AN ASSESSMENT OF DECISION SPACE AND DISTRICT HEALTH CARE SECTOR PERFORMANCE FOLLOWING DECENTRALISATION IN KENYA

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DECLARATION

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ACRONYMS AND ABBREVIATIONS

ANC:	Antenatal Clinic
AOP:	Annual Operational Plan
CDF:	Constituency Development Fund
DHSF:	District Health Stakeholders Forum
DMOH:	District Medical Officer of Health
DMOH:	District Medical Officer of Health
FIF:	Facility Improvement Fund
GOK:	Government of Kenya
HFMC:	Hospital Facility Management Committee
IPT:	Intermittent Presumptive Treatment
KEPH:	Kenya Essential Package for Health
KES:	Kenya Shillings
LATF:	Local Authority Transfer Fund
MMS:	Ministry of Medical Services
MOH:	Ministry of Health
MPHS:	Ministry of Public Health and Sanitation
MSPNDV:	Ministry of State for Planning National Development and Vision 2030
NGO:	Non-Governmental Organization
NHIF:	National Health Insurance Fund
NHSSP I:	National Health Strategic Plan I (1999-2004)
NHSSP II:	National Health Sector Strategic Plan II (2005-2010)
PHC:	Primary Health Care
PMOH:	Provincial Medical Officer of Health
SWap:	Sector-Wide approach to planning
WHO:	World Health Organization

ABSTRACT

Objective: To analyze the formal decision space district authorities are allowed; what they do with their new found discretion, and the effects, if any on district health sector performance in Kenya.

Methods

This study includes an empirical and a conceptual assessment. Assessment involved applying Bossert's framework to map decision space at five functional domains: finance and expenditure, service organization, human resources, access and governance rules. District health plan for the top three rich districts and bottom three poor districts based on their per capita health expenditure were analysed. Evaluation reports, financial reports, policy documents, published and unpublished studies were also examined.

Findings

The MOH has allowed moderate range of choice over finance and expenditure and access rules while limiting choice over service organisation, human resources, governance rules, norms and standards for service provision. District health authorities enjoy a wide range of choice in allocating resources generated from cost-sharing and in contracting with non-salaried staff. Analysis of service output indicators shows that poor districts were on track to achieving their targets for child and maternal health, but performed poorly on other indicators compared to rich districts that were generally on track to achieve most of their targets including: antenatal coverage, percentage of births attended by qualified attendant and in offering family planning services.

Conclusions

Decentralisation is beginning to bring some positive change to the district health sector in Kenya, but more needs to be done to support or subsidize poor districts.

Key Words: decentralisation, decision space, district health sector

CHAPTER 1: INTRODUCTION

1.0 Background to the Study

I have chosen to focus on decision space in relation to health sector decentralisation since I work with Primary Health Care Services (PHCS) to implement health promoting programs at the district level. I am familiar with Kenya's health sector decentralisation policy and the role of District Health Management Boards and Teams (DHMBs and DHMBs). Evaluation reports and other studies present contradictory evidence whether the primary health care spending and reforms being implemented in Kenya are bringing about the required results (Glenngard and Maina 2007;Ndavi et al. 2009;Owino et al. 2000). This thesis aims to analyze the formal decision space permitted within DHMBs and DHMTs and how this relates to and possibly affects district health sector performance in Kenya.

To achieve the objectives of this study, two sets of districts were selected, one rich and the other poor based on their per capita health expenditure (sum of Government of Kenya-GOK, cost-sharing and donor funding divided by the district's population). The selection is based on the premise that wealthy districts by virtue of generating a larger proportion of funds which are not earmarked are better able to utilise the discretion on offer from MOH as compared to poor districts. In addition, the amount of income available in the district is likely to affect the extent to which health targets are achieved and thus the objectives of decentralisation (Bardhan 2002). The rich districts are Thika, Mwingi and Taita Taveta while the poor districts are Mandera, Meru North and Makueni.

The first part of this thesis examined the formal decision space using Bossert's indicators. The second part compares the two sets of districts against selected service output indicators based on the targets that the districts have set for themselves in order to serve the national health policy. Analysis does not include private sector or the provincial level of the public sector. The outputs of this research are meant to highlight the concept of decision space amongst policy makers and other actors in the health sector. The target audience include: programme managers, planners, policy-makers, non-governmental organisations, private providers, the community and academia.

1.1 Thesis Overview

Chapter 1 progresses with a brief background on health sector decentralisation in Kenya; it presents the conceptual framework, the problem statement and concludes with a justification for conducting this research. Chapter 2 presents a more detailed description of the health sector decentralisation in Kenya and highlights key milestones. This is followed by a description of health policy and decision-making infrastructure. The chapter concludes with a summary of the main thrust and objectives of the National Health Sector Strategic Plan II (NHSSP II) and the Joint Programme of Work and Funding (JPWF). Chapter 3 describes the overall approach adopted in this study and concludes with a description of how data was analysed and interpreted. Chapter 4

presents and interprets results based on the research questions posed by this study. Finally, chapter 5 discusses the intended and likely impacts of health sector decentralisation in Kenya; it considers other studies and attempts to explain possible pathways of effect. This is done by systematically addressing the objectives of this study. A reflection on the study limitations and their implications is also included; thereafter recommendations for policy and administrative practise are suggested.

1.2 Introduction

Though widely used, the term decentralisation often means different things to different individuals and organizations and unless it is clearly defined for a given context we risk being divided by a common term. World Health Organisation (WHO) defines decentralisation as the transfer of authority, public planning, management and decision-making from national level to sub national levels (WHO 2007). There are three types of decentralisation: political, administrative and fiscal decentralisation.

Political decentralisation aims at bringing the government closer to the community through the principles of community participation. It involves giving citizens and elected representatives who are considered to have a better understanding of community needs more power in decision-making. Researchers have argued that "citizen voice" helps improves allocative efficiency because communities are generally able to express their demands to local officials thereby ensuring that health services are matched to their preferences. Furthermore the increased responsiveness of officials to local needs is likely to lead to improved productive efficiency compared to if they were dependent on principals based at MOH headquarters (Bell et al. 2002;Bossert et al. 2003a;Bossert et al. 2003b;Chitah and Bossert 2001;Robalino et al. 2007).

Administrative decentralisation involves the transfer of authority and responsibility for public functions from the central government to subordinate or semi-autonomous government organisations and / or the private sector (Rondinelli et al. 1983). Administrative decentralisation has taken on a number of forms including: "deconcentration of functions within central bureaucracy; delegation to semiautonomous or quasi autonomous public-corporations; devolution to local governments, and the transfer of functions to nongovernmental organizations" (p.iv).

Fiscal decentralisation involves the transfer of authority for taxation and expenditure to sub-national organisations. These organisations have different sources of revenue at their disposal including: self-financing, co-financing or co-production arrangements[1], expansion of locally collected taxes and levies, intergovernmental transfers of tax revenues from the central government, and authority to borrow and mobilise resources through loan guarantees.

[1] For example contracting out some functions to private service providers

Other researchers have defined decentralization in terms of a set of functions and expansion of choice that are formally transferred to local decision makers in order to encourage them to achieve health objectives (Bossert 1998;Grundy 2001). This thesis is founded on this definition of decentralisation. Decision space refers to the level of discretion permitted by the central government in which the local authorities can act to improve health services.

But decentralisation is not without its critics. It has been argued that when there is information asymmetry between the central authority and the local sub-national authorities' then the choices that local agents' make may not always result in productive and allocative efficiencies (Bardhan 2002;Glenndale 2007). Further, Opon (2007) argues that the concept of 'local voice' required in shaping delivery of services and health policy still does not hold for a developing country like Kenya. He cites constraints posed by weak electoral systems, poor information and absence / inadequacy of social safety nets as factors that can lead to the weak voice (Opon 2007). This argument sounds convincing given that improvements in transparency and accountability depends on the degree to which the clients have been involved in the governance of the health systems.

Decentralisation is also associated with greater equity through its creation of space for learning and innovation (Bossert and Beauvais 2002). This is consistent with the evidence presented in the literature (Bell, Ithindi, & Low 2002;Flores et al. 2006). Bell et al. (2002) compared centralised and decentralised health planning. They report that centralised decision-making on resource allocation had reinforced inequalities in Namibia while decentralised decision-making by regional health management teams promoted equitable delivery of primary health care (Bell, Ithindi, & Low 2002). For example, with the aim of increasing the resource base for the district health sector, the Kenyan government implemented a decentralisation policy starting 1991 that allowed public facilities to levy fees both for treatment and for other health services. However, responding to the growing evidence that out-of-pocket payments were widening inequity in health services utilisation, the government implemented the 10/20 policy[2] in 2004. This policy abolished treatment fees, and only required a service user to pay a registration fee of KES 10 at a health centre or KES 20 at a dispensary. This policy also saw the introduction of waivers for the poor, children aged below five and for conditions such as malaria and tuberculosis. This policy has been credited with the improvement of health services utilisation especially amongst the poor compared to the time when user fee policy was implemented.

[2] The 10/20 policy directs that health services at dispensaries and health centres are free except for a minimum registration fee of Kenya shillings (KES) 10 and KES 20 respectively or waived for the poor.

1.3 Context to the Study and to Decentralisation

Kenya is a low income country located in East-Africa. Administratively Kenya is divided into eight provinces and seventy one districts (as at August 2007). The Kenyan health care delivery system is organised around three levels namely the national, provincial and district levels. MOH formulates policy and acts as a steward for the health sector. The provincial level acts as an intermediary (extended arm) between the MOH and the district health sector, with regional hospital serving as referral institutions for the district hospitals. The district level concentrates on delivery of health care services and generates its own expenditure plans and budgetary requirements based on guidelines from MOH.

The Health Policy Framework (1994-2010), documents the first commitment by the Kenyan government to implement health sector reform with an aim of making all services more effective accessible and affordable. This was followed by the five-yearly NHSSP I (1999-2004) and NHSSP II (2005-2010). The aim of these plans is to strengthen the regulatory function of the government, decentralize responsibility for health service delivery to Health Management Boards and Teams at the district and provincial levels; and to improve cost effectiveness and efficiency of resource allocation and utilisation in the sector. The purpose of these strategic actions is to reverse the trend of poor health indicators among Kenyans (MOH 2005).

Through these strategic plans, the MOH has committed itself to decentralising the health sector through providing increased authority for decision-making, resource allocation and management of health sector at the district and facility levels (MOH 1994;MOH 1999;MOH 2005). Two forms of decentralisation are predominant in the Kenyan health sector: delegation and deconcentration. Deconcentration involves the transfer of authority and responsibility from the MOH to management boards and teams at the district level, but the main line of central management control is maintained. In other words the DHMBs and DHMTs are vertically accountable to the MOH. This study focused on deconcentration of functions and authority to DHMBs and DHMTs.

On the other hand delegation has involved two teaching and referral hospitals Kenyatta National Hospital in Nairobi and Moi Teaching and Referral Hospital in Eldoret. In this model a service level agreement is made between the MOH and the hospital which stipulates the autonomy with which the hospital is allowed to undertake activities independently. The government appoints the hospital boards, provides recurrent funds, and sets the fee structure and staff remuneration levels. As state corporations, the government retains ownership of the facility, but the hospital board is given responsibility for management including generating revenue through cost-sharing, procurement of goods and services, hiring and firing staff, development and management of the hospitals. The MOH can thus be seen to be implementing in part a policy of purchaser-provider separation by providing autonomy to these hospitals.

Decentralisation efforts are aimed at strengthening the implementation of the Kenya Essential Package of Health (KEPH) as outlined in the NHSSP II (2005-2010). KEPH integrates all health programmes into a single package that focuses on interventions towards the improvement of health at different phases of human development: pregnancy and newborn; early childhood; late childhood; youth and adolescent; adulthood and elderly (MOH 2005). Through decentralisation, MOH aims to foster coordination and collaboration between DHMBs, DHMTs, line ministries, donors, private sector Non-Governmental Organizations (NGOs) and other stakeholders. Another anticipated outcome is greater community involvement in order to improve transparency and accountability of health funds in the implementation of KEPH at the district level. Some of the changes as a result of this policy include: sector wide approach in health (Swap) to enhance coordination between partners, rationalization of functions to improve management structure, reforms aimed at retaining staff and the setting up of a health sector services fund to improve disbursement to lower levels of health facilities (MOH 2008a). A detailed background on health sector decentralisation in Kenya is presented in chapter 2.

1.4 Problem Statement

The MOH through the NHSSP II has made a number of commitments to decentralisation with an aim of building district health sectors capable of managing health activities. (MOH 2005). However, according to the 2007 mid-term review of the NHSSP II and other studies, the objectives of decentralisation have not been fully achieved (Glenngard & Maina 2007;MOH 2007;Ndavi, Ogola, Kizito, & Johnson 2009). These studies document a number of reasons for the slow progress including: the political context, lack of a strategic framework to define the vision of decentralisation, structure of MOH and centralised support systems (for instance financial control and human resources management).

The health policy guidelines are similar for all districts. But progress towards the objectives of decentralisation relies not only on the level of flexibility of choice that the central government has put in place but also on the district authority's use of their newly acquired discretion. The central purpose of this study is: to map the 'freedom of choice' within the discretion that MOH permits and to examine how districts compare against selected performance targets they have set for themselves in order to serve national policy objectives. This analysis is vital in understanding differences in capacity and inclination to exploit the discretionary opportunity on offer as evidenced through priority setting and service output indicators from the districts.

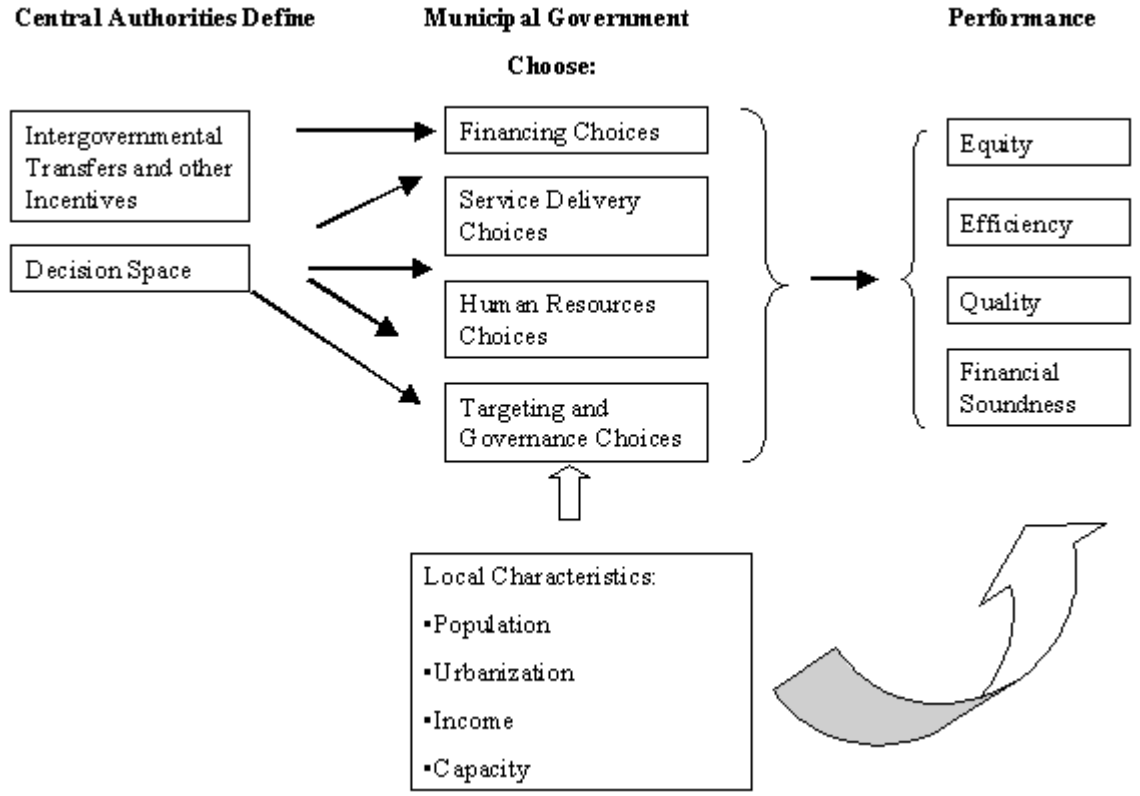
1.5 Conceptual Framework

In any given country different combinations and degrees of decentralisation may exist for different functions. Therefore attempts to measure decentralisation and its effects are usually met with several challenges depending on what one is interested in measuring.

Decentralisation is both a state and a process. As a state it involves two measures: level of decentralisation and degree. Level deals with the distribution of powers at system or organizational level (Mintzberg 1979 cited in WHO 2007). Degree of decentralisation refers to the range of choice that is permitted at the local level.

Five analytical frameworks have been advanced for measuring decentralisation. The public administration approach analyses the distribution of authority within national political and administrative structures (Rondinelli, Nellis, & Cheema 1983). The fiscal choice approach analyses choice made by local authorities using locally generated resources and government transfers (Musgrave and Musgrave 1991). The social capital approach explains why decentralised governments in some localities perform better than in other localities (Putnam 1993). The principal agent approach examines the relationship between the central government and local authorities (Hurley et al. 1995). Bossert's decision-space approach builds on the principal agent approach. It provides a means for analysing "the three key elements of decentralisation: (1) the amount of choice that is transferred from central institution to institutions in the periphery, (2) what choices local officials make with their increased discretion and (3) what effect these choices have on the performance of the health system" (Bossert 1998, p. 1513). Figure 1.1 below illustrates Bossert's model which is operationalised through indicators presented in table 4.2.

Figure 1.1: Bossert's "Decision-Space" Analytical Framework



Source: Bosssert, 1998

Of the five analytical frameworks, Bossert's model is the most suited for achieving the objectives of the current study. This is because the model is designed to analyse health sector functions: finance, service organisation, human resources, access rules (targeting), governance rules (facility boards, health offices, community participation). In addition, the model permits an examination of the tools available at the central level to influence local choices, for example the provision of positive incentives in the form of matching grants, or sanctions such as withholding funding. Bossert suggests that the characteristics of local governments, such as the capacity of local personnel to make appropriate choices, be evaluated as well. But critics argue that apart from acknowledging the influence of local characteristics, Bosserts approach does not offer suggestions on how to handle these factors (Atkinson et al. 2000).

1.6 Research Questions

Bossert's decision space framework suggests that to measure the decision space at the district level, for example in in the Kenyan district health sector, the following research questions should be examined:

1. What is the amount of choice or type of choice that is transferred from MOH to the DHMB and DHMT?
2. What choices do DHMB and DHMT actually make with their increased discretion, as evidenced from their district health plans and budgets?
3. What effects or potential effects do these choices have on the performance of the district health sector as evidenced from priority setting, service outputs and possibly health outcomes?

1.7 Objectives of the Study

Objective

To analyze the formal decision space district authorities are allowed; what they do with their new found discretion, and the effects, if any on district health sector performance in Kenya.

Specific Objectives

- To describe the decentralisation model applied in the health sector in Kenya and highlight policies that are in place.
- To apply the decision-space framework in order to assess the degree of decision-making power that is transferred to district authorities.
- To assess the choices that DHMBs and DHMTs actually make with their newly found discretion, through examination of district health plans and related literature.
- To examine the effects or potential effects these choices have on the performance of the district health sector as evidenced from priority setting and service output indicators.
- To offer recommendation for improving policy and administrative practice.

1.8 Significance of the Study

Health sector decentralisation is an important issue both in Kenya and internationally. This is because it is a far reaching change to the way health care services are organised and delivered. While there has been considerable research into the various functions of the health sector under different decentralised systems, except for evaluations little or no research has been conducted on functional deconcentration to DHMBs and DHMTs in Kenya. Given that health systems in Kenya, like most health systems elsewhere, operate in a resource constrained environment, structural reorganisations and interventions should offer value for investment. This means that the current drive towards decentralising the health sector to district authorities should be motivated by a desire to decrease health inequalities and improve primary health care provision.

Studies also suggest that decentralisation, if poorly implemented can create confusion about the roles and responsibilities, lead to funding shortfalls and delays, cause the breakdown of successful vertical programs and create tensions between local leaders and central authorities (Brinkerhoff and Hotchkiss 2006;Kaleghian 2004;Okore and Thomas 2007). The absence of legislative support to decentralisation in Kenya may be part of the problem. Local officials may also be constrained in their range of choice as they may not have adequate control over resource generation, allocation and human resources. There is therefore a need for further research and evidence in support of what works and what does not work as we tread down the path of health sector decentralisation in Kenya. The lessons learnt and the issues raised by this study are also relevant to other decentralised health systems.

CHAPTER 2: HEALTH SECTOR DECENTRALISATION IN KENYA

2.1 Chapter Introduction

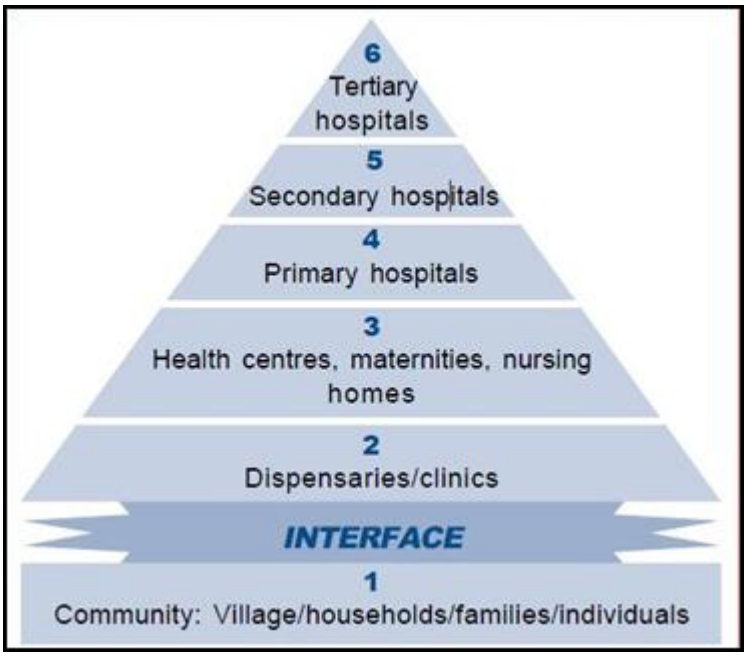
This chapter presents a general overview of health sector decentralisation in Kenya. It begins with an overview of the health sector in Kenya; this is followed by a brief description of key milestones in health sector decentralisation. The health policy and decision-making infrastructure is then presented and the chapter concludes with a summary of the main thrust and objectives of NHSSP II and JPWF.

2.2 Overview of the Health Sector in Kenya

The Kenyan health sector is organised into three levels; central, provincial and district which is the lowest administrative unit. Out of the 5,334 public health facilities listed on the updated spatial national health facility database for public health sector planning, 67% are under MOH, 28% mission and NGOs, 2% local authorities and 3% owned by private companies and other government institutions (Noor et al. 2009). According to this report over 89% of the population are within 5km Euclidean distance to a public health facility while over 80% of the population residing outside 5km radius of their nearest facility are in sparsely settled pastoralist areas of the country.

The district hospital serves the bulk of the district's population while the health centres and dispensaries serve a much smaller population. Staff cadres vary according to the type of facility. Under KEPH, health services delivery is organized into six levels. Level 1 is the community, which is the foundation of the health service priority. Level 2-3 comprises of dispensaries, health centres and maternity / nursing homes which handle promotive, preventive and various curative services. Dispensaries are run by registered nurses and supervised by a nursing officer while health centres are run by clinical officers. Level 4-6 comprising of primary, secondary and tertiary hospitals undertake curative and rehabilitative activities of their service delivery package (see figure 2.1). The major health insurance provider is the National Health Insurance Fund (NHIF). NHFI was established through a parliamentary act in 1966, initially targeted to employed persons earning Ksh. 1000 and above and their declared beneficiaries (spouse and children). In 1972 the NHIF act was amended to include voluntary membership. A bill has been tabled in parliament to convert NHIF into a National Social Health Insurance fund (NSHIF) to cover all Kenyans. This initiative has not been implemented yet. District hospitals obtain the bulk of their revenue from GOK through cost-sharing and from donors.

Figure 2.1: Levels of Care in KEPH



Source (MOH, 2005)

2.3 Key Milestones in Health Sector Decentralisation in Kenya

Responding to the limitations of a highly centralised heath sector, the Government of Kenya (GOK) launched the District Focus for Rural Development in 1989 as a step towards decentralising some of the MOH tasks. In 1992 District Health Management Boards (DHMB) were created. This board is empowered to superintend the management of hospital health centre and dispensary services and to support public health care programmes. The District Health Management Teams (DHMT) work closely with DHMB and facility boards in prioritizing needs to be met with revenue generated through treatment fees (popularly called 'cost-sharing'). This revenue may be used in whichever area district authorities would like to allocate it. However 25% must be used for primary and preventive health care (MOH 2002). Realizing constraints in coordinating activities and the various actors in the health sector, the MOH strives to ensure that structural, financial and organizational reforms are implemented within a sector wide approach (MOH 2005). The overall total actual expenditure in MOH has also increased from KES 16 billion in 2003/04 to KES 27 billion in 2006/07, after correcting for inflation (MOH 2008a). Table 2.1 below presents a chronology of events towards decentralising the health sector in Kenya.

Table 2.1: Chronology of Health Sector Decentralisation in Kenya

Time	Event
1989	**Cost-Sharing:** • Introduction of consultation fees in government health facilities. • A realisation of the importance of local control of the funds generated.
1992	**Treatment Fee:** • User charges converted from a consultation fee to a treatment fee. • Increased level of resources available at the local level. • Three quarters of the revenues are used at the collecting facility, one quarter are set aside for district level expenditure on primary health care.
	District Health Management Boards: • Created by the Legal Notice No: 162 of the Public Health Act (Cap. 242), boards appointed by the minister of health. • Members of the board represent MOH, the district administration, local NGOs, religious organisations and the local community. • DHMB provide local oversight to the cost-sharing program.
1994	**Health Policy Framework set out the following strategic imperatives:** • Ensure equitable allocation of GOK resources to reduce disparities in health status. • Increased cost-effectiveness and effectiveness of resource allocation and use. • Manage population growth. • Enhance the regulatory role of the government in health care provision. • Create an enabling environment for increased private sector and community involvement in service provision and financing. • Increase and diversify per capita financial flow to the health sector.
1999-2004	**National Health Sector Strategic Plan I articulates:** • Strengthening governance. • Improving resource allocation. • Decentralising health services and management. • Shifting resources from curative to preventive and PHC services. • Provision of autonomy to provincial and national hospitals. • Enhancement of collaboration with stakeholders under a sector-wide approach.
2005-2010	**National Health Sector Strategic Plan II Policy Objectives:** • Increase equitable access to health services. • Improve the quality and responsiveness of services in the sector. • Improve the efficiency and effectiveness of service delivery. • Enhance the regulatory capacity of MOH. • Fostering capacities in improving health and delivering services. • Improve the financing of the health sector.

Source: MOH 1994, MOH 1999 and MOH 2005

Despite documented constraints and challenges to attaining strategic objectives, the 2007 mid-term review of NHSSP II reports the achievements that have been made (MOH 2007). The number of sites offering basic services has increased along with improvements to geographical access. This has been brought about by infrastructure initiatives through Constituency Development Funds (CDF) and Local Authority Transfer Fund (LATF). Reduction in service

fee (10/20 policy) and free deliveries at levels 2 and 3 have improved utilisation of general services. However, problems with fee policies and exemption/waiver procedures are still prevalent. There is progress towards improving the quality of services and public awareness of client rights through the development and promulgation of a Citizens Health Charter. This charter ensures that essential information like fee schedules are clearly displayed in health facilities and that exemption schemes and complaints procedures are in place.

The 2007 mid-term review further reports that a number of steps and systems that the MOH has put in place are starting to yield dividends particularly in the areas of budgeting and planning, partner coordination, and community participation. Financial management at facility level has also been improved using revenue generated through cost-sharing and through the direct transfer of funds from MOH to health facilities through a health facility fund. However, the overall objectives of decentralisation are still not yet fully achieved. Some of the barriers include: lack of an elaborate strategic framework to define the vision of decentralisation in the health sector and centralised structures of financial control and human resource management.

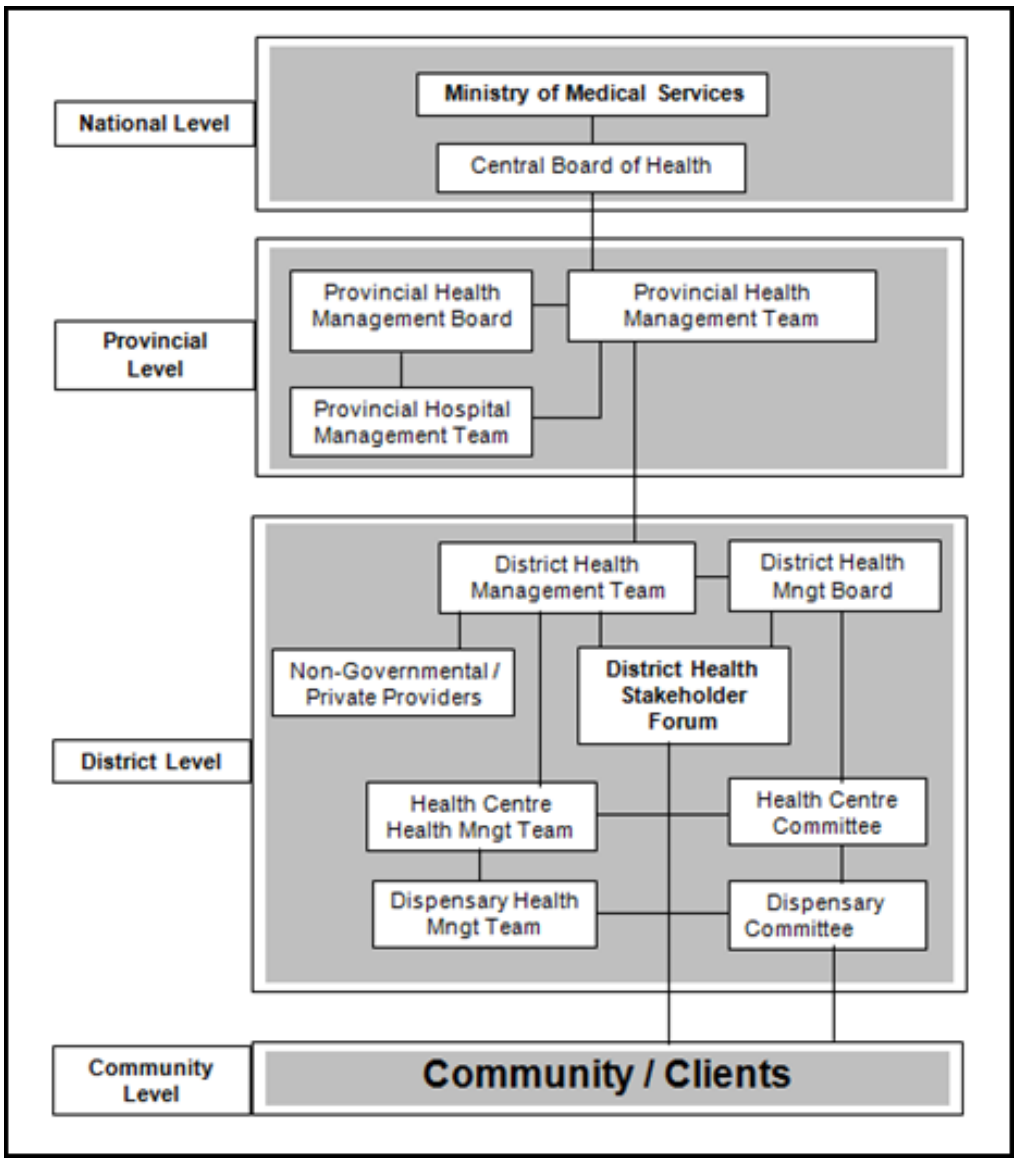
2.4 Health Policy and Decision-Making Infrastructure

The policy and decision-makers in the health sector of Kenya are the Minister of Health, Permanent Secretary, and Director of Medical Services at the top level. According to the current constitution article 16(1), the president appoints ministers, assistant ministers, permanent secretaries and other office holders. The implementation of the National Accord and Reconciliation Bill (2008) saw the split of MOH into two ministries: the Ministry of Medical Services (MMS) responsible for heath care provision and the Ministry of Public Health and Sanitation (MPHS) responsible for prevention and health promotion. For the purposes of this thesis MOH refers both to MMS and MPHS. Ministers oversee their ministries and table bills in parliament. The budgetary process has been described elsewhere (see Glenngard and Maina 2007).

The DHMBs were established in 1992 by a legal notice; thereafter other boards were subsequently established including the DHMTs, and Hospital Facility Management Committee (HFMC). DHMTs are comprised of ten to fourteen members, including: the District Medical Officer of Health, District Public Health Nurse, District Clinical Officer, District Public Health Officer and District Laboratory technician. DHMBs are composed of not less than seven and not more than nine members. The board consists of a chairman appointed by the Minister of Health from amongst the members of the Board, the area District Commissioner or his representative, one person with experience in finance and administration from within the District, two persons nominated by NGOs recognized by the Minister (Ndavi, Ogola, Kizito, &

Johnson 2009). Figure 2.2 illustrates the levels of authority and decision-making in the health sector of Kenya.

Figure 2.2: Hierarchy of Authority and Decision-Making in Kenyan Health Sector



Adapted from: Oyaya and Rifkin 2003

DHMTs are responsible for managing public health services, planning and implementing health activities in the district. Table 2.2 below presents the level, structure and functions of the decision makers in the Kenyan health sector.

Table 2.2: Levels of Authority and Decision-Making in Health Sector in Kenya

Level	Structure	Function
National	• Senior management	Formulating policy, developing strategic plans, setting priorities, budgeting, allocating resources, regulating, setting standards, formulating guidelines, monitoring performance and adherence to the planning cycle, resource mobilisation, coordinating with all partners, training health staff.
	• Departments / Divisions Central MOH	Translating policies into strategic objectives and action plans for service delivery and service support.
Provincial	• Provincial Health Management Board. • Provincial Health management Team • Provincial Medical Officer	Supervision and support of regional and district activities; implementation and enforcement of health standards and regulations. Inspectorate for monitoring health system performance; management and financial audit; continuing education on job training; action research.
District	• District Health Management Board. • District Health Management Team. • District Health Stakeholders forum.	Administer cost-sharing schemes; oversee planning; governance; management and development of health services in the district; allocation and distribution of funds (including donor funds); make recommendations on expenditure and budgets of district development committees. Planning; setting targets, implementing and monitoring all heath activities in the district; reporting; generating and controlling expenditure of voted financial resources and donor funds, delivering services in all district facilities (level 1-4). Strengthening collaboration among all stakeholders, provide a platform for discussion and dialogue on health related issues, review the district health plan, as proposed by DHMT, coordinate interventions and contributions from all stakeholders
Community	• Village health committees; dispensary and health centre management committees.	Development; governance; financing and sustaining community level health services.

Source: MOH 2005

DHMBs oversee the management of funds, and work closely with DHMT to ensure that health policies are implemented, resources are well utilized, quality standards are upheld and performance is monitored for better results. DHMBs are also responsible for representing community interest in order to ensure that services are responsive to citizenry needs. DHMBs

usually hold at least 10 meetings in a span of three months. However an evaluation by Ndavi et al (2009) reveals that annual general meetings between the community and the DHMBs and DHMTs are infrequent, and that only about 35% (of DHMBs and DHMTs) provided a feedback to the community on key management issues.

2.5 The main Thrust and Objectives of NHSSP II and JPWF

The thrust of NHSSP II is to reverse the downward trend of the health status of Kenyans through six strategic objectives. These are to: (i) increase equitable access to health services; (ii) improve the quality and responsiveness of services in the sector; (iii) improve the efficiency and effectiveness of service delivery; (iv) enhance the regulatory capacity of the Ministry of Health; (v) foster partnership in improving health and delivering services and (vi) improve the financing of the health sector. To achieve these objectives the government and partners have from a sector-wide approach, developed a JPWF, which outlines the priorities health interventions to be implemented over the period 2006-2010. The JPWF acts as a guide for activities and investment decisions both for the government and health sector constituent partners. The objectives of JPWF are to (i) address equity by expanding access to basic services with special focus on the community level. (ii) Strengthen the delivery of cost effective interventions (KEPH), especially at level 2 to 4, (iii) enhance efficiency and budget effectiveness through improved support services and (iv) strengthen sector stewardship and partnership with all stakeholders (MOH 2006). To achieve these strategic thrusts, three Annual Operation Plans (AOP) have been produced, the latest is AOP 3 (July 2007-June 2008). The AOPs document service delivery results that the MOH plans to achieve in the next financial year. AOPs are supported by different sector actors who have come together under specified technical working groups, in the framework of Rapid Results Initiative (RRI) groups to crystallise a way forward in their respective areas (MOH 2006). The objectives of NHSSP II, have been reiterated within a broader comprehensive national development plan dubbed “The Kenya Vision 2030” (MSPNDV 2007).

CHAPTER 3: MATERIALS AND METHODS

3.1 Chapter Introduction

This section describes the overall approach adopted in this research. The aim is to analyze the formal decision space permitted within DHMBs and DHMTs and how this relates to performance of district health sector. The chapter begins with a description of the research design and sampling procedure. This is followed by a description of data collection and analysis strategy. The chapter concludes with a description of how the data was analysed.

3.2 Study Design and Data Collection

To achieve the objectives of the current study, the district health plans were analysed and studies reporting on health sector decentralisation reviewed. The independent variables are the indicators of decision space in Bossert's framework. The empirical component involves an assessment of a set of 'rich' districts and a set of 'poor' districts using Bossert's decision space framework. Assessment involves content analyses of district health plans, reports and related studies that detail what DHMBs and DHMTs have accomplished or what they plan to achieve against the policy directives issued by MOH.

The District health plans for the fiscal year 2007/2008 were downloaded from the Health Sector Reform Secretariat web page. These plans give adequate report of the district health sector features, including: data on access / utilization of health services, financing and resource utilisation, challenges, budgets, targets and coordination of service delivery. Additional data was obtained from MOH, Ministry of Finance, donor organisations, literature search and other secondary sources.

The search terms used to query various databases for international literature are presented in box 3.1. They were piloted to investigate the quantity and quality of returned results. Once search results were obtained, studies were selected based on their titles and then downloaded. Thereafter, studies were included in a full article review after reading their abstracts, and ascertaining that they addressed issues related to health sector decentralisation.

Box 3.1: Search Terms and Databases used for searching International Literature

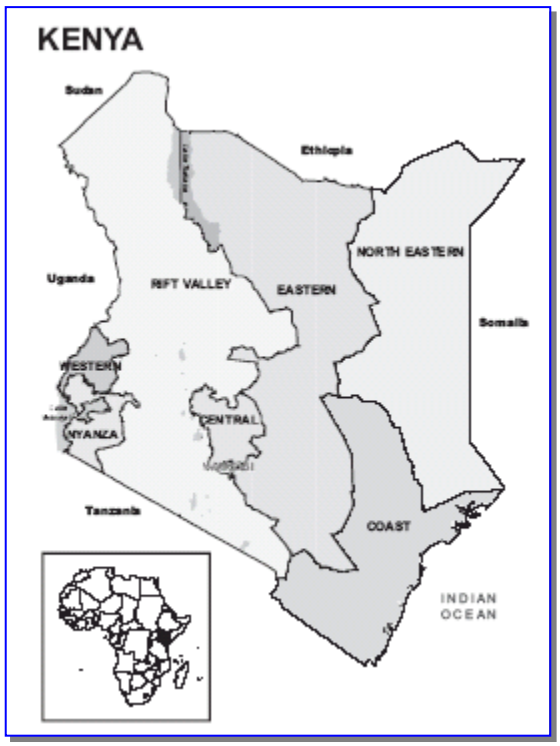
Search Terms
"Health sector decentralisation" and: "Financing choices", "Service delivery", "service delivery", "targeting", "governance choices", "resource allocation", "equity", "efficiency", "quality", "Kenya"
Databases
PUBMED www.pubmed.com **SCIENCE DIRECT** www.sciencedirect.com **HEALTH POLICY** www.sciencedirect.com/science/journal/01688510 **HEALTH POLICY AND PLANNING** http://heapol.oxfordjournals.org **PARTNERSHIPS FOR HEALTH SECTOR REFORM** www.phrplus.org **ELDIS** www.eldis.org **Ministry of Health, Kenya** www.health.go.ke **Health Sector Reform Secretariat** http://www.hsrs.health.go.ke/publications.htm

3.3 Sampling

Sampling had two stages. The first stage involved working out the per capita health expenditure for all the 69 districts as detailed in the 2007/2008 district health plans. The three districts occupying the top three and bottom three position in the ranking were chosen for the second stage. This stage involved examining the health plans for completeness and as much as possible verifying figures against other government documents to confirm their accuracy. Nyeri district was excluded from the analysis as the figures listed in the district health plan were in conflict with those listed in the national (MOH) AOP. The 3 top districts represent the rich districts, while the bottom 3 districts represent the poor districts. The rich / poor criterion was used in order to explore variation in prioritisation and utilisation of decision space. This is based on the argument that district health budgets together with fiscal decentralisation affect the extent to which health targets are achieved and thus the success of decentralisation.

3.4 The Study Context

Figure 3.1: Provinces of Kenya



Source: (MOH 2004)

Figure 3.1 illustrates the provincial administrative units of Kenya. The rich districts comprise of Thika, Mwingi and Taita Taveta covering a total population of 1.3 million inhabitants. Thika district is one of the seven districts in Central Province. It is a rich agricultural district and one of the leading industrial districts of Kenya. Mwingi district is one of the twelve districts of Eastern Province. Mwingi has two climatic zones: arid and semi-arid, with a large part of the population relying on agro-pastoralism. Taita-Taveta district is located in the Coast Province. The most inhabitants of Taita Taveta rely on farming and livestock rearing. Sisal and cashewnuts are important cash crops grown in the district and there is a number of tourist attractions.

Poor districts include: Mandera, Meru North and Makueni covering a total population of 2.1 million inhabitants. Mandera district is in North Eastern Province and is classified as an arid district with low and unreliable rainfall. Most residents rely on pastoralists for their livelihood. Mandera is vulnerable to drought and it has poor transport and communication infrastructure. Meru North is also located in North Eastern Province, the district has arid and semi arid regions. Most residents are engaged in subsistence farming and livestock rearing for their livelihood. Makueni is part of the Eastern Province. Inhabitants of Makueni practice arable farming. Most of the district is arid, only 10% is high potential land. Most residents are engaged in farming and livestock rearing. Appendix 1: presents the demographic characteristics of the districts included in this study.

3.5 Measurement

The independent variables in this study are indicators of decision space in Bossert's framework. These are stratified into five domains: finance and expenditure, service organisation, human resources, access rules and governance rules and are presented in table 3.1.

Table 3.1: The Indicators of Decision Space

Decision-Space Functions		Indicator
Finance and Expenditure Functions:	Sources of revenue	Intergovernmental transfers as a % of total local health spending.
	Allocation of expenditures	% of local spending that is explicitly earmarked by higher authorities i.e. local authorities have no control over allocation.
		Allocation of funds generated from the facility, cost-sharing and donor funding.
	Income from fees	Range of prices local authorities are allowed to choose
	Contracts	Number of models allowed
Service Organization Functions	Hospital autonomy	Choice of range of autonomy for hospitals.
	Insurance Plans	Choice on how to design insurance plans.
	Payment Mechanisms	Choice on how providers will be paid (salaried)
		Incentives for providers
		Choice on how non-salaried staff will be paid
	Contracts with private providers	
	Required programs norms	Specificity of norms for local programs
Human Resources	Salaries	Choice of salary range
	Contracts	Contracting non-permanent staff
	Civil service	Hiring and firing permanent staff
Access Rules	Targeting	Defining priority population
Governance Rules	Facility boards	Size and composition of boards
	Health Offices	Size and composition of local offices
	Community Participation	Size, number and composition and role of community participation

Adapted from Bossert 1998

The indicators of decision space can take on a value of wide, moderate or narrow, depending on the choices that DHMBs make within nationally-established systems and procedures. This in turn affects how DHMTs roll out health services. The allocation of scores is a subjective process that depends on evidence presented in the district health plans, evaluation reports and

policy documents, published and unpublished documents and on the methodology as described by Bossert. Scores are allocated for all districts included in this study irrespective of the classification 'rich' or 'poor'. The success of decentralisation, however, is not only influenced by the discretionary space allowed to local authorities but also depends on other independent variables such as capacity to make good decisions, degree of accountability to MOH and to citizenry, availability of resources and the technical capacity to implement activities.

The dependent variables are the indicators of performance represented by the service output indicators. These indicators are derived from district health plans based on the targets that DHMTs have set for themselves in order to deliver health services. All thirty six service output indicators were compiled into an MS Excel spreadsheet; out of these, fourteen were selected for analysis. This is because they were complete across all the districts, thereby permitting comparison. The rest of the indicators had missing values in some district health plans.

Box 3.1: Performance Indicators: Service Output Indicators

1. Pregnant women receiving 2 doses of Intermittent Preventive Treatment (IPT).
2. No of pregnant women having 4 Ante Natal Care (ANC) visits.
3. No of women receiving Family Planning (FP) commodities.
4. No of deliveries conducted by skilled staff.
5. No of new born with low birth weight.
6. No of new born receiving (BCG) vaccine.
7. No of pregnant women tested and counselled for HIV.
8. No of children under one fully immunised.
9. No of children under one vaccinated against measles.
10. No of facilities offering youth friendly services.
11. No of trained VHCs
12. No of functioning community health units
13. No of HIV patients receiving ART treatment
14. No of VCT clients

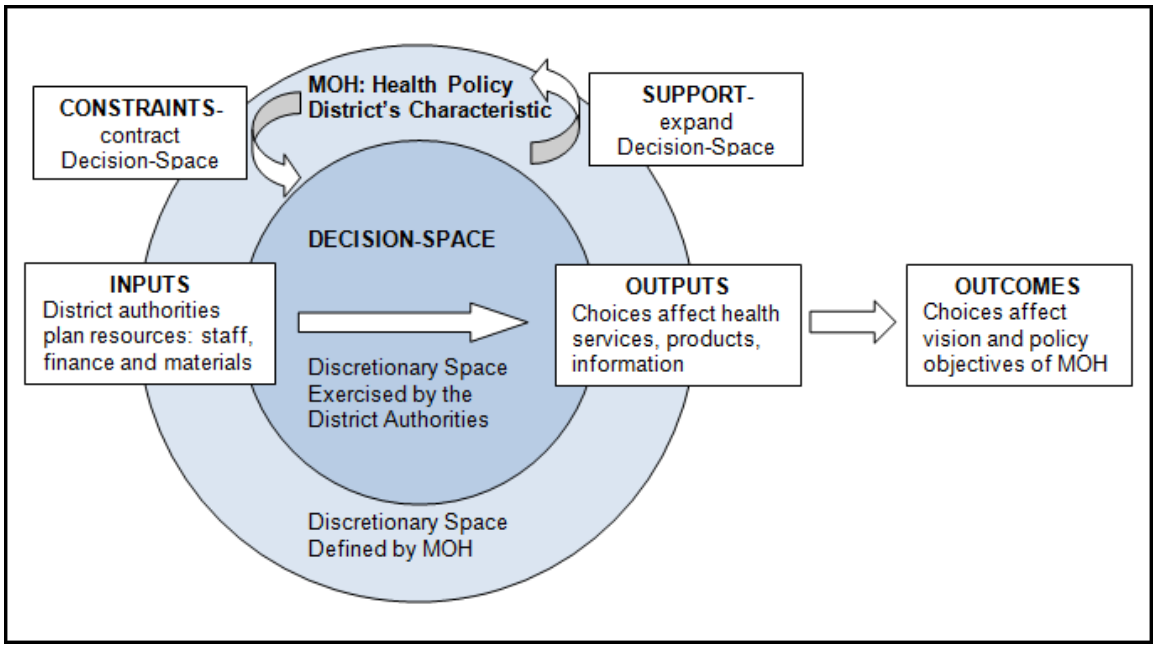
Source: Authors Compilation

Percentage achievement was calculated based on the district baseline with set target as a denominator. Targets represent the district's definition of what they are able to achieve, given the available inputs (human resources, finances and infrastructure) and expected management support (MOH 2008b). Service output indicators that require population denominators utilise the eligible age-group district population documented in each health plan.

3.6 Data Analysis

Figure 4.2 below illustrates how data analysis was conducted. Analysis of inputs involves applying Bossert's framework to map decision space at five functional domains: finance and expenditure, service organization, human resources, access and governance rules. For each function, the districts were judged to have wide decision space if there was no limit to their choice, moderate if there was guideline from MOH to direct choice, and narrow if their choice was defined by law or if the function was centralised. The second part evaluates the performance of the two sets of districts in terms of targets and service output indicators while comparing the priority setting pattern across the districts (see appendix 3). Quantitative data was analysed by MS Excel computer package.

Figure 3.1: Decision-Space & Implementation of Policy Directives at the District



Source: Authors Compilation

The policy directives, incentives and discretionary space offered by the MOH is similar for all districts in Kenya (see appendix 2). Figure 4.2 serves to illustrate that manipulating independent variables may act to contract or expand decision space depending on a district's characteristics. For example decentralising resource allocation may expand local fiscal choice and help improve allocative efficiency, while poor infrastructure may limit/restrict the range of choice available for improving geographical access. Constraints and support factors affect the allocation of resources for purchasing different inputs for the production of health, which in turn affects the outputs, outcomes and the achievement of policy objectives. The districts heath sector was chosen as the unit for analysis because, first, health facilities at the district level serve as the first line of contact in health care provision for the majority of the Kenyan population. Second, the district is the level where health policies are interpreted and implemented.

CHAPTER 4: RESULTS

4.0 Chapter Introduction

This chapter presents and interprets results based on the research questions posed by this study.

4.1 Decision Space

This section addresses two of the three research questions articulated in section 1.7 "What is the amount of choice or type of choice that is transferred from MOH to the DHMB and DHMT?" and "What choices do DHMB and DHMT actually make with their increased discretion, as evidenced from their district health plans and budgets?" This section systematically addresses the 5 clusters of independent variable presented in the map of decision space in Table 4.2.

4.1.1 Finance and Expenditure Functions

The availability of estimates for overall health income and expenditure from the district health plans provides an opportunity to compare financing patterns across the districts.

Table 4.1: Source of Income and Expenditure

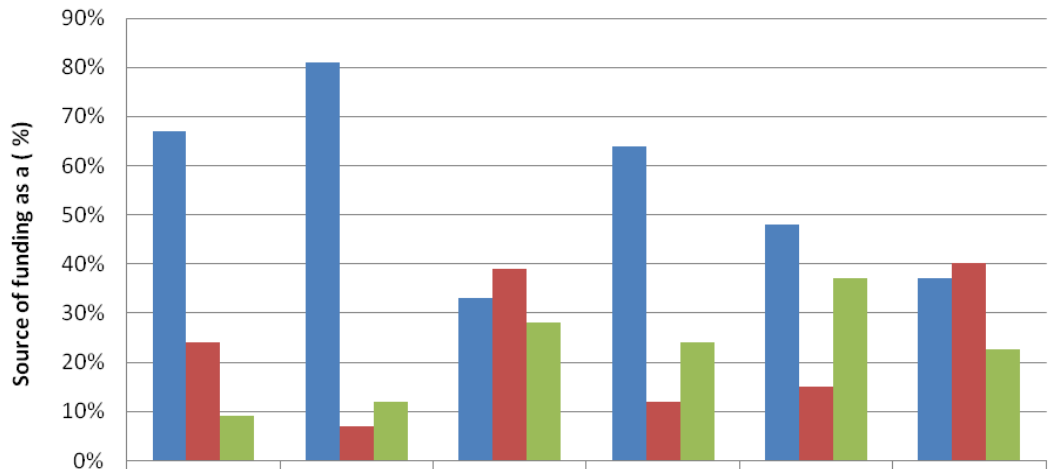
District	Population	Source of Revenue			Expenditure (KES)	
	Size	GOK	Cost-Sharing	Donor	Total	Per Capita
Thika	656,617	143,268,263	51,874,475	18,994,751	214,137,489	326.12
Mwingi	368,832	81,140,589	5,791,010	10,761,481	88,437,964	239.78
Taita Taveta	267,993	15,320,877	18,070,288	12,675,192	42,566,357	158.83
Mandera	332,638	8,504,000	1,620,00	3,240,000	13,364,000	40.18
Meru North	752,496	11,000,000	3,548,850	8,830,216	19,771,543	26.27
Makueni	965,258	12,098,833	13,050,969	7,392,000	21,075,487	21.83

Source: Authors compilation

Table 4.1 presents absolute figures as documented in the district health plans while figure 4.1 below illustrates the sources of revenue as a proportion of the total amount. Each district displays a unique profile, for example Thika, Mwingi, Mandera and Meru North received the bulk of their financing from GOK. This is a complete opposite of Taita Taveta and Makueni which raised their largest proportions from cost-sharing. It could be that because the first four

districts received the bulk of their financing from GOK, they were reluctant to raise revenue from other sources.

Figure 4.1: Sources of Revenue as a Percentage of Total Income (in Kenya Shillings)



	Thika	Mwingi	Taita Taveta	Mandera	Meru North	Makueni
	Rich Districts			Poor Districts		
GOK	67%	81%	33%	64%	48%	37%
Cost Sharing	24%	7%	39%	12%	15%	40%
Donor	9%	12%	28%	24%	37%	23%

The variation in the cost-sharing profile across the districts is a clear indication that the districts have differential capacity to generate their own revenues. This is because of differences in socio-economic characteristics; some districts like Thika are agriculturally endowed, a stark contrast to Mandera which is largely an arid district. The poor districts on average received a larger share of donor funding as compared to the rich districts (Taita Taveta is an exception). This suggests that donors may be stepping in to assist poor district bridge revenue gaps. It may also imply that some districts are exploring other sources of financing by bidding for donor funding. It is also possible that for some reasons donors may have preference for some districts for example Taita Taveta or Meru North.

The NHSSP II documents a commitment to implement a need based resource allocation criterion, which takes into account population size, poverty levels, health status of the district,

special health needs and access to other funding sources. However, there are large discrepancies in the per capita expenditure for example 326.12 KES in Thika and 21.83 KES in Makueni. Thus there is gap between the NHSSP II policy commitment and actual funding levels, partly explaining the variation in GOK financing across the districts. For example, it is expected that Mwingi and Mandera which are predominantly arid regions, with relatively poor residents, would receive more GOK funding. It could be that the allocation of resources is influenced by national politics, whereby powerful Members of Parliament influence allocation in favour of their constituents.

For health financing choices, MOH has allowed a moderate range of choice over sources of revenue, for both the rich and the poor districts. This is because for each budget item, MOH allows district authorities to select their financing source and proportions based on their local needs. The district authorities plan and budget in order to deliver the objectives outlined in the NHSSP II. This is attributed to the shift by the MOH from line-by-line grant, which is strict in the way funds are to be spent, to block grants which allows considerable flexibility in resource allocation.

Apart from the possibility of bidding for donor funding, DHMTs and DHMBs cannot apply local taxes as is done under municipalities. MOH allows a wide range for allocating expenditures. The MOH simply issues the policy directives and these have been formulated into a template to standardise planning and budgeting across all districts. For PHC services, MOH allows a moderate range of choice as resources must be allocated around KEPH objectives in proportion to the size of the eligible population in the district. However, MOH allows a wide range of choice for the allocation of cost-sharing revenues and other funds generated at the facility.

4.1.2 Service Organisation Functions

For the service organisation functions, the district authorities have a mixed range of choices. They have a narrow range of choice for hospital autonomy. This is because it is the MOH that decides which hospitals are granted autonomy. Currently it is only Kenyatta National Hospital and Moi Teaching and Referral Hospital that are autonomous institutions. District hospitals are

not autonomous and fall directly under the MOH with a limited mandate for the DHMB. The implication of this is that district authorities cannot reorganize services without the express approval of the MOH. District hospitals are managed by DHMB who are appointed by the MOH. DHMB have a moderate range of powers over service organisation functions. While they are allowed to plan and allocate resources across budget items based on local need, they must consult policy guidelines as outlined in NHSSP II (see appendix 3). District hospitals also have a narrow range of choice, for contracting with insurance plans. This is because the NHIF has been mandated by law to use its own mechanisms to accredit public and private hospitals before they can be allowed to participate in the scheme and the fund has a standard procedure for scrutinizing claims before making any reimbursements to the hospitals. Private insurance providers are generally localised in the urban areas and utilise their own facility accreditation criteria.

DHMBs also have a narrow range of choice for determining payment of salaried staff; this is because most staff are civil servants and salary payments are made by the central government. However, by virtue of their resource base, the rich districts have a wide range of choice for providing incentives to permanent staff as compared to the poor district's which have a moderate range. Thus, the rich districts may be better positioned to provide financial and non-financial incentives in terms of better working and living conditions through facility improvement and renovation of staff living quarters. In addition they are better positioned to engage extra staff on a contract-basis. This is common practice in most health facilities that are able to generate their own revenue from user fees. However, the districts have a wide range of choice both in the way they contract non-permanent staff and how they pay them. The payment methods that are used include: daily payments, weekly payment, monthly payments or settling payment when the contracted job is finished. It is worth noting that the 10/20 policy and the abolition of user fees in rural areas has limited the possibility of health facility managers to contract casual labourers (mostly administrative staff, cleaners, security staff, etc,) but sometimes also technical staff, such as midwives, doctors.

4.1.3 Human Resources

The levels of salary for civil servants working in Kenya are determined by the Ministry of State for Public Service. This ministry is responsible for recruitment and distribution of civil servants including medical personnel. The current law permits only the ministry to hire or transfer civil servants from one duty station to another. Therefore, both the rich and poor districts have a narrow range of choice for contracting with private providers considering that providers are paid by the central government and DHMBs and DHMTs do not yet have powers to reorganize service provision. Contracting with private providers is not well defined in Kenya; on the contrary, it is common practice for providers working in public institutions to engage in part-time private consultation although this is not supported by law. If DHMBs had a wide range of choice over payment mechanism, hiring and firing, they would have more control in the way they shape the behaviours of private providers so that they are better able to respond to the needs of their clients (by using a given payment mechanisms, or through financial incentives).

4.1.2 Access Rules

Policy guidelines through the NHSSP II direct the targeting of PHC towards the improvement of health at different phases of human development: pregnancy and newborn; early childhood; late childhood; youth and adolescent; adulthood and elderly. However, district authorities are allowed a moderate range of choice in allocating resources to serve the various target groups based on their eligible population. This is to ensure that health services are equitably distributed to serve the demands of all age groups. These groups are listed under the demographic profile presented in appendix 1. Further, the implementation of the 10/20 policy and waiver system is designed to ensure that the poor, children under five and those who are suffering from malaria or tuberculosis do not have to pay for health services.

4.1.2 Governance Rules

Governance deals with the rules that distribute roles and responsibilities among stakeholders and shape how they interact as they seek to serve policy objectives (Brinkerhoff and Bossert 2008). Users of district health facilities in Kenya may participate through cost-sharing by contributing to the district resource base for health, through the District Health Stakeholder Forum (DHSF) and through direct participation in health programs. The DHSF comprises in

principle the whole range of organisations involved in health related activities with the overall aim of strengthening efficient health service provision in a district. The DHSF is where health stakeholders meet and discuss issues, targets, and objectives and where they collectively endorse the integrated district health plan. Thus, the DHSF serves as a link between stakeholders and the MOH. Although community representatives are members of the DHMB, it is not clear how they are selected. However, DHSF presents a structure in which actors can participate to ensure that there is fiscal discipline, allocative and operational efficiency. Although there are gains to be made in terms of improving accountability, DHSF could potentially change the health sector priorities.

Table 4.2: Map of Decision Space Rich Districts versus Poor Districts

Decision-Space Functions		Indicator	Range of Choices: Narrow, Moderate or wide	
			Rich Districts	Poor Districts
Finance and Expenditure Functions:	Sources of revenue	Intergovernmental transfers as a % of total local health spending. Proportion of local spending that is assigned by MOH	**Moderate:** On average DHMTs and DHMBs from rich districts received 69% from MOH as compared to the poor district's average of 30%. Districts are free to utilise any source to revenue to finance their budget items, but as much as possible they must prioritise PHC services before facility improvement activities.	
	Allocation of expenditures	% of local spending that is explicitly earmarked by higher authorities i.e. local authorities have no control over allocation.	**Moderate:** For PHC services, funds have to be allocated proportionately to reflect eligible populations of the various demographic groups present at the district. About 50% of budgetary allocation by the MOH is earmarked.	
		Allocation of funds generated from the facility, cost-sharing and donor funding.	**Wide:** 75% of cost-sharing revenue is retained for use by the generating facility and the balance is used for primary and preventive health care activities (MOH 2002). Donor funding is targeted towards specific programs selected in consultation with district authorities.	
	Income from fees	Range of prices local authorities are allowed to choose Fees are charged for selected services according to government policy.	**Narrow:** DHMTs and DHMBs can recommend areas on which to levy fees, but fee levels and exception categories are determined by MOH (MOH 2002). However, there is a small degree of flexibility for setting laboratory charges for each test and for patients referred from non-GOK facilities.	
	Contracts	Number of models allowed	**Narrow:** Contracts are defined by law	
Service Organization Functions	Hospital autonomy	Choice of range of autonomy for hospitals.	**Narrow:** Hospitals managed by centrally appointed DHMT, comprised of health workers and community representatives. District health plans are approved by DHMT and submitted to MOH for funding.	
	Insurance Plans	Choice on how to design insurance plans.	**Narrow:** The NHIF Act gives the fund power to declare / accredit hospitals both private and public where contributors can seek services. The fund also scrutinizes claims before payment is made to the hospitals.	
	Payment Mechanisms	Choice on how providers will be paid (salaried)	**Narrow:** Payment Mechanisms and financial incentives for salaried staff is	

			determined by law.
		Incentives for providers	**Moderate:** However, rich districts are better able to provide non financial incentives e.g. improved working conditions through facility improvement as compared to poor districts
		Choice on how non-salaried staff will be paid	**Wide:** Wide flexibility in use of a variety of payment mechanisms for contracted staff.
	Contracts with private providers		**Narrow:** Defined by law
	Required programs norms	Specificity of norms for local programs	**Narrow:** There are national norms and standards, but there is weak enforcement
Human Resources	Salaries	Choice of salary range	**Narrow:** Salaries for permanent staff are determined by the ministry of state for public service
	Contracts	Contracting non-permanent staff	**Wide:** DHMTs allowed to hire and fire casual and non-permanent staff, who are mainly employed under fixed term contracts while casual labourers are engaged as per demand for example during maintenance work.
	Civil service	Hiring and firing permanent staff	**Narrow:** Only MOH can hire / fire permanent staff, including distribution and transfers (Bijlmakers et al. 2009;MOH 2007).
Access Rules	Targeting	Defining priority population	**Moderate:** The NHSSP II defines the target population but DHMBs and DHMBs have flexibility in allocating resources to address demands by these groups.
Governance Rules	Facility boards	Size and composition of boards	**Narrow:** DHMB with chairman appointed by MOH, district commissioner, NGO representatives, local authority representative
	Health Offices	Size and composition of local offices	**Narrow:** DHMT include DMOH, district public health nurse, district clinical officer and district laboratory technician
	Community Participation	Size, number and composition and role of community participation	**Narrow:** Not more than three people sit at the DHMB to represent community interest, usually local leaders.

Framework adapted from: Bossert (1998)

4.2 Performance

This section answers the third research question (see section 1.7): "What effects or potential effects do these choices have on the performance of the district health sector as evidenced from priority setting, service outputs and possibly health outcomes?" This research question is answered by analysing data on resource allocation and the performance of the district health sector in an attempt to assess the impact of decentralisation.

The impact of health sector decentralisation has been a subject of several studies and debates.

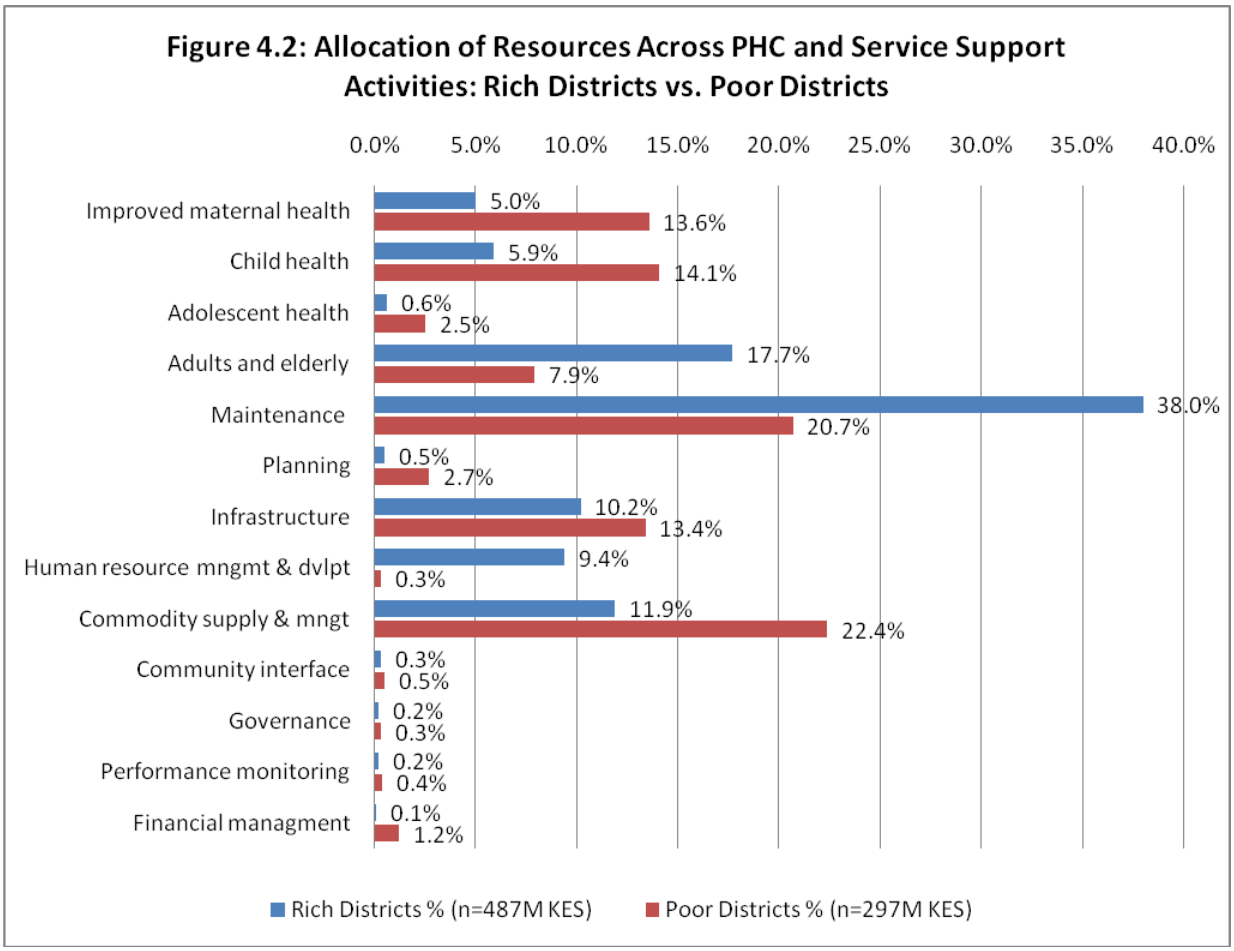


Figure 4.2 above shows the allocation pattern for the purchase of different inputs to the production of health. It compares how the rich and the poor districts allocate their resources to purchase different inputs both for the delivery of PHC services and service support activities. These values were obtained from the district health plans and they represent the proportion

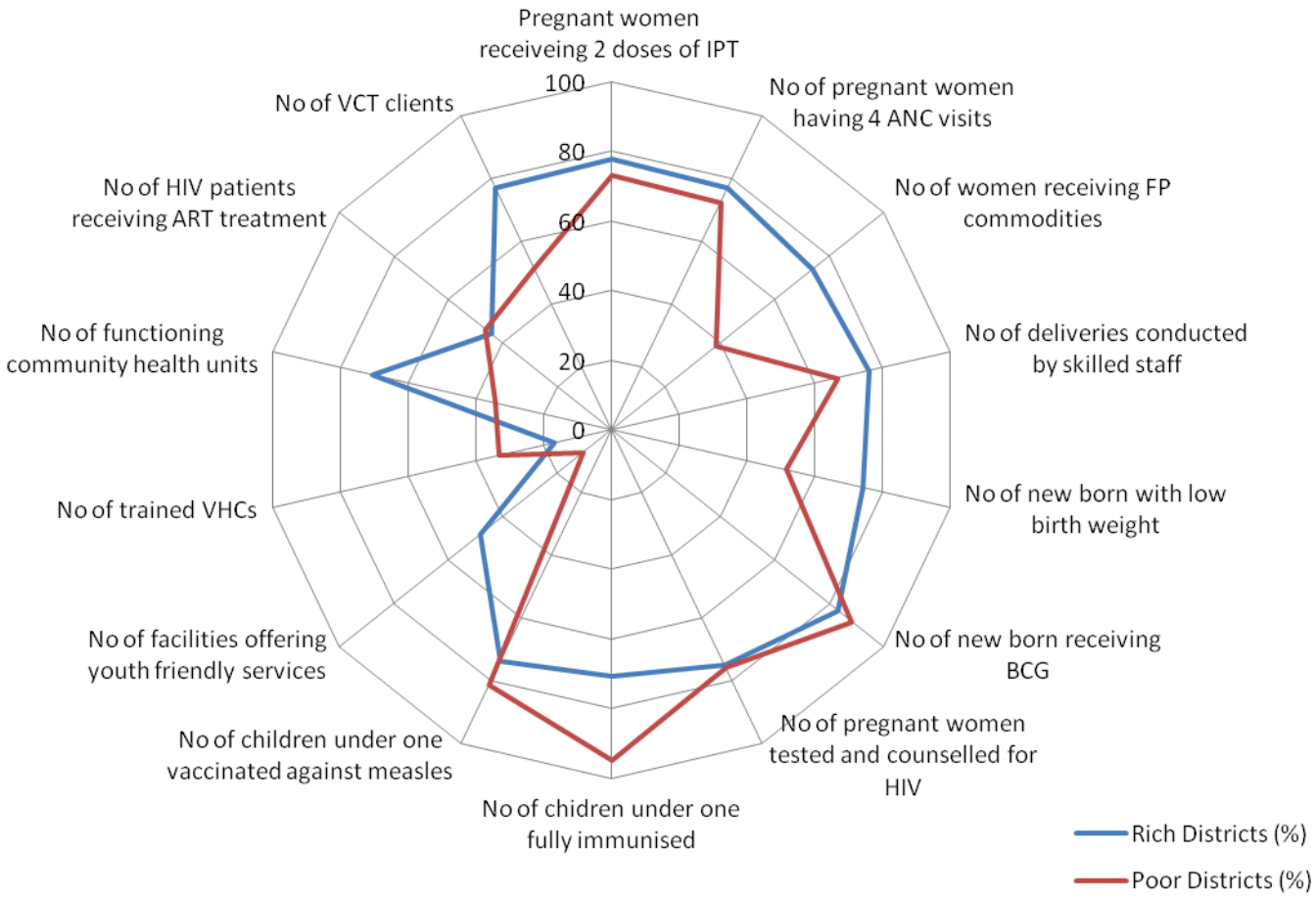
allocated to each function as a percentage of total budgets[3]. While this study was not able to establish the impact of decentralisation on performance, through Figure 4.3 an attempt is made to link allocation of inputs to achievement of selected service output indicators.

Rich and poor districts display different patterns of allocation choices. This implies that there is a high level of autonomy enjoyed by the DHMTs and DHMBs with regards to decision-making and resource allocation. However, the findings show that on average PHC (maternal health activities, child health adolescent health) seem to have received less financial support as compared to service support activities[4] such as maintenance, planning, infrastructure development and commodity supplies. On average the poor districts allocated 38% of their resources to PHC activities as compared to the rich districts 29%. The major concern of varying allocation choices is that it may lead to inequitable distribution of financial resources across PHC services at the district level. For instance, in implementing KEPH, the poor districts allocated a larger share of their resources to maternal health (13.6%), child health (14.1%) and adolescent health (2.5%) services as compared to the rich districts (5.0%, 5.9% and 0.6% respectively; see appendix 3, for a description on how district priorities compare across these areas).

The varying patterns indicate that there may be capacity differences in terms of evidence-based decision-making, skills, experience or training. However, despite these concerns, figure 4.3 shows that the poor districts performed better in achieving their targets for vaccination (measles, BCG) and the number of children who were fully immunised. An examination of how the sources of funding for each budget item was documented suggests that donors are investing more on child and maternal issues as compared to other areas such as HIV/AIDs. Immunisation programmes are still vertically managed. In addition, an examination of the priority list reveals that poor districts demonstrate a firm commitment to improve immunisation services through procurement of equipment and commodities. Except for training VHCs, ART treatment, VCT services for pregnant women, the rich districts are better on track to achieving their health targets than the poor districts.

[3] Budgeted values can differ significantly from the amounts that are actually spent on each item.
[4] Service support activities do support PHC for example commodity supply or maintenance of hospital equipment.

Figure 4.3 Performance: Progress towards Achieving locally set Targets from the District Baseline Expressed as a (%)



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To determine progress towards achieving locally set targets, for each of the service output indicator, the numerator (district baseline) was multiplied by a hundred and divided by the denominator (locally set target). Average values for the rich districts and poor districts are presented in the spider gram (figure 4.3). This provides a measure of how the districts were performing towards their set targets. Since these targets are set against the eligible population for each demographic group, the values appear to be realistic. However, it difficult to tell how well these target fit with the district's capacity to deliver on them.

CHAPTER 5: DISCUSSION

5.0 General

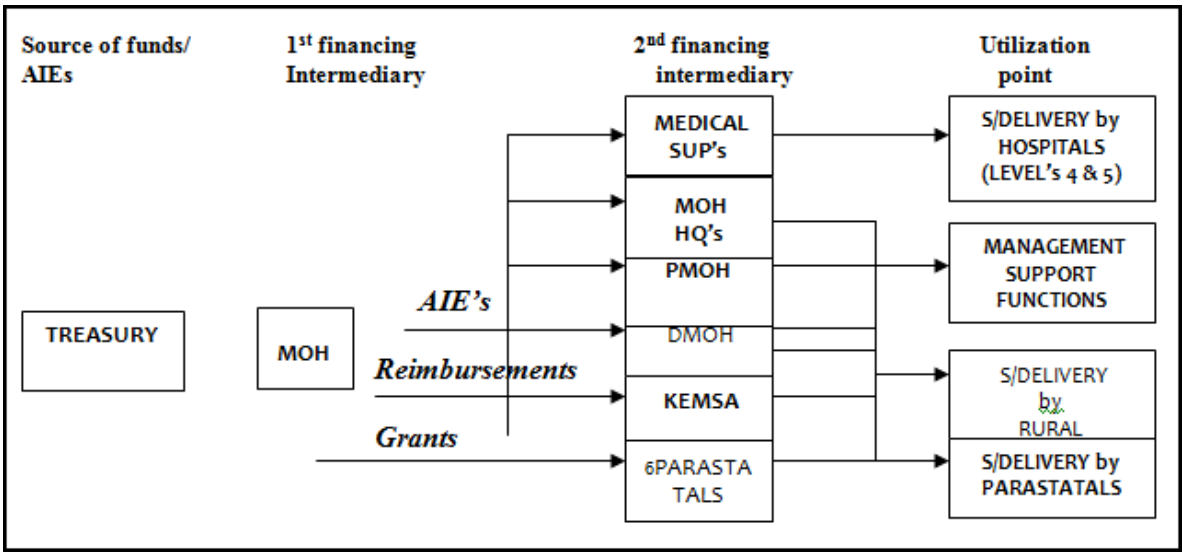
This chapter discusses the intended and likely impacts of health sector decentralisation in Kenya; it considers other studies and attempts to explain possible pathways of effect. This is done by systematically addressing the objectives of the study.

Health Systems in Kenya like elsewhere is undergoing change in the context of ongoing health sector reform. Decentralisation of health services is central to these changes. Kenya like countries such as Costa Rica and some states in India has deconcentrated some decision-making authority to district authorities. Thus new responsibilities are placed on DHMTs who are the main implementers of NHSSP II along with the DHMBs who are also taking on increasing responsibility in managing the district health sector. Unlike in devolution, where locally elected officials are the principal decision makers, such as in Uganda, deconcentration transfers a limited amount of choice as district health authorities largely remain vertically accountable to the central MOH. Further, decentralisation in Kenya has focused more on the districts with the provincial level acting as an extended arm of the central government.

Despite this drive towards decentralisation in the Kenyan health sector, the health systems are still blamed for inefficiency and poor health indicators putting them under pressure. These setbacks have been partly attributed to poor management, especially in the organisation of the district health sector, lack of appropriate knowledge, skills and capacities among those responsible for the district health sector. Furthermore, there may be a gap between the capacity of DHMB and what they are called upon to accomplish. In the whole decentralisation process, success or failure depends on the ability of the DHMTs to interpret and implement the national health policy. But many times the members of DHMTs are already overloaded with work as they struggle to cope with demands of their technical work as well as their new managerial and administrative tasks. Thus it is important to prepare and empower DHMTs for their new tasks and to clarify roles and responsibilities at all levels.

The findings from this study indicate that MOH has allowed district authorities different degrees of decision-making power (decision space) across different functions and activities. For sources of revenue the MOH has allowed a moderate range of choice. This is because district authorities are heavily reliant on inter-governmental transfers, although they do raise their own revenue from cost-sharing, and they obtain donor funds to finance some interventions. However, there are delays in disbursing funds. The Public Expenditure Tracking Survey of 2008 reports that the number of days it took to for the Authority to Incur Expenditure[5] (AIE) to be received in the district health facility ranged between 38 to 95 days. The main causes of this delay include: the failure by the facility to provide accounts to district treasury on time, delays at the MOH, financial constraints at the MOH and failure to comply with government accounting procedures (MOH 2009). Figure 5.1 tracks the flow of AIE.

Figure 5.1 Flow of AIES for Health Service Delivery



Source: MOH 2009

The MOH allowed a moderate range of choice over budgets and resource allocation. This may be motivated by evidence from literature which argues that local authorities are more responsive to local needs - unlike distant bureaucrats - and therefore, better placed to allocate resources in such a way as to improve allocative efficiency (Bell, Ithindi, & Low

[5] AIE is a financial control tool used by the central MOH to ensure that expenditures are incurred based on the provision in the approved district budget.

2002;Bossert, Chitah, & Bowser 2003a). The shift from line-to-line budgeting to block grants may have supported the districts authority's utilisation of this discretion. This is because block grants allow flexibility to experiment with resource allocation while adhering to the national health policy objectives. This way, productive efficiency is likely to improve as well (Robalino, Pcazo, & Voetberg 2007). However, for this to occur, local authorities must have the capacity to make good decisions. This study did not examine capacity levels for the decision makers from the districts under the study. However, literature suggests that the capacity to successfully implement decentralisation depends on staffing levels, the skills of the district authority, their experience and training and the levels of corruption and patronage (Bossert 2008).

The findings from this study show that both the rich and the poor districts chose to allocate the bulk of their resources to service support activities, in particular maintenance of buildings, equipment, vehicles and to commodity supply. While these choices are well intentioned, it is important that PHC activities are sufficiently financed. The amount allocated to PHC activities should also be proportional to the eligible population in each district. In addition, districts in Kenya differ in their capacity to generate cost-sharing revenue. Poor districts are greatly disadvantaged to do so and it appears that there is no mechanism in place to compensate them with a larger share of the GOK health budget, neither is it clear whether donor agencies employ any compensation mechanism. If this variation is left unchecked it has the potential of increasing inequity related to health resource allocation across the districts (Okore & Thomas 2007).

In Kenya, like in other countries such as Zambia, and Ghana, the control of human resources is highly centralised; thus district authorities have limited control over human resource functions (Sakyi 2008). Further, by virtue of limited revenues from their own sources, district authorities are not able to apply financial incentives to motivate or attract health workers to work in their districts. Evidence from literature has demonstrated that the authority to hire and fire and financial rewards are effective policy tools with which to influence service providers' behaviour towards their clients. Thus, there are gains to be made by allowing more control to district authorities over human resource functions. This could be done through delegating the authority to hire and fire to the district and ensuring

that the human resource component is integrated within efforts to strengthen the health sector (Bijlmakers, Goma, Mattousch, & Wafula 2009). This will empower district authorities to address such issues as absenteeism or irrational use of drugs and commodity supply.

There is a need for the districts to explore different non-financial incentives, for example projects to improve the facility will provide better working and living conditions to health workers. This will help boost the moral even as health workers continue to cope with huge workloads at the districts. As the government considers the best way to reorganise the management of human resources, there are some short-term measures that could help alleviate the problem, at least to the most underserved districts. In Kenya, medical graduates are required to work in government designated postings for at least one year after graduation, after which they are free to take up employment in other regions. In the United States, medical graduates have to intern in underserved regions for a minimum of four years in exchange for medical education support. The Kenyan government could consider a putting in place an incentive mechanism for medical graduates who choose to stay and work in underserved regions after they have completed their internship.

The map of decision space presented in this study provides a framework with which various stakeholders could improve governance functions. Once the degree of decision space is known for a given function, it becomes easier to hold district authorities accountable for actions that are within their control. For this to be effective the community must effectively participate in the process. With the current shift to untied block grants, increased autonomy over cost-sharing and possible control over donor funding, the importance of sound governance structures cannot be overstated. In the absence of a legal framework to guide decentralised functions, politicians may easily influence the distribution of block grants in such a way as to reward their own respective constituencies. This is consistent with concerns that are currently being raised on CDF and LATF streams of funding. One of the tools that the MOH currently use to influence local choice is the AIE, where district authorities have to account for all expenditures incurred, and be answerable for their decisions before the AIE's for the next financial year is released too them.

There are concerns that decentralisation may provide opportunities for local level corruption. The opportunities for corruption range from kick backs in awarding tenders / contracts, bribing for staff positions to forging invoices and books of accounts. In a deconcentrated system, local level corruption may be orchestrated from the centre, and because the district authorities are largely accountable to the MOH it is difficult for clients and the community to hold them accountable, unlike in a devolved system that is run by locally elected officials, who have to act to protect their vote. Because DHSF is composed of NGO and other non state actors, it offers the best platform from which clients and the community can meaningfully participate to shape service delivery, enhance transparency and reduce corruption through mechanisms such as naming, shaming and blaming (Gloppen and Rakner 2003). Expanding the terms of reference for DHSF to allow them to take on more governance functions has a potential to strengthen, horizontal as well as vertical accountability, as they are participants in local decision-making processes and are aware of national priorities. However, there is need to ensure that this participation platform is not simply captured by local elites.

There are differences between the rich and poor districts in terms of their performance towards achieving their set targets (see figure 4.3). Poor districts performed well in immunisation and in training VHC's, while rich districts performed well in antenatal coverage, percentage of births attended by qualified attendant and in offering family planning services. This implies that health care services are is being utilised more amongst the rich districts as compared to the poor districts. There are improvements in the district health sector, but there is no clear evidence in support of the extent to which decentralisation has made to these improvements. The methodology employed posed difficulties in analysing causality between district health sector performance and decision space. An extensive analysis of the impact of decentralisation on health sector performance, requires a control group, pre-test and post-test comparisons, along with a sound methodology for controlling the wide range of possible influences on an a given indicator.

5.1 Study Limitation

The approach used introduces certain limitations to this study for the following reasons. First, analysis was based on data from a single point in time 2007/2008, when district authorities began to utilise standard templates for planning and budgeting. The data used in this study does not adequately permit examination of how decision space has changed during the different phases of implementing health sector reforms in Kenya. Secondly, in some cases there were inconsistencies in the data presented in the district health plans; while care was taken to improve accuracy, they still had limitations. Third, there were no hard numerical criteria to qualify the decision space of local officials. Fourth, attributes like utilisation of health services, quality of care or responsiveness of health services require methods other than the analysis of resource allocation, thus the current study does not capture them. Fifth, the method used limits the potential to develop concrete assertions to causality between district health sector performance and decision space. Therefore, the findings should be interpreted with caution. In spite of these limitations, this study provides several lessons for decision space analysis and the evidence presented supports lessons on decentralisation from other contexts.

5.3 Conclusion

The MOH in Kenya has allowed moderate decision space over finance and expenditure and access rules while limiting choice over service organisation, human resources, governance rules, norms and standards for service provision. However, district authorities enjoy a wide range of choice in allocating funds generated from cost-sharing and for contracting with non-salaried staff. This is an indication that the Kenyan government is willing to allow district authorities to take more financial responsibility for the provision of health services. Both the rich and poor districts seem to be utilising their discretion for resource allocation and access rules but the extent to which this is improving performance is not clear (see figure 4.3). Poor districts were relatively well on track to achieve their targets for immunisation, but performed poorly on other indicators, while rich districts were relatively better on track for other targets including: antenatal coverage, percentage of births attended by qualified attendant and in offering family planning services. Overall this study shows that there are improvements in the district health sector, some of this progress could be

attributed to decentralisation. However, there is a need to review the mechanism currently in place for distributing resources and put in place mechanisms to subsidize underserved districts.

5.4 Policy Recommendations

To improve policy and administrative practice in order to multiply gains due to decentralisation, this study suggests the following recommendations:

- Consider shifting to a carefully planned and rolled out devolved system. This will increase the degree of decision space exercised by district authorities over health care functions and thus accelerate the achievement of the gains due to decentralisation. This should be accompanied by a legal and organisational framework that addresses all aspects of decentralisation in the Kenyan health sector. While this is an issue that is subject to national politics, funding streams like CDF demonstrate that this is a viable option.

- Put in place a clear resource allocation mechanism including a method for subsidizing underserved districts in order to reduce the gap in resources for health between the rich and poor districts.

- Develop the capacity of district authorities in finance, management and resource allocation to ensure that activities are sufficiently funded and that a healthy balance is struck between allocative and technical efficiencies and between actual service delivery and service support systems. The WHO's DHMT training module developed by the regional office for Africa is one such capacity building training that could be delivered with in-service seminars, if it has not already been delivered.

- Develop the provincial tier so that it could assist the central MOH to exercise oversight, monitor equitable allocation of resources and provide extra support to less well-endowed (poorly performing) districts.

- Clarify roles and responsibilities for the various levels and actors involved in the decentralisation process.

- Consider revising the terms of reference for DHSF so that they could take on a more active role in ensuring accountability including expanding the opportunity for community members to participate in the process.

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Appendix 1: Demographic Profile, and Health Facilities

		Rich Districts						Poor Districts					
	District	**Thika**		**Mwingi**		**Taita Taveta**		**Mandera**		**Meru North**		**Makueni**	
Category		**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Demographic Profile	Eligible Population	656,617	100%	368,832	100%	267,993	100%	332,638	100%	752,496	100%	965,258	**100%**
	Children under 1 year (12 months)	21275	3.2%	14,090	3.8%	8656	3.2%	12,707	3.8%	29,000	3.8%	36,680	3.8%
	Children under 5 years (60 months)	90744	13.8%	58,279	15.8%	38430	14.3%	52,590	15.8%	119,000	15.8%	154,441	16.0%
	Under 15 years population	254076	38.7%	161,180	43.7%	54670	20.4%	145,363	43.7%	329,000	43.7%	463,323	48.0%
	Women of child bearing age (15-45 years)	169739	25.9%	88,620	24.0%	67789	25.3%	79,966	24.0%	181,000	24%	218,148	22.6%
	Estimated number of pregnant women	22205	3.4%	18,442	5.0%	8656	3.2%	16,632	5.0%	38,000	5%	39,576	4.1%
	Estimated number of deliveries	22205	3.4%	18,442	5.0%	8656	3.2%	16,632	5.0%	38,000	5%	38,610	4.0%
	Live births	22205	3.4%	18,442	5.0%	8656	3.2%	16,632	5.0%	38,000	5%	37,645	3.9%
	Estimated number of emergency obstretic complications	3284	0.5%	2,766	0.8%	2,010	0.8%	2,495	0.8%	6,000	0.8%	3,552	37.0%
	Estimated number of post-abortion cases	1313	0.2%	922	0.3%	0	0.0%	1,525	0.5%	6,000	0.8%	2,651	0.27
	Total number of adolescents (15-24 years)	150800	23%	44,310	12.0%	56815	21.2%			164,000	21.8%	194,982	32.2%
	Adults (24-59 years)	239666	36.5%	44,310	12.0%	84149	31.4%			221,000	29.3%	165,059	17.1%
	Elderly (60+ years)	31517	4.8%	3688	1.0%	15544	5.8%			47,000	6.5%	78,186	8.1%
Source of finance Expressed in Millions	GOK (Kenya Shillings)	143	67%	81	81%	15	33%	9	64%	2	9%	12	37%
	Cost-Sharing (Kenya Shillings	52	24%	6	7%	18	39%	2	12%	3	15%	13	40%
	Donors (Kenya Shillings	19	9%	11	12%	1	28%	3	24%	17	77%	7	23%
	Total	**214**	**100%**	**98**	**100%**	**46**	**100%**	**13**	**100%**	23	9%	**33**	**100%**
	Expenditure per Capita1	**326.12**		**239.78**		**158.83**		**40.18**		**27.60**		**21.83**	

Appendix 2: The Roles of Central (MOH) versus the roles of Local (DHMB and DHMT)

Function	Assignment / Rationale	
	Central (MOH)	**Local (DHMB and DHMT)**
Objectives of Decentralisation	To oversee, govern and facilitate the implementation of health sector reforms without becoming operationally involved in service provision.	To promote coordinated interventions at the community (level 1) largely involved in preventive activities, the dispensary and health centre (levels 2 and 3) working on both preventive and curative, and the hospitals (district and regional) moving to more preventive and rehabilitative care.
Organisational Structure	• Deconcentration of functions through the MOH to the DHMBs and DHMTs.	• DHMBs and DHMTs
Range of Responsibility	• Establish the health policy framework, issuing strategic direction and planning guidelines. • Establish public sector values, ethics and managerial competencies. • Mainstreaming public management accountability framework at all levels (including introduction of a result-based management performance system. • Review organisational management systems and practices.	• Oversee all health sector activities with functions not limited to the management of cost-sharing funds, setting targets and regulation. • Together, DHMBs and DHMTs provide management and supervision support to rural health facilities (sub-district hospitals, health centres and dispensaries). • Tender advice to the minister on plans for development or promotion of the health services in the district and carry out such plans if approved.
Resource generation	• Release of block grants, to ensure DHMB's and DHMT's ability to carry out responsibilities,	• Submission of recommendations to the minister on areas to levy user charges under the cost-sharing programmes as provided for by the Exchequer and Audit (Health Services Fund). • Setting user charges/cost-recovery mechanisms.
Resource allocation	• Setting minimum requirements for expenditure on maintenance and training in order to assure consistent quality and sustainability.	• Planning expenditure allocations within parameters set by national standards and the setting of local priorities. • Preparation and submission to the minister for approval estimates of revenue and development expenditures.
Resource Management	• Technical, logistic and administrative support. • Ensuring that budgeting and resource allocation reflect national priorities with budget ceilings based on MTEF.	• Responsibility for operation of the facilities under jurisdiction through a single like grant, effective annual work plans and procurement plans. • Submission of statistical, financial and other reports as the minister may require.

Setting Standards	• Ensure quality of service delivery, in NHSSP II through the initiation of KEPH and monitor its implementation. • Issue guidelines for practice and for the DHMBs and DHMTs and facility boards.	• Produce practical and achievable annual operational plans (AOPs).
Service Delivery	• Monitoring and controlling the performance of the health care providers in the public sector (DHMTs, primary, secondary and tertiary hospitals). • Enforcing performance based contract signed annually between the central MOH and the DMOH, linking resources required from the centre (GOK and development partners) with realistic targets set by the DHMT. • Capacity building for DHMTs and other stakeholders to undertake planning activities.	• DHMB are responsible for superintending the management of hospital services, supporting public health care programmes. • DHMTs generate implementation plans at meetings and assist in reviewing district health care services. • DHMTs are responsible for deciding on their annual district targets, as they are accountable for achieving them. • DHMTs are responsible for implementing KEPH.
Governance	• Enforce regulation and control health sector including: regulating providers in the public and private sector (including traditional practitioners). • Licensing health professionals, registration and quality control of drugs. • Enforcement of the legal framework, standards and regulations including the provision of relevant information to the public.	• Existence of DHMT system for giving feedback and sharing results of supervision with community staff and health facilities is an indicator that the DHMT is upholding the values of transparency and accountability. • The DHMBs may receive complaints of serious misconduct, negligence, illegality, or other misdeeds on the part of the Ministry of Health employees working in the district.

Appendix 3: Choices that DHMBS and DHMTs make to implement KEPH Objectives

NHSSPII Policy Goals and Objectives:	Rich Districts			Poor Districts		
	Thika	**Mwingi**	**Taita Taveta**	**Mandera**	**Meru North**	**Makueni**
Maternal Health **Curative Services** Adequate and timely referral system, partographs, transports (ambulance) system. Basic and comprehensive emergency obstetric care (BEOC). Newborn resuscitation. **Preventive Services** ANC and nutritional care, IPT, TT2. Use of skilled births attendants, clean delivery; BCG. PNC, breast feeding support, FP services. ITN promotion and use. IPT and indoor spraying. PMTCT / Nevirapine. Micro-nutrient supplements (iron) Hygiene, water and sanitation.	**Curative Services** • Increase deliveries conducted by skilled health workers. • Introduce CA. cervix screening. • Promote DOT in IPT. • Increase PMTCT uptake. • Opening up new facilities offering PMTCT plus. • Training more staff on PMTCT plus. • Procure assorted maternity equipments.	**Curative Services** • Training of health staff. • Increase staff establishment more than one staff per facility. • Increase health facilities offering ANC' PMTCT, deliveries and post-natal care. • Availing space and improve on cleanness. • Strengthening referral structures. • Update staff on attitude towards clients.	**Curative Services** • Increase ITN coverage. • Increase IPT coverage. • Increase the number of health facilities with diagnostic equipment. • Train more personnel on new guidelines on malaria treatment. • Scale up PMTCT services. • Increase nutritional supplementation & education. Development of individual birth plan.	**Curative Services** • Operationalisation of 3 more centres to offer comprehensive EMOC including 2 theatres in Elwak and in Rhamu. • Adequately equipping and staffing of all facilities. • Inter-agency collaboration. • Mandatory monthly maternal mortality audits.	**Curative Services** • Develop health worker skills in providing the ANC services. • Train staff on post abortion care/manual vacuum aspiration. • Proper logistics and management of kits and drugs. • Consistence supply & procurement of IPT. • Timely procurement and deployment of delivery kits and consumables.	**Curative Services** • Develop health workers skills in providing ANC services. • Scale up PMTCT services. • Train health workers on patient / client care skills. • Scale up family planning services. • Procure family planning deliverables.
	Prevention Services • Avail equipments and materials for demo. • Promote use of ITN. • Introduction of the community strategy. • Continued health education. • Intensify training on maternal nutrition.	**Prevention Services** • Sensitize community on positive attitude towards services offered by GOK facilities.	**Prevention Services** • Increase community awareness on maternal health through barazas. • Strengthen the referral systems. • Support retired midwives with delivery kits. • Introduce support in the community (train corps). • Increase FP uptake • Increase PMTCT uptake. • Introduce community	**Prevention Services** • Using the community strategy to enhance effective referral. • Discouraging TBAs from offering home deliveries through training.	**Prevention Services** • Deposit funds with PSI to ensure adequate supply of ITNs. • Sensitise the community on maximum utilization of ITNs. • Train 3 community own resource persons in each division. • Sensitise mothers on importance of safe motherhood and 4 ANC.	**Preventive Services** • Sensitise the community on reproductive health / family planning. • Address cultural beliefs acting as barrier to access to health care. • Conduct health information campaigns to improve utilization of ITNs amongst pregnant women.

			midwifery services.			
Child Health **Curative Services:** Clinical IMCI. ORS for treatment of diarrhoea. Antibiotics and anti-malarial drugs. ART. **Prevention Services:** Community IMCI + ITN. Appropriate nutrition, extended breast feeding; growth monitoring; EPI; provision of vitamin A/zinc. Psychological stimulation; physical/cognitive development. Exercise and recreation	**Curative Services** • Early infant diagnosis. • ART trainings. • IMCI implementation. • Maintain immunization coverage. • Procurement of cold chain.	**Curative Services** • Procure growth monitoring equipments. • Increase the number of health facilities offering immunization services. • Improve immunization coverage. • Procure cold chain facilities and distribute them amongst various dispensaries. Better management to frequent stock outs of vaccines and drugs e.g. BCG diluents.	**Curative Services** • Supply of anti-malarial drugs for < 5. • Increase IPT coverage. • Train more health workers on IMCI. • Ensure availability of ORT corner in every health facility. • Increase the number of facilities with diagnostic equipments. • Increase nutritional supplementation /education. • Procure infant replacement for HIV +ve mothers. Train personnel on ART.	**Curative Services** • Provision of continuous cold chain to all facilities-gap 15 - ensuring constant supply of vaccines. • Adequately staffing all facilities. • Avail anthropometry equipment to all facilities. • Supportive supervision to ensure adherence to protocols-IMCI management of malnutrition. Strengthening inter-agency collaboration.	**Curative Services** • Improve growth promotion & monitoring • Develop health worker's skills in cold chain management. • Better management of vaccines to improve immunisation coverage. • Train health workers on treatment of childhood illnesses following IMCI guidelines.	**Curative Services** • Scale up immunization services to improve coverage. • Procure cold chain facilities.
	Prevention Services • Introduce community IMCI. • Continued health education on HIV/AIDS. • Defaulter tracing. • Initiate CBR programmes. • Promote ITN use.	**Prevention Services** • Negative religious beliefs. • Lack of awareness on importance of immunization. • Long walking distances to the health facilities. • Poor feeding habits Limited hygiene and sanitation facilities.	**Prevention Services** • Strengthen & improve support to school health clubs. • Start support groups. • Establish growth monitoring sites at community level. • Increase de-worming campaigns in schools. • Train corps on community IMCI.	**Prevention Services** • Continuous defaulter tracing mainly by corps. • Using corps to identify children with moderate malnutrition and offer SFP. • Doing community sensitization on community IMCI. Strengthen disease surveillance at community level	**Prevention Services** • Promote health education on key messages for control of childhood illnesses. • Train teachers and orientate parents in school health services. • Promote responsive school health activities	**Preventive Services** • Educate the community on the importance of immunization. • Sensitise the community on malnutrition and personal hygiene. • Conduct deworming. • Sensitise the community on how

						to avoid home accidents
Adolescence **Curative Services** Overall treatment and care, especially for DOTS, STIs and opportunistic infections. **Prevention Services** TT2 in schools. RH and HIV/AIDS/STI counselling. Substance abuse counselling. Adequate nutritional care. Accident prevention. RH/FP services. Exercise and recreation	**Curative Services** • Establish a youth friendly centre. • Initiate support groups. • Introduce rehabilitative services. • Conduct trainings on behaviour change. • Initiate school health programme with RH component.	**Curative Services** • Establish youth friendly services and centers. • Train health workers. Procure drugs to treat ailments amongst the youth e.g. STIs.	**Curative Services** • Start youth friendly centres. • Supply of diagnostic & testing kits. • Establish VCT sites. • Train staff on ART. • Tracing of irregular attendance/ defaulters for TB /HIV clients. Increase the numbers of facilities offering post-abortion care.	**Curative Services** Operationalise at least one youth friendly service centre.	**Curative Services** • Establish youth friendly service centers. • Procure and distribute condoms and other supplies. • Improve treatment of malaria including prevention and control activities. • Improve treatment of common dental conditions.	**Curative Services** • Establish more centers offering youth friendly services. • Enhance school health programs.
	Prevention Services • Increase community awareness.	**Prevention Services** • Address staff attitude towards youth. • High youth unemployment and poverty levels. Stigma in the community about youth with various health conditions.	**Prevention Services** • Increase school health programmes. • Formation of health clubs in schools. • Upscale school de-worming.	**Prevention Services** • Annual district youth health forum-through school health programs. • Raising awareness on issues affecting youth especially HIV/AIDS, STI.	**Prevention Services** • Initiate programs to educate the youth about healthy eating. • Initiate behaviour change communication program to educate the youth about HIV/AIDS. • Scale up TB /HIV activities targeting the youth.	**Preventive Services** • Initiate programs to educate the youth about HIV/AIDS and teenage pregnancies. • Train peer educators on behavior change.
Adults and Elderly **Curative Services** Overall treatment and care. ART and palliative care. DOTS. Access to drugs for degenerative illnesses. **Prevention Services**	**Curative Services** • Introduce QA. • Decentralization of diagnostic and treatment sites of TB. • Train and introduce • DTC. • Nutritional and health education. • Procure assorted theatre equipments.	**Curative Services** • Inability to treat chronic debilitating diseases. • Improve referral systems. • Establish more CCC, VCT, T.B sites. • Improve drugs and supplies e.g. insulin. • Procure laboratory	**Curative Services** • Ensure drug availability in health facilities. • Provide diagnostic equipments. Defaulter tracing for TB /HIV clients.	**Curative Services** • Improve supply of essential drugs. • Increasing TB detection rate. • Increasing centres offering VCT/ART. Addressing staffing problems.	**Curative Services** • Provide VCT and FP services. • Procure equipment and supplies for RH. • Scale up blood safety services. • Train health worker on skills to improve their handling of mental conditions	**Curative Services** • Procure more anti-malarial medication. • Improve structures to address defaulters in TB treatment.

Annual screening and medical examinations. Accident prevention. FP/RH services. Healthy lifestyles (exercise, recreation, nutrition, etc.). Annual screening and medical examinations. Exercise and the promotion of general hygiene. Social/emotional/community support.	• Health education on • Non – communicable diseases. • Training on ART. • Scaling up rehabilitative services to level 3.	reagents and kits. • Improve access to physiotherapy services.			with a focus on substance abuse counseling and physical, mental and psychological abuse. • Improve oral health education, including production of IEC materials.	
	Preventive Services • Implement community unit. • Empowering PLWHA. • Strengthening HBC. • Strengthening defaulter tracing. • Strengthening CHW functions.	**Preventive Services** • High dependency among the elderly. Initiate programs to educate on healthy eating habits and physical exercise.	**Preventive Services** • Health promotion	**Preventive Services** • Quarterly HIV/AIDS de-stigmatization campaigns district wide. • Creating awareness on common chronic illnesses. Formation of support groups.	**Preventive Services** • Sensitization of community leaders on adherence and completion of immunization. • Improve the referral of adults with mental conditions. • Initiate community based nutritional care and support for PLWHAs.	**Preventive Services** • Educate the community on ITNs. • Undertake community education on domestic violence, drug abuse and on social support to the elderly.