequent deaths of children in infancy (table 4-1). Some examples include this interviewee who explained her child's illness this way: "first he had a fever. After he had a very severe fever then the fever subsided then he started vomiting, he vomits a lot. Whatever he eats, from the time I sat here he would have vomited twice by now. Once he had breast milk he will vomit and a lot" (IP013; < 30 years; Housewife). Another interviewee whose child suffered from abnormal behaviour described the condition this way: "there was one [of my] boys when he was born, three days later he was ill and he startles (easily). He is the one that shows some unstable behaviour. His senses are unstable. But you can send him on errands and he can go and return with no problem. But sometimes when his misbehaviour starts, he will be beating children in the house, then either by himself or when you ask him to stop you will see that he stops" (IP011; 61-70 years; Farmer).

Table 4‑1: Incidents of health problems (problems observed) along with mechanisms and actions taken (strategies).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S/no.** | **ID** | **Interviewee age categories (years)** | **Sex** | **Problems observed** | **Strategies observed (Outcome of interest)** | **Interpretation of the results of the strategies** |
| 1 | IP001 | 81+ | Female | Hypertension and convulsions | Care at a private hospital predominantly supplemented with spiritual healing | "feel good" about the care at the hospital but the spiritual care "did not work"  |
| 2 | IP002 | 61 - 70 | Female | Age at marriage | Moved from father's house in the village to live in the city with uncle who is against early marriage  | Married at age of 15 years which was considered a success to her and her uncle |
| 3 | IP002 | 61 - 70 | Female | Place of birth | Home (16 deliveries all at home) | Successful because "all the births came easy…and ...6 of the girls already married" |
| 4 | IP002 | 61 - 70 | Female | How to regain shape and increase strength after childbirth | Traditional birth practices - hot water bath, herbs and potash beverage | "...that makes you healthier…but… if you try it nowadays the person will not survive" |
| 5 | IP002 | 61 - 70 | Female | How to improve resilience and strength | Changes in cooking practices, use of food additives and fertilizer to grow crops as the cause. | Failure - people not as resilient as in the past |
| 6 | IP002 | 61 - 70 | Female | Number of children that a woman can have | Rejected offer of contraceptive(Having many children not considered a problem)  | Happy and proud of number of children she has also as an evidence of her strength as a woman |
| 7 | IP002 | 61 - 70 | Female | Preterm drainage of birth fluid  | Multiple stage strategy - wait for 7 days + advice from a local female health worker + visit to PHC but was rejected + gave birth at home | Different for different stages. For the last stage she said: "isn't that all? Isn't that over?" |
| 8 | IP002 | 61 - 70 | Female | Uncertainty about how birth might come | Register at a hospital | "I have never had the misfortune at all that will require them to take me [to hospital]" |
| 9 | IP003 | 71 - 80 | Male | Severe generalised body pains and stomach ache | Mainly doing nothing. "There’s nothing that I drink. I don't drink anything". But had used tablets bought from PMV as well as traditional herbs.  | Failure - but have learnt to live with the condition and accepted it as a consequence of hard labour he endured in youth. |
| 10 | IP003 | 71 - 80 | Male | Persistent anal protrusion (*basir*) | Surgery at a hospital | Successful - full recovery |
| 11 | IP003 | 71 - 80 | Male | Avulsion of the kneecap | Surgery at a hospital | Successful - full recovery |
| 12 | IP003 | 71 - 80 | Male | Smoky vision | Surgery at a hospital | Successful - full recovery |
| 13 | IP004 | 51 - 60 | Male | Open fracture | A&E and inpatient care in a tertiary hospital (abandoned follow up due to lack of money) | Not fully resolved |
| 14 | IP004 | 51 - 60 | Male | Open fracture treatment failure resulting in chronic bone infection | Wound dressing at a secondary care hospital + home care + traditional bone-setting + traditional herbal treatment | Unhappy he can't return to work, wishes he doesn't have to use crutches but happy it has improved  |
| 15 | IP005 | 41 - 50 | Female | Frequent loss of children | Accepting PHC messages around immunisation, nutrition and other child health promotion | Successful - survival has improved and frequency of illness has reduced |
| 16 | IP005 | 41 - 50 | Female | Cough (?TB) | Wait and see + left over medications + hospital care | Failure - treatment failed |
| 17 | IP005 | 41 - 50 | Female | Tb treatment failure | Complex negotiation (deception, re-prescription, refusal, wait and see, self-referral) of range of hospital providers  | Failure - child died on admission at a tertiary hospital |
| 18 | IP006 | 31 - 40 | Male | Stroke | Care from specialist public hospitals | Happy with outcome but would like more (to be able to return to job) |
| 19 | IP007 | 31 - 40 | Female | Ill child (congenital) | Combination of home, PMVs and hospital care used for different reasons | Seem happy with the result even though child’s development is still significantly delayed compared to siblings |
| 20 | IP008 | 81+ | Male | Piles | Traditional medicine to drink and use for Sitz-baths | Successful - "that was all…it's gone" |
| 21 | IP008 | 81+ | Male | Hypertension and diabetes | Mainly PMV | Not fully resolved - persisting problem with mobility |
| 22 | IP009 | 61 - 70 | Male | "salt" illness | Care at a tertiary hospital but needed someone to mediate the access | Successful - worked like magic! |
| 23 | IP010 | 71 - 80 | Male | Ill child | Care was sought from 3 successive hospitals | Failure - at all three sites and eventually the child died |
| 24 | IP011 | 61 - 70 | Male | Ill child (mental) | Mainly traditional herbal medicine supplemented with hospital care | Some improvement but did not associate it with especially the hospital medicines |
| 25 | IP011 | 61 - 70 | Male | Refuse problem | Doing nothing | Did not consider it a problem so indifferent |
| 26 | IP012 | 51 - 60 | Male | Vomiting and stomach ache | Care at a private hospital | Successful - "we got the result that we were seeking" |
| 27 | IP012 | 51 - 60 | Male | Refuse problem | Sweep, burn and then children gather and sell the ashes to farmers | Content with the effort but hoping for lasting solution in the future. "Surely this thing bothers us but there is nothing we can do about it." |
| 28 | IP013 | < 30 | Female | Preterm labour | Home birth with help from nurse that lives in the area | Successful |
| 29 | IP013 | < 30 | Male | Preterm baby | Home postpartum care by step mother in-law based on guidance from nurse that lives in the area | Successful - but affected long term health of the child |
| 30 | IP013 | < 30 | Male | Ill child | Care at PHC Tudun Jukun | Some improvement but not fully satisfied with outcome |
| 31 | IP014 | 80+ | Male | Sudden onset progressive loss of power in the legs and hands | Mainly care by a doctor that lives in the area but also "tried this and that" | Failure but still hopeful (tension between accepting and not losing hope of improvement |
| 32 | IP015 | 61 - 70 | Female | Preterm bleeding | Visit to successive hospitals (public/tertiary - public/secondary - missionary/secondary) but didn't get the care she expected in all. | She felt it ended well for her since she survived and avoided operations even though she lost the child |
| 33 | IP015 | 61 - 70 | Female | Pregnant woman with severe life-threatening conditions who nearly die | Asked for sterilisation at a hospital following refusal of husband's consent she resorted to praying | Failure of first approach as husband refused but overall outcome was success as she did not have another pregnancy which she relate to her prayer |
| 34 | IP015 | 61 - 70 | Female | Dizziness | Care at several hospitals  | Failure |
| 35 | IP015 | 61 - 70 | Female | Straining to read | Care at a tertiary hospital's eye centre and bought prescription glasses from private traders | Successful - but not back to pre-problem state |
| 36 | IP015 | 61 - 70 | Female | Place of birth | Favours giving birth at home with help from TBA and prayers but had 3 of her 10 births at hospital when there were problems | Happy with each choice (horses for courses?) |
| 37 | IP015 | 61 - 70 | Female | Place of birth | Proposed hospital birth but it ended up as home birth with the help of a nurse that lives in the area as the assessed when it was too late and she was already in 2nd stage | Successful outcome but developed perineal tear during the process |
| 38 | IP015 | 61 - 70 | Female | Type of repair for birth tear | "Home treatment which involve Sitz-bath with solution of Detol and a local herb - *bagaruwa*". | Successful - "she got healed within 7 days and is presently six months pregnant." |
| 39 | IP015 | 61 - 70 | Female | Place of birth | Home birth with help from nurse that lives in the area even though preterm and qualify as "not normal" | Successful |
| 40 | IP015 | 61 - 70 | Male | Preterm baby | Nursed at home by step mother in-law with guidance from nurse that lives in the area | Successful - "the baby is now running all over the place" |

## Measures to address health problems observed in Tudun Jukun

Having set out the range of health problems encountered in Tudun Jukun, this section will look at the various options that have been utilised by people in Tudun Jukun to address these problems. The concept of health systems landscapes is used in explaining what residents of Tudun Jukun draw upon as they try to address health problems. This concept of landscapes is drawn from the idea of “therapeutic landscapes” as applied in the field of medical anthropology. Here, the term “health systems landscapes” is used to refer to a wide variety of “places, settings, situations, locales, and milieus that encompass both physical and psychological environment associated with treatment or healing, and the improvement or maintenance of health and wellbeing” ([Williams, 1998, p. 1193](#_ENREF_207)). This concept provides a good fit with the observed phenomenon based on the available data, in line with [Peirce et al. (1931](#_ENREF_136)) three steps of retroduction as described in Chapter 3.

The health systems landscapes that the respondents draw upon consist of a network of providers located within Tudun Jukun, around the greater Zaria city and even outside in other places like the neighbouring cities of Kaduna and Kano. These landscapes are emergent and are in a continuous state of change, but some aspects are relatively stable. They are, therefore, the defining contextual features intersecting with all the other contextual elements (social norms and values, economic realities, weakness or absence of accountable authority and the nature and variety of health problems in the area) of the health systems in Tudun Jukun and it presents a plural landscape. These include: the home, local health professionals, traditional birth attendants, primary health care centres, medicine vendors, neighbours and friends, traditional healers, spiritual healers, hospitals, private diagnostic services, and shops selling medical supplies. There are different actors (‘service providers’) co-existing within different landscapes. While looking at the different aspects of the health systems landscape separately helps in providing an in-depth understanding of how they are set up, there is a disadvantage of presenting a fragmented picture. However, in order not to lose the interrelationship between all these diverse landscapes, the vignettes (Appendix IV) consisting of “thick description” ([Geertz, 1973](#_ENREF_55)) of each episode are used in this chapter to bring together different features of the health system landscape around a particular episode or incident of a health problem. For example, “referrals” could happen in different directions and a common practice in the area was the fact that traditional healers have their agents at the gates of hospitals promoting their services to patients coming out of the hospitals. Each of these landscapes will now be explained in greater detail.

### The home

This section will cover the broad range of actors, the variety of help provided, and the knowledge systems that underlie health problem-solving practices within the home in Tudun Jukun. The concept of the home is used because it captures a broad set of distinct social phenomena including families, co-residential groups, and domestic functions ([Bender, 1967](#_ENREF_13)), as compared to other candidate concepts such as family which may not include co-residence in some settings or households which may not include kinship ties in some situations. In Tudun Jukun and most parts of northern Nigeria, the home consists of multi-generational households. In many instances this includes three generations of men, each with their wives and children living in the same compound. The practice of one man having multiple wives is also common. While the terms family, household and home are highlighted here, they will be utilised interchangeably in this chapter depending on which characteristic is dominant in a particular situation. The home is preferred when a broader concept and sense of place is dominant; the family when kinship is dominant; and the household when co-residence and domestic functions are dominant.

The home is the first port of call and comprises the widest range of actors that are called upon when there is a health problem. Indeed, there is no coherent accountable collective unit that is responsible for the health of the people in Tudun Jukun beyond the household level. For the vast majority of people in Tudun Jukun, resorting to family or household members is the only available option. This makes the home one of the most important units within the health systems landscapes of Tudun Jukun. Table 4-2 summarises the different processes that different actors within the home are involved in and the variety of strategies they use which are underpinned by different knowledge bases and relationships.

Table 4‑2: Summary of the different elements within the home health systems landscape

|  |
| --- |
| **Home**  |
| **Actors involved\*** | **Processes§** | **Strategies**  | **Knowledgebase** | **Underpinning relationships** |
| Index participant | InterpretationDecision making  | "Doing nothing" | Not applicable | Not applicable |
| Women in their different roles as mothers, mother in-laws, wives, older women with birth experience, daughters | InterpretationDecision makingProviding care (most of caring role within the home are done by women in their different roles) | Home birth | Hausa medicineIslamic medicineBiomedicine (sometimes midwives are called to attend to a woman giving birth at home) | Family tiesMarriage or co-residence ties |
| "Catching head" for headaches"Blowing some (Qur’anic) recitation on" a family member with convulsionsReciting prayers and blowing or placing hand on the affected*Rubutu*, *tofi* or use of honey and other herbs mentioned in the Qur'an to make women give birth with ease or to improve general strength and wellbeing of children | Islamic medicine | Family tiesMarriage or co-residence ties |
| Use of *tazargade*, *marke, kajiji,* garlic, lime, honey and other varieties of plants, spices and herbs Use of near-boiling hot water baths for women after childbirth | Hausa medicine | Family tiesMarriage or co-residence ties |
| Teething remediesBathing with different herbs and leaves to increase strength and general wellbeing  | Hearsay | Family tiesMarriage or co-residence ties |
| Administer medicines prescribed hospitals to arrest seizures care to the preterm baby based on the nurse’s advicea medical disinfectant (Dettolkeep remnants of medicine bought during the previous illness assisted the nurse in a teaching hospital to insert a feeding tube  | Biomedicine | Family tiesMarriage or co-residence ties |
| Fee or in-kind caregivers (mostly women) | Providing care | Home birthDomestic shores such laundry, washing up and cleaning for the index participant | Hausa medicine | Friendship tiesMaterial exchange relationships |
| Health professionals (mostly female doctors, nurses etc living in the neighbourhood or visiting) | InterpretationProviding care | Home birthOffer advicePrescribe medications | Biomedicine (sometimes midwives are called to attend to a woman giving birth at home) | Friendship tiesMaterial exchange relationships |
| Men in their different roles as fathers, breadwinners, husbands, sons | InterpretationDecision makingFacilitating (Less caring roles are done by men but they often arrange transport and are for the most part responsible for paying for services) | PermissionPayment for care and other servicesTransport and communication | Not applicable | Family tiesMarriage or co-residence ties |

\* *Gender appear to play an important role on the kinds of process different actors are involved in within the home. Therefore, the actors involved in the home are presented as two categories here.*

**§** *These processes are enacted by different actors concurrently or sequentially when a household member is experiencing health problems: a)* ***interpretation*** *of the problem, the measures taken to address them, or the results; b)* ***decision making*** *about ways of addressing the health problems; c)* ***providing care*** *or other necessary solutions to resolve the health problems; and d)* ***facilitating*** *or enabling access to solutions to the health problems.*

As shown on table 4-2, activities within the home to deal with health problems are carried out by different varieties of actors. They are not restricted to particular knowledge systems, draw on wide variety of relationships, use different strategies and include all the different processes involved in help seeking. These knowledge bases and the help seeking processes and how they structure the health systems landscapes in Tudun Jukun are examined in Chapter 5. The rest of this section will focus on the key actors, the underlying relationships and the strategies that are applied within the home to address health problems.

There are many different actors that are involved in solving health problems, but in the home women are, for the most part, responsible for providing care, which makes the home a gendered health systems landscape. Women conduct deliveries at home, administer herbal remedies, supplicate for the ill and store remnants of prescribed medicine to be used when another family member becomes ill. They perform these responsibilities in their different roles as mothers, wives, older women with birth experience, daughters, fee or in-kind charging female caregivers. Likewise, most of the professionally trained health workers, such as nurses or doctors living in or visiting Tudun Jukun that provide help within the home are women. In contrast, men tended to do very little or no caring work, but as fathers and husbands they tended to provide financing, transport and communication when trying to get help outside the home.

In the next section, a wide variety of healing, caring or nursing practices will be looked at under three broad categories: home birth, care for other health problems and ‘doing nothing'.

#### Home birth

The home is the usual place for childbirth as explained by this interviewee: "If Allah willed a woman to give birth, she should stay in her room" (IP002; 61-70 years; Housewife). Another interviewee said: "I have never given birth at hospital. All my births were at home. And our midwife is a traditional Hausa midwife. When you start having labour pains, Allah will help you as you keep on mentioning Him. He knows your situation… I had given birth seven times, and none of these was in the hospital. I have never had it in the hospital. I do it at home" (IP015; 61-70 years; Older woman).The skill of giving birth at home is often learnt within the household where older women explain the process to the younger ones or stay with them during the event and provide guidance

The body of knowledge underpinning the practice is a combination of the experience of older women; knowledge transmitted across generations about what it is to be a woman and increasingly biomedical science as professionally trained health workers are called upon to come and attend to deliveries at home. This interviewee has had 18 previous deliveries, and she had them all at home. Her experience is valued within the household when younger women (their daughters and daughter in-laws) come to give birth. The interviewee said: “That is why now if childbirth comes up and there is a problem, the truth is even though I have never studied anything related to it but how Allah had made me understand through my experience of it when young women are delivering I attend to them” (IP002; 61-70 years; Housewife). Increasingly, health professionals are called upon to assist with delivery at home as in this example: "I was alone at home except for one nurse that they [mother in-laws] called she came and took the delivery" (IP013; <30 years; Housewife).

#### Providing care for a variety of health problems

 Household members have drawn on their knowledge and the knowledge of others to provide a wide variety of help. The range of interventions provided in the home varies greatly and includes “catching of head” for headaches, blowing some (Qur’anic) recitation over a family member with convulsions or over any part of the body affected, *Rubutu* (is an ink solution prepared by washing a wooden writing board inscribed with therapeutic verses from the Qur’an), use of variety of plants, spices and herbs, use of near-boiling hot water baths for women after childbirth to regain shape and strength, administering remnants of medicine bought during the previous illness, use of medical disinfectants (e.g. Dettol©) alongside herbal medicine in treatment of birth tears, and professional health visiting at home to prescribe medication or provide other kinds of biomedical treatment. Some examples of where these varieties of strategies have been applied, categorised by the underlying knowledge systems (Islamic medicine, Hausa medicine, hearsay knowledge and biomedicine) will now be shown.

##### Drawing on Islamic medicine

The following are examples where family members draw on Islamic medicine to provide help for a variety of health conditions including headaches, convulsions, injury to any part of the body, and a range of practices to make women give birth with ease and to improve general strength and wellbeing of children. Some specific example of instances where Islamic medicine was practiced on or by interviewees included the following:

"I called her and asked her to come and catch my head for me it is aching” (IP001; 80+ years; Woman). This catching of head is a kind of Islamic prophetic therapy for headaches where the practitioner holds the forehead of the recipient and recites some prayer. The same interviewee also talked about how her daughter in-law intervened when she was having convulsions: “I fainted. I was in that state when she carried me and was blowing some (Qur’anic) recitation on me” (IP001; 80+ years; Woman).

Another interviewee was talking about the practice that they use to get relief from pain in any part of the body: "Whether it is head or leg or anywhere that is paining you, read that prayer. This one seven times and the other one seven times but don't blow [saliva] on it, just place your hand on the site and recite" (IP002; 61-70 years; Housewife).

There were practices that were said to make women give birth with ease. One older woman (IP002; 61-70 years; Housewife) listed these as *rubutu*, *tofi* (blowing of a verse on a part of the body affected or into water that is then drank) and special supplication that is recited 99 times. She said: “When they give you *rubutu* then you can deliver. Once you noticed the signs that you were about to deliver you inform them and tell them to prepare *rubutu* because you are going to deliver.” She also said: “for those that are giving birth there is something that you can blow *[tofi!*] 41 times. You get a cup of water, and blow [it in it] for the one that is giving birth". She further said: “and there is the one that you recite 99 times. It is also a prayer that you recite. Even you… [pause]… a person can drink it just for the protection of their wellbeing”.

Some materials mentioned in the Quran are also believed to have healing powers and were administered for different ailments or to improve health as this interviewee explained: “I paid particular attention to the honey because in the Quran when they are translating it. We come across a lot of reference to honey, talking about its benefits and this and that. And I paid a lot of attention to it” (IP015; 61-70 years; Older woman). The older woman, as a ‘home nurse’, was adding the honey into her daughter in-law’s preterm baby’s feeds.

##### Drawing on Hausa medicine

Household members also draw on traditional Hausa medicine knowledge in addressing a variety of health problems within the home. This category was mentioned in the interviews as *maganin gida* (home remedies), *maganin* Hausa (Hausa medicine), *maganin gargajiya* (traditional medicine). They are applied to a wide variety of problems including the treatment of childhood and other kinds of illnesses. This category also includes the use of near-boiling hot water baths for women after childbirth to regain shape and strength. Some examples of where practices that are drawn from Hausa medicine were applied in the home include the following. One young mother talked about how she managed the illness of her child: “Yes, the truth is later on I treated him with home remedies, because since they gave him the injection the vomiting stopped, but after two days it returned. So I mix some home remedies that they call *tazargade* […] I then give it to him to drink; I get the relief from that (IP013; <30 years; Housewife). Another interviewee said: “We did traditional medicine a lot. … We got the one that we do for the children. They will say get *marke* (a particular tree), get *kajiji* (a type of spice), get garlic, get lime, get honey and then mix them" (IP005; 41-50 years; Housewife). Another interviewee talked about the traditional practice of the use of near-boiling hot water baths for women after childbirth, which is thought to increase strength and help them regain their body shape after childbirth: “You see when I had my first childbirth I spent 3 month doing the traditional bath.” (IP002; 61-70 years; Housewife)

Hausa medicine is routinely used as a way of increasing strength even in an healthy individual: "now in the morning, you see every mother when she wakes up she try to warm water so she can bathe her baby, so when you do that you boil the medicine at the same time…yes, that one even when [a child is] healthy you still do it because it increases the child's strength" (IP007; 41-50 years; Housewife).

Increasingly, getting the required ingredients for traditional Hausa medicine is becoming difficult as this interviewee explains: “but for the stomach ache, the hernia, there is nothing that I do for it except for the tree bark, African medicine, and African medicine is now [difficult because there are] no bushes nearby. Isn’t that so?” (IP003; 71-80 years; Pensioner). As a result, traditional medicine is becoming more institutionalised as people that spend some time and go out in search for the different ingredients serve as suppliers of the products. In this example, the man is explaining how they now source traditional Hausa medicine products from the market: "there was this man here, there, he is a Nigerien. He used to go to town on Mondays to *maigarke* (a traditional medicine market. they sell assorted herbs and roots and other items used for traditional medicines there). And he will select the things that he knows, and he will bring them to me and tell me to soak them. And I should be drinking it” (IP008; 80+ years; Pensioner).

##### Drawing on hearsay knowledge

Household members also draw on what they learn from others about what might be responsible for a particular health problem. Although the practices cannot be traced to any particular source, they are common in Tudun Jukun. These types of knowledge are often attributed to 'them' by participants, using the phrase “they will say” in relation to a wide variety of conditions. For example, this housewife said: “even here at home, sometimes *they will say* we should look for these types of leaves or that type and boil and bath her with it that she will get better” (IP007; 41-50 years; Housewife *italics added*).

##### Drawing on biomedicine

Within the home, practices with roots in biomedicine are also applied to deal with a variety of health problems. Members of the family were called upon to do highly complex things such as providing help to a convulsing family member or managing preterm babies or even treating a birth tear at home as in these examples. One respondent administered medicines prescribed from a hospital to arrest seizures: "Well, just as when the illness starts [to worsen] and [my godmother] has the fits so I will go there. When I go [there] I will say put spoon in her mouth so that the mouth will not get shut off, or it should not touch her tongue. When they put it, they will hold it in place and if there is any medicine that the doctor prescribed I could ask: has she been given [the medicine]? If she has not been given I'll take the medicine although it is a tablet, I will crush it. When I crush it I‘ll then wet it... and by Allah's might she will swallow [it] and with the help of Allah it will subside and she will stop having it. Then she will sleep before they will organise and take her to the hospital" (IP005; 41-50 years; Housewife).

There are other examples where the household cares for the person at home with advice from a health professional. For example, a mother in law explained how she provided care to the preterm baby based on a nurse’s advice: “whatever piece of clothing that can protect against cold was provided and used for him, warm clothing. We covered his entire body including the eyes. All that I leave are his nostrils and the mouth so he can breathe” (IP015; 61-70 years; Older woman).

In another example, a combination of specialised product derived from biomedicine and traditional Hausa medicine was utilised to managed a birth-tear of a young mother at home: "we decide to treat her at home using *gashi* (Sitz-bath) with Dettol© and *Bagaruwa* (a local herb)” (IP015; 61-70 years; Older woman).

Family members that have any professional health qualification are especially valued and were often called upon when there is a health problem. This young mother often takes advantage of visits to her parent’s home to have her children’s health needs addressed: “my father that is here at Dogarawa (a different neighbourhood in Zaria) is also a ‘doctor’. So any time we go to the house he checks him [her son] and he always gives us medicine” (IP013; <30 years; Housewife). Similarly, when a family member that is also a health professional comes to visit, the other members of the family take advantage to have their health concerns addressed. This man talked about what usually happens when his daughter who is a nurse visits: “she (interviewee’s daughter) gave me some medicines that I should be using. Now she has gone for a course (further studies). ...When she comes she will be admonishing me about the dangers of not taking my medicine” (IP008; 80+ years; Pensioner).

The practice of family members of keeping remnants of medicine bought during the previous illness and then stored for later use is also considered under the biomedicine category. For example, “I never had the illness again… but I hide the prescription just in case” (IP009; 61-70 years; Pensioner). Mothers especially do this for when another child is ill, or the same child has symptoms again: "You see that is why now I always have medicine for pneumonia with me” (IP007; 41-50 years; Housewife).

Other works undertaken by family members within the biomedical system include a wide range of help that they provide in hospitals. They accompany the ill to the hospital and stay with the sick family member to provide a range of medical and nursing care. One participant described how she assisted the nurse in a teaching hospital to insert a feeding tube through the nose of her child while they were on admission. "I use to hold it and ask them to put it for her. Because I know it helps [pause], I know they are helping her. It is not enjoyable really, but all the same I hold her and ask them to put it [the feeding tube] in for her" (IP005; 41-50 years; Housewife).

#### Doing nothing

One common way that people actively choose to deal with a health problem within the home is to ‘do nothing'. Terms used to describe this included: "rest", "do nothing", "drink (take) nothing" (referring to medicines), "wait", "lie down", "wait it out". This approach could be adopted simply because of frustration of not getting the expected results from other alternatives. For example, one interviewee stated that: “…there is also no particular remedy that I will say it is the one that worked. Actually at some point I was frustrated with all the options and stopped everything and left everything with Allah” (IP004; 51-60 years; Builder). Others adopt this strategy because previous experience with the same illness had stopped on its own: “…when it hurts and hurts and stops on its own, it will then release [me] and stop” (IP003; 71-80 years; Pensioner). Sometimes nothing is done due to lack of understanding and fear of what they might encounter when they choose other options. However, sometimes the reason is beyond their control as in situations when the person cannot physically move or shout for help; or they might feel the help available is not going to change anything; or simply they are not capable or cannot afford the other options. For example, “You know the thing is even if a person wants to … even if a person wants to eat food [and he doesn’t have it] he will not bite the edge of the pot!, right? If you don’t have the means or you don’t have it you have to endure” (IP011; 61-70 years; Farmer). In another example, a mother decided to just stay at home with her ill daughter when she was referred to the teaching hospital because she could not afford the fees. She said: “There was a day we went, and she [doctor at a primary care centre] wrote us a letter (referral) and said I should hurry and take the child to ABU [teaching hospital] Shika. So I came and hid the letter and said I will just be patient I will stay and let this girl die at home. That’s it, that’s all I can do. I was staying at home with the girl without any medicines and without anything” (IP005; 41-50 years; Housewife). In other instances there is also a sense that some illnesses were considered as “background” conditions and yet others consider some as the inevitable pains and wears that come with old age. For example: “Well okay, in truth, anyone that has lived for some time it is difficult that he will find his body is okay” (IP009; 61-70 years; Pensioner).

### Other health systems landscapes

Having discussed the broad range of actors, the variety of help provided, and the knowledge systems that underlie health problem-solving practices within the home in Tudun Jukun, this section will now explore the wide range of settings that have become relatively stable in what is an emergent and continuously changing health systems landscape. These include local health professionals, traditional birth attendants, primary health care centres, medicine vendors, neighbours and friends, traditional healers, spiritual healers, hospitals, private diagnostic services, and shops selling medical supplies. These health systems landscapes are differentiated by the diverse underpinning relationships, knowledge systems, strategies and the different roles which they contribute towards in addressing health problems (Table 4-3). Different underlying relationships govern the interaction between different actors within the health systems landscapes including family ties, marriage, friendship, and market relationships. Interestingly, there was a no reasonable citizen-state relationship within the health systems landscapes in Tudun Jukun. Here the state tends to be perceived as a private actor whose interest is in making money rather than on improving or maintaining the health of its citizens. After explaining the different landscapes, the rest of the chapter will consider the role of the state in the health systems landscape in Tudun Jukun, which contrasts significantly with dominant conceptualisations of the role of state in health systems.

Table 4‑3: Summary of the different elements of other health systems landscapes

| **Other health systems landscapes** |
| --- |
| **Landscapes**  | **Strategies**  | **Knowledgebase** | **Underpinning relationships** |
| **Patent Medicine Vendors** (PMV) | Consulted for common illnesses,Basic assessment and recommend a medicine Buy medicines | Predominantly biomedicine  | Primarily a market relationships but there are others as explained in the text below (see text on PMVs below) |
| **Primary Healthcare Centre** (PHC)  | Wide range of services including antenatal care (ANC), childbirth, children’s vaccination and treatment of prevalent ailments. | Biomedicine  | By ownership PHCs are public institutions but because user-fees are charged for most services, the relationship is primarily a market relationship. |
| **Local health professionals**  | Providing advice on health problems, prescribing medicines, conducting delivery at home, and at times initiating complex treatment that are usually done in hospitals including IV fluid infusions at home. | Biomedicine  | A mix of market relationships and friendship ties  |
| **Traditional Healers** | Traditional bone setting, use of herbs and other traditional medicinal products to treat wide variety of ailments. | Predominantly Hausa medicine | Primarily a market relationship but there are others (see text on traditional healers below) |
| **Spiritual healers** | Especially patronised for mental health problems, convulsions and infertilityThey prescribe things like rubutu, layu (amulets), and varieties of plants and animal products as well as recommending specific verses to be recited or the burning of incense | Predominantly Islamic medicine  | Primarily a market relationship but there are others (see text on spiritual healers below) |
| **Neighbours and friends** | recommending providers that they were satisfied with to neighbours and friendscontributing money to assist in paying for care | Not applicable | Friendship ties |
| **Hospitals**  | Utilised for antenatal care during pregnancy, Childbirth (especially when there is problem)Other health related issues.Preferred for conditions that involve blood loss or loss of consciousnessFacilitating people to take measures to prevent adverse health consequences e.g. advice on contraception  | Biomedicine | In practice primarily a market relationship even in government-owned hospitals because they operate on fee-for-service basis. Ideally public hospitals are supposed to operate as public hospitals with the health workers paid as civil servants and patients provided services as citizens.  |
| **Non-hospital providers** (private diagnostics services; shops that sell medical supplies and devices; and motorcycle taxis) | Conduct medical testsSell medical devices Motorcycle taxi are the primary means of transport to get to a health centre or hospital | Biomedicine (diagnostic shops)Not relevant for motorcycle taxis | Primarily market relationships but with some differences as described above for PMVs. |

#### Patent Medicine Vendors (PMV) or ‘Chemists’

Patent Medicine Vendors (PMVs) are retailers of pharmaceutical products and other biomedical supplies, who do so mostly without any formal or accredited training. They are referred to as ‘chemist' in Tudun Jukun. PMVs are possibly the most widely utilised providers across the health system landscape in Tudun Jukun. Some enjoy very high goodwill and patronage in the area despite not having formal medical qualification. The residents interviewed value their services and many women could be seen queueing up at one of the PMVs located in the central part of Tudun Jukun whenever the owner is at the shop. This man explains that "when it is night, the people that go there, even women, not to mention men, you will not find even a place to sit [because of the crowd]" (IP008; 80+ years; Pensioner).

PMVs are consulted about illnesses, expected to do some assessment and recommend a medicine that they will then sell to the person that came for a consultation (the customer). They are patronised for almost all types of illnesses. As one interviewee explained: "any illness that will come we will go to the chemist that I know has a doctor and I will take the children or the women and they will go and see the doctor" (IP012; 51-60 years; Butcher). They also give some health advice to the customers.

PMVs, for the most part, operate as commercial dispensaries where they sell medicines requested by their customers including those prescribed in hospitals because most hospitals lack regular supply of medicines. Consequently, PMVs have become integral parts of the services provided by hospital. However, they sell a wide range of medicines with or without hospital prescriptions. Individuals go to the shops to obtain medicines for themselves and sometimes children or women are sent to buy the medicines for other family members.

PMVs are visited in the shops but sometime they also visit the customer at home depending on relationship. For example, when the individual is too ill to go and a good relationship had already been established. As this interviewee indicated: "when the problem becomes more severe then it becomes necessary for me to either go or send my wife to tell him and then he will come and check me, and see the situation that I am in and so on. … He is the one that comes here sometimes, and he will check my blood [pressure] or give some medicines that he feels are suited for my body" (IP008; 80+ years; Pensioner). A similar account was provided by another interviewee who said: "when they tell him that something has happened at my house he always comes immediately, without any delay" (IP009; 61-70 years; Pensioner).

The practices of PMVs are predominantly underpinned by biomedicine (in terms of the products that they sell and the advice they provide) even though they tend not to have any formal medical qualifications. The medicines that they sell are primarily pharmaceutical products and supplies that are traditionally recommended for treatment of common ailments by hospitals. There at least three Patent Medicine Vendors (PMVs) within Tudun Jukun and many others in neighbouring areas and across Zaria city that were mentioned by several interviewees.

The underlying relationship between the PMV and the people that use their services is complex but predominantly it is a market relationship where people buy medicines and pay for the consultation and minor surgical procedures, such as stitching up a cut. Price alongside reputation are key factors in shaping choice between PMVs: "I do go to other chemists. There is Ashiru's chemist here at Dandali. …. his medicine is even cheaper than this one" (IP013; < 30 years; Housewife). However, sometimes personal relationships influence how the service is provided. This man, for example, talked about the personalised way one of the PMVs in the neighbourhood deals with his problems, he said: "it is a matter of friendship and trust. Once they told him that there is something happening at my house he always hastens to come… And when he is in the middle of another task he will say he is coming at a particular time. And he will come. ...he is paid” (IP009; 61-70 years; Pensioner).

#### Primary Healthcare Centre (PHC)

Primary Healthcare Centres (PHC) are purposely designed to be the public funded and owned health services that are closest to the people. There is one in Tudun Jukun and many others in different neighbourhoods across Zaria city that are patronised by residents of Tudun Jukun. There are no statutory limitation of access to health services on the basis of location in Nigeria as most providers, including public sector ones, are based on fee-for-service. PHCs are patronised for a wide range of services including: antenatal care (ANC), childbirth, children’s vaccination and treatment of prevalent ailments. For example, this young mother said "I took him there [PHC Tudun Jukun] for the vaccination that they do when a child is 9 months old and then after that one months apart" (IP013; <30 years; Housewife). They vary considerably in terms of competence, qualification and mix of the health workers that provide services in different locations. On the one hand, the PHC located in Tudun Jukun is the least patronised because of the limited range of services they offer, the perceived incompetence of the provider and absence of state-funded free medicines for children. On the other hand, there are PHCs that are highly patronised because of their affiliation with the university teaching hospital and the wide variety of services they offer including some where specialists (consultants) in child health conduct regular clinics.

People attribute their lack of patronage of some PHCs to perceived incompetence of the providers and the absence of services available in other PHCs located in the better off parts of Zaria. The PHC at Tudun Jukun for example has no facilities for inpatient care or childbirth as is the case in other PHCs including those in neighbouring areas of the town. The perceptions of provider incompetence are supported by stories of being incorrectly diagnosed, wrongly advised or asked to go elsewhere as the health workers were not able to deal with their health problems. for example, this woman in labour was turned back because the PHC staff judged the condition to be less serious because she was able walk to the health centre on her own: "I tried and tried and tried and went all the way to here [PHC Tudun Jukun], that's where I did my *awo* (prenatal care), here at Dandali and told the doctor [health worker], Maman Rabi [she is a nurse/midwife], I am going to give birth. She said *haba* [I don't think so], and you wouldn't have been able to come this far to this place on your own” (IP002; 61-70 years; Housewife).

Regarding limited services available at PHCs, this interviewee was talking about the lack of facilities for conducting delivery. She said: “here [Tudun Jukun] if someone is ill or in a difficult labour, before he could get a doctor he had to go to Tudun Wada. Here at Tudun Jukun we don’t have any.… Here at Tudun Jukun we don’t have any clinic except the small clinic [PHC Tudun Jukun] there, and they do not take deliveries. […] This clinic that we have near us, when you go and you are going to give birth the usually send you to (PHC) Tudun Wada” (IP013; < 30 years; Housewife).

There are other PHCs mentioned by interviewees apart from the one located in Tudun Jukun. There is PHC *Kantoma* located in the well-planned neighbourhood adjacent to Tudun Jukun. It is particularly patronised because state-funded free medicines for children's illnesses is provided. Another PHC frequently patronised by the residents is the one located at Tudun Wada because it has a wider range of services including maternity services. There is also CHC Sabon Gari and *Banzazzau* that are patronised for their affiliation with the university teaching hospital where free specialists (consultants) in community health and child health respectively conduct regular clinics.

The practices of health workers in are obviously underpinned by biomedicine. The majority of the health workers in PHCs are community health workers who undergo 2 or more years of training in schools of health technology and also pass a national community health workers board certified examination before they are employed. Some PHCs do have a few nurses/midwives, but this is increasingly rare. The PHC in Tudun Jukun has one nurse/midwife who is in-charge of the health centre in addition to the community health workers. The health workers are employed and deployed to a number of PHCs located across the Local Government Area.

By ownership PHCs are public institutions but because user-fees are charged for most services, the relationship is primarily a market relationship. Consequently, even though they are the closest public funded health services to the people, they are also the least utilised. PHCs do retain some dash of state/citizen relationship qualities, for example, there are few subsidies from the state in some PHCs for maternal and child health medicines and also free specialist consultation in two of the PHCs in other parts of Zaria.

#### Local health professionals

There are formally trained and accredited health professionals such as doctors and nurses that live in the area. They often have their formal jobs in public or private hospitals located in other parts of Zaria. They are visited at their homes or may be called upon to come and provide help in the home. These locally-based are providing advice on health problems, prescribing medicines, conducting delivery at home, and at times initiating complex treatment that are usually done in hospitals including IV fluid infusions at home. As this interviewee recounted "my wife had illness some time ago […] I came back from Jos and found my room full of doctors. I asked what was going on, and they said your wife was not well. So I came and met them. They even infuse her with fluid here and she has since recovered" (IP009; 61-70 years; Pensioner).

As would be expected, the practice of the local doctors and nurses providing services informally is underpinned by biomedicine. There is, however, a mix of relationships between them and those they serve. It often starts as social in nature where they are giving advice or helping neighbours or friends. Increasingly, however, they are being paid for offering this help. For example, “Fatima [nurse/midwife] conducted the delivery at home and she [midwife] gave her [daughter in-law] an injection and she [midwife] did everything for her, all the things that they do in hospital. Fatima was paid N2000 (<£10) for this, and she does it to other families in the neighbourhood as well" (IP015; 61-70 years; Mother in-law).

There appear to be an increasing trend of the practice of calling a nurse/midwife to attend to young women that are giving birth at home. There are implications for these on the way statistics about skilled birth attendance is captured in Nigeria because presently only health facility-based deliveries are captured as such. This detailed account illustrates some of the dynamics of involving local midwives in home birth as a daughter in-law started having labour pains at home: “I said okay let me go and call a nurse, those that work in the hospital. She said okay. And I went out running, and I went to Aisha's [a nurse/midwife] house. And I found that she had already gone to work. So, I came back. I took a motorcycle taxi and went to Fatima's [another nurse/midwife] house. …. I asked her to go with the motorcycle taxi that I came with, that she should come and attend to Ubaida [the daughter in-law that is in labour]. ... She asked (where I met her), have you bought gloves? I said no. we didn't buy gloves and if you have them then go with them. She said okay. So she took all the things needed for the delivery with the medicine that they give immediately when a woman delivers. I said anything that you know you are going … when you receive delivery in the hospital. Please go with them if you have them. She said okay. As soon as she arrived she put on the gloves. … She checked and said that the mouth of the womb is fully opened. She is going to give birth now, *insha Allahu* (if Allah wills). *insha Allahu* she is going to deliver now. It has not reached more than 10 minutes, and she delivered. [...] she gave her an injection and she did everything for her, all the things that they do in the hospital” (IP015; 61-70 years; Mother in-law).

#### Traditional Healers

Traditional medicine is widely practiced in Tudun Jukun by many individuals at home (as described above). However, there are still some individuals that have distinguished themselves as providers of some form of traditional medicine. Traditional Healers constitute a diverse category including the herbalist, traditional barber-doctors, traditional bonesetters, and traditional birth attendant. The use wide variety of measures in their practice such as bone setting, use of herbs and other traditional medicinal products to treat wide variety of ailments. There are also still traditional birth attendants that are patronised by some of the respondents.

Increasingly those practicing traditional medicine are combining it with Islamic medicine and hospital medicine such as blowing supplication over fracture that was reduced using traditional splints and medicines and taking the wound to hospital for dressing. For example, as this man said, “they just tie the cornstalk to stop the fracture from wobbling and then supplicate… even though, I was going and get it dressed at the hospital" (IP004; 51-60 years; Builder).

The practice of traditional healers is underpinned by traditional Hausa medicine knowledge and as highlighted above, this is sometime mixed with elements of Islamic medicine and even biomedicine. The underlying relationship with users is primarily a market relationship where services are paid for in cash or kind. This is not always a straightforward transaction as traditional healers can give the medicine and wait until the user is satisfied with the result before they are paid and often there are no fixed charges. Moreover, each client pays according to what they can afford. There are also other arrangements that shape the relationship such as family ties and friendship. There is also element of motivation by some rewards in the hereafter so the customers sometimes consider their payment as some form of charity and not compensation which will take away the benefit of reward in the hereafter for the healer. "Some [traditional healers] will give and say go and use it over a stated period of time. When it is finished you can come back, and when you go back to collect the next supply and you have something of *sadaqa* (charity) that you can give, then you give them [the little you can], not in a way that you will deprive yourself” (IP004; 51-60 years; Builder).

#### Spiritual healers

There are people that are recognised by Tudun Jukun residents as spiritual healers, especially among the Sufi sect. They are consulted specifically when illnesses are thought to have spiritual origins, especially with mental health problems, convulsions and infertility. They prescribe things like *rubutu*, *layu* (amulets), and varieties of plants and animal products as well as recommending specific verses to be recited or the burning of incense. Within the Salafi sect, they tend adhere to items or practices that have direct reference in the Qur’an or Hadiths - such as honey, olive, and black seed (*habbatussauda* - Fennel Flower) and reject the use of *rubutu* or *layu* as innovations. Both Sufis and Salafis subscribe to the practice of *ruqya* to exorcise jinn from an individual that is believed to have been possessed. Apart from those identified as spiritual healers, respected scholars of the religion are also consulted for counselling, and they may suggest specific prayers that can be recited for particular health problems. As this interviewee stated: "We go to our scholars, and our scholars do tell us [what to do]. So that's how we have been trying" (IP002; 61-70 years; Housewife).

Knowledge (such as Qur’anic verses for healing) or specialised products collected from spiritual healer or religious scholars are often retained by the recipient and shared with others. Consequently, there is no strict restriction or formal regulation of spiritual practice. Therefore, the practice is widely distributed across many actors within the health systems landscape. Individual practitioners that have turned it into their trade rely on their reputation to attract new people to the services they offer.

The practice of spiritual healers in Tudun Jukun, a predominantly Muslim settlement, is primarily underpinned by Islamic medicine but there are traditional Hausa medicine practices that are drawn upon especially among healers of the Sufi sect. Although, spiritual healers are often not very explicit in their demands, services provided are most times paid for in cash or kind. There are similar complications with the relationships here as explained for traditional healers above regarding reward in the hereafter.

#### Neighbours and friends

Another important category of actors within the health systems landscapes of Tudun Jukun that the residents found reason to value, as the deal with health problems, are neighbours and friends. They are often involved in facilitating access to the solutions to health problems and less directly involved in actual providing of the care. This can be in a number of ways including recommending providers that they were satisfied with to neighbours and friends and sometimes contributing money to assist in paying for care. In this example, a particular private hospital was being recommended to the interviewee after his child's friend was happy with the way they were treated when he took his wife there for delivery: "the person that gave me the story *alhamdulillah*. …, he is a neighbour [pause], we are close. His house is there across the railway line. He is friends with one of my children. He said this was what happened. And because truly they went there with her and it was about childbirth" (IP012; 51-60 years; Butcher). Regarding assisting with payment, "there was a woman close by, and she gave me N500 (~£2) when she heard him say that. He [interviewee's wealthy relative] said it with anger and shouting so everyone that was there heard it. There was another woman there she said bring that N500 (~£2) and I gave her and she gave me N1000 (~£4). And then another person gave me N500 (~£2). And we went to the hospital but they said we should pay N4430 (~£18). I said here we are again. We that are there with just N1500 (~£6), and we have hired three motorcycles [taxis], they charged us N80 (30p) each. And I said to them please help us for the sake of Allah, even this money we had to beg for them. So they collected N60 (~25p) each. From N1500 they collected N60 (~25p) three times, so we were left with N1320 (~£5)" (IP010; 61-70 years; Father).

Because of the lack of functional public transport, neighbours that are motorcycle taxi operators are especially valued as the need to go to a hospital may arise at any time. They are often called upon and are happy to provide their services often for a fee but occasionally based on good neighbourliness. This interviewee was talking about one of the young men near his house that operates a motorcycle taxi that he often uses when there is a need to go to the hospital. He said: "he [the motorcycle taxi operator] lives here. …he used to give me a ride to [the hospital]" (IP008; 80+ years; Pensioner).

### Hospitals

Hospitals are at the core of dominant understandings of health systems, as they form the core of service delivery component of the six ‘building blocks’. Hospitals are important health systems landscape in Tudun Jukun. Here, they are utilised for a range of reasons including antenatal care during pregnancy, childbirth (especially when there is problem) and other health related issues. As one interviewee indicated: "like when it comes with some difficulties such as when it comes very strongly as if the child is going to be delivered but there is no sign that that is going to happen. There is no any wetness coming out, the one that is called *zaxi* (show). There is no any sign except excruciating pain. So they will then say [let’s] take her to the hospital" (IP015; 61-70 years; Older woman).

Indeed, hospitals were the preferred option for conditions that involve blood loss or loss of consciousness. Interviewees have also pointed out that hospitals can help in facilitating people to take measures to prevent adverse health consequences such as promoting the use of contraception. For many residents in Tudun Jukun, the university teaching hospital located about 9 miles away is often the last port of call when everything else has failed. However, hospital treatments are often sought in addition to other *ongoing* treatments within the home, and alongside traditional or Islamic remedies. There were also considerable challenges in using hospitals by the participants. This section will look at the wide variety of hospitals that have been utilised by participants and the challenges of using hospitals.

Hospitals vary considerably in size, ownership and ability. They include the university teaching hospital Shika (a complex 500-bed tertiary hospital with teams of super-specialised physicians working in multi-professional teams), a missionary hospital at Wusasa, a wide range of private hospital (mostly single physician-owned-and-operated), Kaduna state government-owned secondary care hospitals including Gambo Sawaba and Sabon Gari, the Polytechnic clinic (owned by Kaduna State Polytechnic, one of the tertiary colleges in Zaria), specialised national hospital for TB and leprosy (or as referred to by Tudun Jukun residents - Majeru), and a Muslim specialist hospital. None of these hospitals are located within Tudun Jukun, for women, their use will therefore entail overcoming additional barriers of permission, transport arrangements and skills to navigate language (English is the dominant language in hospitals) and other complex processes of accessing care especially in the bigger hospitals.

Biomedicine underpins the practices in hospitals even though interviews have talked about there are serious concerns with quackery and the general inadequacy of the regulation of private hospitals. The diversity of the hospitals results in considerable variation in terms of the underlying relationship between them and their patients. The relationship between the private hospitals (including the Muslim specialist hospital) and the people is primarily a market relationship. In practice market relationship underpins interaction even in government-owned hospitals because they operate on fee-for-service basis. Ideally though these hospitals were supposed to operate as public hospitals with the health workers paid as civil servants and patients provided services as citizens. There are however, some subsidies especially for maternal and child health services in Kaduna state-owned hospital but the supply is erratic. The missionary hospital at Wusasa also operates on fee-for-service basis, but there is an ethos of care first rather than the money as highlighted by many interviewees. They were saying this despite Tudun Jukun being a predominantly Muslim population and the poor interreligious relationships in northern Nigeria.

The challenges of using hospital will now be looked at followed by the distinctive features of the different hospitals that have been utilised by participants in Tudun Jukun.

#### Problems with hospital provided services

While hospitals are valued greatly by residents of Tudun Jukun, they, however, express some concerns about using them. For example, there is the issue of humiliation if a woman has not registered her birth and then later on develops problems during childbirth that requires hospital intervention as this interviewee said: "If you go [to the hospital] and that card is not there, you will be humiliated. They will say you did not come for *awo* [antenatal care]” (IP002; 61-70 years; Housewife). There is also a problem with the complexity of the processes and procedures in large hospitals as noted by one interviewee. "when you go, and you don't know the particular places that you are supposed to go to, you see, you will just be suffering for nothing" (IP009; 61-70 years; Pensioner);

Some interviewees were worried about some of the dishonest practices that happen in hospitals. For example, this man was surprised to find out that the reason a hospital pharmacist refused to dispense his prescribed medication was because the pharmacist wanted some illegal payments first. "They refused [to dispense the medicine] and said I had to go and get a test done. They [interviewee's children] said he had been tested since two days ago. They still refused. It went on and on from arguing in English and then later it turned to Hausa, and it was becoming a fight, and I had to intervene. […] I wasn't well but I was the one blocking. He insisted that I had to go back and be assessed again. [...] Allah helped us; this fellow came and said do you know what they want? It is money that they want you to give them. If you give them money […], they will do everything. They just want you to give them money” (IP009; 61-70 years; Pensioner). It is difficult to verify this claim nonetheless it represents the person's perception of the hospital and there similar stories from other interviews.

There is also a concern about quackery, especially in private hospitals as this interviewee noted: "some are not qualified as doctors, and you will see that they have opened a hospital in town and [people] will be saying, doctor, doctor, doctor but he is not qualified. … My brother, what happened to him was they went and conducted a surgery on him, and the operation that was done for him has reached his tummy […] it has destroyed his tummy. [...] and this type of private hospitals something should be done about them because they are spoiling it for doctors" (IP006; 31-40 years; Trader).

Another major concern for residents in Tudun Jukun regarding hospitals was the cost. Not only are the fees very high, but the fact that they have no input on how charges are made and therefore cannot negotiate once a fee was set was also a primary concern. This interviewee whose child was on admission describes her experience having to pay for food provided her daughter even though the child did not benefit from it as she vomits whenever she is fed. She said: "so, when she drinks, when the illness worsened, she will vomit. So I saw the doctor and told them that honestly I should stop throwing away my money in the drain. Be fair to me, either you remove the whole money for the gruel, or you know what to do. They said no; there is no way the doctor prescribed the gruel, and they will remove it. So I tell him to address it, or he should come every day and give me the N100 (~40p) to pay for it. He said he cannot take the responsibility. So he reduced it into half. He said they should be given me for N50 (~20p). So you see, everything, everything they do, everything they are going to do for you, if you are observing at Shika there is no relief. So what about those that don't have it?" (IP005; 41-50 years; Housewife).

The next section will look at the distinctive features of some of hospitals that have been utilised by participants in Tudun Jukun.

#### Private Hospitals

There are many private hospitals in across Zaria including areas neighbouring Tudun Jukun. Most of the private hospitals are single physician-owned-and-operated. Consequently, services are less impersonal as is the case in the bigger public hospitals. Interviewees identify these hospitals with names of the owners instead of the corporate name under which the hospital may operate. One of the major qualities of the private hospitals is that they provide the quickest access to doctors unlike bigger hospitals where long queues and complex processes interfere with gaining access to needed services. Another important feature of most of these private hospitals is that their owners also work in some of the public hospitals and there are concerns about frequent unethical diversion of patients to their private businesses from the public hospitals. The relationship between the private hospitals and the people is primarily a market relationship. However, because of the personal touch, interviewees tend to develop closer relationships with the owners and the staff. "I will prefer to be taken to (Dr) Danbauchi [owner of a private hospital]. That is all that should be done. […] He will then ask, Mama what is the problem? I will say so and so bothers me. He will then examine me" (IP001; 80+ years; Woman).

There are however serious concerns with quackery in some private hospitals as highlighted above.

#### Christian missionary hospital

The St. Luke's Anglican Missionary Hospital located in Wusasa is located to the west of Zaria walled-city. It is one of the oldest missionary hospitals in northern Nigeria. Even though services are paid for in the hospital, residents of Tudun Jukun have high regard for the hospital because of their focus on care first rather than the money.

#### Ahmadu Bello University Teaching Hospital (ABUTH)

The Ahmadu Bello University Teaching Hospital, Zaria was established in 1967. Apart from providing clinical services, as a university teaching hospital, ABUTH also provides biomedical training (my Alma Mata) for different categories of health professionals including medical doctors, medical laboratory technology, biomedical engineering, medical records administration, nursing and midwifery, and community health officers training. It also serves as a Centre of Excellence for Radiotherapy & Oncology in Nigeria. The university teaching hospital is presently located about 9 miles away from Tudun Jukun at its permanent site near the village of Shika. The teaching hospital was located in Tudun Wada less than a mile from Tudun Jukun before moving to its current location in November 2005.

ABUTH is trusted for its quality of services by some interviewees as this one said: "I did (antenatal care) for all of them here at ABU. That's where we do our antenatal, all of us. We didn't trust other hospitals the way we trusted ABU at that time” (IP015; 61-70 years; Woman).

Majority of the interviewees were of the opinion that the university teaching hospitals was better in the past than now. Interviewees said that they had had a better experience of the teaching hospital, or general as they prefer to call it, in the past. They have recalled a number of ways the hospital was better in dealing with them than it does presently. For example, better management of queueing and waiting area as well as the quality of service they received as this interviewee explained "They will come and say you are number this hundred and so, so. You see, then you had enough space, there were chairs and everything is queued up nicely. Honestly, then general was superb! It has no second. [...] That time, whatever instruction they gave we followed. But now what instructions do they give? What are they saying [we] should do? What are they suggesting [we] should eat? They used to say eat this and that, and those are local dishes that they will tell us how to prepare them. And we eat them and our health keeps on improving. But now they don't say anything" (IP002; 61-70 years; Woman).

ABUTH is the last port of call for conditions believed to need biomedical solutions as when all else failed. It is the preferred choice for bloody injuries and dramatic problems as in this example about the woman with profuse bleeding: “then everyone that was there becomes very alarmed. So after that they called my husband on the phone and he came with a car there and they took me to ABU [teaching hospital] here” (IP015; 61-70 years; Woman).

The very high fees and the complicated systems of payment is one area most of the interviewees complained about regarding the teaching hospital. "If you go there, you know all they do is the dressing. And from there [pause] even the money for the dressing you have to pay. If you are going, you have first to go and cut paper (get receipt from a cashier indicating you have paid). You already have your honey and bandages [which you come along] with you. That's your responsibility. And this medicine that they use in dressing wounds… yes, hydrogen. Yes, you always have to go with those. They will collect it and do the dressing for you with it. And they will tie… yes, everything. All they do for you is the dressing. That’s all they do and even that you have to pay. You have first to go and cut the paper (get a receipt) and pay and show them before they can do the dressing for you” (IP004; 51-60 years; Builder).

While the government owns the teaching hospital as have been stated above, interviewees have to pay for services. The fees at this hospital are one of the highest in Zaria and have been a reason for many residents in Tudun Jukun not to utilise it even when they thought their problem would be better addressed there. The underlying relationship from the perspective of the people in Tudun Jukun is, therefore, primarily a market relationship. As will be seen in the section below on the role of the state, this experience with public owned hospitals run as private services shapes people's experience of the state as a private actor instead of a trustee of public good.

#### Secondary Care Hospitals

There are two secondary care hospitals located in different parts of Zaria that have been mentioned by interviewees in Tudun Jukun as places where they get help. These are Gambo Sawaba General Hospital at Kofar Gayan located just outside the southern gate of the walled-city and Major Abdullahi General Hospital Sabon Gari, which is located in the north-eastern part of Zaria. These hospitals were meant to serve as referral centres for the PHCs. They have a full complement of health professionals including doctors, nurses, pharmacists, laboratory technologists and other non-clinical personnel. They are operating one tier below the level of the teaching hospital which is supposed to provide tertiary care, medical education and research. As with all the hospitals in this research their underlying knowledgebase is biomedicine. The secondary care hospitals are owned by Kaduna State Government and therefore operate as public hospitals with the health workers paid as civil servants. However, like we have seen with other public hospitals they operate on fee-for-service basis and therefore to the people (including residents of Tudun Jukun) they behave as private hospitals. There are some subsidies especially for maternal and child health services in these types of hospital, but this is erratic and has been marred by corruption as earlier demonstrated.

#### Other Hospitals

There are other types of hospitals in Zaria that have been utilised by residents of Tudun Jukun on different occasions for various reasons.

##### Polytechnic Clinic

This is a clinic owned by one of the tertiary colleges located in Zaria. Interviewees whose family members are employees of this college are entitled to be seen at the clinic. Therefore, those interviewees that have talked about going to the polytechnic clinic had someone that work in the college at the time. For example, "I took her to the hospital, here inside poly (Kaduna state polytechnic Zaria). They prescribed some medicines, and she took all of it and it did not improve at all" (IP005; 41-50 years; Housewife). Another interviewee said: "my husband was working here at the polytechnic, and we used to go there and get treatment at the polytechnic [staff clinic]" (IP015; 61-70 years; Woman).

##### National Tuberculosis and Leprosy Centre Majeru

This is a national health centre owned by the federal government. As the name implies, it is part of the national response to the epidemic of tuberculosis and leprosy.

##### Hospitals outside Zaria

Interviewees have mentioned some hospitals or have been to hospitals outside Zaria. This interviewee, for example, new about a national orthopaedic hospital in neighbouring Kano state where they will be able to treat his fracture better but could not go because he did not have the money. As he explained: "the problem is there is no money. Those that have money they actually go all the way to Kano" (IP004; 51-60 years; Builder).

### Non-hospital providers

There are other important non-hospital or health centre-based landscapes that were relevant to the participants. These include private diagnostics services; shops that sell medical supplies and devices; and motorcycle taxis that provide a crucial link between residents and services and providers outside the neighbourhood.

A number of interviewees have talked about been referred by their consulting doctors to go and do some tests. For example, "near Kwangila there is a place there, Jalva [diagnostics]. We went there. They took the pictures (possibly X-ray) and returned with me to Danbauchi's hospital" (IP001; 80+ years; Woman). Another interviewee also talked about going for a test in private laboratories present in many places all over Zaria. He said: "I was asked to go for imaging, but it didn't help with anything [...] there is this place that they do imaging on the way to Samaru. They did the image of the leg and the image of the belly. They said there was nothing wrong" (IP014; 80+ years; Pensioner). Another interviewee bought her reading glasses from traders when she went to the eye centre, and there was no one there to attend to her.

Motorcycle taxis are a crucial part of the health systems landscapes linking the residents with the rest of the city including health services that are located in other parts of the city. This interviewee had to use a motorcycle taxi to get his child to the health centre at Banzazzau: "so I gave them [the money], and they got a motorcycle [taxi] and went and when they got there they gave them medicine and said they should come back tomorrow” (IP010; 61-70 years; Man). Another interviewee talked about how he goes to the hospital for dressing of his fracture wounds: "you see from here I have to board a motorcycle [taxi]. And anytime I am going I can't go alone I have to go with someone, so I have to get two motorcycles. I will pay the motorcycle [taxi] when we are going and pay for us to return. At least anytime we go I have to spend N200 (~80p)"(IP004; 51-60 years; Builder). Even though this may cause serious discomfort, there are no other options as he explained: "okay, this leg, even from there before we reached home on a motorcycle I was intolerably tormented" (IP004; 51-60 years; Builder).

## Interpreting the results of the actions taken to address health problems

The section will cover whether the actions taken to address the problems described above produce the expected results or not, what happens when expected results are not achieved, and if there are aspects of the health systems landscapes that are associated with better results.

### Making sense of the results of the measures taken to address these health problems

There are different ways in which people define success or failure of the actions that they have taken to address a health problem in Tudun Jukun. Most interviewees have identified a change in the sign that symbolises the problem as the yardstick to assess whether the action(s) they have taken has worked or not. For the most part, people interviewed in this study have defined the successful result of any action they may have taken to address a health problem to mean that a disliked phenomenon has now ceased. For example, one interviewee described how applying prescribed eye drops cured his eye problem. "She [the eye doctor] is the one that I told about the itching and she gave me the eye drops. And when I drop it I no longer feel the itch. [...] It stopped altogether (IP008; 80+ years; Pensioner). Another interviewee indicated that giving her child a prescribed medication has worked, "as soon as she [child] took the medicine based on the rules that he [the doctor] gave me the difficulty in breathing stopped" (IP007; 41-50 years; Housewife).

Additionally, in defining a successful result, people in Tudun Jukun often compare what they could (not) do before receiving the help and what they could (not) do afterwards or compared with others similar to themselves in other ways. First, some interviewees would consider a successful outcome is when there is a complete recovery, and they can go back to what they were doing before the onset of a health problem. For example, this interviewee said what he want to see is "that tomorrow I am well and back to my business" (IP006; 31-40 years; Trader). Another interviewee said a successful result is "for me to be able to get up from where I am sitting and use my legs to go here or there" (IP014; 80+ years; Pensioner). Second, interviewees have also compared their state of functioning with others similar to themselves in other ways. For example, a favourable result is when he can "walk like everyone walks" (IP004; 51-60 years; Builder) without having to use crutches. Another interviewee talking about the condition of her child felt he had improved because "the child will rise up with his strength the way children normally do" (IP013; < 30 years; Housewife). These changes could also be progressive and not a one off event.

Alternatively, an unsuccessful result could be perceived as a lack of change or worsening of the sign that symbolises the health problem. For example, one interviewee said that the "cough hasn't stopped" (IP005; 41-50 years; Housewife) after she has given her child treatment that was prescribed in one of the hospitals they attended. Unsuccessful outcomes are also sometimes considered as the occurrence of a disliked phenomenon despite taken a meaningful action to prevent it. These include events such as the death of a child or miscarriage. This interviewee listed the deaths of her children and miscarriages she has had to include the ones that occurred while they were still in the hospital receiving treatment "I was there [at the university teaching hospital] with him till Allah did his will: He died" (IP005; 41-50 years; Housewife). Here too, the comparison could be with similar others, for example: "he is a child that all his younger siblings are bigger than him" (IP013; <30 years; Housewife).

### Dealing with failed efforts at addressing health problems in Tudun Jukun

There are different ways that residents of Tudun Jukun have responded when the actions they have taken to deal with a health problem fails. However, there is an overriding interpretation of consequences of any action that is taken which is shaped by the people's underlying beliefs in Tudun Jukun. Irrespective of the nature of the problem and the course of actions taken, the predominant view in Tudun Jukun appears to indicate that the results are ultimately decided by Allah. This belief was captured by this interviewee who said: "whatever we do here only happens if Allah allows it. If he allows it then we will see success. And also for the hospital when they go there, even then, it is only when Allah allows it that there will be a success. Allah did not give life in anyone's hands, right?" (PP003; 61-70 years; Spiritual healer). Many others held similar views, for example, this interviewee whose son died said: "Yes. Allah has not willed it. I already know that even if I go to Shika (the tertiary hospital) if my child is meant to survive he will survive and if he is not meant to survive he will not survive" (IP007; 41-50 years; Housewife). In another interview, a conversation happened between the interviewee and her brother in-law who cuts in during the interview:

“Brother In-law: Whatever medicine works only if Allah wills that it will work.

Interviewee: Only when Allah gives it the permission to work.

Brother in-law: A man is not supposed to say he treated something. It is Allah that gives relief through the person’s effort.

Interviewee: Yes, no doubt, it is Allah that brings the relief. That’s so.

Brother In-law: The *Sunna* (teachings of the prophet of Islam) is you try the medicine and leave the rest to Allah” (PP002; 41-50 years; Traditional birth attendant).

This underlying belief complicates how failed efforts at addressing a health problem are dealt with by different people in Tudun Jukun. Although, most interviewees found it easy to say that an intervention that they have tried did not work and move on to another. Conversely, there are interviewees that were conflicted about saying an intervention did not work based on their interpretation of whose agency they may be challenging in relation to their underlying belief systems (Chapter 5). For example, "I wouldn't say medicine is not working, but we are still here waiting until Allah brings his relief. [...] But whatever we do, if Allah did not agree then you continue suffering. So we have to leave the thing to Allah" (IP014; 80+ years; Pensioner).

In spite of the differences in interpretation of results, once a measure is deemed to have failed different responses have been observed. Often, the interpretation of the problem changes with respect to the underpinning knowledge-bases (see above) that was thought of as better suited to deal with the problem. Consequently, individuals and households may change to another form of intervention. For each problem, interviewees have tended to use different varieties of measures for the problem, sometimes sequentially and at times concurrently. Even when everything they have tried within their means failed they never stop looking for other possibilities. Often interviewees that have failed to achieve the expected results also maintain some hope that things will improve in the future, and they tend to rely on prayers. Occasionally, it may not be a total failure; the results may be a slight improvement, but not the results they were expecting. In these kinds of situation, some interviewees may accept the results and adjust their activities as the situation demands.

### Relationship between specific health systems landscapes and results

Although, for the most part, biomedicine tends to dominate the health systems landscapes in Tudun Jukun, on basis of the range of actors whose practices are underpinned by that knowledgebase, there appear to be no clear-cut relationships between a particular type of provider or place where help was sought and the results of these actions. There are examples of successful biomedical, traditional or Islamic solutions from the accounts of the interviewees. There are also examples of failures with each of these approaches. Similar examples were also found with mixed outcomes. It is however difficult to make firm conclusions about this analysis as the study design did not have this in mind moreover people often use different combinations of interventions either concurrently or sequentially.

Similar examples (of successes, failures, and mixed results) were also found with respect to the place where help was sought i.e. whether home, hospital, patent medicine vendors or primary healthcare centres. A range of different results was reported for different conditions. The same also applies to the underlying relationships (market, family ties, friendship etc.) between the different health systems landscape and results; there were no clear and distinct patterns. Even though these relationships are crucial in influencing the choice among different options within the health systems landscapes, however, they did not appear to have affected how outcomes have been interpreted. Overall, there are successes and there are disappointments, and there are results that were in-between for all health knowledge-bases, health systems landscapes or underlying relationships.

The next sections will highlight in greater detail these key contextual features of the health systems landscape in Tudun Jukun and how they are interrelated.

## Pluralism

The variety of landscapes described in this chapter represents the multiple ways people in Tudun Jukun understand health and health problems, the huge variation in experience when using the different services within or across different underpinning knowledge systems, and of course the availability of valued alternatives beyond the formal health services in the area. This contextual feature is better captured by the concept of pluralism derived from Dunn’s ([1976, p134](#_ENREF_47)) “medical pluralism” defined as “the organised totality of social institutions and cultural traditions that have been constituted as a result of preventive or therapeutic behaviour deliberately directed toward achieving or maintaining health”. All the other contextual factors in Tudun Jukun in one way or the other help generate this plural health systems landscape.

Theoretically, pluralism can happen as a result of regulation, payment arrangements, ownership arrangements, “user – provider” relationship, and geographical location of services. In Tudun Jukun, pluralism is driven by the different manifestations of the absence of an accountable authority (the so called “fragile states”) which include the weakness or absence of governance and regulation of health services; history of existence of other forms of practices of addressing health issues that predates the introduction of biomedicine into the health systems landscape; and the very high level of poverty in the area and absence of reliable payment arrangement for the mostly unaffordable formal health services even those provided by the state. As a result people may go for alternatives that are more affordable and may switch to different landscapes as economic realities dictate despite understanding that the hospital services may be more appropriate for the particular condition.

Pluralism in Tudun Jukun health systems landscape is for the most part manifested by multiple interpretations of health and health problems, different knowledge systems that underpinned these varieties of interpretations and different experiences associated with financial and non-financial cost of utilising the different landscapes. For example, the choice between home and hospital birth as extensively discussed above (section 4.3.1) represents one dimension of pluralism. Here the emergence of informal practice by professionally trained health workers being called to come and attend to delivery in the home (which is different from what was envisaged in the way the formal health system is conceived in Nigeria) represent yet another compromise between societal values around individual and family honour in maintaining privacy of the female body, recognition of the benefits that the professionally trained health workers bring to the problem of difficult childbirth as well as the economic and political realities of the area. These kinds of compromise were observed in a number of incidents and are further creating newer landscapes that hitherto do not exist in the area.

In Tudun Jukun, health professional’s perspective is valued source among other possibilities. They are never always considered the end point of health seeking but just one valued option among many others. There are conditions that are understood to have specific underlying cause and on that basis understood to be better dealt with within a specific knowledge system among the multiple (plural) health knowledge systems that underpin specific health systems services that exist in the area. Where there is a such clear cut logical explanation within a particular knowledge system the people in Tudun Jukun often do what is normally done in that situation under the particular knowledge economy in trying to address the problem and therefore the measures taken to address such conditions are fairly predictable and decisions are fairly straight forward. Such situations from the incidents that have been examined include:

* Hospitals not considered suitable for mental health issues as oppose to physical symptoms
* Open fracture, profuse bleeding, difficult birth goes to hospital
* Normal births, minor birth injuries even when health professional was at hand to repair at no additional cost), *awon hakori* (teething in children), *wankan jego* are dealt with at home
* Simple fractures are dealt with by traditional bone-setters at home

The rationales for different choices are clear and there is good cross incident consistency within the data in the way these different issues were dealt with in Tudun Jukun.

It appears that when alternatives other than hospital are considered this logic holds most of the time, however, when hospital is the favoured alternative then a number of other contextual elements (social norms and values of the society, economic realities and absence of accountable authority) interfere to complicate the situation and make the final choice less straightforward even though hospital is the preferred option. These contextual factors have all worked in a number of different circumstances and combinations to prevent going for the obvious preferred choice as will be explored further in Chapter 5. (Details of specific incidents and how different circumstances are resulting in different outcome are shown in Table 5-1 section 5.5).

## Different manifestations of the weakness or absence of an accountable authority (the so called “fragile states”)

One crucial contextual feature of Tudun Jukun’s health systems landscape is the weakness or near absence of the state or other forms of collective authority or formal systems of collective accountability in relation not only to health but also other social issues affecting the residents In chapter 2, it was shown that the dominant literature considers the formal or state-led or regulated health system as “the health system”. Indeed most health systems literature tend to define health systems on the basis of the relationship between the state and citizens or the state considered as the collective mediator between all actors considered to be part of the health systems ([Frenk, 1994](#_ENREF_54)). It was argued that this view did not take into account settings such as Tudun Jukun where the state is virtually non-existent at least in the form often ascribed in health systems literature.

This underlying weakness of the systems of authority and accountability has shaped the health systems context in a number of ways that can be broadly categorised into three. Neglect of some localities or health issues, weakness or absence of governance and regulation of health services, and the absence of other forms of support crucial in shaping individual and family decisions and actions about measures to be taken to address health issues. These three aspects of underlying weakness of the systems of authority and accountability would now be looked at in greater detail.

### Neglect

Some areas or localities are neglected by the relevant authorities in siting or allocation of resources, for example, the overflowing of refuse in a number of locations within Tudun Jukun (such as incident 27 on Table 4-1) means solid waste disposal systems of the state did not include the area in their plans. Another example of neglect is the absence of crucial services such as maternity and delivery services in the PHC located in Tudun Jukun (see section 4.3.2.2) which is available in PHCs located in other better off neighbourhoods. There are no maternity or delivery facilities in Tudun Jukun. There are, however, these types of services in other government owned facilities in other neighbourhoods outside Tudun Jukun as highlighted above. In the absence of reliable transport this geographical disadvantage often becomes crucial in shaping what people do when faced with problems and had been observed in this study to contribute to homebirths even for incidents in which hospital birth was the clear favourite. The public-owned hospitals and health centres that can provide needed services such as maternity and delivery are located in other parts of the city, cost more and require making personal transport arrangements as there are no effective and convenient public transport system. Likewise the absences of government funded free MCH medicine in PHC Tudun Jukun which is also available in other PHCs. There is also no reliable mental health services within the formal health services (public or private) further reinforcing the view that hospital are not good at addressing mental health problems thereby justifying the understanding of mental health with alternative knowledge systems other than biomedicine. There is very poor capacity for diagnosis and treatment of mental health problem within the formal health system. Another dimension of neglect from the perspective of the respondent is the experience of having to pay before accessing any services from state-owned health facilities which undermines the perception of the state. The state is perceived by interviewees mostly as a private actor interested in making money rather than the health and wellbeing of the people.

### Governance/regulation

Another important manifestation of the of the absence of an accountable authority is the weakness or absence of governance and regulation of health services resulting in proliferation of different types of providers (as captured under pluralism above), preponderance of informal care, poor quality care, poor coordination of care and “user”-unfriendly formal public health services. Poor clinical governance and quality of maternal services in the hospitals, where health workers are particularly abusive and disrespectful to women from disadvantaged backgrounds or holding different values make this choice difficult for the women even when they decided that it is the most appropriate place to go to in other to address the health problem at hand. These have appeared in a number of interviewees accounts in different ways. For example, health workers were rude, they see women from places like Tudun Jukun and their values as insensible. There were also examples where poor quality services including poor diagnostic capacity resulted in people spending a lot of their meagre income, time and effort without getting the results they sought leading to frustration. There were many examples where health workers deal with respondents in a patronising way such as not including them in crucial decisions about their care, scolding them for minor mistakes leading to fear and affecting choice in the future. Because there are no checks services have no pressure to simplify access procedure which result in very “user”-unfriendly services where huge challenges in the form of following complicated procedures in order to access good care from hospitals had often resulted in seeking professional help informally. For example, a family (IP015) had to resort to managing a preterm baby at home after weighing the options of going to hospital in order for them to be admitted and placed in an incubator.

Another consequence of the poor governance and regulation is the proliferation of informal care and other alternatives without any checks on effectiveness or quality. Examples such as the use of leftover medication (IP005) which lead to delays in taking the child to hospital is also indicative of the lax regulations among other factors. There is also absence of coordination between different services including A&E. for example, a woman (IP015) was rejected in one A&E following referral from another due to capacity/equipment shortage and then accepted in a third A&E but even there she had to go through further administrative processing delaying any form of intervention and eventually leading to her having unsupervised delivery even though she is within a hospital unit.

### Absence of support

The third category within this context is the absence of other forms of support that are crucial in shaping individual and family decisions and actions about measures to be taken to address health issues such as transport to get to services, information about availability and quality of services, absence of reliable payment arrangements (this aspect constitute a significant contextual factor and would be looked at separately – section 4.7).

Lack of support in the form of effective and reliable transport, public information about availability and quality of services, and payment arrangements are important contextual factors that operate in Tudun Jukun. In the absence of checks and widespread bogus services, individuals and families not only had to make arrangements for their own transport, but also rely on information from family and friends that are previous users of a particular services in order to inform their decision and actions when faced with a health problem. They also have to make their own payment arrangements in order to utilise services including in public-owned hospitals and health centres. In view of widespread poverty in Tudun Jukun, this has significant influence on whether or how hospitals or health centres are utilised by the respondents. The cost of arranging for these additional supports and of the care itself may drive choice away from preferred options. It was clear in the incident recounted by IP015 that even in emergency situations individuals are asked to pay for supplies to be used for their immediate care. People often have to prepay before they are provided with any services, even in government-owned hospitals. Often this is not possible for the poorest, most vulnerable households. As a result, the financing approaches that families adopt are crucial determinants of the strategies sought to improve health.

## The economic realities of Tudun Jukun – high levels of poverty and lack of reliable payment arrangement for accessing care

High levels of poverty in places in Tudun Jukun and the lack of reliable payment arrangement for accessing care are crucial contextual features that are shaping decisions and action to address health problems. Having or not having money influences what strategies were eventually utilised. In the absence of reliable payment systems, paying for access to health services of any kind often rest on the shoulders of the household heads in Tudun Jukun mostly men. Women mostly do not have their own income and are dependent on either their fathers or husbands for most of their needs including health care needs. Households within Tudun Jukun – specifically the household head or breadwinner - are almost exclusively responsible for the financing of health and all other needs. As this young mother explained to the attending doctor when she was told her child’s condition was severe, and she needs to be admitted to the hospital. She said: "Okay I will go and tell the head of the house (my husband). I said truly we don't have money. So, one female doctor there, they call her… what is that her name? Dr. Makarfi. She said the money for hospital care are not saved they come out when the need arises" (IP005; 41-50 years; Housewife).

Apart from household heads, sons that are well off also pay especially for their elderly fathers that are no longer employed. Older children with education or whose trades or businesses are doing better are increasingly bearing this responsibility for their immediate families and those of their parents. They are also increasingly influencing the choice of actions taken. Increasingly, the wealthy child owns his car and has contacts with people that can help. They use their car to convey the sick and the others that are accompanying the sick to hospital, where they may already have contacts. Having “successful” sons that are well connected and with friends that are health workers has added benefits for a family. These sons could ask their friends to come and see their family members especially parents at no additional cost. In situations where the sons can afford, they do take their parents that need health care to private hospital where they often pay more if they belief that the services there are of good quality (this may include taking them to another country such as Egypt, India and in some instances even Europe).

Son in-laws have also been approached to help out when more immediate sources within the home are not available. Sometimes younger women that are married and their husbands are better-off also come to the aid of their parent when in need, "I said truly we don't have money. …I was upset ... and my girl said no problem if my father comes I will call [pause] I will use his phone and call my husband in Kano... She said she was going to tell her husband to help out with the money so the girl can be taken to hospital… So, she used her father's telephone, and she called. She said it's fine; they are going to bring us money, N5000 (£20). We should go to the hospital. And that was it. I got ready and went, and they gave us a bed" (IP005; 41-50 years; Housewife).

The above three being mostly men and in the presence of widespread poverty it may be the underlying factor behind men being more resistant to use of hospitals as it cost a lot more and the respondents or their families do not have control over the price. With falling economic standards, most household heads are finding it harder and harder to afford health. Sometimes women step in to support, especially when they or their children are directly affected and the man is not keen or unwilling to fund. As this interviewee explained about events related to an old man in a neighbouring household: "He [the old man] was taken all over the place and the boys have given up hope … they said he is going to die, and one of his daughters sold everything she has … and took him to Shika. By Allah, this man is still here, alive!" (IP005; 41-50 years; Housewife).

Lack of money often is the underlying reason for favouring services other than hospitals even though it may not be portrayed as such (often hiding under the guise of religion or other societal norms). Sometimes the underlying reason for men discouraging going to hospital is because of lack of money rather than any dislike for hospital care per se. there were account where when income improves men had been the ones suggesting to their wives to go to hospital for their health needs or take children to hospital when they are unwell or for services such as vaccination and ANC. Cost of hospital care on sons may also be the underlying reason why mother in-laws may discourage hospital birth or taking a child to hospitals when they are unwell. “Everything depends on money” (IP004; 51-60 years; Builder): Cost or the lack of money to pay for services limited options for most people. This is especially true for hospitals (public, private or faith-based) as a category within the health systems landscapes of the area, because they charge higher fees and “because you see if you go there whatever they say [the cost is], you cannot negotiate” (IP004; 51-60 years; Builder). Consequently, non-hospital options that are less preferred are chosen. As the same interviewee puts it: “but if to say there was no want, the hospital one is better […] those that have the money they will go there and have it treated in no time” (IP004; 51-60 years; Builder). Consequently, gratis options are highly sought-after, even if they are located far away from Tudun Jukun itself: “Yes, if you take your child there and they write the medicine, if it is three different medicines then they will give you one for free… That is why you will see lots of women there. At the time all the [women] here in Tudun Jukun you will see them there. And if Allah help you the medicine is not expensive you can get all the three. That was why we go there.” (IP005; 41-50 years; Housewife). Many other interviewees with children have talked about this free medicine as a reason for going to this particular PHC even though it is located in another part of the town.

Sometimes doctors’ instructions especially expensive tests are deferred until the family mobilise enough money from members. For example, the young mother above explained: "So, I went, and they put all the bills and then I came back. They sum up the money, and it turned out to be N1550 (~£6). That's for the entire test and the imaging. And I came and gave it to the head of the household like that, and they couldn't get it on that day until two days after. When they got that money I went, I went and did the thing; I did those tests. When I had the test and finish, and I went and took the result to them. So that's it. But the problem is just… like money; it is the problem of life now" (IP005; 41-50 years; Housewife).

For some families where the husband works with an employee that provides health care or covers the health care cost e.g. staff clinics, their families are also able to access such services and tend to use it instead of the other alternatives.

To summarise, in Tudun Jukun, the household unit almost exclusively takes care of financing of any strategy adopted to deal with a problem. Men are seen as husbands and fathers and also expected to finance themselves. Boys are seen as sons, wards, husbands, in-laws and again expected to take care of themselves financially. Young men are increasingly responsible for this role as compared to the older men in a household because of the shifts in the nature of production, which have increased younger people’s relative earning power, spurred by a change from a farming based economy to more urban type employment in the mainly low-paid services sector. As younger people’s earning power increases, so does their influence in deciding the course of action taken over health issues. Women as index sufferers or mothers of index sufferers also tend to bear the cost of care when the men are unable or unwilling to pay. These economic realities are crucial contextual features of the health systems landscape of Tudun Jukun and important in generating mechanisms that are leading to the outcomes (choices of solutions) that were observed.

## The different social norms and values that structure relationships within Tudun Jukun

There are different manifestations of the social context in Tudun Jukun that have significant bearing on what the people do when they are faced with a health issues.

There is a significant influence of the dominant belief system in the area (explained in greater detail in chapter 5) in producing the different aspects of this social context. Indeed religion appears to be the underlying influence that shapes this social context. As highlighted in the previous section, apart from religion there also appear to be a latent influence of the economic realities of the people which is not often acknowledged by the respondents, however, further probes often reveal that some of the beliefs or positions taken on issues based on apparent underlying beliefs actually have economics as a major driver.

Based on the respondents’ narratives the following contextual elements appear to be crucial in shaping their decisions and actions, one way or the other, in trying to address health problems. these include male dominated gender norms, high prevalence of multigenerational residency (where sons get married and bring in their wives to live in a section of their parents’ house; there can be up to three generations living in the same home), the prevalent traditional beliefs about women fertility and reproduction, the prevalent practice of polygamy, high value placed on individual and family honour, and strong societal expectations of respect for elders.

### Male dominant gender norms

Men are in charge of most decisions in the family including decisions about his wife(s)’ health and whether she can use any particular health services or procedures. For example, fathers decide at what age their daughters will get married, husbands decide whether their wife(s) may give birth in hospital, use contraceptives or take a child to hospital for vaccination.

Preferences is also given to the choices of the men (husbands or fathers) over those of women (wives or daughters) even when the direct effect of any adverse outcome of the decision is going to be on the women. Women are expected to obey the preferences of their husbands without quarrel.

Interestingly the women themselves appear to accept these as the desirable state of affairs on the basis of their interpretation of the tenets of religion which they belief to be the source of male dominant social arrangement and therefore justified. It is considered as the natural social arrangement sanctioned by Allah and therefore questioning these arrangements may be seen as an act of weakness in belief (and obeying as a sign of strong faith), or on the extreme disbelieve. In this situation, therefore, disobeying the men (husband or fathers) may then be seen as disobeying Allah.

While this state of affairs are often justified from a religious perspective, however, further probes often reveal that some of the beliefs or positions taken on issues based on apparent underlying beliefs actually have economics as a major driver.

While this arrangement tend to be against going to hospital in most instances, often because of the latent economic realities mentioned above, when the men are in better economic circumstance such as when incomes improve, they tend to have a more positive disposition to towards the use of hospital and in a number of instance they are the ones suggesting the use of hospitals. As it will be the men that will suggest to their wives to go to the hospital for their health needs or to take children that are unwell to the hospital or for services such as vaccination, ANC which have been associated with good health outcomes by some respondents.

### Multigenerational residency

In Tudun Jukun and many parts of northern Nigeria, the home often consists of multigenerational households. In many instances this includes three generations of men, each with their wives and children living in the same compound.

For the young women married into this arrangement, decisions and actions on health especially around childbirth are differed to the older more experienced women within the residence. These older women are in relatively higher position of power because of the custom of respect for elders as well as their status as mother in-laws. There is often a situation of concealed rivalry between the husband’s mother and his wife who may be perceived as causing the son unnecessary spending by going to the hospital for conditions which the older women may consider manageable through other alternative less costly options. They will be comparing their own births mostly at home which they often judge as successful. So for the older women it is beyond competence and experience about pregnancy and childbirth but also who their son should be spending their meagre income on – their mothers or their wives!

There are also apparent intergenerational differences in the underlying explanation of different health issues. The older generation, for example, favour home birth over hospital birth for “normal” births. They may also have a different explanations for some illness e.g. *awon hakori* (teething) and therefore prefer a different approach to dealing with the problem which the younger women may not agree. However, because of the older women’s status, their own preferences tend to be favoured as the son would not want to be perceived as taking the side of his wife against his mother should their choices differ. An often the difficult economic realities may also align the choices of the older women to those of the men who are mostly responsible for financing any intervention decided upon.

The power of the older women in relation to the younger women in this multigenerational residency set up is derived from their status as mothers in-law as well as their advance age (respect to elders is highly valued contextual element that is relevant to this issues as will be explained below). The younger women are therefore expected to defer decisions especially those related to childbirth to the older within this multigenerational residence arrangements. This influence may be exerted even where they are not physically resident in the same compound. They are often consulted in time s of decisions such as this and on their own they keep close watch over the progress of their daughter in-laws’ pregnancy and childbirth and often seek to influence the decision by themselves.

The older women often tend to prefer homebirth over hospital birth. However, there is the perception that the younger “modern” generation of women are weaker and may not be able to withstand the practices that they have endured in their own days as young mothers. Increasingly hospital births are planned for the younger women even though other contextual factors as would be explained later – geography, transport difficulties, other emerging alternatives – may prevent them from actually getting the young mother to hospital at the appropriate time and therefore eventually homebirth still remain a common outcome with some inviting professionally trained health workers that live in the neighbourhood to come and conduct the delivery at home instead of unsupervised as it use to happen previously.

There are also some clear benefits of this multigenerational residency arrangement in relation to health care. For example, mother in-laws are available to care for the new-born and guide the young mother and help reduce the stress of the whole process. Indeed one of the interviewees nursed a preterm baby born to her daughter in-law successfully and at no cost to the young family as arrangements to go to the hospital did not work out due to a number of contextual issues such as difficulties arranging transport and logistics complications that staying on admission in the hospital may generate.

### Safeguarding individual and family honour

Family honour is highly valued in this setting often above and beyond any fear of adverse health outcomes that may occur. The responsibility for protecting this family honour rests on each individual member but disproportionately on women. Accesses to certain parts of the woman body are perceived to pose serious vulnerability to family honour. Especially where safeguarding the privacy of the woman genitalia from view of others especially other men including health workers that may need to conduct an examination. There is significant shame associated with examination of the female genital area as often occur in hospital settings especially during delivery including by male health workers and is therefore avoided as much as possible and have been explained by some respondent as a reason for not going to hospital for childbirth. This often leads to use of other alternatives such as homebirth or inviting a female health worker to come and conduct delivery at home.

Homebirth is favoured because it affords control over privacy and avoids exposure to some of the culturally unacceptable medical procedures during childbirth as practices in local hospital by health professionals. Even in situations where hospital birth is preferred e.g. “difficult deliveries”, it may not happen and the respondent often end up calling on female health workers that live on the area for advice or to come and conduct the delivery instead of going to the hospital or taking the person to the hospital (if it is another individual e.g. a young mother).

There was an example where a respondent went to the hospital for delivery that was considered to be “abnormal” as it came too early (7 months) but even though she was there she refused to call the attention of the midwifes when it was time to deliver the baby in order to avoid being examined by them and only called them after the baby was out and she was in full control of the situation. Same happened at Wusasa when the woman that was bleeding was about to deliver she asked the not only the midwife but also her own aunt to leave having noticed that the baby is about to come out and know that she would be allowed by the midwife to deliver the way she wanted without interference from her.

### Beliefs about women fertility and reproduction

It is the norm for most women in Tudun Jukun to have many children, most of the women interviewed in TJ had on average 10 children. It is the norm for women to continue to give birth until it stops on its own. Having many children is a significant accomplishment as a woman and something for which they are very proud. It doesn’t seem to make sense to them that that having many children is considered a problem by others neither do they see this as under anyone’s control. To them it is Allah that decides the number of children every woman will have from the start “as a woman has to expel all the eggs that she swallowed”. It is with this mind-set that contraception is approached and no one should want to interfere with number of children they will have except in very rare circumstances (only one throughout the research) where the life of the mother was under serious threat as in the incident of severe bleeding in pregnancy that nearly resulted in death that contraception was mentioned and some justification advanced. Even then, the decision whether or not to use contraception even under this extreme circumstance is therefore very serious and that should not be taken lightly. Even under circumstance were such decisions are considered permissible the expressed approval of the husband have to be secured. Indeed even the health professional at the hospital would not provide certain forms of contraception without the expressed permission of the husband.

One interviewee was expressly angry when young female health workers whom she felt to be too young to engage with her on topics such as fertility and reproduction were being disrespectful to her when she gave her history of having had 14 previous deliveries. The strong belief about who controls reproduction and the disrespectful actions of the health workers not sensitive to this belief had significant influence on the use and experience of maternal services.

It is indeed considered a thing of pride to have many children as important accomplishment womanhood. The experience of giving birth to many children itself is valued and such women are called upon and their advice are well-regarded in situations of difficult deliveries.

### Polygamy

Having multiple wives is a typical situation in Tudun Jukun. Co-wives play important roles in relation to decisions and actions to address health issues. When a family member is not well co-wives are crucial in redistribution of household chores, providing advice, support or suggesting actions to be taken to address the problem. For example, leftover medications used in treatment of an ill child by one wife may be shared with the other should the children of the other co-wife fall ill.

Co-wives may also come together in decision involving one of their daughter in-laws as the mother of the particular son whose wife is in need of help is culturally expected to be aloof. In this situation he co-wife (the young woman’s stepmother in-law) will take the active role of conveying the decision to the son and the rest of the men in the family about their views on how the situation should be managed.

### Respect for elders

Another important social structure in TJ society that was important in shaping health/health seeking decision is that of respect for elders. As earlier explained, respect for mothers in-law by their sons’ wives is both for their status as mothers of the women’s husbands as well as their age and experience.

Younger women are thought not to be competent enough to talk about pregnancy/reproduction to older women even though they may be professionally trained especially if they are unmarried and therefore not having had the experience of pregnancy or childbirth themselves.

Respect for elders goes beyond issues to do with reproduction but also their experience and understanding of health problems which may be different from other forms of understanding and therefore what interventions they may suggest may also be different e.g., the incident of *awon hakori*.

Disrespect to elders can be considered a serious problem on its own and may be important enough to prevent some women from attending services in order to avoid it or using other strategies such as hiding actual numbers of previous birth, gaming the hospital (get registered) to safeguard against abuse and disrespectful behaviour from health professionals in case the arises during childbirth that may necessitate hospital birth.

Another situation where this is evident is with young men who are expected to show respect to their elders and take responsibility and help the elders when the need arises. Especially those with good network of friends may called upon them and friends are not only expected to reciprocate the friendship but also to show respect to the parents of their friends in need by going to see them instead of the parent coming to see the health worker at their place of work or shop. (It is part of showing respect to elders for health workers to visit the older patient e.g. their friends’ parent instead of the parent coming to see them at their own shop).

## Summary

This chapter has looked at different health problems from the viewpoints of residents of Tudun Jukun. It is clear that residents encounter a wide range of issues such as the appropriate place for childbirth, pregnancy and childbirth complications, childhood illnesses and deaths, ways of regaining shape after childbirth, ways of improving resilience and strength, named medical and surgical conditions, and ways of dealing with refuse. It was highlighted that there are some overlap and some discordance between participants’ and health professionals’ views about what constitute a health problem. This will be explored further in the next chapter (Chapter 5). The present chapter also presented the various options that have been utilised by respondents to address these problems which were explained using the concept of pluralism.

A key issue in this chapter is that respondents have used a multitude of resources within the health systems landscape to address health problems. This attribute remains a defining contextual feature of the health systems landscape and is best captured by the concept of pluralism. As would be explained in the next chapter, the availability of alternatives is crucial in understanding of the mechanisms at play as people in Tudun Jukun work to address health problems. Most noteworthy among this variety of landscapes is the fact that the home appear to be the most important in Tudun Jukun. The home comprises a various range of gendered-actors who are taking a wide variety of actions to address health problems of its members. The array of actors within the home draw on a wide range of knowledge sets in dealing with health problems. These include, for example, the use of *rubutu*, underpinned by Islamic medicine, to make women give birth with ease or the traditional use of near-boiling hot water bath to regain strength and shape afterwards, or indeed the prevalent use of remnants of medication from a hospital or a PMV on another child. These are just a few among the array of practices associated with the home by participants. The home is also the setting where most of the everyday unregulated care by professionally trained family members, friends or neighbours is provided. It is also important to note that the home is associated with the “doing nothing” option as an active choice where respondents are frustrated by failure or unable to afford payment for the available help. Above all, it was shown that the home is the lowest unit of collective accountability for action to address health problems. This is a major implication of the relative absence of state or any other accountable body to collectively act to address health problems of the people in Tudun Jukun in a consistent manner. This has significant consequences on the operation of the health systems as it shapes what is feasible and sustainable. For example, conditions that cannot be dealt with because of the limitations of a household’s capabilities and network of resources or those that by nature cannot be dealt with individually, such as refuse will remain unattended. Perhaps the finding that there are as many successes as there are failures from the different ways in which people try to address health problems in Tudun Jukun could be explained by this limitation of the home. Could, for example, the failures be reduced by expanding the unit of collective action? This will be explored further in chapter 6.

There are of course other landscapes outside the home, especially PMVs that are valued by respondents that play crucial in dealing with health issues. It was indeed shown that, in the effort to get relief, people draw on wide-ranging landscapes during the course of a problem. It is noteworthy that while hospitals are highly valued especially their ability to deal with the most difficult problems such as those involving blood loss or loss of consciousness, but they are never always considered the endpoint of health seeking. They are just one valued option among many others. Indeed the use of hospitals is sometimes fraught with problems including humiliation, dishonest practices, quackery, or high and inflexible cost.

Another important finding presented here was that other non-typical health systems actors that are often not taken into account in dominant health systems literature but play crucial roles in addressing health problems in real-world, for example, the motor cycle taxi may not be thought of immediately as an important ‘component’ of health systems but here they are indispensable for accessing any form of help outside the locality for the majority of residents.

The present chapter also explained the important contextual features that generate different mechanisms at work in producing the outcomes of interest (i.e. measures taken to address health problems. these contextual elements are the plural health systems landscape, the different manifestations of the weakness or absence of accountable authority (i.e. the so called fragile states), the economic realities of Tudun Jukun characterised by high levels of poverty and absences of formal payment arrangements for accessing health care, and the different social norms and values that structure relationships in Tudun Jukun. The next chapter will integrate these different contextual elements and explain the number of mechanisms that they generate. The chapter will also explore in greater details some of the different processes shaping the health systems context in Tudun Jukun.

# Chapter 5: Findings – The Process of Finding Solutions to Health Problems

## Introduction

The previous chapter looked at a wide range of different health problems identified by respondents in Tudun Jukun and highlighted the disparity between some of the views participants’ and health professionals’ hold about what constitutes a health problem. The chapter also presented the various health systems landscapes options that have been utilised by respondents to address these problems and this is captured by the concept of pluralism. The previous chapter also highlighted the variety of results respondents get from the different landscapes. This chapter moves the understanding of health systems in this setting on by looking at the mechanisms generated by the different contextual elements in the process of identifying and strategically selecting different solutions and how these processes are themselves shaping the health systems landscapes.

The chapter is structured around the four processes involved in selecting solutions to health problems. These processes are: 1) interpretation of the problem, 2) the decision-making processes, 3) ability to take advantage of solutions, and 4) the availability of services. After explaining these four processes, based on the principles of critical realism, the chapter will then explore the mechanisms that are producing the different outcomes observed using the concept of context, mechanisms and outcomes. After this introduction the next section will look at interpretation followed by consideration of how belief systems influence primarily the interpretation of health problems, but also the remaining processes. The next section after that will look at the decision-making processes followed by considerations of the factors that enable preferences. Provision, the last of the four processes has already been explained in the previous chapter defined as the health systems landscapes. The last part of the chapter will cover the mechanisms related to selection of services under different circumstances in Tudun Jukun. . The four broad processes are happening concurrently or sequentially during the course of a health problem from the onset to resolution (Figure 5-1). It is recognised that these four categories are not strictly linear, and there is likely to be overlap in many instances. However, regardless of overlap, it is possible to analyse them as conceptually distinct. Thus, the division of the selection processes allows the research to focus on a single conceptual process where necessary, while also allowing the comparison of categories and the interactions and integrations of difference sub-categories.

Figure 5‑1: Processes of finding solution to health problems in Tudun Jukun



## Interpretation of Health Problems

Interpretation happens throughout the trajectory of responding to a health problem. This happens right from the onset of an issue, through the period in which decisions and actions are taken to address it, and also when people interpret the consequences of any choices made. Within this section, several different elements of interpretations of health problems in Tudun Jukun will be looked at, including:

1. What constitutes a legitimate health problem?
2. What does the problem mean to individuals occupying different social roles?
3. What sources of knowledge are people using to help understand and address health problems?
4. How do people interpret the consequences of health interventions chosen?

### What constitutes a legitimate health problem?

In the identification of an issue as a legitimate health problem and therefore demanding solution from an authentic health systems landscape, there are at least three different trends that can be observed from the respondents’ stories. The first trend is that some problems are considered significant from the perspective of health professionals but are not considered as such by the participants. The second is that some problems are considered significant by both health professionals and by the participants, but with some differentiation between these groups as to when a health problem becomes significant. Third, there are problems that are considered as significant by the participants, but not recognised as such by health professionals.

These categories are not as neatly divided as the foregoing description may suggest as neither health professionals nor the people living in Tudun Jukun present a static or homogeneous view about what constitutes health problems nor are they uniform in their views when taking decision and actions to address these health problems. Significant disagreements can be found within both categories, and various concessions to the different frameworks of ideas could be found in the way people have expressed their experience of health problems. The three broad categories described above are, however, useful heuristic devices that give a clearer picture of a complex and dynamic situation.

The qualitative research undertaken shows clear examples of each health trend:

#### Issues Unrecognised as Health Problems by Tudun Jukun Residents

Examples of issues considered health problems by medical practitioners, but unrecognised as such by residents, were found when examining attitudes to childbirth, specifically multiple pregnancies. A high number of births is pathologised by health professionals, especially in obstetrics and family planning literature, where a woman who has given birth 5 or more times is called a grand multipara by members of the profession, and is considered to present a high risk for obstetric complications for both the mother and the unborn child ([Babinszki et al., 1999](#_ENREF_8)). In reproductive health and family planning literature, it is considered that a high fertility rate “represents a grave threat” ([Caldwell and Caldwell, 1990](#_ENREF_31)) to maternal and child health and is one of the targets of the Millennium Development Goals. As a result there are many initiatives promoting contraceptive use and family planning that are designed and implemented to address this. Women interviewed in Tudun Jukun, however, did not recognise having many children as a health problem. For example, one of my interviewees was a housewife (61-70 years), who had a total of fourteen children. When she was informed of the idea that having this many children might be considered abnormal or harmful, she found the idea unbelievable. Indeed, the idea that having this number of children might be harmful appeared to make no sense to her. It is the norm for most local women of the same age to have ten or more children. The housewife stated that she felt her children were a significant accomplishment of her status as a woman and something for which she is very proud. She said she felt blessed that she has such a large number of children, asserting that this is not a matter over which she or anyone has control. She stated that the number of children a woman will have is under the exclusive authority of Allah, and that efforts to interfere with this through, for example, contraception, are not only abominable, but can also have serious repercussions on the individual responsible, both spiritually and physically; in this world and in the hereafter. Her strong faith in Islam also meant that she considered that such exercise is from the start futile because a woman “has to expel all the eggs she swallowed” (IP002; 60-70 years; Housewife).

A further example is the attitude to female circumcision, which is defined by the World Health Organization (WHO) as "all procedures that involve partial or total removal of the external female genitalia or other injuries to the female genital organs for non-medical reasons" ([WHO, 2008, p. 1](#_ENREF_202)). Health professionals frame this as female genital mutilation, a term which is loaded with negative ethical and moral judgements. This procedure is practised by some people in Tudun Jukun and for those that engage in the practice there is a distinct view regarding the necessity of the practice.

One of my interviewees was a local barber. Barbers are often called upon by families after a baby is delivered to carry out certain customary practices. These include shaving the hair of the baby, facial marks, removing the uvula and, if the child is a girl, conducting circumcision (for girls in the first week of life). Based on a tally kept by his son, within the period from January to June the barber I interviewed had attended over 50 births. Based on the evidence given by the barber, these practices do not appear rare. As the barber said:

“Some people have still not forgotten about tradition. When they have a child birth we do *bille* or *fashin goshi* (different types of facial scarring). And there are girls, every girl, just like you remove the uvula in the mouth you have to remove the one in the genitalia… so you will put a finger like this and pick and lift it up like this then cut it off. You have to remove this for every girl because if you did not remove it, it can become a danger for some. What is the danger? There is no way she will have intercourse with her husband. No matter how old she is you have to remove it. Once he (her husband) starts to penetrate her she will feel as if pepper has been poured into her. There is no way they can have Sunnah (intercourse) until it is removed. No matter how old she is and because of that, while they are still babies, it is removed"(PP007; 51-60 years; Barber).

These types of interpretation are influential in explaining the high levels of rejections of contraceptive services, as in the first example, and also active resistance of messages aimed at reducing female circumcision, as in the second example, in places like Tudun Jukun.

This issue of different interpretations also impacts broader public health issues. For example, effluent from neighbouring houses was forming a pool at the entrance of a man’s house. The man who owned the house was amazed when I asked if that bothered him. He asked with a hint of surprise: “this too is a health problem, right?” Another interviewee did not consider the mountain of refuse right in front of his house as a problem (IP012; 51-60 years; Butcher). Even though solid waste and sewage disposal are important problems for public health practitioners, these interviewees did not appear to recognise them as such. In these two situations, the respondents indicated that they only consider something a health ‘problem' if they can solve it. If it is something you have learnt to put up with then it is no longer a problem. These differences in understanding and interpretation of what constitutes a health problem have significant influence on what measures will be taken (or not taken) to address them.

#### Issues Differently Recognised as Health Problems

This second category includes issues such as marriage at a young age. Health professionals link early marriage with early pregnancy. It is considered to pose serious negative consequences to the health of the woman, as well as her development in other spheres of life such as education and employment. There is no consensus as to the cut-off age for adverse health consequences. However, there are studies that measure early marriage as the proportion of women married by the age of 20 ([Singh and Samara, 1996](#_ENREF_168)). In Tudun Jukun, many of the women interviewed also linked early marriage to early pregnancy and recognised that it could be dangerous to a woman when she gives birth. However, the cut-off age at which a marriage is considered ‘early’ varies enormously within Tudun Jukun. One respondent from Tudun Jukun considered 12 years of age to be too early for marriage but suggested 15 years was acceptable, even though this is far below the 20 years age limit cited by Singh and Samara.

Another example that falls within this category is the significance of the place of birth to health. The debate about the safety of home births continues in health literature, professional policy and practice. However, hospital births tend to be favoured for all pregnancies, even low-risk ones. In contrast, for most of the women interviewed, it is a thing of pride to have all births at home. One participant asked rhetorically, why she would risk upsetting herself or exposing herself to ridicule when she could successfully give birth at home, having done so more than ten times. She did, however, recognise that sometimes problems can happen during birth and that hospitals can be very good at addressing these kinds of problems. Likewise, she conceded that hospitals are good at assessing the wellbeing of the baby during the antenatal period. Therefore, she always registered her pregnancies at the General Hospital and made sure she attended at least one antenatal visit during her pregnancy to find out about the health of her baby.

For problems that are interpreted in this manner, people in Tudun Jukun tend to be very selective: they pick and choose from what is offered by hospitals or primary health centres as the example above demonstrated. That is, they are happy to register and attend at least one antenatal visit during pregnancy just in case while still preferring and choosing to have their babies in their home and not in hospital or primary healthcare centres.

#### Issues Unrecognised as Health Problems by Health Professional

An example of this category is a belief present in Tudun Jukun of the existence of other sentient beings, the jinn, who interact with people in trans-material ways and are implicated in causing a wide range of health problems. Some of the respondents in Tudun Jukun believe that their condition is caused by jinn possession. They believe that the jinn may enter and lodge in any part of the body. This is believed to lead to symptoms associated with diseases of that specific part of the body, such as frequent urination if the jinn enters the kidneys or bladder, or abnormal behaviour when the jinn is lodged in the brain. The jinn is considered to be exorcised by recitation of some verses of the Qur’an (*ruqya*) or through the application of traditional Hausa medicine practices. Hospitals and PHCs are believed to lack the competence when dealing with these types of problems, as explained by one interviewee:

“You know there are illnesses that are related to jinn... which the hospital doesn’t recognise. Or even if they do, often the traditional is doing better. For that what we do is sometimes we give the person [medicine] to drink and then he feels better or smoking incense will be given him and when he applies he will feel better” (PP003; 61-70 years; Spiritual healer).

For health problems interpreted to belong to this category there are no services in hospitals, PHCs or any biomedicine based institutions to address them because they are not recognised as illnesses.

### What does the problem mean to individuals occupying different social roles?

In Tudun Jukun people’s experience of health problems are shaped by their position in the society, especially within the household unit, where most of the decisions and actions to address health problems occur. Factors such as the underlying relationship with the person primarily affected, gender, wealth and age all contribute to shaping these experiences.

For people in Tudun Jukun, as in many other parts of the world, health problems are first interpreted by family members. Besides the physical and psychological experience of health problems by individuals, there are clear differences in terms of the social experience of health problems in Tudun Jukun.

Men, for example, tend to perceive health problems relative to their role as the “breadwinners” of their household. When interviewed, their focus was usually on how the health problem was preventing them from earning enough to provide for the needs of their household, and who was taking responsibility for this while they were indisposed. For example, a builder suffered a fractured leg; when talking about the injury he explained that it was now his children that are buying food for the household. He said: “Allah said whatever befalls you, you leave it with Allah. And for me, I have children and to the best of their ability, for things like food, they are providing it” (IP004; 51-60 years; Builder). This is a recurring feature for most of the men interviewed. The men were also more likely to talk about the difficulties participating in local events, such as naming ceremonies, wedding and funeral, or any duties as an elder community member. For example, one interviewee said about one of his neighbours: "I haven't seen him in a long time, and I know he had been struggling with illness like me. We used to be together in the afternoons about this time. But since I lie down with this illness he had not seen me and I haven’t seen him. He is suffering from hypertension" (IP014; 80+ years; Pensioner).

Conversely, women tend to experience health problems as mothers, wives, carers, homemakers, and occasionally payers for the care. Women are likely to be left caring for other members of the household if the health problem persists over a long period. As such, they tend to favour early and more efficient interventions, thereby lowering the likelihood of being left with an additional care responsibility. In addition to worrying about care for the sick, they also tend to express worry about the post-illness division of household chores, and the effect upon household income should the husband become indisposed. This is further complicated in situations where multiple wives are involved – a typical situation in Tudun Jukun. Co-wives interviewed often expressed worry about division of chores between themselves and the alteration of the complex arrangements they have developed.

Mothers-in-law are valued for their experience and are often consulted before decisions are made regarding child birth. They, however, tend to think about the implication of their daughter in-laws’ expenses (for example given birth in a hospital) on their sons. They are also more likely to advocate costly care if there is a threat to their unborn grandchildren, and can support in various ways, such as taking their daughter in-laws to hospital for delivery.

Younger men that are employed and earning some income tend to view health problems of other members of the household in terms of the demand it places on them to demonstrate that they care and are responsible, unselfish children. It may also be viewed as also an opportunity to demonstrate success and connection, and compete with siblings on that basis. They may call on people within their network with specialist knowledge about the problem such as doctors, and by making their cars available to be used for the transport of other family members (PPFGD003; Young men - 30-45 years).

Younger women tend to experience the illness of family members as a source of additional domestic chores. This will generally involve taking over a share of the responsibility usually handled by the mother as a proportion of the mother's time is spent trying to help the indisposed person. In situations where the younger women are married, they may also feel pressure to make their husbands help out, often as a demonstration of their status in their households, as well as their husbands’ good nature and concern for her family. This can improve prestige and earn her status within her parents’ household.

The more affluent members of the society tend to worry and complain about the frequency with which family members, relatives and neighbours disturb them with their problems. There often is some expression of frustration, and they may feel unappreciated. They may feel that they are expected to help on every single occasion and that they will be criticised for declining, regardless of any help they may have rendered in the past. Their poor relatives however tend to show surprise and disgust towards their wealthier relatives, who they feel are refusing to help them when they are in need. The following conversation ensued between one of my interviewees (his child was ill and he did not have money to pay for transport to convey them to the health centre) and the *Magajin Gari* (MG) of Tudun Jukun who was present during the interview:

Respondent: No. at that time too there was no money even for the motorcycle [taxi]. So I phoned Alhaji (an honorific title for the rich indicating that they have been on Hajj to Mecca) Sani.

MG: Alhaji Sani PZ?

Respondent: Yes. I said, please help me with some money my child is here, and he is very ill. He said to me, why is it that when there is a problem that it always have to be him.

MG: What?

Respondent: Yes. And he cut off the call.

MG: And he is his relative

Respondent: He is [like] my son

MG: And he is wealthy, *Wallahi* (PP003; 61-70 years; Spiritual healer).

### What sources of knowledge are people using to help understand and address health problems?

This section will look at the wide variety of knowledge bases that residents draw upon to make sense of their experiences as they interpret health problems. It seeks to explain what was observed during the course of the study and to do so without privileging, or making judgements about, the validity of any particular knowledge base over others; thus valuing the participants’ experiences and understandings of the situation.

Peoples’ interpretation plays a crucial role in what actions they take to address it. In Tudun Jukun, as in most places, people widely understand that one can get diseases like mosquitos are involved in causing malaria. The actions they take to deal with these problems are generally as might be expected for example using bed nets to protect against malaria transmitting mosquitoes, and buying antimalarials or going to hospital when they come down with any of these illnesses. However, there are beliefs about the origin of some health problems and their proximate causes that vary considerably with the expectations common to other cultures.

People in Tudun Jukun draw from at least four different knowledge systems when describing their experience of health problems and these underlie the decisions and actions that they take in addressing the problems. Knowledgebase is a systematically coherent set of knowledge maintained across socially integrated set of agents and institutions ([David and Foray, 2002](#_ENREF_42)). The concept would be used interchangeably with knowledges, knowledge fields, and knowledge systems. These knowledge bases are biomedicine, traditional Hausa medicine, Islamic medicine and hearsay knowledge.

#### Biomedicine

Biomedicine has ‘reason' as a core concept as opposed to superstition or religion. It is built on the modern natural science paradigm; itself shaped by the seventeenth-century scientific ‘revolution’. The scientific method is a process “consisting of systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses” ([Stevenson, 2010](#_ENREF_175)). It is heavily influenced by ideas such as dualism (which is that matter is independent of and can be considered separately from ideation or mind), reductionism (complex entities are best understood by reference to fundamental building-block entities) and determinism (given an understanding of boundary conditions and laws governing the behaviour of the system's components, its future state can be predicted) ([Engel, 1977](#_ENREF_49)). These ideas provide biomedicine with strategic frameworks that dictate how health problems are approached.

In the ‘biomedical model', patients' reports of illness are taken to indicate the existence of a disease processes. This dictates a clinical method focused on identifying and treating standard disease entities. To this end, the patient's illness is reduced to a set of signs and symptoms which are investigated and interpreted within a positivist biomedical framework. Accurate diagnosis of the pathology permits selection of appropriate therapy that restores the diseased processes to (or near to) ‘normal', thus curing (or improving) the patient's illness ([Neighbour, 1987 cited in Mead and Bower, 2000](#_ENREF_106)). For example, when one of the participants’ daughters was suspected of having TB, the doctor tested to identify and prescribed medicine to rid her of the bacteria and therefore cure the disease. The problem is seen as separate from the individual affected; so also is the solution. The people in Tudun Jukun are in awe of achievements of biomedicine as this interviewee puts it “you know. The hospital is the mother of all. Since they can open up a person! And they can remove an illness from inside him” (PP003; 61-70 years; Spiritual healer). This underpins the practice of most of the actors, including PMVs, PHCs, Hospitals, and most aspects of practices within the home.

#### Islamic medicine

Islamic belief and Islamic medicine also significantly influence peoples’ interpretation of health problems. Central to Islamic medicine is a belief in the Qur'an (Islam's holy book, believed to be the direct words of Allah, recorded accurately and maintained in that form since the time of the prophet) and Hadiths (the reported practices and sayings of the prophet Mohammed). Based on this belief system, Muslims have a duty to care for the sick, and this was often referred to as "Medicine of the Prophet” ([al-Jawzīyah and Jauziyah, 2003](#_ENREF_6))." Several interviewees have cited a saying of the Prophet Mohammed, wherein he states, “Allah has sent a cure for every ailment”, and that it is the duty of Muslims to take care of the body and spirit, taking a more holistic approach to health.

Even though the Qur’an and practices of the prophet of Islam are source texts, beliefs and practices are highly variable due to differences in interpretation. Also beliefs are not static or universal, as they are increasingly adapted to time context. People using the Islamic perspective interpret health problems in a significantly different ways. For some interviewees these beliefs take precedence and are highly influential in considering what intervention is acceptable.

Examples of Islamic medical practices were provided in chapter 4

#### Traditional Hausa Medicine

A third category of practice is known as “traditional” Hausa medicine. This category involves the use of fresh or preserved plant: sometimes whole, sometimes just parts of plants such as root stem or root bark, leaves, seeds, flowers or fruits ([Adesina, 2007](#_ENREF_5)). Sometimes inorganic substances such as salt and alum are added to the plant. This combination of plant and inorganic substance is often consumed in different formulations: as a power, prepared by soaking or boiling in water, or in soup; to be topically applied as soaps, pastes, pomades or ointments; or to be inhaled as vapours from a steaming mixture or smoke from a fire, known in Hausa as *Turare* ([Wall, 1988](#_ENREF_190)).

During the pre-colonial era, different population groups that made up present day Nigeria had their traditional practices surrounding illnesses and afflictions. The traditional medicine-men held great influence with their communities, which sometimes went beyond their healing craft. Key community events were decided and performed under their leadership. Some traditional healers were able to perform complex procedures. For example, barber-doctors were a recognized specialist professional category among the Hausa as far back as 1800s ([Smith, 1954](#_ENREF_169)). The barber-doctors were responsible for some rituals during and around child birth, such as circumcision, as well as cutting off the uvula and parts of the female genitalia. Traditional bone-setters routinely performed reduction of bone fractures. Post-natal ablution was done as a rite of passage with near boiling water supervision by older women or traditional birth attendants. Most of these practices are still present alongside conventional medical practice, especially in poor areas such as Tudun Jukun. For example, one young mother was talking about how she managed the illness of her child:

“Yes, the truth is later on I treated him with home remedies, because since they gave him the injection the vomiting stopped, but after two days it returned. So I mix some home remedies that they call *tazargade* […] I then give it to him to drink; I get the relief from that. While I was busy trying to give him medicine for vomiting, I didn't know that he had measles that did not come out, and I didn't know, and this [traditional] Hausa medicine that I was giving him made the thing to come out. And Allah helped me it came to him mildly" (IP013; <30 years; Housewife). Another interviewee said: "yes, we get the traditional ones. We did traditional medicine a lot. We did traditional medicine we got; we got the one that we do for the children. They will say get *marke* (a particular tree), get *kajiji* (a type of spice), get garlic, get lime, get honey and then mix them” (IP005; 41-50 years; Housewife).

#### Hearsay Knowledge

These are knowledge often passed on across generations and between peers as they try-out and are pleased with results. As this interviewee said, "you will know medicines for children that can be used. Like you grow up with elders and they show you some things and when you yourself tried them out sometimes you are fortunate and you are happy with the outcome, then if later you see someone that comes with their child, you will tell them to look for so and so. You tell them I was told to use this and that, and I did, and it worked and I am happy, so try it too." (IP007; 41-50 years; Housewife)

In summary, there were at least four different sets of knowledge systems that people in Tudun Jukun seem to draw from in making sense of health problems, when implementing measures to address the problem, and in making sense of the results that they obtained. Different actors within the health systems landscapes draw on one or more of these knowledge bases as the underpinning reasoning behind their practice. These are biomedicine, Hausa medicine, Islamic medicine, and hearsay knowledge. As clarified above with differences in interpretation of a legitimate health problem, knowledge bases are not static, and influence each other and are influenced by other factors, creating a dynamic and complex system. Crossing over and overlap of knowledge and practices occur across different knowledge systems. In chapter 4 for example it was explained how traditional healers increasingly combine their practice with supplications and hospital treatment or pharmaceutical products and vice versa. However, there are knowledge bases that tend to be used for certain conditions. For example, mental health issues, convulsions and infertility are often associated with jinn therefore Islamic medicine is often the starting point and occasionally traditional medicine. Only when these two fail are hospitals considered. On the contrary, biomedicine tends to be given precedence for very acute conditions, when there is bleeding or physical injuries involved. In these cases, hospitals or health centres and therefore biomedicine is considered as the better suited knowledge systems.

### How do people interpret the consequences of health interventions chosen?

In addition to defining a legitimate health issue and the health systems landscapes that are better suited in dealing with the problem, the process of interpretation continues as participants make sense of the results of measures that have been taken. Whether the actions taken produced the expected results or not, what happens when they did not achieve the expected results, and if there are aspects of the health systems landscapes that are associated with better results have all been explained in chapter 4.

### How belief systems influence strategies

This last section shows how peoples’ interpretations shape the strategies participants utilise in dealing with health problems. This section will look at the interaction between belief systems and health systems. Peoples underlying ideas about how the world works tend to shape their thinking about all facets of life including health systems.

In Tudun Jukun, the majority of the peoples' worldview (including how they interpret, decide and act on health problems) is shaped by their interpretation of Islam. Within this, there are no clearly identifiable means of causation. Life can throw anything at you - any health issues or problems - and in an unpredictable manner. Adherents believe Allah is present in the ordinary affairs of life, and thus that a belief in and understanding of Allah will help them deal with this chaos. It was clear from statements from many of the interviewees that they believed that Allah is the only supreme God, and the ultimate cause of everything that happens, and that nothing happens that is not ultimately His will. Hence, there is always a caveat: *‘in Allah ya yarda’*, or the Arabic form *insha Allah*, which means if Allah permits. These beliefs provide the basis for defining what constitutes a health problem and what actions are possible and acceptable. They are also crucial in making sense of the outcome. These ideas are "lived and inhabited, aspired to, reached for, and consummated" ([Mahmood, 2005](#_ENREF_100)) while exercising agency throughout the trajectory of an illness. They apply both in relation to the self and to others, including Allah, who is considered to hold the ultimate agency in terms of causation, path and resolution of any health problem. Internalised Islamic values shape people's understanding of the health problems they face and constrain their individual and collective agency in addressing the problem. People are influenced by their desire to conform to the tenets of their beliefs which at times may conflict with other forms of motivation in relation to a specific health problem, such as freedom from pain, suffering or even death. However, any action that is considered contrary to their interpretation of the tenets of Islam often becomes unacceptable, irrespective of the degree of certainty of benefits derivable or harm that can be avoided from the perspective of health professionals.

Interestingly, the data includes some concessions regarding these beliefs. Some examples of inconsistencies that were observed include: certain services were favoured over others even though they should logically be treated equally, given religious tenets. Some people in the area accept some practices and others do not. For example, it seems generally acceptable to immunise a child to prevent measles but using contraceptives to limit family size is rejected, though both could be interpreted as interfering with Allah's exclusive authority.

There are a number of fundamental beliefs that influence perceptions about health problems and what can be done to address them thereby shaping the emergent health systems landscapes. One of these is the belief that illness and indeed all health problems are tests from Allah. For example, “it is a test from Allah. I have never had anything like that. You see. So now because it befalls me, it is not right to rush Allah” (IP014; 80+ years; Pensioner). Another crucial underlying logic is the view that Allah has set down the cure before ordaining any illness. Many interviewees make references to this directly, for example, "Allah has said that we should look for medicine and every illness that he sent down has its medicine, because he already sent down the medicine before he sent down the illness" (IP012; < 30 years; Housewife). A further widely held belief among respondents is that of the existence of other sentient beings. One of these is the jinn, “an intelligent spirit of lower rank than the angels, able to appear in human and animal forms and to possess humans” ([Stevenson, 2010, p. 941](#_ENREF_175)). Many interviewees made reference to jinn: “you know there are illnesses that are related to jinn. There are illnesses related to jinn that the hospital doesn't recognise" (PP003; 61-70 years; Spiritual healer). Finally, and possibility the most influential is the belief about the ultimate location of agency with Allah.

Regarding the location of agency, participants hold a strong view that ultimate agency for everything belongs to Allah. This contrast with scientific medicine, which relies on "efficient causation", that is, there are primary causes of change. A firm grasp of what these causes are, and how many kinds of causes there are, is essential for a successful science. In contrast, for the respondents of this study, the firm conviction that Allah is the only supreme God and the ultimate cause of everything that happens, and that nothing happens that is not ultimately His will, and since people are unable to read the mind of Allah, there is therefore no certainty about timing, nature or outcome of a health problem. As one interviewee states, "I don't know all that Allah is capable of. I don't know what Allah might do" (IP007; 41-50 years; Housewife) or as another interviewee puts it "you cannot haggle with Allah. If you said you are going to disagree with Allah then that will be the end of you" (IP014; 80+ years; Pensioner). Similarly, the outcome of any intervention aimed at addressing the problem also depends on Allah's leave and is, therefore, ultimately unpredictable.

This omnipresent agency of Allah was interpreted in at least three ways. First, Allah is the ultimate cause of everything including health problems. For example, "whatever happened to me it was Allah that allowed it to befall me, whether it is gain or loss; or health or illness… none can kill except Allah, and none can grant survival except Allah" (IP015; 61-70 years; Woman). Second, Allah ultimately determines the nature and the trajectory of events including health problems. This includes intervening on the trajectory of the health problem, i.e. whether it will deteriorate, stagnate or improve; influencing the decision process by directing the choices that will eventually be taken; and facilitating or preventing the achievement of the desired outcomes. Third, Allah as ultimately responsible for effecting the outcome of any action (not) done. Irrespective of the nature of the problem and the course of actions taken, the predominant view among participants appears to indicate that outcomes are ultimately decided by Allah. This dialogue ensued between an elderly woman (the respondent in the interview) and her brother in-law who cuts in during the interview:

“Brother In-law: Whatever medicine works only if Allah wills that it will work.

Interviewee: Only when Allah gives it the permission to work.

Brother in-law: A man is not supposed to say he treated something. It is Allah that gives relief through the person’s effort.

Interviewee: Yes, no doubt, it is Allah that brings the relief. That’s so.

Brother In-law: The *Sunna* (teachings of the prophet of Islam) is you try the medicine and leave the rest to Allah” (PP002; 61-70; Traditional birth attendant).

In addition to highlighting beliefs about the location of agency, this dialogue also demonstrated that the woman values the effort of the practitioner but her brother in-law tells her it all comes from Allah. This highlights the existence of 'cracks' in the dominant belief systems suggesting that gender differentials where the men might be using 'Islam' as a way to control women. This understanding may be crucial in building on traditional beliefs to enhance health outcomes.

## The decision-making processes

This is the process of deciding on a meaningful course of action given a number of options. It is not a one-off event but an ongoing process, along with interpretation and enabling to take advantage of services that exist. It is concerned with discerning the appropriate course of action, and the ongoing process of making decisions about if, what, where, and when a particular course of action will be taken. These may involve some form of assessment of options. It is also important to look at who is making the decision. Power relationships shaped by gender imbalance, wealth, and age play crucial roles in this decision-making process.

Generally, in Tudun Jukun, decisions tend to be deferred to men or the person that bears most of the financial responsibility as breadwinner. Personal factors that matter most include age, gender, social status (defined by income, social connections, reputation, established traditions) and the nature of the health problem. Individuals with networks that enable them to deal with transport, communication and funding needed to address the health problem have particular influence on strategies that are adopted. Various members of the household use different strategies to influence health decisions, such as subtle persuasion, nudging, or more forcefully controlling, instructing or making choices directly without consulting others.

The decision making process may take the form of negotiating and choosing between options. There are situations where the person directly affected by the health problem is involved in this process but in some situations the decision-making is controlled by others. In other situations, the index person may be given instructions on specific steps and actions to take without any consultation. As people interpret their experience they also weigh the options and possible actions that make sense to them. These actions range from – doing nothing; working within the home using a variety of knowledges to deal with the problem; or looking for other sources of help outside the home, either in Tudun Jukun or in other parts of Zaria city and beyond.

The decision making process is iterative, involving moving back and forth between interpretation, relating to knowledge to explain the condition, previous actions and experiences. In addition emotional closeness, dependence, evaluation, experimentation, information and tradition all contribute to the decision making process and will now be looked at in detail.

### Emotional Closeness

Emotional closeness or emotional support influences decision about where to seek help. People can feel emotionally close to both family members and people who work at health centres. The closeness may exist due to prior experience, or via networks of other family members. For example, talking about the reason why she went to a particular primary health centre located far away from Tudun Jukun this woman said: “for that one, at the time there was one of his [her husband’s] friends they call him Malam (an honorific title) Hassan […] it was because of Malam Hassan that we went to [PHC] Sabon Gari” (IP005; 41-50 years; Housewife). At that time Malam Hassan works at the PHC. People tend to turn to the sources of help they feel closest to them when problem arise. Even within family units, those with the closest family ties are called upon first. One participant was called on to care for a sick relative whenever such care was needed, despite living in a different house. She said: “you see, [they call on me] because it happened that my relationship with her is the closest” (IP005; 41-50 years; Housewife).

### Practical support

The existence of practical support, which is usually required, to navigate some complex health care setting to a certain degree influences decision about where to seek help. This type of support is sought-after for connecting people with providers in unfamiliar environments. People will often try to find someone they know who works there to accompany them and help with the navigation. Getting access to familiar people that work in big hospitals is considered a great asset. Indeed, this may be a deciding factor in people's choice of a health facility, sometimes regardless of where they believe they will receive better help. For example, when it was suggested to this participant to try a hospital that could help with his condition, he said "no because I know what it entails going there… it is just the fact that if you don't have anyone there then you are nobody. … they will say wait here we are coming, you may spend the whole day there and no one will see you" (IP014; 80+ years; Pensioner). A different interviewee said with respect to the same ‘big' hospital: "Yes of course, it is better to go with someone you know. If you go with someone that you know then you won't suffer" (IP009; 61-70 years; Pensioner). As a result, some participants may choose to visit a less preferred hospital even if they already know the smaller facility lacks the capacity to address their problems.

### Dependence

This is the degree of control the index participant has over the choice of measures to be taken to address a health problem. Often the participant that suffers the health problem or its consequences, who is also likely to be responsible for taking action to address their condition, may not be in control of decisions regarding choice of help or help-provider. There is a very strong pro-male gender imbalance within marriage regarding control of decisions in Tudun Jukun. Most women in the area are not engage in any income earning activities and therefore depend on their husbands in order to meet most of their everyday needs, including health care needs. As a result, often it is the men that make decision about whether or where to go for help even if they are not the ones directly affected or experiencing the consequences of the condition. In the following example, even though the mother knew that her daughter would have been helped in the hospital, she could not go because the “father was not well. He was at home lying down. He (doctor at PHC) said we should go to [the teaching hospitals at] Shika for them to admit us. But the person that will help us to go there is himself not well. We were struggling to get his health back, so if I carried her and took her there who is going to support me? The person that will support me is at home. And for me, that thought stopped me from taking her there" (IP007; 41-50 years; Housewife). In another example, a mother of a preterm baby explained: "yes, I preferred that they should have taken him there [to hospital be placed in the incubator]. I think if they had taken him there he would have been healthier now" (IP013; < 30 years; Housewife) but her husband refused.

### Evaluation

When deciding on a course of action, there are occasions where the interviewees appear to be weighing up options. Some of the factors that may be considered when evaluating different ways of addressing health problems by respondents are: the provider, convenience, money and the nature of the problem.

#### The Provider

Some providers may be seen as competent and get high patronage while others may be perceived as incompetent and therefore are avoided. For example, there is a particular PMV located within Tudun Jukun that enjoys very high patronage even though he has no professional medical training. People feel that he takes the time necessary to understand the problem and prescribe the right treatment. One interviewee described him as follows: "he doesn't give [any medicine] until he examines a person. […] when it is night, the people that go there, even women, not to mention men you will not find even a place to sit [because of the crowd]" (IP008; 80+ years; Pensioner). Another interviewee said this about the same PMV: "People prefer him, they say his medicine is better [than other PMVs']" (IP013; < 30 years; Housewife).

#### Convenience

The absence of efficient public transport systems in Zaria or facilities at the hospitals to cater for the basic needs of a hospitalised person, such as hot water and food may make certain choices unattractive or even unrealisable. In the following example, a decision was being made about taking a young woman in labour to the hospital, and her mother in-law was concerned about the difficulties that would create. Or, as the interviewee puts it: “she is worried about the responsibilities involved in going to the hospital, the going and coming….. take hot water [from here to] there, take food, get a car, and so many other things. That's what she is talking about" (IP015; 61-70 years; older woman). The distance and the complexity of arranging transport makes it especially difficult for participants to go to the teaching hospital located about 9 miles away from Tudun Jukun. "You see when ABU was here no matter how late when we see a problem affecting a child we will just go there. But now if a problem occurs, sometimes before you even get to Shika it is an enormous task" (IP007; 41-50 years; Housewife).

#### Money

 “Everything depends on money” (IP004; 51-60 years; Builder): Cost or the lack of money to pay for services limited options for most people. This is especially true for hospitals (public, private or faith-based) as a category within the health systems landscapes of the area, because they charge higher fees and “because you see if you go there whatever they say [the cost is], you cannot negotiate” (IP004; 51-60 years; Builder). Consequently, non-hospital options that are less preferred are chosen. As the same interviewee puts it: “but if to say there was no want, the hospital one is better […] those that have the money they will go there and have it treated in no time” (IP004; 51-60 years; Builder). Consequently, gratis options are highly sought-after, even if they are located far away from Tudun Jukun itself: “Yes, if you take your child there and they write the medicine, if it is three different medicines then they will give you one for free… That is why you will see lots of women there. At the time all the [women] here in Tudun Jukun you will see them there. And if Allah help you the medicine is not expensive you can get all the three. That was why we go there.” (IP005; 41-50 years; Housewife). Many other interviewees with children have talked about this free medicine as a reason for going to this particular PHC even though it is located in another part of the town.

#### The nature of the problem

For certain conditions, people universally select a particular service without hesitation because the choice is obvious. Conditions that involve blood loss, for example, are quickly rushed to hospital with little consideration given to the other providers within the health systems landscape. When this interviewee suffered an open fracture as a result of building collapsing on his legs, he was immediately rushed to the accident and emergency unit of a hospital. They would have considered a traditional bonesetter if the injury were a simple fracture, as he explained: "well it is a must. It is clear already that (hospital) is where we will go directly […] anyone that sees that injury will say [so], no one will say or listen to traditional bone setting” (IP004; 51-60 years; Builder).

People will universally react if there is profuse bleeding during pregnancy by rushing the woman immediately to accident and emergency: "everyone that was there became very alarmed. So they called my husband on the phone, and he came with a car there, and they took me to ABU [teaching hospital]" (IP015; 61-70 years; Woman).

Even though many prefer home childbirth to hospital birth, when something unusual such as preterm birth is observed people tend to consider hospitals before any other option. "So you heard, in her case that was the reason she was born in the hospital. I was the one that said they should take me to the hospital because she has not reached the [normal] time that she should be delivered. And when she was born, she was tiny" (IP015; 61-70 years; Woman).There is also agreement on action for prolonged labour: "when the labour becomes prolonged and is extended and after waiting for a long time you have not delivered then they will say let's go to the hospital" (IP015; 61-70 years; Woman).

### Experimentation

Sometimes those affected here seem to try any option they become aware of that may potentially solve the problem. This is very common with chronic intractable conditions where people are not very familiar with the nature of the disease. For example, "some when you keep applying you will start seeing as if you will get the relief and … you see it didn't work then you hear about another place where others are getting relief and so on and so on. Then you try that one as well. It is just like hospital, when they are treating you and see that it is not working they will change another one for you" (IP004; 51-60 years; Builder). Another interviewee said “we just mix everything… [People] are looking for anything that will bring ease. Isn’t it?” (IP005; 41-50; Housewife). A different interviewee said: "It was because I heard about this one that I decided that was the proper place to go. And that was it, so we went there. And *Alhamdulillah* we too got the result that we sought” (IP012; 51-60 years; Butcher).

### Information

Sometimes the necessary information or lack of it about opening or closing times or when a particular provider can be found was also crucial in the decision making process. On a Sunday, this interviewee, for example, went to a hospital that she frequently takes her child to and found that they were not open, so she ended up taking the child to a PMV. As she said: "I went to [pause]. At that time, it was on a Sunday, and there was no hospital, so, I took her to Bako Zuntu Street, that big chemist there" (IP007; 41-50 years; Housewife). On another occasion, the same interviewee did not meet the doctor that she regularly sees because she was late and therefore she had to take the child to another place. As she explained: "if I go there probably [Dr] Umar had already closed his place. So as soon as I set out I just headed to that hospital" (IP007; 41-50 years; Housewife). A different interviewee returned for a follow-up without knowing that the entire hospital is relocating, so she decided to get her reading glasses from traders instead. "I went back and told them and they said I should come with the glasses. That was when ABU was still here (at Tudun Wada). That I should come with glasses. I said okay. And on the day I took the glasses I found them all in a state of confusion, they were packing to relocate to Shika. They were packing everything from that hospital. There are no any doctors there. I said [to myself] that’s alright. Since they have already given me the number for the glasses, I just went and bought it from traders” (IP015; 61-70 years; Woman). The other interviewee was not aware that a hospital they previously patronise when their children are ill but have relocated to a new site still offers the same services as she explained: “when ABU moved to Shika, we didn’t know that they still see children there” (IP007; 41-50 years; Housewife).

### Tradition

Historical patterns of use and the way individuals have been socialised to accept practices were crucial in shaping the decision in subsequent illnesses or health problems. For example, this interviewee talking about her preference for home birth said, "I don’t want to even hear hospital being mentioned at all." (IP002; 61-70 years; Housewife), while another said that although “delivery in the hospital is not really a big problem … people prefer to give birth at home" (IP015; 61-70 years; Woman).

## Enabling

These are factors that enable preferences such as Transport and communication, assistance, permission and money.

### Transport and Communication

Transport and communication are essential in order to link the person directly suffering the health problem and those that have the specialist knowledge and skill, or products. People with cars can use them as the means for creating the necessary link with providers but these are very few. Transport is often sought from people who have the connections and knowledge to get the person affected to see specialists in the particular area of need. They can arrange for the specialist to either visit or be visited at their private hospitals. One participant talked about how her sons that would make this type of arrangement when her symptoms worsen: "then this boy, my son he carried me and took me to hospital ... in a car to Danbauchi's hospital (a private hospital own by a cardiology specialist physician), he registered and opened a file for [me there]” (IP001; 80+ years; Woman).

Another essential link to help-providers is communication. The telephone is a crucial means for making this link: "then everyone that was there became very alarmed. So after that they called my husband on the phone, and he came with a car there, and they took me to ABU [teaching hospital] here" (IP015; 61-70 years; Older woman).

For the majority of poor families without any family member that owns a car, there is no functional public or hospital transport system. Hence, they generally rely on motorcycle taxis as the primary means of transport. For these families, the motorcycle taxi operators are crucial enablers of action to deal with health problems. One interviewee who needed transport to hospital for regular dressing of his fracture wounds said: "you see from here I have to board a motorcycle [taxi]. And anytime I am going I can't go alone: I have to go with someone, so I have to get two motorcycles. I will pay the motorcycle [taxi] when we are going and pay for us to return. At least anytime we go I have to spend N200 (~ 80p)" (IP004; 51-60 years; Builder).

### Assistance

Assistance consists of being accompanied by a member of the household, or helping out with the index person’s other responsibilities at home. For several reasons, this function is widespread and in some situations crucial to enabling the preferred intervention to be implemented. The assistance could be in the forms. Children or elderly family members are often accompanied by other family members when they are going to a hospital, private diagnostic centre or other kinds of providers. The reasons for these are many. For example, cultural norms where women especially are available for these types of roles as men are expected to be working and earning to support the household. Additionally, language differences with providers (English is the dominant language in most formal health care settings) may create communication barrier which most children and the elderly will find it difficult to navigate.

Another aspect of assistance is where a family member of close relative comes to stay with the index participant so she could assist with the domestic work whilst she recovered from childbirth: "the elder sister of my father is the one that will stay with me until I give birth. She will wait until I give birth… seven days you are in [the] room. Everything will be done for you. [All you do is] ask. You will be given your food. You don't cook. Your laundry is done for you" (IP002; 61-70; Housewife).

Hospitals take advantage of this phenomenon to complement nursing care, especially with manpower shortages prevalent in this part of the world. Family members especially mothers are often co-opted into assisting with nursing care in hospitals as described in Chapter 4. Assistance is also provided in running errands for the index person. Buying prescribed medications in the shop is often done by children and occasionally by women.

### Permission

Another crucial aspect of enabling is that of getting permission to access certain interventions. This is often observed in the patriarchal relationship within marriage, where women have to ask permission from their husbands to go out, even if they needed to seek health care for themselves or their children. Furthermore, for some procedures, especially reproductive health matters, the permission of the husband is demanded by health professionals themselves, before they will go ahead with the procedure, regardless of the woman's opinions or any medical confidentiality principles. Permission is also required from parents where surgery is to be performed on a minor. Still, even here the adult women will have to seek permission from their husband to visit a hospital or undergo certain interventions, especially reproductive health ones. When one interviewee suffered life-threatening bleeding during pregnancy, she requested a permanent contraception at the hospital where she was treated. "They said, okay we are going to reverse your womb [surgical contraception], and I said okay, when my husband comes I am going to talk to him. And they said okay, that is a good thing. That is a good thing... When he left, he took my file and said, you said we should reverse your womb? I said yes, but until my husband agrees. […] initially, he refused, my husband, that they should not turn it. And I was telling Allah not to give me another birth." (IP015; 61-70 years; Older woman). In other cases, permission will not be sought even though it is the norm. For example, Nafisa recalled sneaking to take her child to the hospital against her husband's wishes, or to her father's house for vaccination, knowing that her husband's family are against it.

### Money

Money influences what strategies were eventually utilised. As already explained above, individual- or household’s wealth contributes to the shaping of the experience of health problem. It was further highlighted earlier in this chapter that money was also crucial in deciding about which services to opt for. Similarly, it was found that money plays an important role in enabling people to access the choices that they have decided upon. This section focuses on instances where money was important in enabling use of the preferred options from the health systems landscapes.

Households within Tudun Jukun – specifically the household head or breadwinner - are almost exclusively responsible for the financing of health and all other needs. As this young mother explained to the attending doctor when she was told her child’s condition was severe, and she needs to be admitted to the hospital. She said: "Okay I will go and tell the head of the house (my husband). I said truly we don't have money. So, one female doctor there, they call her… what is that her name? Dr. Makarfi. She said the money for hospital care are not saved they come out when the need arises" (IP005; 41-50 years; Housewife).

Sometimes doctors’ instructions especially expensive tests are deferred until they can mobilise enough money from family members. For example, the young mother above explained: "So, I went, and they put all the bills and then I came back. They sum up the money, and it turned out to be N1550 (~£6). That's for the entire test and the imaging. And I came and gave it to the head of the household like that, and they couldn't get it on that day until two days after. When they got that money I went, I went and did the thing; I did those tests. When I had the test and finish, and I went and took the result to them. So that's it. But the problem is just… like money; it is the problem of life now" (IP005; 41-50 years; Housewife).

With falling economic standards, most household heads are finding it harder and harder to afford health. Sometimes women step in to support, especially when they or their children are directly affected and the man is not keen or unwilling to fund. As this interviewee explained about events related to an old man in a neighbouring household: "He [the old man] was taken all over the place and the boys have given up hope … they said he is going to die, and one of his daughters sold everything she has … and took him to Shika. By Allah, this man is still here, alive!" (IP005; 41-50 years; Housewife). Sometimes younger women that are married and their husbands are better-off also come to the aid of their parent when in need, "I said truly we don't have money. …I was upset ... and my girl said no problem if my father comes I will call [pause] I will use his phone and call my husband in Kano... She said she was going to tell her husband to help out with the money so the girl can be taken to hospital… So, she used her father's telephone, and she called. She said it's fine; they are going to bring us money, N5000 (£20). We should go to the hospital. And that was it. I got ready and went, and they gave us a bed" (IP005; 41-50 years; Housewife).

Older children with education or whose trades or businesses are doing better are increasingly bearing this responsibility for their immediate families and those of their parents. They are also increasingly influencing the choice of actions taken. Increasingly, the wealthy child owns his car and has contacts with people that can help. They use their car to convey the sick and the others that are accompanying the sick to hospital, where they may already have contacts.

People often have to prepay before they are provided with any services, even in government-owned hospitals. Often this is not possible for the poorest, most vulnerable households. As a result, the financing approaches that families adopt are crucial determinants of the strategies sought to improve health.

To summarise, in Tudun Jukun, the household unit almost exclusively takes care of financing of any strategy adopted to deal with a problem. Men are seen as husbands and fathers and also expected to finance themselves. Boys are seen as sons, wards, husbands, in-laws and again expected to take care of themselves financially. Young men are increasingly responsible for this role as compared to the older men in a household because of the shifts in the nature of production, which have increased younger people’s relative earning power, spurred by a change from a farming based economy to more urban type employment in the mainly low-paid services sector. As younger people’s earning power increases, so does their influence in deciding the course of action taken over health issues. Women as index sufferers or mothers of index sufferers also tend to bear the cost of care when the men are unable or unwilling to pay.

## How the health systems work in Tudun Jukun

Drawing on the CMO analysis (see table 5-x below), there were at least four (4) different contextual features that are driving decisions and actions to address health issues in the Tudun Jukun. These are the plural health systems landscape, the different manifestations of state fragility (absence of an accountable authority) (both explained in chapter 4), the social structure of the Tudun Jukun society, the economic realities of the people (high levels of poverty), and the nature of the problems that people are dealing with.

Table 5‑1 Details of specific incidents and how different circumstances are resulting in different outcome

|  |  |  |  |
| --- | --- | --- | --- |
| Incident | Context | Mechanisms | Outcomes |
| Early marriage for girls | **Social norms** - Male dominant gender norms | Disagrees and avoids the social norm | Relocated to the city and married at a later age  |
| Preterm drainage of birth water | **Nature of the problem** – “difficult” pregnancy**Governance** – abusive and disrespectful midwives at hospitals**Neglect** - lack of maternity services at the local PHC**Economic realities** – cannot afford hospital delivery  | Confidence in hospitals’ abilities to address difficult pregnanciesAvoids embarrassment from hospital staffHas no confidence in local PHCAvoids unaffordable cost | Went to the house of a female doctor that lives in the neighbourhood who attended to her informally  |
| Uncertainty about pregnancy  | **Nature of the problem** – uncertainty about pregnancy outcome**Governance** – abusive and disrespectful midwives at hospitals**Social norms** - beliefs about women fertility and reproduction**Social norms** – respect for elders | Agreeing with and obeying social normsAvoids abuse and disrespect by concealing number of previous birthsConfidence in hospitals’ ability to address uncertain pregnancy outcomesAngry with midwives’ disobeying social norms of respect for elders | Attends for antenatal care for all her pregnancies but would refuse to divulge the true number (14) of her previous births (she usually tell the health workers halve the number of previous births that she has had instead) |
| Multiple home births | **Social norms** – safeguarding individual and family honour around privacy of intimate body parts**Governance** – abusive and disrespectful midwives at hospitals | Agreeing with and obeying social normsAvoiding abuse and disrespect | Unsupervised birth at home  |
| Uncertainty about pregnancy | **Nature of the problem** – uncertainty about pregnancy outcome**Governance** – abusive and disrespectful midwives at hospitals | Confidence in hospitals’ ability to address uncertain pregnancy outcomesAvoids abuse and disrespect by making sure she registers in case difficulties occur later  | Register pregnancy at a hospital just in case |
| *Basir* (bleeding haemorrhoids) | **Nature of the problem** – profuse bleeding  | Confidence in hospitals’ ability to address problems with bleeding  | Taken to hospital  |
| Generalised body and stomach pains | **Governance** – poor quality of services (failed to diagnose and solve the problem after several attempts at hospitals)  | resigning to fate | doing nothing  |
| Open fracture | **Nature of the problem** – open fracture **Economic realities** – unable to pay for hospital care after financing withdrawn by patronPluralism – existence of traditional bone-setters | Confidence in the ability of the A&E at the hospital to be able to fix open fractures Loss of financial support from the patron Improvise with traditional bone-setter | Taken to hospital A&ECalled traditional bone-setter who came and apply splint at home  |
| Cough (child) | **Social norms** - Male dominant gender norms **Economic realities** – husband not affording admission at hospital **Governance** - lax regulation 🡪 availability and use of leftover medication also health professionals deal with respondents in a patronising way | Obeying social norms and anxiety about wellbeing of the child Anxiety over the ability of the husband to pay for admission Trusting co-wife by accepting her help with leftover medicinesAvoids abuse and disrespect from health professionals | Gave child leftover medicine before deciding to take the child to hospital when the medicine did not workdelay in going to the teaching hospital for admission as advised at the PHCtaking the child to the hospital for admission and treatment when money was provided by son in-lawNot returning to hospital after one of "the strongest" of the medicine was spilled because of fear the reaction of the health worker |
| Frequent death of children | **Social norms** - Male dominant gender norms (mother not having her own income)**Economic realities** - low husband's income in the past contributed to poor health behaviours and as husband's income improves over time they are better able to utilise hospital services, advice and also have better nutrition | Obeying social norms avoiding incurring cost for husband when income was poorConfidence in advice and services offered by hospitals | cooks better food, take children for vaccination to hospital and attend ANC |
| Hypertension and diabetes | **Social norms** – respect for elders (son’s friend owner of PMV attending to his needs at home)**Economic realities** – sons that are well connected and financial better off arranging care**Pluralism** – availability of PMV to provide care at home  | pro-social values of reciprocity between friendsson and their friend (PMV owner) obeying social norms - obeying elders | visited regularly at home by PMV (friends with his children) that lives and runs his shop in the neighbourhood to provide health checks and prescriptions  |
| mental health issue in a child | **Nature of the problem** – mental health problem **Pluralism** - Mental health problem as oppose to physical health problem (tends to be seen from a different underlying perspective where biomedical knowledge system is considered to be poor at dealing with compared to other knowledge systems). Availability of a well-regarded alternative **Neglect** – mental health neglected by relevant authorities  | Confidence in traditional herbal medicine for mental health problemLack of confidence with hospital in addressing mental health problems  | Traditional Hausa herbal medicine for mental health condition and PMV medicines for physical health symptoms  |
| Refuse | **Neglect** – refuse collection in this area is neglected by the responsible authority | resigning and feeling disempowered to do anything  | doing nothing - not clearing up the refuse and not advocating against it |
| Vomiting and stomach ache | **Absence of an accountable authority** – no support with reliable public transport, payment arrangements or information system | Anxiety over consequences of the illness and ability of the children to arrange transport, get information about suitable treatment and pay.  | taken to a private hospital where he was admitted and receive treatment for the condition |
| Awon hakori (teething)  | **Social norms** - respect for elders (advise of older women) **Social norms** - male dominant gender norms (respect the preferences of her husband)**Pluralism** - Availability of a well-regarded alternative  | Anxiety about the health of the child getting worse and obeying social norms initially but later disagreeing (secretly) with the norms of her in-laws household because of Confidence in the hospitals’ ability to deal with the problem  | Prepared herbs at home and gave them to the child and as the problem did not improve decided and took the child to the hospital without the knowledge of her husband or the women (this will be difficult if she had to go to a hospital outside the neighbourhood as it will take some time raise suspicion - she had also taken advantage of when she is visiting her parent to also take the children to receive health care) |
| Premature birth | **Absence of an accountable authority** - a neglected neighbourhood in siting maternity services**Social norms** - living in a multigenerational residence and expected to respect the advice of husband and older women | anxiety about first labour especially coming before termobeying social norms of complying with the wishes of her husband and older womenability to call on a nurse that lives in the neighbourhood  | gaves birth at home, a nurse was called upon to come and help at home - after initially going to the PHC TJ who failed to diagnose labour  |
| Progressive loss of power in legs and hands | **Governance/pluralism** - lax regulation around nature of medical practice allowing frequent informal care/prescription | Confidence in the ability of the visiting doctors to address the problem and didn't feel that going to hospital will make any difference or better results can be achieved elsewhere | a doctor that lives in the areas pays him regular visit to assess and prescribe medicines for him |
| Dizziness | **Governance** – poor quality of diagnostics - failure of the different hospitals to solve the presenting problemEconomic realities - availability of care through husband's employer | anxiety about the illness (preventing her from reading especially the Quran) and the hope that one of the hospitals may be able to address the problem | been to different hospitals and trying many different options |
| place of birth (daughter in-law) | **Nature of the problem** – pregnancy in a young inexperienced mother **Social norms** – safeguarding individual and family honour around privacy of intimate body parts**Social norms** - living in a multigenerational residence and expected to respect the advice of husband and older women **Absence of an accountable authority** – no support with reliable public transport, payment arrangements or information system**Pluralism** – availability of informal care from a local midwife | Anxiety about the outcome considering lack of experience of the young mother anxiety about the possibility of losing the new-born A compromise since they were unable to go to hospital was to at least have a nurse present  | a local nurse conducted the delivery at home even though hospital delivery was planned by mother in-law |
| place of birth (self) | **Nature of the problem** – vastly experienced mother but under an unusual circumstance "it was seven months and I was feeling that I was going to give birth."**Social norms** – safeguarding individual and family honour around privacy of intimate body parts**Governance** - hospitals in the area not sensitive to cultural values | feels hospitals are helpful in assessing and helping with wellbeing of the unborn childresisting some of the hospital procedures that she feels are not acceptable | Delivered on her own despite being in a hospital delivery suite (refused to call attention of midwife when the urge to push comes as she believed her labour was going on fine and doesn't agree with their procedure). "my body is opening fine". |
| place of birth (daughter in-law) | **Nature of the problem** – pregnancy in a young inexperienced mother **Social norms** – safeguarding individual and family honour around privacy of intimate body parts**Social norms** - living in a multigenerational residence and expected to respect the advice of husband and older women **Absence of an accountable authority** – no support with reliable public transport, payment arrangements or information system**Pluralism** – availability of informal care from a local midwife**Economic** - mothers in-law worried about the cost of hospital delivery on their sons  | Confidence in hospitals ability to address problem deliveries in this instance a young, "modern" and inexperience mother and pretermconfidence in the ability of local midwife’s help at home as a good compromise | a nurse was called and she came and assisted with the delivery at home |
| birth tear during home delivery | **Pluralism** - able to afford the stitching by the midwife but considered it inferior to the norm of using herbs , the norm of applying traditional medical practices for these types of conditions**Social norms** - living in a multigenerational residence and expected to respect the advice of husband and older women  | Confidence in the traditional way of dealing with the problem and do what is normally done in this circumstance  | refused stitching offered by the nurse attending the delivery at home and opt for home treatment applying traditional herbs for sitz-baths |
| difficulties in later births | **Social norms** - beliefs about women fertility and reproduction (continuing to give birth until it stops naturally as it is believed that "a woman has to expel all the eggs she swallowed").**Social norms** - male dominant gender norms (respect the preferences of her husband) | Obeying social norms around women fertility and obedience to husband’s wishes and not go for a permanent contraception. | Did not go for hysterectomy despite her initial intentions because her husband did not permit her to do it |
| where to nurse a preterm baby | **Governance and absence of support** – complicated access procedures at hospitals which result in very “user”-unfriendly services often resulted in seeking professional help informally. **Economic** - mothers in-law worried about the cost of hospital incubator care on their sons**Pluralism** - availability of informal expert advice from a nurse (a low cost option than going to the hospital) | Anxiety over losing a grandson (for the grandmother) - a compromise is to receive advice from the nurse as even though they would want to go to hospital those contextual factors prevents them.Worry about paying for hospital care, arranging complex logistics necessary to be able to stay in the hospital on admission  | Nursed at home. Mother in-law apply advice from a nurse on how to keep the prem warm and how to feed the baby |
| Bleeding profusely | **Nature of the problem** – profuse bleeding (an understanding that hospitals good at dealing with bleeding)**Absence of an accountable authority** – no support with reliable public transport, payment arrangements or information system**Governance** - health professionals deal with respondents in a patronising way | anxiety about whether she will survive and confidence in hospitals’ ability to deal with bleedinghusband able to arrange initial transport to A&Efeels that the health professionals are patronising by not including her in the decisions about her care  | husband called to arrange transport to A&EEventually had a stillbirth on her own even though inside a hospital unit  |

The following section will explicate the key mechanisms generated by the four contextual features relevant to generating the different patterns of use of the variety of resources within the plural health systems landscape of Tudun Jukun.

### Mechanisms

The mechanisms at work in generating the different patterns of use of the multiple resources within the plural health systems landscape of Tudun Jukun (the observed outcomes) can be considered under two broad categories:

**Anxieties:** these are generated by the health problem or the material and emotional costs associated with the use of the different alternatives available within the health systems landscape. The anxieties related to the health problem include future adverse consequences of the condition such as birth complications, losing a pregnancy or child, lack of improvement, deterioration of the condition or even death. They may also be around worries of unknown, difficult or unfamiliar conditions such as preterm drainage of birth fluid; preterm labour; or first pregnancy. The second set of anxieties are unpleasant experiences that may occur in trying to implement decisions and actions to address the problem such as disrespect and abuse from health workers; conflict with husbands and other community elders; complicated tasks of arranging supply of food, hot water and other essential items for those in admission in hospitals.

**Attitudes and behaviours:** this set of mechanisms comes into play to facilitate, modify or hinder the selected decision or course of action. They include:

* obeying, resisting or avoiding social norms and practices that may or may not be considered as acceptable in working to address the problem;
* trust and confidence or distrust and lack of confidence in a particular way of addressing the problem; and
* improvising or compromising between none ideal choices.

These different mechanisms are triggered by a variety of contextual features in Tudun Jukun and produce different outcomes. In some instances one mechanism triggered by a contextual element may dominate, making it easily recognisable how decisions and actions are taken to deal with a problem. For example, individuals with profuse bleeding or open fracture will go to hospital, whilst mental health problems are treated by applying traditional Hausa or Islamic medicine. However, often a combination of contextual elements, each triggering different mechanisms, come into play in an incident making it difficult to recognise the dominant mechanisms.

In Tudun Jukun, this second type of scenario is often encountered when the decision and action taken to address the problem are not in line with the individuals’ or families’ views of the ideal solution (i.e. there are contentions between the underlying interpretation of the problem and the course of action taken). For example, in the incident about preterm drainage of birth water, there are at least four contextual features that were relevant. The first being the nature of the problem itself, that the drainage of water is considered to be a “difficult” pregnancy therefore hospital- instead of home-birth becomes the preferred choice. The second contextual feature is the abusive and disrespectful treatment by midwives in hospitals, which made the women want to avoid embarrassment at hospitals. The third one is the lack of maternity services at the PHC located in Tudun Jukun and the fourth is the inability to afford hospital delivery. The combination of these different contextual features resulted in her going to the house of a female doctor that lives in the neighbourhood who attended to her informally.

## Summary

In this chapter, it was shown that there are four broad processes that are happening concurrently or sequentially during the course of a health problem from the onset to resolution (Fig 5.1). These processes are interpretation, decision-making, enabling and provision. Different actors within the health systems landscape are involved in one or more of these processes. The performing of these processes by different sets of actors within the study setting are in part responsible for reproducing the emergent and continuously changing pluralistic health systems of the place.

It is important to note that interpretation permeates all processes of finding solution to health problems. It involves defining a legitimate health problem and identifying the corresponding health systems landscapes that will be prioritised in addressing the problem. This is a crucial starting point for any conceptualisation of health systems. The results presented here indicate that the definition of health is context specific and shaped by beliefs, cultures, norms, values as well as power relations. These definitions sometimes overlap and sometimes vary with the dominant health professionals’ definitions of health issues. As social arrangements for dealing with health issues therefore the boundaries of health systems also vary with context. As definitions of health are not static therefore health systems are emergent and continuously changing. Respondents draw on their frames of reference about how the world works and different knowledge sets that correspond with the particular health problem in selecting actions, within the health systems landscapes, that are possible and acceptable as well as in making sense of the results that the obtained. Moreover, interpretation is shaped by the social role, especially gender, each individual affected by the problem occupy in the society. It is interesting to note that power relationships defined by gender and socioeconomic status structure the control, generation, custody and distribution of the different knowledge systems and therefore access to the different health systems landscapes that such knowledge underpins. It appears that in Tudun Jukun, gender roles (most especially) shape the experience of the health problem as well as the actions that are taken to address them

The health systems landscapes are themselves underpinned by different knowledge sets. There are at least four different knowledge systems that people in Tudun Jukun seem to draw from in making sense of health problems, when taking actions to address the problem, and in making sense of the results that they obtained. These are biomedicine, Hausa medicine, Islamic medicine, and hearsay knowledge. Furthermore, it was shown that, there are varieties of underlying relationships that govern the interaction between different actors within health systems - these are family ties, marriage, friendship, and market relationships It was shown for example, that the home draws on all the four knowledge-bases in Tudun Jukun (biomedicine, Hausa, Islamic and hearsay) and different relationships types (family, marriage, friendship and even market ties) at various stages along the trajectory of a health problem from the onset to the end. Conversely, hospitals are mainly involved, for the most part, in provision of services and drawing one knowledgebase (biomedical) and its relationship with the people tend to be that of a market in nature as people pay for services even in government owned hospitals.

It was further shown that, in conjunction with interpretation individuals are also deciding on a meaningful course of action given a number of options within the health systems landscapes. The decision-making process is iterative, involving moving back and forth between interpretation, relating to knowledge to explain the condition, previous actions and experiences. Having decided on where to seek help, the use of some of the health systems landscapes would require fulfilling some necessary conditions before such choices can be actualise. These include assistances, permission or money to pay for the services as well as transport and communication to link with the selected provider.

This chapter also explained the different mechanisms generated by the four contextual features and how these mechanisms are leading to the different patterns of use of the variety of resources within the plural health systems landscape of Tudun Jukun. It was shown that for some health problems the dominant mechanisms are easily recognisable in how particular outcomes are produced in terms of decisions and actions taken to deal with a problem. For example, profuse bleeding and open fracture go to hospital. While mental health problems are treated by applying traditional Hausa or Islamic medicine. But for most health problems observed there are interactions between different contextual elements generating multiple mechanisms and depending on which contextual factor exerts the most influence then a compromise between none ideal choices may be the final outcome.

The next chapter will bring together the findings from this and the previous chapter, discussing the findings in relation to existing literature and how this study has advanced the conceptualisation of health systems.

# Chapter 6: Discussion and Conclusions

## Introduction

In this chapter, the main findings of this thesis are summarised and discussed; the implications and more general conclusions are explored; the strengths and limitations of the study are considered; and suggestions for further research into conceptualisation of health systems are presented. The chapter concludes with recommendations for national and global health systems policy and practice as well as health systems research.

Figure 6‑1 Characteristics of health systems in urban in formal settings



A key characteristic of the health systems in Tudun Jukun (as represented in the diagram above – Figure 6-1) is the plural landscape in terms of variety and nature of different resources and settings that people in the area exploit as they work to address health issues – this is better captured by the concept pluralism. There are different elements to pluralism in this setting in which people are dealing with different health problems in a complex negotiation process of selecting between different alternatives. These negotiation processes are constrained by a number of contextual elements. These include: the different understandings and representations of the problem and the multiple ways of addressing the problem; the social norms and values that structure relationships in the area; the economic realities of the people who are mostly poor and therefore may not afford options that they consider appropriate in a given circumstance; and the “fragile” setting due to the weakness or absence of accountable authority to deal with health and indeed other social issues affecting people in the area in which even formal hospital services may not behave as in other more stable societies. These important interrelated contextual features generate different mechanisms leading to the different outcomes in terms of decisions and actions about which solution to choose when dealing with a health problem within this plural landscape.

The mechanisms that have been identified as the way in which these different contextual elements lead to selection of one provider or the other within the plural landscape fall within two broad categories. First, there are individual level anxieties about the health problems and their consequences that are driving evasive actions towards these adverse consequences. Second, there are attitudes and behaviours that facilitate, modify or hinder decisions and actions in deference to the socioeconomic and political contexts mentioned above. There are at least two distinct patterns observable in the way these mechanisms and the context interact to produce the different ways in health problems are addressed. The first, which is relatively less common, is where there is a clear cut alignment between the representation of the problem, the relevant contextual elements and the actions taken to address it. For example, normal pregnancies delivered at home. In this type of circumstance, the representation of the pregnancy as “normal” as oppose to “difficult” and the societal norms about privacy of the mother align to favour homebirth instead of hospital birth. The second scenario which tends to predominate, is where representations of the problem may favour solutions that are in conflict with other contextual elements of the area leading to using a different service or a comprise between two none ideal choices.

Overall, the chapter illustrates that the findings of this research, as detailed in Chapters 4 and 5, suggest a number of key learning points about health systems. Not only do the findings in Chapters 4 and 5 suggest that people’s beliefs and social position are crucial in defining health issues and shaping health systems, but also that people draw on different knowledge systems in understanding and addressing health issues and that people apply a wide variety of strategies within plural health systems in trying to solve health problems, indicating that there are multiple types of underlying relationships that govern the interaction between different actors within the health systems. The chapter also draws out the key point that, in urban, informal and somewhat ‘fragile’ settings such as Tudun Jukun, there are only limited citizen-state relationships within the health systems. In these settings, there are clear patterns in the way people seek health and these processes are in informal settings responsible for the most part for generating the existent health systems landscape. Of particular importance, are people’s underlying beliefs about how the world works and other barriers and facilitators of access to health services; these are crucial in shaping health systems. It has also been clear that health systems serve a multiplicity of purposes and that in a given setting such as Tudun Jukun, health systems are shaped fundamentally by the smallest basic unit capable of collective action and political accountability on health issues – which here has been the home. Finally, it seems clear that defining health systems by starting from how they are already in use in particular contexts gives us a different understanding of how the social world interacts with institutions to produce ‘real’ health systems.

These findings will now be explored in greater detail and the significance of the findings outlined, in particular in relation to the extant body of literature on health systems.

## Significance of the findings

### Social norms

The social norms and values that structure relationships in Tudun Jukun are underpinned by the predominant believe system of the people. It was observed in Tudun Jukun that the predominant belief systems of the people in the area were crucial to their interpretation of health issues. For example, in Chapter 4 it was explained how a number of health practices within the home and across other actors within the health systems landscape are underpinned by Islamic medicine. It was also apparent in Chapter 5 that the respondents hold the view that illnesses and indeed all health problems are tests from Allah, that Allah has set down the cure before ordaining any illness and that jinn exists. These views influenced how the participants understood their illness and what actions they took in trying to address them. This finding corroborates well-established theories and empirical studies that explain how religion or spirituality might impact health behaviour ([Mahmood, 2005](#_ENREF_100), [Padela and Curlin, 2013](#_ENREF_131), [Kleinman, 1980](#_ENREF_84)). In religious states or societies, metaphysical assumptions are fundamental in defining the nature of the perceived “reality” that generates problems, and therefore also central in defining pathways to their resolution ([Burtt, 1932 cited in Wall, 1988, p. 287](#_ENREF_190)). Even in societies where religion is no longer as influential, other moral value systems or ideologies are crucial in this regard. For example, ideological perspectives shape the debate about the position of health within a continuum extending from a view that health is a public good on the one end to health as individual responsibility on the other. [Padela and Curlin (2013](#_ENREF_131)) have reported many studies that demonstrate that “religions shape their adherents’ understanding of disease and illness, their health-related behaviours, their interactions with and expectations of the healthcare system, and their adherence to medical recommendations.”

Despite the above, health systems literature pays little attention to the way religion or spirituality shapes health systems ([Padela and Curlin, 2013](#_ENREF_131)). For the most part, the literature relating to religion or spirituality with health is from the perspective of health services access. Often the concern is with overcoming cultural barriers to access by improving communication or a focus on compliance through improving cultural competence and sensitivity of health professionals in addressing access to care needs of religious minorities, for example, [Ezenkwele and Roodsari (2013](#_ENREF_52)) and [Inhorn and Serour (2011](#_ENREF_76)). There is also literature on religion or spirituality and health that tends to focus on providing guidance to health professionals offering clinical care to patients with severe or terminal conditions, regarding how to address their patients’ spiritual concerns ([Sulmasy, 2009](#_ENREF_178)). Other categories of spirituality and health literature are focused on engaging faith communities for Public Health advocacy ([Levin, 2013](#_ENREF_96)). This last category is dominant in most sub-Saharan African contexts and other low income countries, and is concerned with addressing the rejection of major global public health initiatives such as family planning and polio eradication where communities refused to cooperate, and on some occasions violently resisted these interventions ([Lema, 2012](#_ENREF_94), [Renne, 2010](#_ENREF_144)).

Specifically with regard to Islam or Muslim populations, a systematic content analysis of MEDLINE indexed abstracts between 1966 and 2005 found that those that explicitly mention Islam or Muslim are in the following areas of research: Muslim religious practices, Islamic law and ethics, history of Islamic medicine, public health, social medicine, and cultural competence ([Laird et al., 2007](#_ENREF_89)). [Laird et al. (2007](#_ENREF_89)) found that:

“Latent (underlying) themes implied that being an observant Muslim poses health risks; Muslims are negatively affected by tradition, and should adopt modernity; and that ‘‘Islam’’ is a problem for biomedical healthcare delivery”.

A countervailing latent theme in a few studies implies that being Muslim may promote good health, for example, religious leaders can serve as allies in public health campaigns ([Hoodfar & Assadpour, 2000 cited in Laird et al., 2007](#_ENREF_89)).

Findings from Tudun Jukun have highlighted the need to engage with people’s belief systems because of the crucial role these play in shaping the health behaviour of groups, generating patterns in the use of health resources and consequently shaping the emergent health systems landscapes. In Tudun Jukun, a predominantly Muslim population, Islam appears to affect the experience of health problems and to strongly influence the strategies people adopt. This influence is exerted through a number of mechanisms.

First, it is influential in shaping the mind-set of the people as they seek health solutions and make sense of the results of any measures that have been taken to address health problems. For example, the view explained in chapter 4 about the belief that Allah has sent down a cure before ordaining any illness makes people in the area focus more on cure than on prevention or control. Consequently, illnesses like hypertension or diabetes that require taking medication over a long time are often poorly managed, as once patients are told that there is a medicine man somewhere providing a cure, adherence to an existing prescription is often suspended. On the one hand, this results in aggravation of symptoms or in complications. On the other hand, no healing system, whether western, traditional or spiritual, is neglected or privileged. Indeed, people tend to combine multiple interventions from different sources, as they might not know which one “Allah will allow to work" (PP002; 41-50 years; Traditional birth attendant). This partly explains the plurality within the landscape, including the widespread and increasing use of Islamic medicine and Islamic healers.

Second, belief systems can enable or constrain help-seeking actions by shaping which actions might be considered to generate pleasure or anger on the part of Allah, and limiting one’s actions accordingly. Health seeking then becomes a moral judgement and not just an effort to restore health. Interventions that may appear logical and beneficial from the perspective of biomedicine may be rejected if they are judged to displease Allah. Similarly, practices that might be considered harmful still persist because they are judged to please Allah or retain some cultural value. For example, as indicated in Chapter 5, one of the interviewees was denied permission by her husband to use permanent contraception following a life-threatening bleeding in one of her pregnancies because the husband believed that this was against his religious beliefs. Another cultural preference, home birth, which was detailed in Chapter 4, is partly to do with the presence or involvement of male health workers in conducting hospital deliveries. This is considered in the area to be against the teachings of Islam regarding mixing of sexes and who is (or is not) allowed to see certain private parts of others. These have implications in terms of interventions related to health systems strengthening for maternal and child health.

In Nigeria and other low-income countries, investment in health systems strengthening is driven mostly by health professionals’ definition of what should be considered to fall within the scope of health systems ([Travis et al., 2004](#_ENREF_180), [Shakarishvili et al., 2010](#_ENREF_159)). Health professionals tend to approach health issues from a biomedical perspective, which is reductive. Chapter 5 illustrated that there is often discordance between the perspective of health professionals and that of the participants. Investment may therefore be wasted or result in services that are unutilised where there is a considerable variation between what people and what health professionals believe to be legitimate health issues. For example, a considerable number of health systems development projects are focused on improving health facility births. Indeed, one of the key indicators for health systems programmes and projects in Nigeria is the proportion of births attended by a skilled health worker during hospital childbirth ([World\_Bank, 2012](#_ENREF_210)). As shown in Chapter 4, most women interviewed in Tudun Jukun consider the home as the usual place for childbirth when there is no problem and occasionally even when a problem is identified. The percentages of women assisted by a skilled provider (doctor, nurse, midwife, or auxiliary midwife) and delivered in health facilities in the North West of Nigeria where Tudun Jukun is located are 12.3% and 11.5% respectively ([NPC and ICF\_International, 2014](#_ENREF_124)). These figures have stagnated or indeed declined despite over a decade of massive investment (over $4 billion) in various health systems strengthening and maternal health improvement initiatives, which are specifically focused on improving the proportion of women assisted by a skilled provider during childbirth ([World\_Bank, 2012](#_ENREF_210)). This finding raises a number of crucial questions applicable to this and similar settings: Should all deliveries be considered within the scope of health systems? Or should the home be recognised as a legitimate health systems landscape? Could interventions to address a particular problem such as place of birth be more acceptable if investments are targeted at other sectors outside the “recognised health system”? Health systems conceptual frameworks must take into account context-specific definitions of health issues including the role of people’s belief systems in defining them.

Crucially, these factors should not be seen as constraints or problems to be overcome. Focusing on specific forms of expression of religion as constraints on health or health systems strengthening interventions is counterproductive. By examining religion structurally ([Yinger, 1969](#_ENREF_212)), health systems research can focus on the fundamental concerns of people as ways in which they respond to the unpredictability or “chaos” of life. It is these concerns that direct individual and group actions including what they do to address health problems and therefore belief systems are crucial in shaping the health systems landscape. O’Brien ([2001](#_ENREF_127)) examined the emergence and rapid proliferation of *ruqya* (see chapter 4)in the health systems landscape of northern Nigeria. This practice, which now pervades the health systems landscape, was relatively unknown prior to an unprecedented 1995 case of “mass school-girl possession” at a secondary school in Kano. Most health systems strengthening interventions and evaluations only consider religious context in the analysis of why interventions did not work rather than seeking to understand and engage with religion as a crucial factor in shaping the systems ([Olusanya et al., 2010](#_ENREF_129), [Moyer and Mustafa, 2013](#_ENREF_112), [Weiss et al., 2013](#_ENREF_195), [Moyer et al., 2014](#_ENREF_111)).

### Social norms – male dominant gender norms

Complex power relations, especially in terms of gender, age, education, or income, shape lived experiences within Tudun Jukun, including experiences related to health, and shape access to resources that are crucial in addressing health needs. Moreover, access to the knowledge-bases that underpin strategies to address health issues is influenced by power relationships. This was evidence in Chapters 4 and 5 in which gender and socioeconomic status structure the control, generation, custody and distribution of the different knowledge systems and therefore access to the different health systems landscapes that such knowledge underpins. There is a wide and increasing body of literature that demonstrates that without deliberate policy decisions, health systems tend to further exacerbate health and social inequities ([Marmot et al., 2008](#_ENREF_103), [Connell, 2012](#_ENREF_37), [Richards et al., 2013](#_ENREF_147), [Tolhurst et al., 2012](#_ENREF_179)). Moreover, the power dynamics underlying these multiple systems of disenfranchisement (gender, age, education, or income) tend to intersect to further exacerbate health inequalities and undermine health systems ([Tolhurst et al., 2012](#_ENREF_179), [Sen and Iyer, 2012](#_ENREF_158)). Despite this, most of the existing literature on the role of power are based on pre-existing assumptions about the nature of health systems (typically the focus is on hospitals or public health programmes) thereby ignoring the more complex and messy understandings of health systems. For example, traditionally, intersectional analysis will look at how power relationships are creating disparities in health outcomes (e.g. women’s low status in society and poor maternal health outcomes) or access to health care (e.g. power imbalance between health professionals and minority groups). There are however, a number of health systems conceptualisation researchers that have called for inclusion of values and power relations in analysing health systems, for example [van Olmen et al. (2010b](#_ENREF_186)) and [Gilson (2006](#_ENREF_57)). This study corroborates the findings of a great deal of previous work on health and social inequities and further highlights the mechanisms through which power relations are shaping health systems and how this might be engaged with in health systems research or practice.

Although a massive amount of work has been done on socioeconomic determinants of health ([Marmot et al., 2008](#_ENREF_103)), as indicated in Chapter 2, most health systems conceptualisation literature presents a “bounded” model of health systems ([Russell et al., 2013](#_ENREF_152)). [Russell et al. (2013](#_ENREF_152)) systematically reviewed integration of social determinants of health within health systems frameworks and found that only the more recent complex adaptive systems frameworks integrate social determinants of health into health systems frameworks. Even these frameworks do not explicitly engage with the vast body of work that theorises gender, age and socioeconomic disparities and how they shape health systems. To produce meaningful and sustainable improvements, health systems strengthening initiatives should engage with frameworks that take into account the power dynamics between individuals within the networks of interdependent relationships that shape their experience within health systems ([Mumtaz et al., 2012](#_ENREF_113)).

In Tudun Jukun, gender roles were particularly dominant in shaping the experience of health problems and decisions about measures which are considered feasible or acceptable in addressing them as well as in making sense of the results. There were, for example, crucial differences in how men and women experience the health systems in Tudun Jukun, often to the disadvantage of women. While women are expected, culturally, to care for themselves at all times (see Chapter 4), as well as taking care of their children and their husband when they become ill, while also taking care of other domestic functions, men are often only called on to pay or occasionally to arrange transport and communication for health services outside the home, expectations which in the situation of poor households they are sometimes unable to fulfil. As a result, the choices that women make in Tudun Jukun regarding where they seek help may not represent their actual preferences. For example, the high frequency of home birth instead of hospital birth, as explained in Chapter 4, may reflect socioeconomic and gender-based power relations as well as their definition of the scope of hospitals in ‘normal’ births. This corroborate [Richards et al. (2013](#_ENREF_147)) work that showed how gendered intra-household bargaining power and processes influence health seeking behaviour.

Most women in Tudun Jukun are not engaged in any income earning activities and are therefore dependent on their husbands for most of their livelihood and health needs. These gendered hierarchies are reinforced by the particular interpretations of Islamic tenets prevalent in the area, where women are expected to be dependent and submissive and to defer important matters including decisions about their health to their husbands. For example, in one of the interviews (see Section 4.3.2.3), the women had agreed to take their daughter in-law to hospital when she started having preterm labour, but because the men could not provide transport, one of the mothers-in-law decided to go and call a nurse that lives in the neighbourhood to come and help. There were other examples where men as household heads rejected health interventions. Women may also be denied permission (see Section 5.4.3) to use contraception against their wishes and advice from health professionals, and are left to bear the dangers of frequent childbirth and children’s illnesses and deaths. This also supports the findings of a comprehensive review on gender and health systems by [Richards et al. (2013](#_ENREF_147)) which showed that the dominant “health systems research is largely gender blind” or takes a “checkbox” approach to the role of gender inequity in health systems. Women interviewed for this study in Tudun Jukun have had from 5 to 18 births per woman, with adverse consequences on their overall health and wellbeing (Chapter 4). All of these have implications for which health systems landscapes are utilised and therefore shape the overall health systems.

As indicated in Chapter 5, other social issues that influence people’s experience of health problems and the measures they take to address them in Tudun Jukun are age and income. Younger adults who tend to have formal education are more inclined to favour hospital over other services within the health systems landscape. It was further highlighted in Chapter 4 that there was an apparent intergenerational difference even among women with respect to place of birth, since younger women tend to favour hospital birth over homebirth in Tudun Jukun. This age and intergenerational difference may be explained by formal education attainment rather than chronological age in itself. There are a number of theories that link level of education and health behaviour, for example, [Cutler and Lleras-Muney (2006](#_ENREF_39)). This raises a crucial question – should health systems boundaries be extended to include home births? Another important factor here could be the changes in mode of production in the society from one that is based on farming to office-based jobs or self-employment as highlighted in Chapter 5. The younger generation with better educational attainment are more likely to gain employment in these new areas and therefore have better income. This provides them with access to wider networks of resources thereby increasing their influence in shaping the health systems landscapes. Moreover, people’s income was also crucial in shaping their experience of health systems. There are several interviewees who had to opt for less preferred services or “do nothing” because they could not afford their preferred options (Chapters 4 and 5). Because women also tend not to have their own source of income, their choices and options are often limited by the preferences of their husbands. Therefore, intersectional theories that call for analysis of the full context of gender, education, income and other inequities, such as [Springer et al. (2012](#_ENREF_171)), should be taken into account when conceptualising health systems.

### Pluralism

The health systems landscape in Tudun Jukun is characterised by a diverse range of providers as discussed in great detail in Chapter 4. There are widespread informal providers and various types of non-state actors, alongside the formal health centres and hospitals. This diversity is produced for the most part, as explained in chapter 4, by the different underpinning knowledge systems and relationships between the people and the providers, as well as the ill-defined nature of state-led services. This finding speaks to the increasingly recognised literature on pluralism in health systems.

Although pluralism in medical systems is not new as “there has always been the possibility of choice between different kinds of practitioner, between consulting or self-prescribing, and there have always been multiple ways of understanding health and sickness” ([Cant and Sharma, 1999, p. 1](#_ENREF_32)). The focus has, however, been on applying this concept to challenge the dominant focus of health literature on biomedicine. Increasingly, though, this concept is now been applied in health systems conceptualisation literature ([Bloom and Standing, 2008](#_ENREF_21), [Scott et al., 2014](#_ENREF_156), [Colvin et al., 2013](#_ENREF_36)). This approach to conceptualising health systems recognises different kinds of possibilities for pluralism, for example, the distinction made between formal and informal care on the basis of presence or absence of state regulation; private-for-profit, private-non-profit, faith-based and public on the basis of payment arrangements and ownership; or home care and hospital or health/healing facility care on the basis of relationship and geography. Moreover, new kinds of arrangements are also taking into consideration, such as mobile health (or mhealth) and telehealth, which are emerging and growing rapidly ([Bloom and Standing, 2008](#_ENREF_21)). [Bloom and Standing (2008](#_ENREF_21)) identified a number of factors that are interacting with demographic and epidemiological changes in shaping health systems, particularly in low-income countries. These are:

* Economic crises leading to state and institutional failures in access, delivery and regulation;
* Rampant marketisation of health goods and services at all levels, accompanied by deprofessionalisation and provider pluralism;
* A blurring of the boundaries between what is public and what is private and a multiplicity of actors and institutions, formal and informal, involved in health care production;
* Changes in access to health-related knowledge through media, Internet, spread of knowledge outside the professions and an explosion of new information and techniques;
* Growth of discourses challenging professional hegemony – rights of consumers or citizens to know, along with increased suspicion of “expertise”;
* Changing patterns of inequality and often highly politicised renegotiation of entitlements and rights, as in the case of HIV and AIDS.

They argued that: “Increasingly, much of the “action” in health systems in low-income and transition countries is taking place not through states and national bureaucracies, but through informal markets and various types of non-state and hybrid institutions or at a transnational level through the influence of multilateral and corporate organisations” ([Bloom and Standing, 2008, p. 2071](#_ENREF_21)).

A crucial feature of pluralism in Tudun Jukun is the understanding and representation of health issues and services within different distinct knowledge systems. In Chapters 4 and 5 it was indicated that there were at least four different sets of knowledge systems that people in Tudun Jukun seemed to draw from in making sense of health problems, when implementing measures to address the problem, and in making sense of the results that they obtained. Moreover, different actors within the health systems landscapes draw on one or more of these knowledge-bases as the underpinning reasoning behind their practice. These are biomedicine, Hausa medicine, Islamic medicine, and hearsay knowledge. Other knowledge systems could be found in different places and over time any existing ones may wane. This approach to defining health systems appreciates the contributions as well as the limitations of different knowledges and that the knowledges can be organised differently instead of simply modifying existing dominant frameworks. Moreover, it is a more robust account of the plurality that characterises the messy realities of health systems, especially in low-income settings such as Tudun Jukun.

The results of this study are consistent with other research that considered health systems to be structured by knowledge and expertise that are embodied in people and products as discussed in Chapter 2 (Bloom and Standing, 2008). This approach to conceptualising health systems grows out of the concern with “the growing gap between the reality of health systems and the language used to describe them” (Bloom and Standing, 2008, p. 2070). As argued in Chapter 2, there was an earlier attempt to lay down the foundations of this knowledge economy approach to conceptualising health systems in the field of medical anthropology which did not gain wide recognition within the mainstream health systems conceptualisation literature until recently. This was the remarkable work of Kleinman (1980), who identified three structural domains of any healthcare systems. These structural domains are: popular (family, social network and community), folk (nonprofessional healers), and professional (doctors, nurses etc.) and they align very closely with idea of underpinning knowledge-bases (Kleinman, 1980). Access to these structural domains as well as interactions between healers and patients are governed by social roles and cultural values (Kleinman, 1980). Based on these understandings of health systems, multiple sources of knowledge and expertise in addressing health issues are recognised and the health professionals’ perspective is a valued source among other possibilities (Pelto and Pelto, 1997).

### The absence of an accountable authority (the so called “fragile states”)

As indicated at some length in Chapter 4, there was a relative absence of the state in terms of political accountability to people’s health needs in Tudun Jukun, which contrasts with the dominant conceptualisations of the role of the state in health systems. The dominant literature described in Chapter 2 considers the formal (state-led or regulated) health system as “the health system”. Indeed, most health systems literature tends to define health systems on the basis of the relationship between the state and citizens. [Frenk (1994](#_ENREF_54)), for example, considers the state as the collective mediator between all actors within health systems and introduced the concept of eligibility to explain the role of the state as a collective mediator in different kinds of health systems. Interestingly, there was only a limited citizen-state relationship within the health systems landscapes in Tudun Jukun where the state tends to be perceived as a private actor whose interest is in making money rather than in improving or maintaining the health of its citizens. Given the presence of a minimal or limited citizen-state relationship in Tudun Jukun, family, friendship or market relationships becomes significant in governing interactions within health systems. And indeed the home in particular was shown to be of particular importance in the context of Chapter 4.

An important dimension of the absence of an accountable authority or the so called “fragile” setting as applies in Tudun Jukun is the failure of collective action to deal with health problems beyond the level of the home. There is an extensive literature on accountability and health systems. Brinkerhoff ([2004](#_ENREF_27)) has categorised accountability in health systems into three – financial, performance and political or democratic. Financial accountability deals with compliance with rules and regulations regarding financial control. Performance accountability is about measurement and evaluation of service delivery improvement. This second type of accountability is the largest in health systems literature. Political or democratic accountability is concerned with theoretical and philosophical treatises on the relationship between the state and the citizen, deliberations of governance, increased citizen participation, equity issues, transparency and openness, responsiveness and trust-building ([Brinkerhoff, 2003, p. 6](#_ENREF_26)). This third category is the most relevant when discussing health systems conceptualisation. As shown in chapter 4, health systems are shaped fundamentally by the lowest basic unit of collective action and political accountability on health issues. This unit provides coherent, consistent and realistic solutions that individuals, families and communities can always rely upon whenever health problems arise. This is the unit that individuals generally rely on when faced with health problems, to take action to address them. It is the unit at which sanctions for not meeting these responsibilities, or incentives for meeting them, are most feasible and effective. Depending on the setting, these sanctions and incentives can be legal or derive from the market’s alignment of incentives, and moral imperatives where societal pressures can motivate individuals on a consistent basis to be responsible for action as a family unit to address problems if a member of a household is affected. As demonstrated in Chapter 5, often religious beliefs are particularly influential in generating or justifying such moral imperatives.

Health systems conceptualisation literature touches on the concept of accountability under the broad category of ‘stewardship’ ([WHO, 2005a](#_ENREF_200)) and uses the notion to explain the functions of governments in health systems where they are expected to be answerable and responsive to the health needs of the population. Clearly, in order to meet these responsibilities the government must have the ability to oversee and impose sanctions on accountable actors for failures and transgression that occur within each actor’s spheres of responsibility ([Brinkerhoff, 2003, p. 5](#_ENREF_26)). For low income countries, such as Nigeria, the government are, for the most part, weak and unable or unwilling to provide such oversight for public sector services or to regulate the private sector ([Bloom et al., 2008](#_ENREF_22)). These authors raised crucial questions about assumptions regarding the role of the state in dominant health systems literature and whether there is a need to explore alternative arrangements in countries where the state is weak and therefore to consider other forms or organisations.

Within the exiting literature, discourses about political accountability are related to the long standing and intense ideological debate about whether health should be a public good (social democratic e.g. Sen ([1999](#_ENREF_157))) or an individual responsibility (neo-liberal e.g. Buchanan and Tullock ([1962](#_ENREF_29))) especially in the United States of America (USA). However, even in the USA insurance systems have evolved as a form of system of collective ownership of at least the payment for care. There are also publicly funded public health programmes and campaigns such as vaccination programmes in the USA. In some countries, this unit of collective action and accountability can be a state, a district, or an insurance fund. In the UK for example, individuals can, for the most part, expect the National Health Service to provide the necessary care whenever the need arises and for such care to be paid for through tax. In countries that have insurance systems, such as Germany, individuals can rely on their Wellness Funds to collectively organise and make services available on a consistent basis, when needed. There are many other varieties of arrangements where health needs of the individual are a collective responsibility with the size of that collective varying significantly, such as employment organisations, clinical commission groups (CCG), metropolis, and district, local or national authority.

Even in countries where insurance systems exist, individually purchased plans are being replaced by Patient Collectives to empower patient groups to better negotiate their care with insurance firms or managed-care providers ([Bartholomée and Maarse, 2007](#_ENREF_9)). Studies that looked at low income countries where community-based health insurance systems have been piloted have also found that the existence of strong accountability relationships reinforced by social norms and community values is crucial for success ([Schneider and Diop, 2001](#_ENREF_154)). Huang ([1988](#_ENREF_74)) looked at the history of China and noted the dramatic improvement in villagers’ health after introduction of the collective health systems in 1968 which was characterised by a drastic reduction of infectious diseases, elimination of bubonic plague, schistosomiasis, malaria, and pulmonary tuberculosis. He also noted that overall mortality across china dropped from 116.30 to 45.13 per 100,000 during the period from 1970 to 1980. When the collective health system was dismantled, during the ‘reforms’ of the late 1970s, outbreaks of infectious diseases returned, forcing villagers to adopt remedial measures that involved some collective action to deal with common diseases, referral and secondary care ([Huang, 1988](#_ENREF_74)).

In this study (as shown in Chapter 4) it was clear that the home, which captures a broad set of distinct social phenomena including families, co-residential groups, and domestic functions ([Bender, 1967](#_ENREF_13)), is the basic unit of coherent collective action on health issues. Indeed, there is no accountable collective layer that is responsible for the health of the people in Tudun Jukun beyond the household level. In Nigeria, the government has opted for insurance as a means of guaranteeing predefined health care for individuals. However, the coverage is still very poor, overall health insurance coverage in Nigeria is still 3% ([Lagomarsino et al., 2012](#_ENREF_88), [NPC and ICF\_International, 2014](#_ENREF_124)) and restricted mostly to those that are in formal employment either in government or large private companies. Therefore out-of-pocket is still the predominant way that people pay for health services, nearly 70% as a proportion of total health expenditure ([Lawanson et al., 2012](#_ENREF_91)). There were a few pilot community based health insurance schemes but most of the pilot schemes were not sustained ([WHO, 2010](#_ENREF_203)). In Tudun Jukun and specifically for all the participants in this research, nobody mentioned insurance as contributing to any of their efforts at addressing health problems. For places such as Tudun Jukun, out-of-pocket spending would be nearly 100% and the only coherent accountable unit for this payment is the home, broadly defined ([NPC and ICF\_International, 2014](#_ENREF_124)).

At least two important concerns have been raised by this finding. The first is the role that the home plays in producing health. Publications that point to the role of the household in producing health, such as [Newell (1975](#_ENREF_121)) and [Berman et al. (1994](#_ENREF_16)), are mostly ignored by the current dominant health systems literature. The home or the household do not appear as essential components of any of the health systems conceptual frameworks. Second, the importance of the basic unit of collective political accountability and action on health issues in defining health systems also does not feature in literature on conceptualisation of health systems. Although ‘governance’ has been identified as one of the building blocks of health systems, only recently has localisation of governance been receiving attention as the dominant literature tends to focus on governance from the perspective of national policies and strategies rather than how people are organised as collectives to deal with health issues. [Joshi and Schultze-Kraft (2014](#_ENREF_81)) have explored how local governance ‘really’ works and how it could become more accountable, effective and legitimate, to support development that favours poor and marginalised people. This research supports the need for such study.

Despite this, the focus of the dominant literature is on a system that delivers services to individuals dealing with specific diagnoses. Even public health programmes are planned based on individuals targeted with specific technologies – the public is considered as an aggregate of many individuals instead of a sum that is greater than its parts ([Jenkins, 2002](#_ENREF_79)). The fact that the individual household serves as the most effective unit of accountability, as observed in Tudun Jukun, presents several challenges – interviewees that are faced with problems that are beyond the capacity of the individual household are left to suffer, for example, those living near refuse dumps, those whose houses are in the way of sewage coming out from other houses, those that have no means of paying for transport or treatment of household members. Some community efforts, in the form of donations to help those that cannot afford treatment, exist as people could be seen begging on streets and in mosques for help to meet health needs for themselves or family members. However, this is not a reliable source of help as it is not accessible by all, especially women who do not regularly attend mosques, and there is hint of fatigue and mistrust on the part of those who give, because fraudulent beggars who have no genuine health problems take advantage of people’s generosity.

This finding is crucial in understanding how health systems work and how they might be strengthened. There is therefore the need to look at how different collective actions are organised in different societies with receding or fragile states. It is also important to look at other possibilities beyond the state that emerge in vulnerable settings with a view to improving resilience through creating collectivities around health issues. It is also important to look at why other potential institutions such as traditional leaders or religious groups have failed to organise in Tudun Jukun in the absence of the state. This trend was also observed in other societies, for example, the emergence of burial societies as a result of the insignificance of the state in addressing developmental needs of the rural populace in Uganda ([Jones, 2009](#_ENREF_80)).

### Mechanisms operating in health systems

The processes of finding solutions to health problems (chapter 5) that are noticeable as people work to access knowledge and expertise include different concurrent or sequential stages of interpretation, decision-making, enabling and provision. These processes are structured by the context and mechanisms as explained above. In some circumstances, the context and mechanism may align these processes and result in use of services that were judged appropriate by the respondents. However, in most circumstance observed different contextual features each triggering different mechanisms tend to conflict and result in using services that may be deemed unsuitable or arrive at some compromise between two unsuitable choices. This result is consistent with the vast literature on health seeking. As mentioned in the literature review, there is over six decades of research on access, utilisation, and health seeking behaviour within sociology literature, see for example, [Sigerist et al. (2012](#_ENREF_166)), [Parsons (1951a](#_ENREF_133)) and [Mechanic and Volkart (1961](#_ENREF_107)). Although this literature explains the processes that happen as people try to access services from the medical establishment, it does not question the dominant conceptualisation of hospital services within the formal health sector as the end point. Other forms of provision are not seen as part of legitimate health systems landscape. For example, [Pescosolido et al. (1998](#_ENREF_139)) analysed patients narratives about how they came to use mental services and found three types of stories – “choice”, “coercion” and “muddling through.” Accounts of choice include individual choice, where respondents described a rational choice model in making decisions to seek help on their own, as well as supported choice where the decision process was made within a network of social relationships. Accounts of coercion are where there is an element of resistance to using services by the index person that is affected by the condition. Finally, in accounts of muddling through, there was no quick and efficient entry into the care available and individuals were neither accepting nor resisting going to the hospital. The present study supports this finding in terms of understanding who is making the decision, the relational nature of decision-making and the fact that factors beyond individual rational choice are at play in this decision-making processes. As explained in chapter 5, different members of the household use different strategies to influence health decisions, such as subtle persuasion, nudging or more forceful controlling, instructing or making choices directly without consulting others. This current study, however, recognises that power relationships shaped by gender imbalance, wealth, and age play crucial roles in this decision-making process and that hospitals are not the only endpoints of this decision-making processes.

A further concern with the health-seeking behaviour literature is that it appears to conceptualise health-seeking processes as being part of the demand-side of health systems. For example, a comprehensive framework that captures different dimensions of supply- and demand-side determinants of access to care has been developed by Levesque and Harris et al. ([2013](#_ENREF_95)). This approach is consistent with much functionalist health systems conceptualisation literature that considers the health systems to be made up of demand- and supply-side as explained in Chapter 2. This perspective ignores the generative role that health-seeking processes play in shaping what health systems are. More recently, however, there have been studies that take a more interactive view of health-seeking ([Colvin et al., 2013](#_ENREF_36), [Leach et al., 2008](#_ENREF_92), [Scott et al., 2014](#_ENREF_156)). The present study (see Chapter 5) supports the findings from the later health-seeking behaviour literature which show that the emergent configurations of health systems in a given setting are shaped by complex negotiations that occur as households navigate multiple options in plural health systems when members become sick ([Colvin et al., 2013](#_ENREF_36), [Scott et al., 2014](#_ENREF_156)).

## Relevance of the research

This section will look at the relevance of the research to health policy and practice, as well as to the wider field of health policy and systems research.

###  Policy and practice

In order for a conceptual framework to be relevant for health policy and practice, it is important to be clear about how it relates to efforts to improve health systems. Policy makers should be able to use the framework in order to guide decisions about interventions in a given context. The framework should also be able to provide insights into how such interventions may work and/or the results to be expected ([Reich and Takemi, 2009](#_ENREF_143)). As explained in detail in chapter 2, existing conceptual frameworks are for the most part abstract and do not relate to what obtains in real-world settings especially in urban informal settings that are increasingly where the majority of the population in LMICs live. A number of specific examples of how findings from the empirical approach taken in this study could be applied in practice to strengthen health systems in places such as Tudun Jukun are now explored. In doing this, the advantage of using this approach will be contrasted against existing conceptual approaches, the key policy actors that such actions apply to will be identified and the relevant literature that is already advancing work in this direction will be highlighted.

The empirical approach makes the elusive concept of “context” which is present in many health systems conceptual frameworks less obscure. It shows that context is not something you analyse as having effect on health systems from without, as most health systems conceptualisation tend to do. Instead, as shown throughout this study, context is integral part of the systems and can be revealed through its influence on how health issues are interpreted, decisions are made, actions are taken and when people make sense of outcomes of the action that they have taken. As argued in chapter 2, the definition of health systems based on health action may appear on the surface as all-embracing, but in practice the way it is applied tend to exclude some activities that are not recognised by biomedical thinking as “health action”. Findings from this study have highlighted a number of contextual issues that are relevant to strengthening health systems in settings such as Tudun Jukun. Two examples will now be presented to highlight this point.

An example of some of the contextual issues uncovered using the empirical approach (by looking at what is already in use and also aspects that are not acceptable) reveals what is valued or not valued by the people in addressing health problems and why it is valued or not valued as highlighted by the concept of pluralism above. On the one hand, examples of the health systems context that are valued by residents of Tudun Jukun for different reasons included homebirths for “normal” deliveries, PMVs for supply of most medicines, hospital births when there is problems, hospitals to deal with severe conditions, and motorcycle taxi as the primary means of transport to get help outside the neighbourhood. On the other hand, the residents did not seem to value hospital delivery for ‘normal’ births and the practice of men attending to births in hospitals. They also disliked ‘humiliation’ by health workers towards those that have not registered but end up going to give birth at hospitals. This study has shown how different contextual elements generate different mechanisms and interact to explain the way these choices are made.

This finding might be applied in a number of ways in order to strengthen health systems by local hospital directors; the Nigerian government through the ministries of health, education and women and children services; the many international and local non-governmental organisations that implement health systems strengthening programmes in Nigeria; the organisations that fund such health systems strengthening programmes such as the World Bank and UK DFID. For example, specific contextual elements that are limiting the use of certain valued services could be eliminated. One way this finding could be applied is to broaden the scope of health systems to cover landscapes that are not typically considered as legitimate parts of health systems within dominant literature, such as the home and PMVs. Alternatively, health issues could be reclassified so as to become outside the scope of "the health system". An example here would be to reconsider homebirths for normal deliveries as women services that are outside “the health system” and only for problem deliveries to be considered as within the scope of the health system.

Using the example of home birth, if the concept of the health system were to be broadened to include the home, an intervention would be to analyse the strengths and weaknesses of the practice of homebirth, with a view to making it safer and more effective. This could be a way of planning for the future in settings such as Tudun Jukun and a more realistic approach to improving maternal outcome than the current focus of increasing health facility-based deliveries. This would contrast with the current approach taken by the Nigerian government and international funders, which seeks to improve maternal health through improving access to skilled providers (defined as doctor, nurse, midwife, or auxiliary midwife) at birth and a focus largely on health facility-based deliveries (as explained in Chapter 4).

Even though the government and key funders of health systems in Nigeria are focused on improving health facility-based births, there is neither the capacity nor a demonstrable commitment in terms of human resources and infrastructure to deliver on this. Despite low utilisation of existing maternity and delivery services (coverage of skilled birth attendance and health facility-based delivery are 38.1% and 35.8% respectively) existing capacities are still struggling to handle this low utilisation([Koblinsky et al., 2006](#_ENREF_85)). Without a radical and massive expansion of capacity (human resource and infrastructure), the existing system would be overwhelmed if all women needing delivery were to turn up at health facilities. The kind of capacity expansion needed for this is unlikely to happen based on the trends of the Nigeria government’s commitment and spending on health which has remain less than $5.0 per capita an amount considerably low even for countries at similar socio-economic levels. Moreover, the total health expenditure contributed by government has stagnated or deteriorated over the years ([Lagomarsino et al., 2012](#_ENREF_88)).

Homebirth is widely practiced in Tudun Jukun and similar settings across northern Nigeria (e.g. births assisted by a skilled provider is 12% in the North West of Nigeria where Tudun Jukun is located compared to 83% in the South West) ([NPC and ICF\_International, 2014](#_ENREF_124)). Yet homebirths - even for “normal” deliveries - are seen as a problem within national policy discourse. Innovations such as getting qualified nurses/midwifes (see Section 4.3.1.1 Home birth) to supervise or assist with home delivery by women in places such as Tudun Jukun in northern Nigeria has not received attention from national policy makers or funders of maternal health improvement programmes. These programmes are designed to discourage such practices, instead of considering what can be done to make it safer. Initial efforts to recognise and train traditional birth attendants (TBAs) by WHO and the Federal Ministry of Health (FMoH) were met with considerable resistance from health professionals who consider that as encroaching into their area of exclusive practice, even though in reality they have never catered for more than 30% of births across the country ([NBS, 2014](#_ENREF_119), [NPC and ICF\_International, 2014](#_ENREF_124), [NPC and ORC\_Macro, 2004](#_ENREF_125), [NPC and ORC\_Macro, 2009](#_ENREF_126)).

National policy makers as well as funders of health systems interventions aimed at improving maternal health outcomes need to recognise the home as a legitimate health systems landscape, be aware of some of the important innovations, support and make the practice even safer and reach a greater majority of the population in settings such as Tudun Jukun. In doing so they can distribute benefits more equitably and ensure services are made more effective, appropriate and available to all. This is a more realistic proposition given existing capacities but also there is emerging strong evidence from NICE in support of homebirths or midwife lead services to be more effective for normal deliveries even for more advanced health systems such the NHS in the UK ([NICE, 2014](#_ENREF_123)). A recent NICE guideline says, home births and midwife-led centres were better for mothers and often as safe for babies ([NICE, 2014](#_ENREF_123)). Moreover, works related to household production of health discussed in Chapter 2 should be taken into account in efforts to strengthen health systems ([Berman et al., 1994](#_ENREF_16), [Newell, 1975](#_ENREF_121)).

A number of programmes have taken advantage of the role the home plays within the health systems beyond homebirths in order to reach majority of the population. Indeed, to date all genuine efforts at reaching the larger population with services in the Nigerian context had to rely on the home as crucial health systems landscapes despite lack of formal recognition. Variety of successful programmes in Nigeria including home-based management of malaria, polio eradication, mass net distribution or mass drug administration for onchocerciasis and other so called neglected tropical diseases took advantage of the role of the home in addressing health problems ([Hopkins et al., 2002](#_ENREF_72)). These programmes had to rely on the home in other to reach the majority of the population in these settings. However, the home is still not considered a legitimate part of the health systems landscape and these interventions are done ad hoc without considerations of wider role the home can play in these types of setting as an integral part of the health system on sustained and long term basis.

Another ‘untypical’ health systems landscape that are valued by residents of Tudun Jukun and indeed most parts of Nigeria and therefore should be recognised by policy makers in this context is the PMVs. PMVs are crucial within the health systems landscape of Tudun Jukun and indeed Nigeria as whole ([Soyibo et al., 2005](#_ENREF_170)). However, national government policies have not developed any clear guidance or support for the role that the play within health systems in Nigeria. Although they account for over 70% of front line contact with health systems in Nigeria and certainly much more for places such as Tudun Jukun, like the home they are not thought of as legitimate health systems landscape in national policy discourses or among funders of health systems strengthening initiatives ([Soyibo et al., 2005](#_ENREF_170)). Despite the central role that they play, their legal status within the Nigerian health system is confused. Some government agencies and international donor or implementation organisations have at some point engaged with PMVs ([Brieger, 2003](#_ENREF_25)), but there is still yet to be a holistic policy that looks at the role of the PMVs and the crucial role they play in health systems of the country. There is a need to recognise their role, support the essential services that they provided to millions of people across the country. To date no government funding exists to look at their work or government unit that exist that provide any form of support to the services that they provide even though they constitute well over 70% of frontline contact when people are in need ([Lawanson et al., 2012](#_ENREF_91)). This was evident in Tudun Jukun as all the interviewees rely on them as the sources of medicine.

In the same vein, as explained above, approaching health systems in this way also reveals aspects of health systems that the residents did not seem to value such as hospital delivery for ‘normal’ births, the practice of men attending to births in hospitals, and the humiliation they get from health workers when they turn up unregistered for hospital birth when problem develops. Cutting back on hospital deliveries for normal births and making homebirth safer may reduce pressure on existing over-stretched capacity in health facilities so they can deal more effectively with problematic ones. Moreover, supporting programmes such as the UK DFID scheme to support 7,000 girls and women to be in training as health workers in northern Nigeria by 2016 could help address the concerns about men attending to deliveries in hospitals ([DFID, 2012](#_ENREF_44)). Regarding the problem of humiliation when women come to deliver in a hospital without being previously registered, this is broader issues as highlighted in a new WHO statement which illustrates a commitment to promoting the rights of women and to promoting access to safe, timely, respectful care during childbirth. The statement calls for greater co-operation among governments, healthcare providers, managers, professional associations, researchers, women’s advocates, international organizations and women themselves to end disrespect and abuse during facility-based childbirth ([WHO, 2014](#_ENREF_205)).

To make this explicit, there is a need for local hospital directors, the Nigerian government, NGOs and donors to recognise what people value and not value and why in order to support health systems landscapes such as the home and PMVs and make the necessary changes in formal health systems to take into account the values that are important to the “beneficiaries” of their interventions. This can be achieved by looking at and seeking to change the different contextual elements and the mechanism through which they exert their influence.

Another crucial contextual issue opened up by this study is the fundamental role of collective action to address health issues (see above, section 6.2.6: The role of accountability and unit of collectivity in health systems). Recognising the most readily accessible commonly utilised source of collective action on health issues in particular contexts is crucial for any health systems strengthening effort, through creating wider supporting networks in places where such collectivity is non-existent or too small to deal with prevailing health problems. Specifically in Tudun Jukun, the home was the only consistent unit for collective action. The focus of existing health systems strengthening efforts which for most part rely on cognitive models such as the building block tend to focus completely on the state as playing this collective role, however, it was apparent that this is not true in all settings. As shown above with skilled attendance at birth, in Nigeria the state is either not able or not willing to address the health needs of the majority of the population. It is therefore more realistic for funders (especially development agencies such as UK DFID and the World Bank) that have invested significantly in health systems strengthening in Nigeria to look for other possible and more realistic alternatives or potentials to support and strengthen, while working with the state to improve accountability. These may involve directing resources at community-based organisations and NGOs genuinely pursuing increasing political accountability for health of the population. Donors can support existing structures that are already trusted by the people such as women cooperatives or religious fellowships. Change to more accountable collective will be more difficult and unpredictable at the government level with high level of rent, corruption, divided society and crony politics that is prevalent in Nigeria. As highlighted above, the Nigerian state does not feel accountable for meeting the health needs of the population.

More than anything else, it is this absence of accountability that appear to undermine health systems strengthening efforts as respondent did not appear to trust or believe that the government is interested in their health. Funders should seriously consider how Health Systems Strengthening funding are channelled especially whether they are reaching the intending targets or not. The blind channelling of health systems strengthening funding through formal (state-led) institutions need to be reconsidered in term of where the most benefit can be generated and sustained on the long term. Considering the state’s lack of capacity and willingness as argued above, for example, to invest in aspects of the health systems that are likely to make a difference. Health Systems Strengthening funding needs to be directed in developing other forms of collectivities that might work on long run. A focus on developing leadership that can identify potential collectivities in order to strengthen them would most likely yield better results ([Chigudu et al., 2014](#_ENREF_35)). This study has highlighted the stark weakness or even absence of health systems leadership in Tudun Jukun, northern Nigeria and indeed Nigeria as a whole. This is highlighted by the absence of a reliable and consistent collectivity that deals with the health issues of the people. This relative ineffectiveness of the state necessitates a rethinking of what health systems leadership means in places like Tudun Jukun. Existing health systems strengthening initiatives rely on strengthening state-led or –provided services with a view to creating sustainable improvement of health systems. Programmes such as the World Bank funded Health System Development Project (HSDP) and Second Health Systems Development Project (HSDP II), DFID funded Second Partnership for Transforming Health Systems (PATHS 2), Programme for Reviving Routine Immunization in Northern Nigeria Maternal, Newborn and Child Health (PRINN MNCH), and State Accountability and Voice Initiative (SAVI) as well as the additional finance being proposed are all geared towards strengthening health systems but all depend on a dysfunctional state institutions that lacks accountability ([World\_Bank, 2012](#_ENREF_210)). Furthermore, such programmes often lack an understanding of the inter-relationships between people and government within the specific context, and the way these affect healthcare provisions and resource allocation. There is a need to consider developing health systems leadership through building capacity of local health systems leaders who can be identified as those already interested and taking some action to bring relief to the population. These leaders can then be supported with access to knowledge and resources to build sustainable health collectivities that people can trust and rely on. As highlighted above evidence from China and other countries have demonstrated the crucial role of collectivising efforts towards addressing health issues ([Huang, 1988](#_ENREF_74), [Bartholomée and Maarse, 2007](#_ENREF_9)). Works such as [Joshi and Schultze-Kraft (2014](#_ENREF_81)), [Jones (2009](#_ENREF_80)) and vast literature on health systems in fragile context all deal with this idea.

Another important implication of this research for strengthening health systems is the way it enables understanding of the key steps involved in solving health problems from the perspective of the people. By illustrating how the health systems operate from the perspective of the people, this type of approach brings new information for key policy-makers, local managers, and practitioners. For example, by showing that there are multiple sources of authority and definition of health issues (implication of this on health systems boundary already discussed), the role of belief systems, knowledge systems, underlying relationships types, social relations that shape individual agency in particular settings, health systems strengthening effort can take into account these social structures in designing intervention. One benefit of looking at health systems based on lived experiences is that it reveals some of the social structures that exist in societies and how they shape the health systems so that strengthening efforts do not perpetuate existing gender and social inequities. The findings, discussed in Section 6.2.2 above, show that gender power-relationships have a significant role in shaping health behaviours. To address this, major global actors and national policy makers need to take into account gender and socioeconomic inequities in designing health-systems strengthening interventions. By looking at the stakeholders that control the four broad processes of interpretation, decision-making, enabling and provision, policy-makers can engage with them. For example, engaging and working with those that control interpretation of religious precepts in designing interventions may address problems of acceptability. This can be done through seeking or prompting alternative interpretations that are more favourable to strengthening health systems. The work done with religious scholars in northern Nigeria to shift attitudes about family planning is a good example of this. One faith-based organisation has shifted over the course of the intervention from rejection to grudging acceptance to active promotion of the use of family planning in all its health facilities, thereby significantly changing the landscape for dealing with reproductive health issues ([Danmusa et al., 2007](#_ENREF_41)).

A final crucial lesson from health systems strengthening policy and practice is how fee-for-service at public sector hospitals is interpreted. It was clear from this study that this policy as well as excluding a significant part of the population from essential life-saving (life-changing) services, is also undermining trust between the state and citizens. Crucial care has been denied people in desperate need in public hospitals and this has implications for how the state is perceived: as one which is not interested in the health or welfare of its citizen, with attendant impact on free services offered through state bodies e.g. polio eradication stalled by suspicion of hidden agenda as live-saving treatment are denied. National policy makers need to clarify why fees are paid in public sector health facilities and increase transparency in the way these moneys are expended.

This is further linked to the argument above regarding accountability and building trust between the citizens and the state. It is urgent, for example, that essential care is provided irrespective of ability to pay at least in public sector owned health facilities. This may require national policy that recognises differential abilities to pay among the population and address the disadvantages that the poor face. The impact of poor health and lost productivity on the economy could potentially exceed any investments the government can make in making essential services reach the poor. As shown in chapter 4, one of the respondents in this study (IP004; 51-60 years), an active builder working and earning to support several dependants, for example, had an accident which was on course to be effectively dealt with in the teaching hospital but ran out of funding when his patron stopped paying for his care and his own sources dried up. He ended up with permanent impairment and became destitute from a condition that could have been effectively treated in such a way that he could either return to his former work or engage in other income earning activities. Whilst there is an economic argument to develop national policy that recognises differential abilities to pay among the population, which could have addressed situations like this, an equally, if not more compelling, argument is that this type of situation is unacceptable from a moral or human rights perspective. There is a need for national policy makers to ensure that at the point of consumption, payment is not made or is reduced to a level that all people can get the essential care that they need.

One way that this can be addressed is to deal with governance of services, for example, to have executive boards of hospital (especially public hospitals) to include the local users of the hospital unlike existing arrangement in Nigeria where they are appointed based on political patronage by the Minister of Health without consultation with the people where such hospitals are located. Involving community members in the day-to-day management of health facilities located where they live, consulting them in the way fees are set and in making decisions about how the money is spent is crucial in building trust between the state and the citizen regarding governance of health systems. The same should apply to management of public health programmes unlike existing technocratic systems where the citizen are seen as lacking in knowledge about what is good for them. There is some tokenistic participation at primary health care (PHC) level in the form of PHC management committees, even these committees are not empowered to address the health needs of their locality. There is a considerable amount of literature on participatory governance that is relevant and could be drawn upon, such as [Long and Ploeg (1989](#_ENREF_99)) and[Cornwall and Coelho (2007](#_ENREF_38)).

### Health systems research

In Chapter 3, it was argued that there is a relative absence of studies on health systems themselves, i.e. studies that seek to define what health systems are or what health systems are for. A major contribution of this research is the attempt to study “what health systems are” in a specific setting through empirically looking at how people are working to address health issues in a very challenging urban informal setting. Indeed, this research has shown that this types of study is not only feasible, but by seeking to clarify how real health systems work, we can find more productive answers on how people interact to address everyday health problems in different settings. Furthermore, this knowledge can be applied to develop more effective and appropriate health systems strengthening intervention compared to a focus on individual building blocks. This research have questioned what appears to be a general consensus about the nature of health systems, and proposes an alternative approach where conceptualisations are context sensitive, take into account varying contextual differences about what a legitimate health issue is, reveal the processes and relationships that underpin health seeking in a specific setting, and how these shape the health systems landscapes in an area.

Furthermore, this study also has important implications for empirical health systems research that is focused on conceptualisation of health systems rather than the application of existing frameworks. The study demonstrates that there is a need to engage in empirical study that will complement the prevalent existing theoretical conceptualisations of health systems. There is an opportunity to utilise the vast existing empirical health-seeking research that exists within the wider fields of sociology and to build upon this to highlight some of the important features of ‘real’ health systems in developing frameworks that are more in tune with lived realities. For example, a number of methodological innovations were developed in the course of carrying out the research, including: the use of critical realism’s context-mechanism-outcome framework to reveal how health systems operate in this types of setting where formal provision is weak or almost absent; the focus on a variety of health problems which are experienced by a series of index participants as a starting point, which highlights aspects of health systems that would be missed by traditional approaches that limited themselves to a specific disease or health problem; narrative analysis is not usually applied to health systems research, and its deployment in this study helped to unpack context and mechanisms that are relevant to addressing health issues; and the use of critical realism as the underlying philosophy of knowledge reveals societal structures and mechanisms that are shaping interactions within health systems. These methodological developments are now explained in greater detail.

First, empirical health-seeking behaviour research tends to focus on specific diseases or health programmes such as malaria, child health and maternal health and are for the most part hospital-based ([Colvin et al., 2013](#_ENREF_36), [Leach et al., 2008](#_ENREF_92), [Scott et al., 2014](#_ENREF_156)). Moreover, they do not link health-seeking strategies to how the health system as a whole is operating or how the micro-processes are shaping the health systems landscape of a place. For example, studies such as [Pescosolido (1992](#_ENREF_138)) that are focused on getting to hospitals as the endpoint for addressing health issues would not capture participants that did not make it to hospitals, who would be the majority in places such as Tudun Jukun. Even though studies such as [Pescosolido (1992](#_ENREF_138)), [Leach et al. (2008](#_ENREF_92)), [Colvin et al. (2013](#_ENREF_36)) and [Scott et al. (2014](#_ENREF_156)) yield valuable outcomes that are relevant to practices aimed at addressing the specific disease category or health issue that they focus on, they take it for granted that the specific categories they investigate are applicable to all settings. Contestations over the legitimacy of certain definitions of disease categories or programmes as authentic health issues are therefore ignored. Moreover landscapes that are not relevant to the particular disease category or prescribed programme could be missed. Therefore, health systems research need to explored broad range of health issues in a place in order to arrive at a more comprehensive picture of the entire health systems in a place. This approach can be further developed so that future research could look at even wider categories of problems prospectively to generate a more comprehensive data on what is happening in real-time.

Second, the use of narrative analysis which involves the preparation of vignettes that identify key individuals involved, details of the events, motives of the different actors as well as the outcome has provided a comprehensive account of events in the everyday terms of people experiencing them and stays as close to the data as possible. This approach is therefore very valuable in investigating how health systems are working in the real world but is rarely applied in health systems research. Typically exploratory research tend to break down data into themes which is valuable in generating new concepts but his has to be a balanced against fragmented view that strip the context away from the data. The context dependent nature of health systems demands that Health Policy and Systems Research embrace the use of narrative analysis that incorporates detail descriptions of mechanisms in operation as people attempt to address health issues.

Third, this research was explicit about the philosophy underlying the research, where other health systems research has not. Existing research or literature on health systems is for the most part silent about such underpinning philosophy. Being silent, though, does not mean that such assumptions do not exist or have no consequence on outcomes of the research. As highlighted in the literature review (chapter 2), health systems research is dominated by a positivist outlook where the definition of health-systems is assumed to be already known. Therefore the focus is on examining one or more of the different components such as human resources, service delivery, information systems or financial arrangements. This study has shown that these components are not universally present in all settings. All research including health systems is underpinned by some assumptions about the nature of reality and how it might be studied. Therefore, there is a need to engage with ontology and epistemology in health systems research. Critical realism as a philosophy of knowledge is particularly useful in health systems research as it is relatively easy to apply and uncovers structural issues in society that influence the distribution of health benefits and access to health resources. Applying critical realism to health systems research will enable the production of research that can lead to design of more equitable health systems strengthening interventions.

Finally, this study has generated a number of propositions on ways health systems operate. For example, in Chapters 4 and 5, it was explained that people’s beliefs and social position are crucial in defining health issues and shaping health systems, that people draw on different knowledge systems in understanding and addressing health issues, that people apply a wide variety of strategies within plural health systems in trying to solve health problems, that there are multiple types of underlying relationships that govern the interaction between different actors within the health systems. These and other propositions made in this research can be further explored and developed into a more grounded conceptualisation of health systems. In order to do so, any further research would need to address a number of questions, including, for example:

* How applicable are the four broad processes (interpretation, decision-making, enabling and provision) as a framework for understanding selection of services in plural health systems in other contexts?
* What other knowledge systems do people draw upon to address health issues which exist in other settings?
* What other relationships are crucial in shaping interactions aimed at addressing health issues in other settings?
* How do societies where the most reliably available arrangement for addressing health issues differs in terms of the size of the collective involved – for example, where it is a neighbourhood or other wider networks rather than a family unit – compare in terms of addressing health issues and impact on how health systems operate and how their accountability is realised?
* How can health systems research, particularly in fragile settings, develop a more sophisticated understanding regarding the role of accountability, which goes beyond performance accountability?
* How can health systems research better understand the role of belief systems in shaping health systems?
* How can health systems research better tap into the vast literature on gender and intersectionality in understanding how health systems work?

In recent years there are some progress in addressing some of these question through studies that conceptualise health systems as knowledge economy ([Bloom, 2014](#_ENREF_20), [Bloom and Standing, 2008](#_ENREF_21), [Bloom et al., 2008](#_ENREF_22)) and focus on the relationships underpinning access to the knowledge and expertise. These studies are mainly in the field of development studies and offer great insights into how health systems work in different settings but there are still more questions that need to be addressed in other to develop this approach even further. For example, future research needs to focus on the nature of expert knowledge and expertise that are valued by people trying to address health issues. There is a need to further clarify how such knowledge and expertise is generated, controlled and distributed as well as structural and relational barriers to access in different settings.

## Limitations

In considering these results, however, a few limitations must be kept in mind.

First, this study focused on participants with obvious health problems exploring what happens as people try to address them. In other words, this study approached health systems from a ‘problem’ (negative health or absence of health) orientation instead of looking at health systems as systems that support good health. As a result, very little can be said about how health systems operate in maintaining or improving health states in the setting. As this is a relatively un-researched area, there is future scope to consider health systems as systems that support good health. However, focusing on capturing the processes involved in restoring health following a health problem may aid in understanding how these processes shape the emergent health systems, and this could prove a useful starting point for future research that can then focus on how health systems work to prevent or improve health in this type of setting. Considering the nature of urban informal settings there is a need to recognise the difficulty of researching these types of health systems settings. Here, the difficulties of daily life can make people delay even obvious problems as long as possible in order to avoid cost (see section 4.3.1.3: “Doing nothing”), and therefore health prevention and promotion practices are a lot more difficult to observe.

Second, this research is concerned with events that had already happened (some interviewees narrated episodes that happened in the past ranging from days, months to couple years) and given the dynamic nature of health systems, there could be a concern that instead of how the health systems are, the findings are about how the health systems used to be. However, the landscapes that were identified - the role of underlying beliefs, power dynamics in terms of gender and other social relations, existent knowledge systems, processes that people apply to access these knowledge systems, and different kinds of relationships - are relatively stable and remain so for a considerable amount of time. Moreover, the majority of interviewees narrated problems that they are presently experiencing. Some of the individuals and institutions that have been mentioned while the interviewees’ describe an episode were still available and they were also interviewed to get their perspective on the relationship. Narrative analysis also made it possible to capture some of the changes that are happening in the health systems landscapes as the problem progresses. One way of generating greater detail about the way health systems are operating is to collect the data prospectively (see section 6.3.2 Health systems research). This would however, involve a significantly higher cost and would take longer than the duration of PhD fieldwork would allow. Prospective data could also be collected in such a way that methods such as social network analysis could be applied. This would produce a more robust understanding of relationships, and individuals and institutions that have the greatest influence in the health systems landscapes. The findings of the current study can however serve as a basis for further exploring the relationships, knowledge systems, processes, beliefs and values that were already identified.

Third, another possible limitation of this research concerns consistency, i.e. the extent that the findings obtained are stable and traceable. This is a problematic concept in this type of research because contextual factors change over time. The health systems landscape is emergent and therefore continuously changing. However, some aspects are relatively stable. Moreover, insights will also improve over time about the phenomenon and with more interest in the area other realities about health systems will be uncovered, for example, more underlying relationships, underpinning knowledgebase, landscapes may appear. Based on critical realism there is no one final theory, but one theory may be more plausible at a particular moment in time based on current knowledge and understanding of the issue under consideration. An audit trail of procedures followed during fieldwork as well as detailed description of the analysis will help in identifying changes in insight and interpretation as this area of research progresses into the future.

Finally, another important concern is whether understanding health systems in Tudun Jukun can be of value elsewhere. Most policy makers are concerned about ‘going to scale’ and health systems strategies are often formulated at national level. Therefore it is important to consider the wider applicability. In order to help with assessing wider applicability, details about the context were captured extensively during interviews in order to identify essential features of the health systems. A thick description ([Geertz, 1973](#_ENREF_55)) of the problems, strategies adopted, context and how people make sense of their experience was developed (see Appendix X: Vignettes 1, 2, 3 and 4). There are essential similarities between Tudun Jukun and the many urban informal settings across Nigeria, and indeed in other LMIC settings, and thus a degree of fit in terms of applying these findings to the other similar settings. The relative merit of the findings of this research could be substantiated further by testing them in other urban informal settings and through designing health systems strengthening interventions based on the new understandings of health systems which have emerged in this research. A number of potential ways of taking future research forward have been suggested above (see section 6.3.2).

## Conclusions

This section summarises the contents of the thesis in relation to the aims of the study. It then summarises the findings and implications as well as recommendations for policy, practice and research drawn from the findings.

This thesis has focused on a new way of conceptualising health systems, which utilises empirical research in order to suggest a more contextually relevant framework for strengthening health systems. Existing conceptual frameworks have formed the basis for interventions in or funding of health systems strengthening initiatives by major global health stakeholders. Evidence emerging so far from evaluation of health systems strengthening interventions indicates that the existing approaches are not producing the expected results. This study took the perspective of people experiencing health problems in an urban informal setting and set out to produce a framework that explains how people in a particular setting understand and experience health problems; the strategies they apply (or do not apply) in solving these problems; factors that influence (enables/prevents) the choice of strategies and how they are negotiated; and, based on the people’s ‘systems of meaning' and expectations, what strategies worked. On the basis of these explanations a conceptual framework of health systems for this particular context was generated.

The following conclusions can be drawn from this study. Conceptualisations of health systems cannot be detached from conceptualisations of health itself which are in turn dependent on context. Many factors come into play here including the plural landscape in terms of variety and nature of different resources and settings that people in the area exploit as they work to address health issues, the different understandings and representations of the problem and the multiple ways of addressing the problem, the social norms and values that structure relationships in the area, the economic realities of the people who are mostly poor and therefore may not afford options that they consider appropriate in a given circumstance, and the “fragile” setting due to the weakness or absence of accountable authority to deal with health and indeed other social issues affecting people in the area.

These findings have the following implications for conceptualising health systems.

First, there is a need to take into account and engage structurally with contextual factors that shape the understanding of health and the interactions within health systems. These are social norms and values, economic realities of the people and fragile nature of the setting in terms of responsible authority to deal with health problems beyond individual households.

Second, the plural nature of the health systems landscape with different knowledge systems that underpin understanding and practices aimed at resolving health problems should be considered, instead of focusing purely on components such as human resources, financing or service delivery. Health systems conceptualisation should include the different knowledges that people draw upon, how these knowledges are generated and shared, as well as barriers and facilitators to accessing such knowledge systems and expertise. Studies that define health systems as a knowledge economy mainly from development studies literature constitute significant progress in this direction ([Bloom and Standing, 2008](#_ENREF_21), [Bloom et al., 2008](#_ENREF_22), [Standing and Bloom, 2001](#_ENREF_174)). The focus of health systems conceptualisation should be on the variety, rules, benefits, and on ensuring equity in the distribution of the benefits of different knowledge systems, without uncritically privileging one over the others.

Third, the perceived relevance of different types of actors in different settings, particularly the uncritical investment of health systems strengthening resources through state-led or -regulated services, may exclude the majority of the population in some settings; especially urban informal settings where an increasing majority of people in LMICs live and where the presence of state services is minimal.

Fourth, health systems researchers should engage with the vast and well-grounded health-seeking behaviour literature in conceptualising health systems. There is a need to link the well-theorised processes occurring as people seek health services with their importance in shaping existing health systems and not just global or national policies and strategies, which are the focus of dominant literature.

Finally, it is important to consider the most commonly utilised collectivity that is politically accountable on a consistent basis for health needs of the people, and to consider this for each setting. While policy documents may specify a particular administrative structure e.g. an LGA, in practice these may not be effective in some settings, especially where the state is weak. This unit is crucial in defining what is feasible, acceptable and affordable within the health systems landscape. Health systems interventions that ignore this are likely to propose interventions that may not achieve the expected results.

The findings have a number of implications for policy and practice. First, the need to understand what people value when dealing with health issues in designing, funding, implementing and evaluating health systems strengthening initiatives. Second, the need to recognise innovations in the way people address health issues in order to support, improve and safeguard vulnerable groups from adverse consequences of such innovation. Third, there is a need to engage other sources of authority in defining health issues in order to address structural disadvantages proactively while developing health systems strengthening initiatives. Finally, there is a need to clearly define the interest of the state and address perceptions that may undermine trust.

Further work needs to be done to build on the vast health seeking behaviour literature linking the understanding of how individuals interact with institutions to produce ‘lived’ health systems. Furthermore, there is a need to be more explicit about the underlying assumptions about what health systems are and how they might be studied when conducting health systems research. It would also be interesting to explore some of the research questions raised above, including: applicability of the four broad processes in other settings; what other possible types of knowledge sets people draw upon in different settings when addressing health issues; what other possible relationships underpin interactions between individuals and the impact of each on achieving expected results; comparing larger units of collectivity with smaller ones, or comparing two smaller units with different levels of health systems development; better theorising of accountability in health systems research; and how power dynamics defined by gender relations and belief systems structure health systems.

Defining health systems by starting from how they are already in use in particular contexts gives a different understanding of how the social world interacts with institutions to produce a ‘real’ system. These interactions are shaped fundamentally by the lowest basic unit of collective accountability and action on health issues, beliefs, gender norms, socioeconomic status, knowledge sets, the different underpinning relationships (family ties, marriage, friendship, and market relationships), and the different broad processes producing the health systems landscapes of an area. There is a need for exploring of the different knowledge bases and social structures that produce or control them; social network analysis focused on uncovering other types of relationships or what difference each relationship makes in relation to results; relative influence or importance of different landscapes in different context; models of wider supporting networks for collective action or accountability on health issues in different settings including fragile settings.

Bibliography

1943. NATIONAL HEALTH SERVICE. *The Lancet,* 241**,** 373-375.

1999. Constitution of the Federal Republic of Nigeria. Nigeria.

2012. NVivo©. NVivo 10 ed. QSR International Pty Ltd: 2nd Floor, 651 Doncaster Road, Doncaster, Victoria 3108, Australia.

ADAM, T., HSU, J., DE SAVIGNY, D., LAVIS, J. N., RØTTINGEN, J.-A. & BENNETT, S. 2012. Evaluating health systems strengthening interventions in low-income and middle-income countries: are we asking the right questions? *Health Policy and Planning,* 27**,** iv9-iv19.

ADESINA, S. 2007. Traditional medical care in Nigeria. *Online Nigeria Daily*.

AL-JAWZĪYAH, M. A. B. I. Q. & JAUZIYAH, I. I. Q. A. 2003. *Healing with the Medicine of the Prophet*, Darussalam.

ATUN, R. & MENABDE, N. 2008. Health Systems and Systems Thinking. *In:* COKER, A., MCKEE (ed.) *Health Systems and Challenges of Communicable Diseases: Experience form Europe and Latin America.* Maidenhead: Open University Press.

BABINSZKI, A., KERENYI, T., TOROK, O., GRAZI, V., LAPINSKI, R. H. & BERKOWITZ, R. L. 1999. Perinatal outcome in grand and great-grand multiparity: effects of parity on obstetric risk factors. *Am J Obstet Gynecol,* 181**,** 669-74.

BARTHOLOMÉE, Y. & MAARSE, H. 2007. Empowering the chronically ill? Patient collectives in the new Dutch health insurance system. *Health Policy,* 84**,** 162-169.

BAUM, F. 2007. Health for All Now! Reviving the spirit of Alma Ata in the twenty-first century: an introduction to the Alma Ata Declaration. *Social Medicine,* 2**,** 34 - 41.

BAUMAN, Z. & MAY, T. 2001. *Thinking sociologically*, Blackwell Publishing.

BAZELEY, P. 2013. *Qualitative Data Analysis: Practical Strategies*, SAGE Publications.

BENDER, D. R. 1967. A Refinement of the Concept of Household: Families, Co-residence, and Domestic Functions1. *American Anthropologist,* 69**,** 493-504.

BENNETT, S., AGYEPONG, I., SHEIKH, K., HANSON, K., SSENGOOBA, F. & GILSON, L. 2011. Building the field of health policy and systems research: an agenda for action. *PLoS Med,* 8**,** e1001081.

BERGER, P. L. & LUCKMAN, T. 1967. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, Anchor.

BERMAN, P., KENDALL, C. & BHATTACHARYYA, K. 1994. The household production of health: Integrating social science perspectives on micro-level health determinants. *Social Science & Medicine,* 38**,** 205-215.

BHASKAR, R. 1975. *A realist theory of science*, Books.

BHUTTA, Z. A. 2004. Beyond informed consent. *Bulletin of the World Health Organization,* 82**,** 771-777.

BJÖRKMAN, M. & SVENSSON, J. 2009. Power to the People: Evidence from a Randomized Field Experiment on Community-Based Monitoring in Uganda. *The Quarterly Journal of Economics,* 124**,** 735-769.

BLOOM, G. 2014. History, complexity and health systems research. *Social Science & Medicine,* 117**,** 160-161.

BLOOM, G. & STANDING, H. 2008. Future health systems: Why future? Why now? *Social Science & Medicine,* 66**,** 2067-2075.

BLOOM, G., STANDING, H. & LLOYD, R. 2008. Markets, information asymmetry and health care: Towards new social contracts. *Social Science & Medicine,* 66**,** 2076-2087.

BOOZARY, A. S., FARMER, P. E. & JHA, A. K. 2014. The ebola outbreak, fragile health systems, and quality as a cure. *JAMA*.

BOWEN, G. A. 2009. Document Analysis as a Qualitative Research Method. *Qualitative Research Journal,* 9**,** 27-40.

BRIEGER, W. 2003. The Role of Patent Medicine Vendors in the Management of Sick Children in the African Region [revised]. *Arlington, VA: Basics Ⅱ*.

BRINKERHOFF, D. 2003. Accountability and Health Systems: Overview, Framework, and Strategies. Bethesda, MD: The Partners for Health Reformplus Project, Abt Associates Inc.

BRINKERHOFF, D. W. 2004. Accountability and health systems: toward conceptual clarity and policy relevance. *Health Policy Plan,* 19**,** 371-9.

BRYMAN, A. 2004. *Social Research Methods,* New York, Oxford University Press.

BUCHANAN, J. M. & TULLOCK, G. 1962. *The calculus of consent,* Ann Arbor, University of Michigan Press.

BURKE, K. 1945. *A Grammar of Motives,* Berkeley and Los Angeles, California, Prentice-Hall.

CALDWELL, J. C. & CALDWELL, P. 1990. High fertility in sub-Saharan Africa. *Sci Am,* 262**,** 118-25.

CANT, S. & SHARMA, U. 1999. *A new medical pluralism? Alternative medicine, doctors, patients and the state,* London, UCL Press Ltd.

CASSELS, A. 1995a. Health sector reform: Key issues in less developed countries. *Journal of International Development,* 7**,** 329-347.

CASSELS, A. 1995b. Health sector reform: key issues in less developed countries. *J Int Dev,* 7**,** 329 - 347.

CHIGUDU, S., JASSEH, M., D’ALESSANDRO, U., CORRAH, T., DEMBA, A. & BALEN, J. 2014. The role of leadership in people-centred health systems: a sub-national study in The Gambia. *Health Policy and Planning*.

COLVIN, C. J., SMITH, H. J., SWARTZ, A., AHS, J. W., DE HEER, J., OPIYO, N., KIM, J. C., MARRACCINI, T. & GEORGE, A. 2013. Understanding careseeking for child illness in sub-Saharan Africa: A systematic review and conceptual framework based on qualitative research of household recognition and response to child diarrhoea, pneumonia and malaria. *Social Science & Medicine,* 86**,** 66-78.

CONNELL, R. 2012. Gender, health and theory: Conceptualizing the issue, in local and world perspective. *Social Science & Medicine,* 74**,** 1675-1683.

CORNWALL, A. & COELHO, V. S. 2007. *Spaces for Change?: The Politics of Citizen Participation in New Democratic Arenas*, Zed Books.

CUTLER, D. M. & LLERAS-MUNEY, A. 2006. Education and Health: Evaluating Theories and Evidence. *National Bureau of Economic Research Working Paper Series,* No. 12352.

DAHLGREN, G. & WHITEHEAD, M. 2007. A framework for assessing health systems from the public's perspective: the ALPS approach. *International journal of health services : planning, administration, evaluation,* 37**,** 363-78.

DANMUSA, S., MAMMAN-DAURA, F. & MAI, M. 2007. Using Religious Leaders to Reach Women at Household Level with Family Planning/Reproductive Health Services. *In:* PETRAGLIA, J. (ed.) *Global Health Forum.* Washington: Pathfinder International.

DAVID, P. A. & FORAY, D. 2002. An introduction to the economy of the knowledge society. *International Social Science Journal,* 54**,** 9-23.

DE SAVIGNY, D. & ADAM, T. 2009. *Systems thinking for health systems strengthening*.

DFID, D. F. I. D. A. D. N. U. 2012. *Case study: Called to be a midwife in northern Nigeria* [Online]. Department for International Development and DFID Nigeria. Available: https://[www.gov.uk/government/case-studies/called-to-be-a-midwife-in-northern-nigeria](http://www.gov.uk/government/case-studies/called-to-be-a-midwife-in-northern-nigeria) [Accessed 13/12/2014 2014].

DIALLO, D. A., DOUMBO, O. K., PLOWE, C. V., WELLEMS, T. E., EMANUEL, E. J. & HURST, S. A. 2005. Community Permission for Medical Research in Developing Countries. *Clinical Infectious Diseases,* 41**,** 255-259.

DONABEDIAN, A. 1972. Models for organizing the delivery of personal health services and criteria for evaluating them. *Milbank Mem Fund Q,* 50**,** 103 - 154.

DUNN, F. L. 1976. Traditional Asian medicine and cosmopolitan medicine as adaptive systems. *Asian medical systems: a comparative study***,** 133-158.

DUSSAULT, G. 2008. The health professions and the performance of future health systems in low-income countries: Support or obstacle? *Social Science &amp; Medicine,* 66**,** 2088-2095.

ENGEL, G. 1977. The need for a new medical model: a challenge for biomedicine. *Science,* 196**,** 129-136.

ERINOSHO, O. 2008. Ethics for Public Health Research in Africa. Abuja, Nigeria: Social Science Academy of Nigeria.

EVANS, R. G. 1983. Incomplete Vertical Integration in the Health Care Industry: Pseudomarkets and Pseudopolicies. *The ANNALS of the American Academy of Political and Social Science,* 468**,** 60-87.

EZENKWELE, U. A. & ROODSARI, G. S. 2013. Cultural Competencies in Emergency Medicine: Caring for Muslim-American Patients from the Middle East. *The Journal of Emergency Medicine,* 45**,** 168-174.

FMOH, F. M. O. H. 1988. The National Health Policy and Strategy to Achieve Health for All Nigerians. *In:* STATISTICS, D. O. P. R. A. (ed.). Lagos, Nigeria: Federal Ministry of Health.

FRENK, J. 1994. Dimensions of health system reform. *Health Policy,* 27**,** 19-34.

GEERTZ, C. 1973. *The interpretation of cultures: selected essays*, Basic Books.

GILSON, L. 2003. Trust and the development of health care as a social institution. *Soc Sci Med,* 56**,** 1453 - 1468.

GILSON, L. 2006. Trust in health care: theoretical perspectives and research needs. *J Health Organ Manag,* 20**,** 359-75.

GILSON, L. (ed.) 2012. *Health Policy and Systems Research: A Methodology Reader,* Geneva: Alliance for Health Policy and Systems Research, World Health Organization.

GILSON, L., HANSON, K., SHEIKH, K., AGYEPONG, I., SSENGOOBA, F. & BENNETT, S. 2011. Building the field of health policy and systems research: social science matters. *PLoS Med,* 8**,** e1001079.

GLASER, B. G. & STRAUSS, A. L. 1967. *The discovery of grounded theory: strategies for qualitative research*, Aldine de Gruyter.

GLASER, B. G. & STRAUSS, A. L. 1999. *The discovery of grounded theory: strategies for qualitative research*, Aldine de Gruyter.

GOUDSBLOM, J. 1977. *Sociology in the balance: A critical essay,* Oxford, Basil Blackwell.

GREENHALGH, T., ROBERT, G., MACFARLANE, F., BATE, P., KYRIAKIDOU, O. & PEACOCK, R. 2005. Storylines of research in diffusion of innovation: a meta-narrative approach to systematic review. *Social Science &amp; Medicine,* 61**,** 417-430.

GUBA, E. G. 1981. Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ,* 29**,** 75-91.

HAFNER, T. & SHIFFMAN, J. 2013. The emergence of global attention to health systems strengthening. *Health Policy and Planning,* 28**,** 41-50.

HANNABUSS, S. 2000. Being there: ethnographic research and autobiography. *Library Management,* 21**,** 99-107.

HILL, P., VERMEIREN, P., MITI, K., OOMS, G. & VAN, D. 2011. The Health Systems Funding Platform: Is this where we thought we were going? *Global Health,* 7**,** 16.

HILL, P. S. 2010. Understanding global health governance as a complex adaptive system. *Global Public Health,* 6**,** 593-605.

HOFFMAN, S. J., RØTTINGEN, J.-A., BENNETT, S., LAVIS, J. N., EDGE, J. S. & FRENK, J. 2012. *Background paper on conceptual issues related to health systems research to inform a WHO global strategy on health systems research*, Health Systems Alliance.

HOMANS, G. C. 1958. Social Behavior as Exchange. *American Journal of Sociology,* 63**,** 597-606.

HOOD, C. 1995. Contemporary public management: a new global paradigm? *Public Policy and Administration,* 10**,** 104-117.

HOPKINS, D. R., EIGEGE, A., MIRI, E. S., GONTOR, I., OGAH, G., UMARU, J., GWOMKUDU, C. C., MATHAI, W., JINADU, M., AMADIEGWU, S., OYENEKAN, O. K., KORVE, K. & RICHARDS, F. O. 2002. Lymphatic filariasis elimination and schistosomiasis control in combination with onchocerciasis control in Nigeria. *The American Journal of Tropical Medicine and Hygiene,* 67**,** 266-72.

HOUCHIN, K. & MACLEAN, D. 2005. Complexity Theory and Strategic Change: an Empirically Informed Critique\*. *British Journal of Management,* 16**,** 149-166.

HUANG, S.-M. 1988. Transforming China's collective health care system: A village study. *Social Science & Medicine,* 27**,** 879-888.

HURST, J. W. 1991. Reforming health care in seven European nations. *Health Affairs,* 10**,** 7-21.

INHORN, M. C. & SEROUR, G. I. 2011. Islam, medicine, and Arab-Muslim refugee health in America after 9/11. *The Lancet,* 378**,** 935-943.

JANOVSKY, K. 1996. *Health Policy and Systems Development: An agenda for research,* Geneva, World Health Organization.

JASPER, J. M. 2004. A Strategic Approach to Collective Action: Looking for Agency in Social Movement Choices. *Mobilization: An International Journal,* 9**,** 1-16.

JENKINS, R. 2002. *Foundations of Sociology: Towards a Better Understanding of the Human World,* New York, Palgrave Macmillan.

JONES, B. 2009. *Beyond the State in Rural Uganda,* Edinburgh, Edinburgh University Press.

JOSHI, A. & SCHULTZE-KRAFT, M. 2014. Introduction – Localising Governance: An Outlook on Research and Policy. *IDS Bulletin,* 45**,** 1-8.

KLECZKOWSKI, B. M., ELLING, R. H. & SMITH, D. L. 1984. *Health system support for primary health care*, WHO Geneva.

KLEINMAN, A. 1978. Concepts and a model for the comparison of medical systems as cultural systems. *Social Science &amp; Medicine. Part B: Medical Anthropology,* 12**,** 85-93.

KLEINMAN, A. 1980. *Patients and healers in the context of culture : an exploration of the borderland between anthropology, medicine, and psychiatry,* CA, University of California Press.

KOBLINSKY, M., MATTHEWS, Z., HUSSEIN, J., MAVALANKAR, D., MRIDHA, M. K., ANWAR, I., ACHADI, E., ADJEI, S., PADMANABHAN, P. & VAN LERBERGHE, W. 2006. Going to scale with professional skilled care. *The Lancet,* 368**,** 1377-1386.

KRUK, M. & FREEDMAN, L. 2008a. Assessing health system performance in developing countries: a review of the literature. *Health Policy,* 85**,** 263 - 276.

KRUK, M. E. & FREEDMAN, L. P. 2008b. Assessing health system performance in developing countries: A review of the literature. *Health Policy,* 85**,** 263-276.

LAGOMARSINO, G., GARABRANT, A., ADYAS, A., MUGA, R. & OTOO, N. 2012. Moving towards universal health coverage: health insurance reforms in nine developing countries in Africa and Asia. *The Lancet,* 380**,** 933-943.

LAIRD, L. D., DE MARRAIS, J. & BARNES, L. L. 2007. Portraying Islam and Muslims in MEDLINE: A content analysis. *Social Science & Medicine,* 65**,** 2425-2439.

LAW, J. 1992. Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. *Systems practice,* 5**,** 379-393.

LAWANSON, A. O., OLANIYAN, O. & SOYIBO, A. 2012. National Health Accounts estimation: lessons from the Nigerian experience. *Afr J Med Med Sci,* 41**,** 357-64.

LEACH, M. A., FAIRHEAD, J. R., MILLIMOUNO, D. & DIALLO, A. A. 2008. New therapeutic landscapes in Africa: Parental categories and practices in seeking infant health in the Republic of Guinea. *Social Science & Medicine,* 66**,** 2157-2167.

LEHMANN, U. & GILSON, L. 2012. Actor interfaces and practices of power in a community health worker programme: a South African study of unintended policy outcomes. *Health Policy and Planning*.

LEMA, V. 2012. Conscientious objection and reproductive health service delivery in sub-Saharan Africa: review article. *African journal of reproductive health,* 16**,** 15-21.

LEVESQUE, J.-F., HARRIS, M. & RUSSELL, G. 2013. Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health,* 12**,** 18.

LEVIN, J. 2013. Engaging the Faith Community for Public Health Advocacy: An Agenda for the Surgeon General. *Journal of Religion and Health,* 52**,** 368-385.

LONDOÑO, J.-L. & FRENK, J. 1997. Structured pluralism: towards an innovative model for health system reform in Latin America. *Health Policy,* 41**,** 1-36.

LONG, N. (ed.) 2004. *Actors, interfaces and development intervention: meanings, purposes and powers*.

LONG, N. & PLOEG, J. D. V. D. 1989. Demythologizing planned intervention: an actor perspective. *Sociologia Ruralis,* 29**,** 226-249.

MAHMOOD, S. 2005. *Politics of Piety: The Islamic Revival and the Feminist Subject*, Princeton University Press.

MARCHAL, B., CAVALLI, A. & KEGELS, G. 2009. Global Health Actors Claim To Support Health System Strengthening-Is This Reality or Rhetoric? *PLoS Med,* 6**,** e1000059.

MARCHAL, B., DEDZO, M. & KEGELS, G. 2010. A realist evaluation of the management of a well- performing regional hospital in Ghana. *BMC Health Services Research,* 10**,** 24.

MARMOT, M., FRIEL, S., BELL, R., HOUWELING, T. A. J. & TAYLOR, S. 2008. Closing the gap in a generation: health equity through action on the social determinants of health. *The Lancet,* 372**,** 1661-1669.

MCKEOWN, T. & RECORD, R. G. 1962. Reasons for the Decline of Mortality in England and Wales during the Nineteenth Century. *Population Studies,* 16**,** 94-122.

MCPAKE, B. & KUTZIN, J. 1997. *Methods for evaluating effects of health reforms*, Division of Analysis, Research and Assessment, World Health Organization.

MEAD, N. & BOWER, P. 2000. Patient-centredness: a conceptual framework and review of the empirical literature. *Social Science & Medicine,* 51**,** 1087-1110.

MECHANIC, D. & VOLKART, E. H. 1961. Stress, Illness Behavior, and the Sick Role. *American Sociological Review,* 26**,** 51-58.

MIDGLEY, G. (ed.) 2002a. *Systems thinking,* London: SAGE Publications.

MIDGLEY, G. (ed.) 2002b. *Systems Thinking* London: SAGE Publication.

MINTZBERG, H. 1994. *The rise and fall of strategic planning*, Financial Times Prentice Hall.

MOYER, C., ADONGO, P., ABORIGO, R., HODGSON, A., ENGMANN, C. & DEVRIES, R. 2014. “It’s up to the Woman’s People”: How Social Factors Influence Facility-Based Delivery in Rural Northern Ghana. *Maternal and Child Health Journal,* 18**,** 109-119.

MOYER, C. & MUSTAFA, A. 2013. Drivers and deterrents of facility delivery in sub-Saharan Africa: a systematic review. *Reproductive Health,* 10**,** 40.

MUMTAZ, Z., SALWAY, S., SHANNER, L., ZAMAN, S. & LAING, L. 2012. Addressing disparities in maternal health care in Pakistan: gender, class and exclusion. *BMC Pregnancy and Childbirth,* 12**,** 80.

MURRAY, C. & FRENK, J. 2000. A framework for assessing the performance of health systems. *Bulletin of the World Health Organization,* 78**,** 717 - 731.

MURRAY, C. & FRENK, J. 2001. World Health Report 2000: a step towards evidence-based health policy. *The Lancet,* 357**,** 1698-1700.

NBS 2011. Annual Abstract of Statistics, 2011. *In:* NIGERIA, N. B. O. S. (ed.). Abuja, Nigeria: Federal Government of Nigeria.

NBS 2012a. Social Statistics in Nigeria. *In:* NIGERIA, N. B. O. S. (ed.). Abuja, Nigeria: National Bureau of Statistics Nigeria.

NBS 2012b. Social Statistics in Nigeria. *In:* NIGERIA, N. B. O. S. (ed.). Abuja, Nigeria: National Bureau of Statistics Nigeria.

NBS 2014. Nigeria Multiple Indicator Cluster Survey 2011. *Monitoring the situation of children and women.* Main Report, Abuja, Nigeria: National Bureau of Statistics [Nigeria] (NBS), United Nations Children’s Fund (UNICEF) and United Nations Population Fund (UNFPA).

NEEDS, N. P. C. 2004. National Economic Empowerment and Development Strategy (NEEDS). *In:* COMMISSION, N. P. (ed.). Abuja: Communications Development Incorporated.

NEWELL, K. 1975. Health by the people. *WHO chronicle,* 29**,** 161.

NHREC. 2014. *National Health Research Ethics Committee, Nigeria* [Online]. Abuja: Federal Ministry of Health. Available: <http://nhrec.net/nhrec/> [Accessed 25/11/2014 2014].

NICE 2014. Intrapartum care. Care of healthy women and their babies during childbirth. *Clinical Guideline.* National Institute for Clinical Excellence.

NPC & ICF\_INTERNATIONAL 2014. Nigeria Demographic and Health Survey 2013. Abuja, Nigeria and Rockville, Maryland, USA: National Population Commission and ICF International.

NPC & ORC\_MACRO 2004. Nigeria Demographic and Health Survey 2003. Calverton, Maryland: National Population Commission and ORC Macro.

NPC & ORC\_MACRO 2009. Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ORC Macro.

O'BRIEN, S. M. 2001. SPIRIT DISCIPLINE Gender, Islam, and Hierarchies of Treatment in Postcolonial Northern Nigeria. *Interventions,* 3**,** 222-241.

OLSEN, W. 2010. Editor's Introduction: Realist Methodology: A Review. *Realist Methodology.* London: Sage Publications.

OLUSANYA, B. O., ALAKIJA, O. P. & INEM, V. A. 2010. Non-uptake of facility-based maternity services in an inner-city community in Lagos, Nigeria: an observational study. *Journal of Biosocial Science,* 42**,** 341-358.

OUTHWAITE, W. 1987. *New philosophies of social science: realism, hermeneutics and critical theory,* London, Macmillan Education.

PADELA, A. I. & CURLIN, F. A. 2013. Religion and Disparities: Considering the Influences of Islam on the Health of American Muslims. *Journal of Religion and Health,* 52**,** 1333-1345.

PAPANICOLAS, I. & SMITH, P. C. 2010. EuroREACH Framework for Health System Performance Assessment.

PARSONS, T. 1951a. Illness and the Role of the Physician: A Sociological Perspective. *American Journal of Orthopsychiatry,* 21**,** 452-460.

PARSONS, T. 1951b. *The social system*, Free Press.

PAWSON, R. & TILLEY, N. 1997. *Realistic Evaluation*, Sage Publications (CA).

PEIRCE, C. S., HARTSHORNE, C. & WEISS, P. 1931. *Collected Papers of Charles Sanders Peirce*, Belknap Press of Harvard University Press.

PELTO, P. J. & PELTO, G. H. 1997. Studying Knowledge, Culture, and Behavior in Applied Medical Anthropology. *Medical Anthropology Quarterly,* 11**,** 147-163.

PESCOSOLIDO, B. A. 1992. Beyond Rational Choice: The Social Dynamics of How People Seek Help. *American Journal of Sociology,* 97**,** 1096-1138.

PESCOSOLIDO, B. A., GARDNER, C. B. & LUBELL, K. M. 1998. How people get into mental health services: Stories of choice, coercion and “muddling through” from “first-timers”. *Social Science & Medicine,* 46**,** 275-286.

PLSEK, P. E. & GREENHALGH, T. 2001. *The challenge of complexity in health care*.

POLKINGHORNE, D. E. 2007. Validity Issues in Narrative Research. *Qualitative Inquiry,* 13**,** 471-486.

RANSOME-KUTI, O. 1998. Who Cares for the Health of Africans: The Nigerian Case. *Better Health in Africa Panel, The World Bank* [Online]. Available: <http://www.popline.org/node/525102> [Accessed 18 August 2011].

REICH, M. R. & TAKEMI, K. 2009. G8 and strengthening of health systems: follow-up to the Toyako summit. *The Lancet,* 373**,** 508-515.

RENNE, E. P. 2010. *The politics of polio in northern Nigeria*, Indiana University Press.

RICHARD, F., HERCOT, D., OUEDRAOGO, C., DELVAUX, T., SAMAKE, S., VAN OLMEN, J., CONOMBO, G., HAMMONDS, R. & VANDEMOORTELE, J. 2011. Sub-Saharan Africa and the Health MDGs: the need to move beyond the 'quick win' model. *Reprod Health Matters,* 19**,** 42 - 55.

RICHARDS, E. undated. “Building Back Better? Health System Reconstruction and Gender Equity”. *In:* VAL PERCIVAL, N. C. U. T. M., LSHTM; ESTHER RICHARDS, REBUILD, LSTM; SALLY THEOBALD, REBUILD, LSTM; JUSTINE NAMAKULA, REBUILD, MAKERERE UNIVERSITY; SARAH SSALI, REBUILD, MAKERERE UNIVERSITY; FRANCELINA ROMÃO, MOZAMBIQUE MINISTRY OF HEALTH; JOSEPH EDEM-HOTAH, REBUILD, COLLEGE OF MEDICINE AND ALLIED HEALTH SCIENCES. (ed.) *Stockholm International Peace Research Institute (SIPRI) Global Health and Security Programme Gender Working Group.*

RICHARDS, E., THEOBALD, S., GEORGE, A., KIM, J. C., RUDERT, C., JEHAN, K. & TOLHURST, R. 2013. Going beyond the surface: Gendered intra-household bargaining as a social determinant of child health and nutrition in low and middle income countries. *Social Science & Medicine,* 95**,** 24-33.

RIEWPAIBOON, W., CHUENGSATIANSUP, K., GILSON, L. & TANGCHAROENSATHIEN, V. 2005. Private obstetric practice in a public hospital: mythical trust in obstetric care. *Social Science & Medicine,* 61**,** 1408-1417.

ROBERTS, M., HSIAO, W., BERMAN, P. & REICH, M. 2009. *Getting Health Reform Right: A Guide to Improving Performance and Equity*, Oxford Scholarship Online.

ROEMER, M. 1993a. National health systems throughout the world. *Annu Rev Public Health,* 14**,** 335 - 353.

ROEMER, M. I. 1993b. National Health Systems Throughout the World. *American Behavioral Scientist,* 36**,** 694-708.

RUSSELL, E., JOHNSON, B., LARSEN, H., NOVILLA, M. L. B., OLMEN, J. V. & SWANSON, R. C. 2013. Health systems in context: a systematic review of the integration of the social determinants of health within health systems frameworks. *Revista Panamericana de Salud Pública,* 34**,** 461-467.

RUSSELL, S. & GILSON, L. 2006. Are health services protecting the livelihoods of the urban poor in Sri Lanka? Findings from two low-income areas of Colombo. *Social Science &amp; Medicine,* 63**,** 1732-1744.

SCHNEIDER, P. & DIOP, F. 2001. Synopsis of Results on the Impact of Community-Based Health Insurance on Financial Accessibility to Health Care in Rwanda. Washington, DC: © World Bank. License: CC BY 3.0 Unported.

SCHRAM, R. 1971. *A History of the Nigerian Health Services,* Ibadan, Ibadan University Press.

SCOTT, K., MCMAHON, S., YUMKELLA, F., DIAZ, T. & GEORGE, A. 2014. Navigating multiple options and social relationships in plural health systems: a qualitative study exploring healthcare seeking for sick children in Sierra Leone. *Health Policy and Planning,* 29**,** 292-301.

SEN, A. 1999. *Development as Freedom*, Oxford University Press.

SEN, G. & IYER, A. 2012. Who gains, who loses and how: Leveraging gender and class intersections to secure health entitlements. *Social Science & Medicine,* 74**,** 1802-1811.

SHAKARISHVILI, G., ATUN, R., BERMAN, P., HSIAO, W., BURGESS, C. & LANSANG, M. 2010. Converging Health Systems Frameworks: Towards A Concepts-to-Actions Roadmap for Health Systems Strengthening in Low and Middle Income Countries. *Global Health Governance,* III**,** 2.

SHAKARISHVILI, G., LANSANG, M., MITTA, V., BORNEMISZA, O., BLAKLEY, M., KLEY, N., BURGESS, C. & ATUN, R. 2011. Health systems strengthening: a common classification and framework for investment analysis. *Health Policy and Planning,* 26**,** 316 - 26.

SHEIKH, K., GILSON, L., AGYEPONG, I., HANSON, K., SSENGOOBA, F. & BENNETT, S. 2011. Building the field of health policy and systems research: framing the questions. *PLoS Med,* 8**,** e1001073.

SHEIKH, K. & PORTER, J. 2010a. Discursive gaps in the implementation of public health policy guidelines in India: The case of HIV testing. *Social Science & Medicine,* 71**,** 2005-2013.

SHEIKH, K. & PORTER, J. 2010b. Discursive gaps in the implementation of public health policy guidelines in India: The case of HIV testing. *Social Science &amp; Medicine,* 71**,** 2005-2013.

SHEIKH, K., RANSON, M. K. & GILSON, L. 2014. Explorations on people centredness in health systems. *Health Policy and Planning,* 29**,** ii1-ii5.

SICOTTE, C., CHAMPAGNE, F., CONTANDRIOPOULOS, A. P., BARNSLEY, J., BELAND, F., LEGGAT, S. G., DENIS, J. L., BILODEAU, H., LANGLEY, A., BREMOND, M. & BAKER, G. R. 1998. A conceptual framework for the analysis of health care organizations' performance. *Health Serv Manage Res,* 11**,** 24-41; discussion 41-8.

SIGERIST, H. E., ROEMER, M. I. & MACKINTOSH, J. M. 2012. *Henry E Sigerist on the Sociology of Medicine*, Literary Licensing, LLC.

SILVERMAN, D. 2007. *A very short, fairly interesting and reasonably cheap book about qualitative research,* Los Angeles, California; London, Sage Publications.

SINGH, S. & SAMARA, R. 1996. Early Marriage Among Women in Developing Countries. *International Family Planning Perspectives,* 22**,** 148-175.

SMITH, M. F. 1954. *Baba of Karo: A Woman of the Muslim Hausa,* London, Faber and Faber Ltd.

SOYIBO, A., LAWANSON, O. & OLANIYAN, L. 2005. National Health Accounts of Nigeria, 1998–2002. *Final report submitted to World Health Organization, Geneva. Ibadan: University of Ibadan*.

SPRINGER, K. W., HANKIVSKY, O. & BATES, L. M. 2012. Gender and health: Relational, intersectional, and biosocial approaches. *Social Science & Medicine,* 74**,** 1661-1666.

SQUIRES, A. 2009. Methodological challenges in cross-language qualitative research: A research review. *International Journal of Nursing Studies,* 46**,** 277-287.

STAKE, R. E. 2010. *Qualitative Research: Studying How Things Work*, Guilford Press.

STANDING, H. & BLOOM, G. 2001. Pluralism and marketisation in the health sector: Meeting health needs in contexts of social change in low and middle-income countries. *IDS Working Paper 136.* Institute of Development Studies, Brighton.

STEVENSON, A. 2010. Oxford Dictionary of English. 'Oxford University Press'.

STUCKLER, D., BASU, S. & MCKEE, M. 2010. Public health in Europe: power, politics, and where next? *Public Health Reviews,* 32**,** 213-242.

STURMBERG, J. P., O'HALLORAN, D. M. & MARTIN, C. M. 2012. Understanding health system reform – a complex adaptive systems perspective. *Journal of Evaluation in Clinical Practice,* 18**,** 202-208.

SULMASY, D. P. 2009. Spirituality, religion, and clinical care. *Chest,* 135**,** 1634-1642.

TOLHURST, R., LEACH, B., PRICE, J., ROBINSON, J., ETTORE, E., SCOTT-SAMUEL, A., KILONZO, N., SABUNI, L. P., ROBERTSON, S., KAPILASHRAMI, A., BRISTOW, K., LANG, R., ROMAO, F. & THEOBALD, S. 2012. Intersectionality and gender mainstreaming in international health: Using a feminist participatory action research process to analyse voices and debates from the global south and north. *Social Science & Medicine,* 74**,** 1825-1832.

TRAVIS, P., BENNETT, S., HAINES, A., PANG, T., BHUTTA, Z., HYDER, A., PIELEMEIER, N., MILLS, A. & EVANS, T. 2004. Overcoming health-systems constraints to achieve the Millennium Development Goals. *Lancet,* 364**,** 900 - 906.

UN-HABITAT 2009. Planning Sustainable Cities — Global Report on Human Settlements 2009. Kenya: United Nations Human Settlements Programme (UN-Habitat).

UNGER, J.-P., MACQ, J., BREDO, F. & BOELAERT, M. 2000. Through Mintzberg's glasses: a fresh look at the organization of ministries of health. *Bulletin of the World Health Organization,* 78**,** 1005-1014.

VAN NES, F., ABMA, T., JONSSON, H. & DEEG, D. 2010. Language differences in qualitative research: is meaning lost in translation? *European Journal of Ageing,* 7**,** 313-316.

VAN OLMEN, J., CRIEL, B., BHOJANI, U., MARCHAL, B., CHENGE, F., VAN DAMME, W., HOEREE, T., PIRARD, M. & KEGELS, G. 2012a. The Health Systems Dynamics Framework. *Health, Culture and Society,* 2**,** 1 - 12.

VAN OLMEN, J., CRIEL, B., VAN DAMME, W., MARCHAL, B., VAN BELLE, S., VAN DORMAEL, M., HOERÉE, T., PIRARD, M. & KEGELS, G. 2010a. Analysing health systems to make them stronger. *Studies in Health Services Organisation & Policy.* Antwerpen: ITGPress.

VAN OLMEN, J., CRIEL, B., VAN DAMME, W., MARCHAL, B., VAN BELLE, S., VAN DORMAEL, M., HOERÉE, T., PIRARD, M. & KEGELS, G. 2010b. *Analysing health systems to make them stronger,* Antwerp, ITGPress.

VAN OLMEN, J., MARCHAL, B., VAN DAMME, W., KEGELS, G. & HILL, P. 2012b. Health systems frameworks in their political context: framing divergent agendas. *BMC Public Health,* 12**,** 774.

VISION\_2010, N. W. 1999. VISION 2010 REPORT. Available: <http://nigeriaworld.com/focus/documents/vision2010.html> [Accessed 28 October 2011].

VON BERTALANFFY, L. 1950. The theory of open systems in physics and biology. *Science,* 111**,** 23-29.

WALL, L. L. 1988. *Hausa Medicine: Illness and Well-being in a West African Culture,* Durham and London, Duke University Press.

WARNER, M. M. 1993. Objectivity and Emancipation in Learning Disabilities: Holism From the Perspective of Critical Realism. *Journal of Learning Disabilities,* 26**,** 311-325.

WAXLER-MORRISON, N. E. 1988. Plural medicine in Sri Lanka: Do ayurvedic and western medical practices differ? *Social Science & Medicine,* 27**,** 531-544.

WBI, W. B. I. 2014. *2014 Global Flagship Course on Health System Strengthening and Sustainable Financing - The Challenge of Universal Health Coverage* [Online]. Washington, DC, United States: The World Bank Institute (WBI). Available: <http://wbi.worldbank.org/wbi/event/2014-global-flagship-course-health-system-strengthening-and-sustainable-financing> [Accessed 22/11/2014 2014].

WEBER, M. 1922. 1978. *Economy and society: An outline of interpretive sociology,* 2.

WEISS, W. M., CHOUDHARY, M. & SOLOMON, R. 2013. Performance and determinants of routine immunization coverage within the context of intensive polio eradication activities in Uttar Pradesh, India: Social Mobilization Network (SM Net) and Core Group Polio Project (CGPP). *BMC International Health and Human Rights,* 13**,** 25-25.

WESTHORP, G. 2014. *Realist Impact Evaluation: An Introduction*, London: Methods Lab/Overseas Development Institute.

WHAITES, A. 2008. States in development: Understanding state-building. *Londres, Departamento para el Desarrollo Internacional de Reino Unido (Documento de trabajo)*.

WHO 1986. *Ottawa charter for health promotion*, World Health Organisation.

WHO 2000. Health systems: improving performance. Geneva: World Health Organization.

WHO 2005a. The World health report, 2000. Health systems: improving performance. Geneva: World Health Organization. 2000. *URL:* [*http://www*](http://www)*. who. int/whr/2000/en/index. html*.

WHO 2007. Everybody's business--strengthening health systems to improve health outcomes: WHO's framework for action. *World Health Report.*

WHO 2008. Eliminating female genital mutilation: an interagency statement UNAIDS, UNDP, UNECA, UNESCO, UNFPA, UNHCHR, UNHCR, UNICEF, UNIFEM, WHO. *In:* RESEARCH, D. O. R. H. A. (ed.). Geneva, Switzerland: World Health Organization.

WHO 2010. Nigerian farmers rejoice in pilot insurance plan. *Bulletin of the World Health Organization,* 88**,** 329-330.

WHO 2011. Nigeria Health Profile. *Global Health Observatory (GHO)* World Health Organization.

WHO 2014. The prevention and elimination of disrespect and abuse during facility-based childbirth. *In:* RESEARCH, D. O. R. H. A. (ed.). Geneva, Switzerland: World Health Organization.

WHYTE, W. F. 1955. *Street Corner Society: The Social Structure of an Italian Slum*, University of Chicago Press.

WILLIAMS, A. 1998. Therapeutic landscapes in holistic medicine. *Social Science & Medicine,* 46**,** 1193-1203.

WORLD\_BANK 2007. Healthy Development: The World Bank Strategy for Health, Nutrition and Population Results. Washington: The World Bank.

WORLD\_BANK 2011. Nigeria World Development Indicators (WDI) Data. The World Bank Group.

WORLD\_BANK 2012. Nigeria - Additional Financing for the Second Health Systems Development Project. Washington DC: World Bank

YIN, R. K. 2009. *Case Study Research: Design and Methods*, Sage Publications.

YINGER, J. M. 1969. A Structural Examination of Religion. *Journal for the Scientific Study of Religion,* 8**,** 88-99.