

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

THE UNIVERSITY OF CAPE TOWN

**IMPACT OF USER FEES REMOVAL ON FACILITY UTILISATION IN RURAL
ZAMBIA**

By: Patrick Banda

Dissertation submitted to the University of Cape Town in partial
fulfillment of the requirement for the award of a Masters of Public
Health Degree specialising in Health Economics

November 2008

TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF FIGURES	4
LIST OF APPENDICES	5
LIST OF ACRONYMS AND ABBREVIATIONS	7
ACKNOWLEDGEMENTS	8
EXECUTIVE SUMMARY	9
CHAPTER ONE: INTRODUCTION.....	11
1.1 BACKGROUND TO THE STUDY	11
1.2 SOCIO-ECONOMIC AND HEALTH PROFILE OF ZAMBIA	14
1.2.1 Background.....	14
1.2.2 Economy.....	14
1.2.3 Health Status.....	15
1.2.4 Health System and Health Sector Reform.....	16
1.2.4.1 Health System.....	16
1.2.4.2 Health Financing Reform	17
1.2.4.3 Sources of Health Funds.....	20
1.2.4.4 User Fees in Zambia.....	22
1.3 CONCEPTUAL FRAMEWORK	23
1.4 STATEMENT OF THE PROBLEM.....	26
1.5 RATIONALE OF THE STUDY	26
1.6 AIM AND OBJECTIVES OF THE STUDY	27
1.6.1 Aim.....	27
1.6.2 Specific Objectives.....	27
CHAPTER TWO: LITERATURE REVIEW.....	28
2.1 SEARCH STRATEGY	28
2.2 USER FEES: A POLICY PERSPECTIVE	29
2.3 IMPACT OF USER FEES	29
2.3.1 User Fees and Affordability.....	29
2.3.2 User Fees and Utilisation.....	31
2.3.3 User Fees and Equity.....	33
2.3.3.1 Horizontal Equity.....	33
2.3.3.2 Vertical Equity	34
2.3.4 User Fees and Resource Generation.....	34
2.3.5 User Fees and Quality of Care	34
2.3.6 User Fees and Provider Motivation and Attitudes	36
2.3.7 User Fees and Efficiency	37
2.3.8 User Fees and Exemptions.....	38
CHAPTER THREE: METHODOLOGY	40
3.1 STUDY SITES.....	40
3.2 SAMPLING PROCEDURE	42

3.3	DATA COLLECTION TOOLS	43
3.3.1	<i>Patient Registry Review</i>	44
3.3.2	<i>Patient Exit Interviews</i>	44
3.3.3	<i>Providers Interviews</i>	45
3.3.4	<i>Focus Group Discussions</i>	45
3.3.5	<i>Key Informant Interviews</i>	46
3.3.6	<i>Drug Availability Data Collection Tool</i>	46
3.4	DATA ANALYSIS	46
3.4.1	<i>Utilisation</i>	46
3.4.2	<i>Policy Communication to Stakeholders</i>	49
3.4.3	<i>Attitude and Perceptions</i>	49
3.4.3.1	<i>Providers</i>	49
3.4.3.2	<i>Patients</i>	50
3.5	DRUG AVAILABILITY	50
3.6	LIMITATIONS	50
3.7	ETHICAL CONSIDERATIONS	52
CHAPTER FOUR	RESULTS	53
4.1	INTRODUCTION	53
4.2	CHARACTERISTICS OF THE RESPONDENTS	53
4.3	UTILISATION LEVELS OF HEALTH SERVICES	53
4.4	UTILISATION LEVELS BY DISTRICT	55
4.5	UTILISATION BY MONTH	56
4.6	UTILISATION LEVELS BY HEALTH FACILITY	58
4.7	UTILISATION LEVELS BY DISEASE	59
4.7.1	<i>Total Malaria Cases by Year</i>	60
4.7.2	<i>Respiratory Infection Non-Pneumonia</i>	61
4.7.3	<i>Diarrhoea</i>	62
4.7.4	<i>Respiratory Pneumonia</i>	63
4.7.5	<i>Skin Infection</i>	64
4.7.6	<i>Eye Infection</i>	65
4.8	POLICY COMMUNICATION TO KEY STAKEHOLDERS	67
4.9	PROVIDERS COMMUNICATION ABOUT USER FEE POLICY CHANGE	68
4.10	PERCEPTIONS AMONG STAKEHOLDERS ABOUT USER FEES	69
4.10.1	<i>Service Providers</i>	69
4.10.2	<i>Patients</i>	70
4.11	PERCEPTIONS ABOUT CHANGES IN THE QUALITY OF CARE	72
4.12	DRUG AVAILABILITY SITUATION	75
4.13	CHALLENGES OF USER FEE ABOLITION	76
4.13.1	<i>Perceptions of Providers</i>	76
4.13.2	<i>Perceptions on Rating of Health Facilities by Providers</i>	77
4.13.3	<i>Perceptions of Providers on Grants</i>	78
4.13.4	<i>Perceptions of Patients</i>	78
CHAPTER FIVE:	DISCUSSION	80
5.1	INTRODUCTION	80

5.2	THE IMPACT OF ABOLITION OF USER FEES ON UTILISATION AT HEALTH FACILITIES	80
5.3	THE IMPACT OF USER FEE REMOVAL AT DISTRICT LEVEL AND FACILITY LEVEL.....	81
5.4	IMPACT ON UTILISATION BY DISEASE	82
5.4.1	<i>Malaria</i>	82
5.4.2	<i>Respiratory Non-Pneumonia</i>	82
5.4.3	<i>Other Diseases</i>	83
5.5	POLICY COMMUNICATION TO KEY STAKEHOLDERS	84
5.6	PERCEPTIONS OF QUALITY OF HEALTH CARE SERVICES FOLLOWING THE REMOVAL OF USER FEES.....	86
5.7	DRUG AVAILABILITY SITUATION.....	88
5.8	CHALLENGES FOR THE ZAMBIAN HEALTH SYSTEM AFTER USER FEES REMOVAL.....	89
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS.....		91
	HEALTH POLICY AND HEALTH SERVICE RECOMMENDATIONS	92
	RESEARCH RECOMMENDATIONS	94
REFERENCES.....		96
LIST OF APPENDICES		106

LIST OF TABLES

Table 1: Major causes of visitation at health facilities
Table 2: Evolution of health care reforms in Zambia
Table 3: MOH revenue sources and recurrent health centre budgets
Table 4: Health Expenditure Ratios, 1995-2004
Table 5: List of Health Facilities
Table 6: Distribution of the respondents.
Table 7: Sources of Data
Table 8: Kruskal-Wallis Test
Table 9: Wilcoxon rank-sum test

LIST OF FIGURES

Figure 1: Conceptual Framework
Figure 2: Annual Total Utilisation
Figure 3: Annual Visits by District

Figure 4: Utilisation by month-Chongwe District
Figure 5: Utilisation by month-Chibombo District
Figure 6: Utilisation by health facility in Chongwe District.
Figure 7: Utilisation by health facility in Chibombo District.
Figure 8: Reason for visiting health facility
Figure 9: Annual malaria visits by district and distance to DHMT
Figure 10: Annual visits for respiratory non-pneumonia
Figure 11: Annual diarrhea utilisation by age
Figure 12: Annual visits for respiratory pneumonia by age
Figure 13: Total utilisation for skin infection by age
Figure 14: Annual eye infection by age
Figure 15: Policy communication to patients
Figure 16: Communication and preferred way about user fee policy change for providers
Figure 17: Perceptions about user fee policy change.
Figure 18: Health facility preparedness to implement the new policy
Figure 19: Consideration of user fees as a form of community involvement
Figure 20: Perceived reasons for abolition of user fees
Figure 21: Perceived changes of services following the removal of user fees
Figure 22: Perception that user fee policy improves quality of services
Figure 23: Communication about diagnosis results
Figure 24: Revisitation to health facility
Figure 25: Level of satisfaction by district
Figure 26: Rating of health facilities by providers

LIST OF APPENDICES

Appendix 1: Facility based data collection tool
Appendix 2: Drug availability data collection tool
Appendix 3: Informant interviews
Appendix 4: Providers interviews
Appendix 5: Patient exit interviews
Appendix 6: Consent form for providers

- Appendix 7: Consent form for providers
- Appendix 8: Consent form for focus group discussions
- Appendix 9: Focus group discussion
- Appendix 10: Characteristics of respondents
- Appendix 11: Average utilisation levels (2004-2006)
- Appendix 12: Annual malaria visits by age
- Appendix 13: Annual diarrhea visits by health facility and distance to the DHMT
- Appendix 14: Total utilisation for skin infection by health facility and distance to DHMT
- Appendix 15: Annual eye infection by district and distance to DHMT
- Appendix 16: Total utilisation for pneumonia
- Appendix 17: Total utilisation for eye diseases
- Appendix 18: Perceptions on effectiveness of policy change
- Appendix 19: Different views of patients and providers

University of Cape Town

LIST OF ACRONYMS AND ABBREVIATIONS

ACTS	Artemisinin Based Combination Therapy
AIDS	Acquired Immune Deficiency Syndrome
ANOVA	Analysis Of Variance
BHCP	Basic Health Care Package
BI	Bamako Initiative
CDEs	Classified Daily Employees
CPs	Cooperating Partners
COs	Clinical Officers
DHBs	Districts Health Boards
DHMTs	District Health Management Teams
DHO	District Health Office
DHS	Demographic and Health Survey
EHT	Environmental Health Technician
FGDs	Focus Group Discussions
GDP	Gross Domestic Product
GHE	Government Health Expenditure
GNP	Gross National Product
GRZ	Government of the Republic of Zambia
HIPC	Highly Indebted Poor Countries
HIV	Human Immune-Deficiency Virus
HMB	Hospital Management Boards
HMIS	Health Management Information Systems
IMF	International Monetary Fund
IPT	Intermittent Presumptive Treatment
MOFNP	Ministry of Finance and National Planning
MOH	Ministry Of Health
MTR	Medium Term Review
NGOs	Non-Governmental Organisations
NHCD	National Health Care Delivery
NHCs	Neighborhood Health Committees
NHSP	National Health Strategic Plan
OPDs	Out Patient Documents
PHC	Primary Health Care
PPC	Provider Patient Communication
THE	Total Health Expenditure
SAPs	Structural Adjustment Programmes
SAA	Sub Saharan Africa
SIDA	Swedish International Development Agency
SWAp	Sector Wide Approach
UCT	University of Cape Town
US\$	United States Dollars
VCT	Voluntary Counseling and Testing
WB	World Bank
WHO	World Health Organisation

ACKNOWLEDGEMENTS

First and foremost, I would like to express my utmost gratitude to Professor Mike Thiede and Veloshnee Govender my supervisors for their numerous suggestions and corrections during all phases of the thesis.

My special thanks are dedicated to Dr Edina Sinanovic and Professor Di McIntyre for all their time support and encouragement during the time of pursuing my master's programme.

I owe special gratitude to John Kazembe for editing and reviewing the thesis. I would also like to extend my gratitude to the districts and health facilities where the data was collected and also the Ministry of Health for all their input during the data collection phase.

I would like to thank my sponsors, the Swedish International Developing Agency (SIDA) for facilitating my master's programme for without them, the programme would have proved difficult to attain.

In particular I thank Osbert Namafente, Greg Distiller, Pascalina Chanda and Dr Felix Masiye for the assistant in the data collection, methodological data analysis, mentoring and all time support during my entire masters programme.

I sincerely thank all the Health Economics Unit members and all those who helped in one way or another for their input and knowledge shared whose names or designations have not been directly mentioned.

I will forever be indebted to my family for their endless support and trust rendered to me at all times. I love you all and may the Good Lord Bless You.

EXECUTIVE SUMMARY

1. Introduction

User fees were introduced in Zambia as an additional source of revenue in response to the economic down-turn that the country experienced in the early 1990s. There is increasing evidence that user fees are a major barrier to accessing health services especially for the poor and in response the Zambian government abolished user fees in all public health facilities in rural based districts in April 2006.

2. Aim

The aim of this study is to provide empirical evidence on the immediate impact of the abolition of user fees in the context of the Zambian health sector so as to identify optimal strategies in the delivery of health care.

3. Methodology

Both qualitative and quantitative data collection techniques were used to address the research objectives. The study focused on six health facilities in two rural districts. The data collection tools included utilisation data reviews, patient exit polls, providers interviews, focus group discussions, informant interviews and drug availability data reviews.

4. Results

The results demonstrated that, the impact of the abolition of user fees at the district level was dependent on location of the district. Information flow was mainly cited as one of the reasons for the quick response to the user fee policy change. This brings in the need for a more deliberate and appropriately managed communication process when such policy change is being planned.

The results of the study revealed that there was an impact on facility utilisation after the removal of user fees. In addition, there were shortages of drugs, low staff morale and

poor maintenance of the surroundings. Patient-provider relationships seemed to be strained as a result of the increase in provider workload.

5. Conclusion

The results showed that removal of user fees led to an increase in the number of patients utilising health services. The results to a larger extent were indicative that the key stakeholders in the health sector were not properly consulted in the policy shift, which contributed to them resisting the policy change. Poor facility preparedness can detract the benefits of the policy shift. It was required that prior to implementation of the policy change, facilities needed to be prepared in terms of staffing levels of health workers; drug supplies and the provision of the grant intended to meet the shortfall arising from the removal of user fees.

6. Recommendations

The government should ensure that the grant is provided timely and completely to the health facilities. In addition, the government has to train and recruit more health workers to meet the pressures of increased utilisation and improve health worker packages especially rural hardship allowances. Increased benefits may increase the morale of health workers working in rural areas. Furthermore, enhanced supportive supervision is needed to ensure that quality of health services provided improves. This would need working closely with the District Health Management Teams (DHMTs).

Further research is needed to increase the knowledge for decision making process before the abolition of user fees. Specific research may include: health worker behaviour in the absence of user fees, health care seeking behavior for different types of diseases after the abolition of user fees and how provider patient relationships can affect utilisation levels by age category and disease type. Such research would be useful for decision making as it would be based on empirical finds.

CHAPTER ONE:INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Health sectors in most developing countries have undergone reforms in the last three decades with the purpose to improve performance of the sector. In some cases the reforms have been radical and comprehensive. In others, they have been through selective and incremental interventions. The underlying reasons for undergoing these reforms have varied greatly between countries. However, economic decline has been singled out as the major reason for undergoing these reforms (Mwangi 1999).

The major challenges facing the health systems in developing countries have been well-documented over the past decade. These challenges include shortages of drugs and other supplies that are essential for the efficient and effective delivery of health services. In addition, poor regulation coupled with high custom duties and taxes of drugs during importation; medical personnel reporting late, if not absconding entirely from work; major brain drain of health workers in search of greener pastures and poor accountability of resources contribute to poor quality of health services which discourages utilisation (World Economic Forum 2006).

In the late 1980s, international agencies and the World Bank embarked on the process of health sector reforms (Wilkinson, Gouws et al. 2001). This agenda for reform was to reduce the role of the state in health services financing and provision and greater reliance on market mechanisms to increase efficiency of the health sector (Blas and Hearst 2002). The implementation of these reforms aimed at generating additional resources for the health sector and increasing the role that the private sector plays in both the provision and financing of health services (Mills and Gilson 1988). This was so due to chronic under investment in health care systems accompanied by poor governance, poverty and conflict in many developing countries (World Bank 1995). Therefore with mounting economic constraints in most developing countries, governments supported by bilateral and multilateral donors, began in the early 1990s to rationalise that if rich countries could not

afford to provide wholly free services to their populations, poor countries could similarly not afford to sustain their 'free for all' health policies (Abel-Smith 1986).

The Zambian health sector faces a number of challenges, including the HIV/AIDS epidemic which in a context of growing poverty and chronic under-funding of health services, essential drugs and medical supplies shortages. All of this has contributed towards severely compromising the delivery of effective and quality health care (Ministry of Health 2006).

The problems in the Zambian health sector can be traced to the macroeconomic challenges that the country began facing in the 1980s. These include the increases in oil prices in the 1970s and the declining copper prices (the commodity that earns about 90 percent of the Zambia's foreign exchange and forms the backbone of her economic sector). These led to the decrease in the resources available for social services, including health (Directory Publishers of Zambia 2005). Coupled with the HIV/AIDS epidemic which required a significant injection of additional health resources, this has led to the deterioration of the situation (Ministry of Health 2000).

Before 1991 medical services in Zambia were offered free of charge despite resource constraints. Most health facilities were operating without drugs and patients had to incur costs by buying drugs from the drug stores and visiting traditional practitioners (Masiye 1998). In 1991, user fees were introduced to address the resource gap.

In the past, the Zambian MOH planned and budgeted based on historical trends rather than on how much it costs to provide these services (Phiri 2000). More recently, the MOH has adopted a resource allocation formula in an attempt to have a more equitable distribution of financial resources, by targeting budgetary reforms that focuses on shifting resources away from high level services towards primary health services. Considering the high poverty levels especially among the rural poor, the government embarked on prioritising the allocation of resources towards the poor as a way of removing the financial barriers to accessing care among the poor (Kaambwa 2002). This was due to the

growing evidence that user fees were creating a major barrier towards the utilisation of health services among the poor in Zambia (Masiye, Seshamani et al. 2005). In addition, user fees were not generating the anticipated revenues meant to sustain the health system.

On January 15 2006, the President of Zambia announced that user fees for primary health care were to be abolished in all rural areas, with effect from April 1 2006. Fifty six (56) of the 72 districts in Zambia are classified as rural. Following this presidential announcement, the Ministry of Health abolished user fee charges at the point of access in all rural health facilities as an initial step towards complete abolition which may follow in future (Masiye, Chitah, et al. 2007).

Therefore Zambia's step in abolition of user fees represents a growing recognition that health should be considered as a collective productive investment rather than a commodity subject to short term cost recovery (Pearson 2004). This is contrary to the suggestions that, user fee policies help to curb unnecessary utilisation and empowers the users of health facilities by bringing about ownership and also educating both facility managers and patients about the cost of health care.

The rest of Chapter one looks at the background of Zambia, the health systems and health sector reforms, the conceptual framework and the objectives of the study.

Chapter two provides an insight on the available literature on user fees to provide both theoretical and empirical evidence of what has been done and areas that need further research. To achieve this aim, chapter two starts with the theoretical reviews, this will be followed by empirical evidence on the impact of user fees on facility utilisation.

Chapter three describes the methodological approaches that were used for data collection and analysis so as to achieve the objectives described in chapter 1.

Chapters four and five present the results and discussion respectively. Finally, Chapter six concludes the study and brings out the policy recommendation for Zambia and other

developing countries that have already abolished user fees and those that are on their way towards abolition of user fees.

1.2 SOCIO-ECONOMIC AND HEALTH PROFILE OF ZAMBIA

1.2.1 Background

Zambia is a landlocked Sub-Saharan African (SSA) country sharing boundaries with Malawi, Mozambique, Zimbabwe, Botswana, Namibia, Angola, Democratic Republic of Congo and Tanzania. The country covers a land area of 752,612 square kilometers. It lies between 8 and 18 degrees south latitudes and longitudes 22 and 34 degrees east. About 58 percent of Zambia's total land area of 39 million hectares is classified as having medium to high potential for agricultural production, but less than half of potential arable land is cultivated. The country is prone to drought due to erratic rainfall as its abundant water resources remain largely untapped. Zambia has some of the largest copper and cobalt deposits in the world (Central Statistics Office 2004).

The population of Zambia is approximated to be 12.2 million in 2007 based on the 2.9 percent annual growth since the last census that was conducted in 2000 (Central Statistics Office, Ministry of Health and International Inc 2008). Of the population, 65 percent reside in rural areas while 35 percent reside in urban areas. Further 51 percent of the population is considered female while 49 percent is male. The average household size for Zambia is 5.4 persons per household. 20 percent of the children below the age of 19 are orphans and 2 percent of the population is disabled (Central Statistics Office 2004). The illiteracy rate in Zambia is estimated at 65.1 percent (Central Statistics Office 2003).

1.2.2 Economy

Since independence in 1964 to around 1973, Zambia experienced high economic growth. However due to the fall in copper and increases in the oil prices the country started experiencing deteriorating economic growth. This saw the per capita income fall from US\$ 451 in 1976 to US\$300 in 1997. Fostered by high inflation rates, most of the population's income declined significantly and the poverty levels increased from 24

percent that was recorded in the 1980s to over 70 percent currently reported (Ministry of Health 2000).

Zambia's economy has been registering minimal economic growth since the early 1990s (Ministry of Finance and National Planning 2002). Between 1999 and 2003, it was estimated that on average, real economic output grew by 2.9 percent per annum while the GDP per capita was still low with a growth of US \$359. However, Zambia has been registering economic growth over the past four years of about 5 percent per annum (IMF 2008). This economic growth can be attributed to a rise in the price of copper on the international market and as a result of debt cancellation under the enhanced Highly Indebted Poor Countries (HIPC) initiative. The HIPC initiatives led to a reduction in Zambia's total external debt from US\$ 7.1 billion to US\$ 581 million in 2004 (IMF 2006). This has given Zambia enough fiscal space to allocate more funds towards social sectors activities like health so as to reduce the high disease burden resulting mostly from the HIV and AIDs pandemic. However, it has been noted that the recent growth of the economy has not translated into reduced poverty for the majority of the people as poverty levels, especially in the rural areas is still quite high. The national poverty level was estimated at 67 percent in 2002 with 74 percent of the rural residents being poor as compared to 52 percent of the urban residents (Central Statistics Office 2004).

1.2.3 Health Status

The new Demographic and Health Survey (DHS) for 2007 preliminary results reveal that there are some improvements in most of the key health outcomes. The infant mortality rate dropped from 95 deaths per 1000 live births in 2001/2 to 70 deaths per live births in 2007. The under-5 mortality rate declined from 168 deaths per 1,000 populations in 2001/2 to 119 deaths per 1,000 populations in 2007 while the maternal mortality rate declined from 729 deaths per 100,000 populations to 449 deaths per 100,000 populations during the same period. The percentage of the population aged 15-49 that is HIV positive dropped from 15.6 percent in 2001/2 to 14.3 percent in 2007 (Central Statistics Office, Ministry of Health and International Inc 2008). These improvements have also seen the

life expectancy declining to 37 years from 55 years in the 1980s (Ministry of Health 2000).

Table 1 below indicates the 10 leading causes for visiting health facilities in Zambia (Ministry of Health 2005). Malaria is the leading cause of people seeking health care followed by respiratory infection non-pneumonia and diarrhea non-bloody.

Table 1: Major causes of visitation at health facilities

Disease name	Incidence per 1000 population
Malaria	373
Respiratory infection: non-pneumonia	161
Diarrhea: non-bloody	75
Trauma	46
Respiratory infection: pneumonia	42
Skin infections	42
Eye infections	40
Ear/nose/throat infections	24
Digestive system	19
Macular skeletal	18

Source: MOH, HMIS 2005

1.2.4 Health System and Health Sector Reform

1.2.4.1 Health System

Zambia is divided into 72 District Health Boards (DHBs) responsible for either direct provision or commissioning of health services up to the district level for their respective populations. The health sector follows a pyramid structure, starting with the tertiary health level at the top to district health level facilities at the bottom. In the middle there are provincial health care level facilities. The Ministry of Health is responsible for resource mobilization, health policy formulation and for monitoring and evaluating their implementation (Ministry of Health 2006). The health services are provided through a network of health facilities which are private, public or mission, of which the public

sector continues to be the major provider of health services (IHSD 2000, Ministry of Health 2008). In a move to ensure universal health access, the government has significantly expanded the number of primary health care facilities.

1.2.4.2 Health Financing Reform

Zambia has attracted considerable attention in recent years for its ambitious programmes of decentralisation of the health sector (Chitah and Bossert 2001; Hjortsberg and Mwikisa 2002). Like most Sub-Saharan African countries, the Zambian government through the Ministry of Health under-went various health reforms in its quest to clear its debt, attain fiscal discipline and most importantly, eradicate poverty and increase economic growth. The main objective of the reforms was to redress the inequities, inefficiencies and ineffectiveness in the health sector (Eriksson, Diwan et al. 2002: p 33-34). Table 2 below provides some timeline of these reforms.

Table 2: Evolution of health care reforms in Zambia

Year	Type of Reform
1985	Medical Services Act passed
1991/1992	Introduction of user fees
1992	Government introduces “National Health Policies and Strategies Creation of hospital management boards appointed by the Minister of Health
1993	Health Reforms Implementation Team established (HRIP) established: corporate plan developed User fees introduced in all public health facilities at all levels
1994	Launch of health sector policy: established a framework for development cooperation in the health sector within the sector Wide Approach programming.
1995	1 st National Health Strategic Plan Produced Passing of the National Health Services Act
1996	Basic Package of care defined for district level

	District Boards of health established District Directors of Health appointed Central Board of Health established Autonomous Hospital Boards established
1998	New Drug policy ratified
1999	Hospital Steering Committee formed
2000	Basic Package of Care defined for 2 nd and 3 rd levels and the package for district level reviewed in order to get a comprehensive package
2001	National Hospital policy developed, awaiting ratification
2006+	User fees abolished in rural health facilities

Source: Eriksson , Diwan, et al .2002; Masiye, Chitah et al.2007

The public health care system in Zambia was highly centralized before the 1990s reforms with considerable differences in the health services standards between rural and urban areas. The bureaucratic nature of the system made it inefficient and unresponsive to patient demands. In the late 1980s and early 1990s, the Government of the Republic of Zambia (GRZ) engaged in a radical process of restructuring the public health sector with the vision of providing equity of access to cost-effective quality of health care as close to the family as possible. The Implementation of these health reforms in Zambia has mainly been supported by the principle of good governance, accountability and partnership (Ministry of Health 2007).

Health reforms saw the entire health system changing from a centralised to a more decentralised system of management and organisation. This process led to the creation of appropriate management structures and legislative reviews. The role of the centre was diminished to that of policy making, setting standards and guidelines, regulation and monitoring. These health reforms also led the formation of the national health reform implementation team in charge of monitoring the country's own health reform programs which were been made in the Zambian health sector. This was in an effort to reorganise health care financing (Berman 1995).

In 1992 Hospital Management Boards (HMBs) were created which were appointed by the Minister of Health (Chitah and Bossert 2001). Thereafter, the MOH launched the sector policy planning with the Cooperating Partners (CPs) in 1994 which established a framework for development and cooperation within the Sector Wide Approach programming (SWAp). Therefore, the MOH embarked on the development of the National Health Strategic Plans (NHSP) to guide investment. Due to the host of key indicator information for policy and planning being generated as a result of the strategic plans, it became expedient that a Mid Term Review (MTR) be conducted jointly as part of the Mid Term Review of the NHSP (Ministry of Health 2007). Health care services planning and management was decentralised to the district level by 1996. Therefore, the districts and some hospitals were empowered to plan, budget and deliver health services in the same year (Eriksson, Diwan et al. 2002)

The choice of health care financing and provision mechanisms are becoming critical issues in ensuring that health care objectives are met in the health sector. Public provision and financing of the essential Basic Health Care Package (BHCP) have to be met within the country and considered as an immediate goal of the government (Ministry of Health 2000).

The Government of Zambia guided the design, packaging and delivery of the free health care policy from 1964 to 1992 (Ministry of Health 2004). This was in an effort to take modern health care as close to the majority of the population as possible. During this time the policy worked very well as it was supported by the buoyant economy which was backed by the high copper prices. With time, it became very difficult to fund the sector as the resources were reduced due to the decrease in copper prices on the international market. The maintenance of health facilities became constrained and the drug situation became erratic (Eriksson, Diwan et al. 2002). In addition, the country was also facing rapid population growth at this time resulting in the mismatch between the supply of health resources and their demand.

Despite all these problems, there was no urgent measure to reverse the situation. By the late 1980s, National Health Care Delivery (NHCD) had deteriorated to the levels that needed urgent policy intervention. Therefore, the government through the Ministry of Health in 1992 embarked on national health care reforms which resulted into the decentralisation of health care delivery at different levels of care. In general, the health reforms that the government adopted were a transformation from free health care delivery solely funded by the government to cost sharing scheme shared with the consumers (Ministry of Health 2004).

Zambia maintained cost-sharing in public health care financing from early 1990 till 2005 when it became evident that user fees were preventing the poor from utilising health services. In addition, revenue generated from user fees was not adequate to supplement the financing of the health sector. Therefore, Zambia decided to abandon the cost sharing on 1st of April 2006 at the point of utilisation of health care services in 56 of the 72 districts classified as rural areas till further notice (Masiye, Chitah et al. 2007).

1.2.4.3 Sources of Health Funds

Households are the major source of health funds in Zambia at 38 percent, followed by the government with 35 percent. Donors contribute 15 percent to total health expenditure and the employers contribute 9 percent (Ministry of Health 2006c).

Table 3 below indicates the MOH revenue sources and recurrent health centre budgets for rural and urban facilities. Interestingly, while government accounts for more than 70% of the rural health centres' budget, it accounts for only 20% of that of urban health centres. User fees accounts for almost two-thirds of the urban health centres' budget compared to 13% of the rural centres. Overall, user fees contributed to only 4% of the public health sector resource resources. However this does not represent the total health sector resource envelope since it captures only three revenue sources (regular government funding from the Ministry of Finance and National Planning (MOFNP), donor funding that flows through the Ministry of Health, and donor funding that is allocated directly to District Management Boards (DMBs) and Hospital Management Boards (HMBs)). Thus, private

health expenditure by citizens on private clinics, health insurance and drugs stores, as well as expenditure by Non-Government Organizations and employer insurance are not included (Masiye, Chitah, et al. 2007).

Table 3: MOH revenue sources and recurrent health centre budgets 1999-2002

<i>Revenue source</i>	<i>As % of total public health sector resources</i>
Government	39 %
Donors (Basket)	43 %
User fees and other charges	4 %
Other donors (vertical, local and other)	14 %

Source: MOH 2004

Total Health Expenditure (THE) as a percentage of Gross Domestic Product (GDP) grew between 1995 and 1998 from 5.7 percent to 7.2 percent (see Table 4). However, Total Health Expenditure as a percentage of GDP had declined to 5.5 percent in 2001 before rising to 6.7 percent and 6.8 percent in 2002 and 2003 respectively. Government Health Expenditure (GHE) as a percentage of GDP averaged around 2 percent. As a percentage of total government health expenditure, government health expenditure averaged around 6.6 percent which is considerably below 15 percent, the committed amount under the Abuja and Maputo Declaration by African Heads of States of which Zambia is a signatory (Ministry of Health 2006b). The rest of the information is summarised in table 4 below.

Table 4: Health Expenditure Ratios, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
THE/GDP %	5.7	6.2	6.4	6.9	5.7	5.6	5.5	6.7	6.8	7.2
GHE/GDP %	2.1	2.0	2.0	2.0	2.0	1.5	2.3	2.2	1.6	1.2
GHE/THE %	37.0	32.1	31.5	29.0	34.7	27.5	40.8	32.3	23.5	17.3
HHE/THE %	34.1	33.6	31.0	31.6	41.8	39.6	34.2	28.5	28.8	28.4
Donor/THE	11.0	17.9	22.2	23.0	9.1	17.9	14.9	31.1	38.0	42.5

Per capita GHE US\$	8.1	6.8	8.0	6.4	6.1	4.9	7.8	7.5	6.2	5.9
Per capita THE US\$	21.9	21.3	25.5	22.0	17.5	17.6	19.0	23.3	26.5	34.2

Source: MOH 2006b

1.2.4.4 User Fees in Zambia

User fees in Zambia are defined as fees paid by patients at the point and time of receiving health care services at public health facilities (Ministry of Health 2006). They can differ by patient group (wealthy or poor), services received (preventive, curative, or chronic illness), or among facilities (such as between public and private facilities or primary-level and hospital-level care) and may cover all or part of the actual costs of the service (World Bank 1998). It has been argued that user fees enhance community motivation and responsibility in the sense that they help to improve the community sense of ownership of the local health facilities (McIntyre, Gilson et al. 2005).

User fees were introduced in Zambia in the early 1990s. The first Movement for Multi-party Democracy (MMD) government had to address the increasing levels of ill-health in the face of significant declines in the quality and coverage of the health systems experienced in the 1970s and the 1980s as well as growing poverty levels (Gilson 2000). Before that, health services had been offered free of charge since independence in 1964 (Ministry of Health 1995). In order to address equity of access, children below five years, those aged above 65 years, epidemics (outbreak of diseases), the vulnerable as certified by the local social welfare offices and those with chronic illness were exempted from paying user fees (Masiye, Seshamani et al. 2005). A key problem of the exemption system was identifying the poor especially in rural areas.

A study done by Masiye, Seshamani et al. (2005) showed that user fees were in most cases used by health centres to purchase non-medical supplies and meet maintenance expenses. In addition user fees were used to pay security workers and Classified Daily Employees (CDEs). Furthermore, user fees were used to meet community information and education expenses, staff training and financing health centre meetings, among other things such as, cleaning of surroundings and garbage collection. Providers in most health

centers viewed user fees as a key source for supplementary income. However, since most of the population could not afford to pay user fees when accessing health services (Masiye, Seshamani et al. 2005), this placed a limit of how much revenue could be raised from user fees in the rural areas.

Some lessons that have been learnt in developing countries demonstrate that, improved quality can more than offset the negative effect of user charges thereby lead to some increase in the utilisation of health services without compromising quality of health care amongst the poor (Masiye, Seshamani et al. 2005).

1.3 CONCEPTUAL FRAMEWORK

This study uses a logical framework to determine the impact of abolition of user fees on facility utilisation. The conceptual framework displayed in Figure 1 and the selection of variables is based on the review of the literature. At the outset, it is important to note that there are multiple barriers to utilising health services. These include cost of medicines, cost of consultations and costs of transport to health facilities. User fees refer to fees “charged at the place and time of services used within a public health facility and paid on an out-of-pocket (i.e. payments made directly to a health care provider) basis” (McIntyre 2007; p 11-12). When considering user fees, one needs to consider its impact on utilisation in two ways. Firstly, most research studies have found a general reduction in health care utilisation especially in poor populations after introduction of user fees (Hutton 2002; Blas and Limbambala 2001). Therefore, the converse might also be expected i.e. with the abolition of user fees, the financial barriers to care may be reduced and utilisation levels may increase.

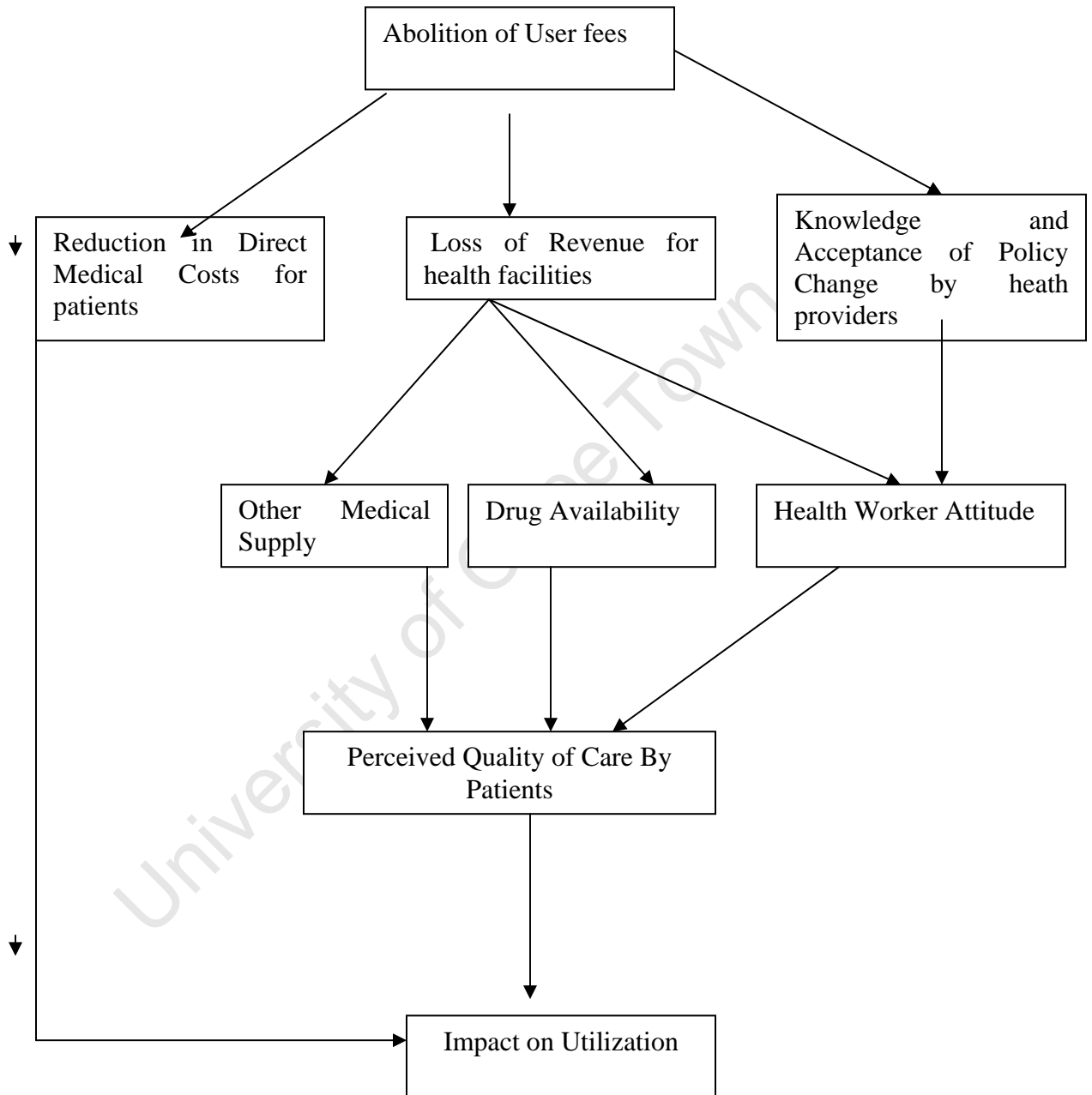
Secondly, the abolition of user fees often leads to a loss of revenue and may contribute to drug and medical supply shortages, there-by resulting in a perception of poorer quality of care and a decrease in utilisation (Collins 1996). The availability of drugs and other medical supplies is normally considered a key variable influencing utilisation of health

care. If there are shortages, this may contribute to perceptions of poorer quality of health care resulting in a reduction in utilisation of health services.

Absence of revenue generated from user fees may negatively affect drug availability and other medical supplies thereby affecting health workers' attitudes adversely and possibly their interactions with patients. The quality of inter-personal interactions between patients and health workers is critical to the perception of patients' of the quality of care. For instance if patients feel that they are being treated poorly by health workers, they may seek care from other facilities where they feel that they are being treated more considerately or avoiding seeking care altogether.

In the Zambian health sector, inequities existed due to several barriers to accessing health care services. Many of these inequities and barriers surrounding issues of access were consistently and independently reported in a study that was conducted to assess perceptions about barriers to health services in Zambia (Birbeck and Kalichi 2004). Introduction of cost sharing reduced access to health services in Zambia (Gilson, Kalyalya et al. 2000). Income is considered as one of the factors that influence individual's propensity to seek health care at the health facility (Hjortsberg 2003). Since it was very difficult to distinguish the very poor who needed exemptions in Zambia, this meant that inequities were perpetuated thereby reducing vertical equity. For this reason, it is expected that the removal of user fees would result into a reduction on medical costs paid by patients at the point of utilising health care thereby impacting positively on utilisation of health services. It is for this reason that this study took the perspective of vertical equity stance (i.e payment are linked to ability to pay and that user fees are regressive). This study further hypothesised that if the policy change was communicated effectively to health workers and was supported by them, it would contribute more positively towards their interaction with patients. Therefore, good communication, knowledge and acceptance of policy change by health providers and users of health facilities are considered to play a critical but indirect role on the impact of the abolition of user fees on facility utilisation.

Figure 1: Conceptual framework



1.4 STATEMENT OF THE PROBLEM

Although secondary and tertiary health care are more expensive than primary health care, the poor often find accessing primary health care difficult in terms of the financial barriers and may even be forced to cut consumption of other basic needs (e.g. food, clothing, education) and sell assets or incur high levels of debts (McIntyre, Thiede et al. 2005). User fees also contribute to especially the poor relying more on alternate forms of health care services such as self-treatment (home remedies, self-diagnosis, self-prescription and procuring drugs from make-shift “drug stores” in community markets and people's homes) (Kalyalya and Milimo 1996; Gilson and Mills 1995). In some instances user fees have also contributed to patients failing to complete their treatments and sharing of drugs as a way of redistributing the costs among family members (Chanda, Masiye et al. 2006).

Research from other countries shows that the removal of user fees leads to an increase in the number of patients utilising health services (McIntyre, Thiede et al. 2005). Many of these patients would not have been able to afford health care previously. Therefore, the case for removing user fees on primary health services is strong (Masiye, Seshamani et al. 2005). Having said that, it is important that the policy to remove user fees needs to be accompanied by a range of actions to ensure that health services are able to meet the increase in demand of health care services and that quality of health care is not compromised as a result of the decrease in revenue arising from user fees. Therefore, it is for this reason that the study was conducted so as to assess the experience of the removal of user fees on the delivery of health services and its impacts on utilisation of health services in Zambia.

1.5 RATIONALE OF THE STUDY

Since Zambia abolished user fees, there has been no empirical study conducted to understand the impact of this policy on the performance of the health sector and the perceptions of the various stakeholders. Yet, the decision by the government of the Republic of Zambia came as a corrective measure to inefficiencies and inequities in the

delivery of health care in the rural areas. It was hoped that by removing financial barriers, health services utilisation would increase particularly for the poor and vulnerable groups.

Most studies that have been reviewed on the abolition of user fees have not addressed the issue of impact of user fees on utilisation for patients presenting with reference to specific health conditions, age and location. This area has been under-researched and lacks empirical evidence.

This study also assesses the impact on utilisation of policy communication, perceptions about quality and attitudes of key stakeholders. Ultimately, the study seeks to explore whether the removal of user fees had a positive or negative impact on facility utilisation.

1.6 AIM AND OBJECTIVES OF THE STUDY

1.6.1 Aim

The aim of this study is to provide empirical evidence on the immediate impact of the abolition of user fees in the context of the Zambian health sector so as to identify optimal strategies in the delivery of health care.

1.6.2 Specific Objectives

To achieve the aim of the study the specific objective were:

1. To determine the changes in levels of utilisation of health services after the abolition of user fees.
2. To assess how the user fee policy change was communicated to the key stakeholders.
3. To assess the attitude of the health workers and patient perceptions about the changes in quality of health care services after abolition of user fees.
4. To provide policy recommendations for improving health care delivery after user fee removal.

CHAPTER TWO: LITERATURE REVIEW

2.1 SEARCH STRATEGY

Since the study was to provide empirical evidence on the immediate impact of the removal of user fees on facility utilisation, and the preparedness of health facilities in coping with an increase in utilisation, the perceptions and extent to which the policy is supported by health workers, literature in this area was reviewed.

The search strategy involved comprehensive review of peer-reviewed studies and the grey literature which was guided by the conceptual framework and the objectives of the study.

The initial searches for peer-reviewed studies were carried out on Medline Ovid, Elsevier, Eldis, Lancet and Pubmed involving combinations of key words such as “user fees”, “developing countries”, “Zambia”, “low and middle income countries”, “cost-recovery” “health financing”, “health financing reform” and any other key words involving user fees.

Since the health reforms in Zambia started in the early 1990s and user fees were introduced in 1992/1993, the search for literature was limited to articles published over the past 20 years. The review of documents was also primarily focused on national experiences with particular emphasis on low- and middle-countries. Based on this, a total of over 90 documents were reviewed. This was supplemented by hand searches of reference lists of relevant articles and discussions with supervisors and colleagues with experience and knowledge of health care financing.

Given the dearth of peer reviewed articles, grey literature including monographs, case studies and reviews was an important source of information for this paper. Grey literature was identified through general web searches on Google, Google Scholar and from more focused reviews of relevant websites of international organisations (e.g WHO) and also University of Cape Town (UCT) library.

2.2 USER FEES: A POLICY PERSPECTIVE

The removal of user fees as a policy decision and its implication for utilisation and facility preparedness requires taking account of the policy context (political, prevailing environment etc), content and process and their interactions (Gilson 1997). This emphasises the need to take into account the prevailing socio-economic and political environment in which the policy is being formulated and implemented.

There are a number of models that have been developed to understand health policy implementation (Fafard 2008). Some of the models that have been discussed to understand health policy include the incremental and rational models. The incremental model emphasises the importance of good values and mutual understanding adjusted for the affected stakeholders (Buse, Mayes et al. 2005). While the rational model is based on a linear process and explicitly recognises a top-down approach in policy formulation and execution, the model further argues that the top-down nature of policy communication can lead to cynicism and rejection of the policy by health providers (Walt 1994). This is so because, if health providers are left out of the planning process, they may feel alienated to it (Buse, Mayes et al. 2005). Common to these models is the importance of communication and building of support for policy among stakeholders (Mills, Spencer et al. 2001).

2.3 IMPACT OF USER FEES

This sub-section mainly deals with issues of user fees in relation to affordability, utilisation, quality of care (drug, medical supply availability), health worker motivation, attitudes, resource mobilization etc.

2.3.1 User Fees and Affordability

The implications of user fees on affordability and equity of access particularly for the poor and vulnerable groups has frequently been raised as an issue of concern (Kanji and Jazdoska 1993; Sauerborn, Nougara et al. 1994; Gilson 1998, Wagstaff, Doorslaer et al.

1999; McIntyre, Thiede et al. 2005). Many African countries face household coping strategies when they are suppose to pay for increased prices of basic household needs (Pinstrup-Anderson 1993). Frequently cited coping strategies includes selling of assets, borrowing money from families, friends and money lenders often at exorbitant interest rates, all of which push households into high poverty levels (Gilson and McIntyre 2005). Thus, payment of increased health care fees represents an unacceptable burden on households that could lead them to delay in seeking treatment and using informal and less effective sources of health care (Gilson 1998).

In terms of affordability, there are multiple barriers in utilising health services. These include cost of medicines, cost of consultations and transport costs. Abolition of user fees addresses the first two and possibly freeing resources for transportation to health facilities (Nabyonga, Desmet et al. 2005).

In relation to user fees and affordability, a study was done in Uganda. The results showed that catastrophic expenditures for the poor remained the same from 2000 to 2003 after the abolition of user fees. This was related to the reported stock-out of drugs which forced patients attending public health facilities to purchase drugs from the private sector as well as encouraging people to go directly to the private providers. The abolition of user fees did therefore, seem to have a beneficial effect in that it encouraged people to seek care at public health facilities when they were ill. This reduced one important barrier to care. It did not however reduce the proportions of poor households that subsequently faced catastrophic health expenditures. The results therefore concluded that poor households in Uganda, like in other African countries still face many difficult choices and barriers in seeking health care when they are ill and the act of seeking health care can result in financial catastrophe (Xu, Evans et al. 2005).

Furthermore, in relation to affordability, inequities are pronounced when flat rates are charged (Amone, Asio et al. 2005). In this case, the better off (i.e. the high income quintiles) might find it more affordable compared to those in lower income quintiles.

Therefore, to promote equity, progressive fees (i.e. higher income groups pay higher percentage of their income) should be linked to ability to pay (ATP).

In another study that was done on how user fees impact access to healthcare for female children in rural Zambia, the results showed that user fees appeared to decrease utilisation significantly (Malama, Chen, et al. 2002). Frequent strategies for avoiding or at least minimising costs, have included; avoiding or modifying illness and delaying seeking care until an illness is severe (Terra, Peterson et al. 2000). This may ultimately lead to higher costs of treatment especially if the person has to be admitted to the hospital (Gertler, Locay et al. 1987). Sometimes user fees tend to lead to self-prescription of drugs or purchase drugs from unqualified drug sellers or traditional healers who may prove to be relatively cheaper as compared to paying user fees at public health facilities (Yip, Wang et al. 1998). Moreover when costs are incurred, they tend to affect consumption of basic necessities, further impacting negatively on the poor (McIntyre, Thiede et al. 2005).

2.3.2 User Fees and Utilisation

In a report written by McIntyre, Thiede et al. (2005) on promoting equitable health care financing in the African context, it was found that user fees removal led to dramatic declines in service utilisation by two thirds in Ghana, over 50 percent in Kenya and by a third in Zambia. Similarly a national household survey of health needs and health care affordability indicated that, 22 percent of South African interviewees reported having been refused treatment on the grounds of being unable to pay. A similar survey conducted in Tanzania among individuals who had used health services within four weeks preceding interviews indicated that 84 percent of rural dwellers found it difficult to find money to pay for health services. This was in particular for the most vulnerable groups (Blas and Limbambala 2001).

The World Bank also conducted a cross sectional survey in 37 of the Sub-Saharan African countries, the results showed that user fees reduced service utilisation. One of the few longitudinal studies that was done in the Democratic Republic of Congo (DRC), revealed a 40 percent decrease in service utilisation after user fees were introduced for

the period of 1987 to 1991 of which 18-30 percent was due to cost of services (Ridde 2003).

In a study that was done in Kenya, the results revealed that abolition of user fees led to an increase in utilisation of 52 percent in public health facilities in 1990 (Mbugua, Bloom et al. 1995). Another study was also done in Madagascar on user fees in which the results indicated that elimination of user fees for health services was associated with a 17 percent increase in the number of visits at the health facilities (Fafchamps and Minten 2007).

It was also noted that during the 12 months of introduction of user fees in Burkina Faso from 1997 to 2000, service utilisation in the communities that charged fees was below that of the reference period of 1996 to 1997 for all the months of the year. The average annual visit in new consultations for curative care over the three year period was 15.4 percent, a rate that essentially remained stable (Ridde 2003).

South Africa also abolished user fees in all primary health facilities in 1998. This saw a 20 –60 percent increase in utilisation of health services (Save the Children 2005). Free health care in South Africa substantially reduced the use of treatment services by children but not the use of preventive services (under 6 clinics) which have always been free (Wilkinson, Sach et al. 1997). However unlike for Uganda, South Africa did not increase the drug supply for the increase in utilisation and this resulted in low staff morale (Save the children 2005).

Despite the pressures from the Bretton Wood institutions of the IMF and World Bank, Sri Lanka went on to abolish user fees at the point of access. This was at the will of the people as the government of Sri Lanka had received a lot of pressure from the civil society organization to abolish user fees. The cause for the abolition of user fees was to prioritise social justice over economic growth given the high poverty levels that the country faces, with an expenditure of less than 2 percent of GNP on health. However the Sri Lanka results demonstrated that removal of user fees helped to improve child and maternal mortality rate over time (Save the Children 2004).

Uganda also abolished user fees on all public health services due to pressure from civil society organisations on the government in 2001. This saw a 117 percent increase in utilisation contrary to the less than 5 percent that the World Bank had predicted. This means that most of the poorest benefited from user fees removal in Uganda, which the World Bank later agreed with, especially with decline in mortality rates for both the adults and the children (Save the Children 2005).

2.3.3 User Fees and Equity

Equity is an important policy objective in health care (Culyer and Wagstaff 1993). Equity in health care has been a very difficult term to define. It is for this reason that some scholars have likened equity to be like beauty and they argue that it lies in the eyes of the beholder (Culyer and Wagstaff 1993). Equity in health care implies that ideally everyone should have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential if it can be avoided (Whitehead 1992a). For this to work health care resources should be allocated and received according to need and payment for health services should be made according to ability to pay (Blas and Hearst 2002). In this case, inequity may refer to differences that are unnecessary, avoidable and unfair that user fees may tend to create (Culyer and Wagstaff 1993).

Some studies that have been done illustrate that health sector inequities exist due to several barriers to care. Introduction of cost sharing reduces access to health services (Gilson, Kalyalya et al. 2000). Income is considered as one of the factors that influence individual's propensity to seek health at health facility (Hjortsberg 2003). Since it is difficult to distinguish the very poor who need exemptions, this means that user fees can bring about inequities especially where these payments are made regardless of income distribution.

2.3.3.1 Horizontal Equity

The requirement that health care should be financed according to ability to pay can be interpreted in terms of both vertical and horizontal equity (Wagstaff and Doorslaer 1993).

Horizontal equity which defines equity as equal expenditure, access and utilisation for equal need becomes important in society when every person has an equal prospect of being selected for an opportunity such as treatment through a fair procedure (Whitehead 1992b). Horizontal inequity may arise if people from different parts of the country are picked especially for complicated treatment such as cancer through unfair procedures which may favour the rich.

2.3.3.2 Vertical Equity

Vertical equity refers to the provision of enhanced health services for those with greater health needs (Starfield 2001). In terms of health financing, this implies that persons with differentials in terms of ability to pay should make dissimilar payments. Therefore, vertical inequity may arise if precise form is not given to the differential treatment of unequals (Wagstaff and Doorslaer 1993). Most countries have failed in protecting the poor from the burden of payment and especially in ensuring that decision making benefit them (Gilson, Kalyalya et al. 2001; Blas and Hearst 2002).

2.3.4 User Fees and Resource Generation

One of the key objectives of user fees is cost-recovery and generation of resources for improving health services (mainly drugs and other medical supply availability) and other non-salary recurrent costs (Leighton 1995; World Bank 1998; McIntyre, Thiede et al. 2005). In theory, user fee revenue can enable significant quality improvements at the facility level if substantial resources are generated (Kutzin 1995). Empirical evidence from several African countries has shown that revenue generated by user fees has been approximately 5 percent of recurrent health system expenditures' which is considerably lower than the 10-20 percent expected (Gilson 1998). When the costs of administering user fees are included, the revenue generated is even lower.

2.3.5 User Fees and Quality of Care

As noted above, a key argument in favour of user fees has been that the revenue generated can contribute towards the improvement of health services, particularly drug availability and quality of care. 'Quality of care' is multidimensional and is defined in different ways depending on the perspective. The classical definition of quality of care

includes the assessment of structures, process and outcome and not only the narrow view of it as availability of drugs (Asenso-Okyere, Osei-Akoto. 1999). It is for this reason that in this study quality of care is defined in terms of structural quality (e.g. drug availability, cleanliness of health facility etc.) (Gilson, Magomi et al. 1995; Blas and Limbambala 2001) and provider interactions (Sepehri and Chernomas 2001) as perceived by users of health services. It is argued that when user fees are introduced alongside improvements in quality of care, utilisation levels may not decline (McIntyre, Thiede et al. 2005; Gilson 1998).

The Cash-and-Carry programme for drugs was a revolving drug fund mechanism that was introduced nationwide in Ghana in 1992. The fee per drug item charged to users was related to the procurement costs of the drug items. The fees were marked up with mixed percentages for central and medical stores. To ensure that there was equity in accessing health services among the poor, official fee levels and exemptions were established in 1985 with the legislation made for the provision of drug fees to be at a certain cost and be adjusted in line with inflation figures. The results found that the health facility managers were active in collecting the fees and using the revenue to purchase essential inputs. This improved drug availability had mitigated the negative effects of fees on utilisation. However though this mechanism worked very well to improve the quality of health services, it concurrently prevented members of the poorer communities from accessing these services thereby bring about what was called a kind of ‘sustainable inequities’ (Nyonator and Kutzin 2005).

In the Ugandan experience, sustained increase in utilisation of health services was associated with quality of care. This was mainly due to considerable increase in spending for the health sector and increased salaries, which was paid more regularly for health workers. This included all social benefits envisaged by the Ugandan law, as an incentive to improved quality (Hutton 2004). Above all the acquisitions, storage and use of drugs and consumables were strictly monitored and rationalised (Amone, Asio et al. 2005). Therefore, for the increase in utilisation to be sustained, it had to be accompanied by

supplementary funds to buy essential drugs, cleaning and maintenance of surroundings and support staffs that were paid by generated revenue (Burnham, Pariyo et al. 2004).

It is for this reason that Gilson and McIntyre (2005), clearly demonstrates that fees removal cannot occur overnight. There is need for careful planning and improved resource availability not only to offset revenue lost due to abolition of user fees but also for the provision of adequate services that are likely to arise due to increased utilisation. Therefore, things such as drug supply, addressing staff shortages and communication with health providers for reason of fee removal for their support of policy should be a necessary step towards ensuring that fee removal does not produce worse outcomes for the health sector.

2.3.6 User Fees and Provider Motivation and Attitudes

Literature further reveals that staff attitudes can generate detrimental equity outcomes if they are intimidating and negative to especially poor patients. This might result in them (i.e. poor patients) shunning public health facilities (Masiye, Seshamani et al. 2005).

The income generated from user fees at the local level can be used for ensuring a continuous stock of drugs and other medical supplies, thereby enabling providers to better carry out their services (Kipp, Kamugisha et al. 2001; Nyonator and Kutzin 2005). It can be argued then that user fees can be an incentive to providers especially if they perceive it to be ensuring that they are better able to carry out their services and rationing unnecessary demand (i.e. moral hazard). It has often been argued that user fees might also have perverse incentives for health providers and can contribute to inappropriate and inefficient provider behaviour (Sepehri, Chernomas et al. 2005).

One well known perverse incentive of user fees is that providers may refer patients to their on private pharmacies to buy medication which is a clear incentive to over-prescribe, a phenomenon called supplier-induced demand (Sepehri, Chernomas et al. 2005). This may worsen efficiency by encouraging providers to over-prescribe drugs, especially if the income is determined by the amount of care they provide (Xu, Evans et

al. 2006). This is most frequent in countries that have weak regulation and control mechanisms, where the public sector is under-funded and where the official salary of the provider is low. Under such circumstances, providers tend to supplement their income with both public and private practice by inducing demand. In some cases, charges for health services promote supplier-induced demand by encouraging health providers to over prescribe medicine and influencing patients to buy these drugs from specific pharmacies (Booth, Milimo et al. 1995; Russell 1996). In rural areas, this may happen, in situations where the medical providers work alongside or own drug stores and there are incentives to encourage patients to purchase drugs from the private drug stores. Situations of supplier-induced demand have also been experienced in countries other countries. In China, there is growing reliance of public health facilities on official user charges. Official user charges are combined with a provision-based staff bonus system which encourages over- prescription of services by suppliers. This has been so because the revenues from official user charges provide bonuses for health providers (Sepehri, Chernomas et al. 2005).

Attitude of health workers is one of the factors patients consider when choosing a health provider. Patients have often complained about the behaviour of health workers which have tended to make the patients seek treatment from the private providers where they perceive them to have the drugs, are more receptive, prompt and offer better services (Asenso-Okyere, Anum et al. 1998). Drug availability plays a role in influencing health workers attitudes towards patients. The Cash-and-Carry mechanism in Ghana influenced the behaviour of most prescribers who took into account economical limitations of the drugs. Though the cash-and-carry mechanism did not appear to change the attitudes of health workers towards patients, patients reported greater satisfaction with the care they received from medical providers (Asenso-Okyere, Osei-Akoto et al. 1999).

2.3.7 User Fees and Efficiency

User fees have been linked to efficiency in that they help to promote and encourage appropriate use of health services (Akin, Birdsall et al. 1987). This would mean that patients would only utilise health facilities when there is need due to charges. User fees

have further been linked to efficiency in that, they help to promote efficiency when the utilisers of health services maximise lower levels of health care (Masiye, Seshamani et al. 2005). For instance, a fee charged for those who by-pass lower levels of health care for perceived better services at higher levels can help to ensure that lower levels of health services are maximised. In this case, by-pass fees promote good referral systems as they tend to help the users of health services to seek care at appropriate levels. However, by-pass fees have failed to work well in areas where the high levels tolerate the by-pass fees as a way to raise revenue (Leighton 1995). This is normally the case when providers are paid according the number of patients who visit them.

The impact of user fees on efficiency is linked to their impact on service utilisation. If user fees deter individuals from obtaining care when they need it, this may negatively impact on service utilisation (Masiye, Seshamani et al. 2005). The argument by the proponent of user fees is that user fees promote efficiency by stopping “unnecessary” use of health systems. However, this argument is not supported by studies that have been done which show that, poor people’s time is highly valued especially in relation to other family duties such as engagement with income generation activities (Leighton 1995). It is against this background that, the very poor are unlikely to make frivolous use of free services because of the large amount of time and high travel costs associated to distance to the health facilities in rural areas that they often face when they or one of their family members fall sick.

2.3.8 User Fees and Exemptions

The financial mechanisms adopted for protecting the poor from the financial burden of user fees has been the exemptions (Sepehri and Chernomas 2001; Nabyonga, Desmet et al. 2005). In reality, exemption mechanisms for user fees have been very difficult to implement in many countries because of problems of complex exemption structures, poorly trained staff and difficulties associated with identifying the poor. In addition, the non-poor have often benefited from these exemptions (Leighton 1995; Gilson 1998).

In Zambia exemptions targeting the lowest income groups based on the ability to pay were not fully implemented due to difficulties in identifying the poor (Gilson, Kalyalya et al. 2000). Studies also done in other countries have shown similar findings. A study that was done in Ethiopia showed that there is no relationship between income and those receiving free health care in the rural areas (Engida and Haile 2002). In Uganda, inadequate recording keeping, inefficiently quality control and auditing was a problem in identifying those who qualified for exemptions (Xu, Evans et al. 2005). In Ghana, less than one in 1000 patients were granted an exemption (Asenso-Okyere, Anum et al. 1998).

Other studies have also shown that fees in some rural settings within a country are inappropriate due to the large portion of patients who would require exemptions (Adams and Harnett 1995). In these areas user fees therefore do not generate the revenue necessary to enable substantial and sustained improvements in health care for the poor. The implementation of exemption mechanisms can protect the poor from the full burden of fees, but this has been usually ineffective for reasons of difficulties in identifying those who qualify for exemptions and also where user fees are incentives for health workers to grant fewer exemptions. As such, user fees may not in practice protect the poor but may instead benefit wealthier groups such as civil servants (Gilson 1998b).

Summary

A key conclusion based on the literature review is that theoretically user fees are perceived to be an important source of revenue generation, but in practice, they have generated limited revenue and impacted badly on service utilisation especially for the poor. The literature reviewed further showed that in most countries where user fees have been abolished, it was associated with increase in utilisation levels of health services. In addition literature further showed that attitude of health workers, quality of health care and facility preparedness all impact on facility utilisation. Therefore, there is need for careful planning when considering removal of user fees.

CHAPTER THREE: METHODOLOGY

Overview

This chapter describes the study sites and other procedures that were employed to achieve the objectives of the study. Methodologically a cross sectional retrospective study was designed to evaluate the impact of user fees removal on facility utilisation in rural Zambia. Both qualitative and quantitative data techniques were used. The qualitative data technique was mainly in form of focus group discussions with the patients. This was supplemented with the structured interviews, open ended questions and the Key Informant Interviews. The quantitative data was mainly collected using patient exit interviews, Out Patient Documents (OPDs), disease aggregation forms and monthly return forms.

3.1 STUDY SITES

The study took place in two districts of Zambia namely, Chibombo District in the Central Province and Chongwe District in Lusaka Province. Chibombo District is located in the Central Province and is a major farming block of Zambia. Chibombo District is classified as rural area and has a population of 311, 046 according to the 2000 census and has a total of 25 health facilities (Central Statistics Office 2000). Chongwe is also a rural area, predominantly agricultural district and is located in Lusaka Province of Zambia. The district has a population of 181, 762 according to the last census conducted in 2000 (Central Statistics Office 2000) and has a total of 25 health facilities. Lusaka Province is more urbanised as it is where the capital city of Zambia is located where as Central Province is more rural characterised with a lot of farming blocks.

Three health facilities were selected in each of the districts and were selected based on their distance from the District Health Management Teams (DHMTs). Selection of the health facilities according to geographical location was considered useful as it was designed to answer some of the questions arising from the information flow about policy change, level of preparedness and changes in utilisation levels by geographical location.

A stratified random sampling design was employed for identifying the six health facilities within the two districts. This was done with the help of the district health officers and using the territorial geographical maps. All health facilities within the two districts were classified according to distance/location from the DHMT (less than 20 km, 20-40 km and 40km) and a location stratum was developed for each of the districts. Thereafter, health facilities were randomly selected from each location stratum. In Chibombo District, Golden Valley, Mwachisompola and Chikobo health facilities were selected. In Chongwe District, Chalimbana, Chainda and Chinyunyu health facilities were selected as shown on Table 5 below.

Table 5: List of Health Facilities

District (stratum location)	Chongwe District	Staff composition	Chibombo District	Type of staff
Less than 20 km	Chalimbana	1 Clinical Officer 1 EHT 3 Nurses 1 Medical Doctor 1 Pharmacist	Chikobo	1 Clinical Officer 1 EHT 2 Nurses 1 Pharmacist
Between 20km and 40km	Chainda	2 Nurses 1 EHT 1 Pharmacist 1 Medical Doctor	Mwachisompola	1 Clinical Officer 1 EHT 1 Pharmacist 2 Nurses
Greater than 40km	Chinyunyu	1 Clinical Officer 1 EHT 1 Pharmacist 1 Nurse 1 Doctor	Golden Valley	1 Clinical Officer 2 Nurses 1 EHT 1 Pharmacist 1 Doctor

All the selected health facilities offer a range of services including Voluntary Counseling and Testing (VCT), Intermittent Presumptive Treatment (IPT), Growth Monitoring and Daily Observed Treatment (DOT). The number of staff differs from one health facility to another. It was noted that all facilities had a Clinical Officer (CO), a Nurse and an Environmental Health Technologist (EHT). The number of doctors was recorded as one in each health facility but in actual fact the doctors rotate from the District Health Office (DHO) by use of appointments, meaning that they are not available all the time. This means that for complicated cases, they have to be referred to the District Hospital as soon as they are noted.

3.2 SAMPLING PROCEDURE

A systematic random sampling was used to select a sample of 229 respondents to participate in the structured interviews of patients where as availability sampling was used to select the 28 health providers to participate in the study from the six health facilities.

Table 6: Distribution of the respondents.

Health Facility	Distribution of patients interviewed	Distribution of Health Providers
Chikobo Health Facility	46	6
Mwachisompola	43	5
Golden Valley	37	3
Chalimbana	42	6
Chainda	33	4
Chinyunyu	28	4
Total	229	28

The structured questionnaires were administered at the exit points in each of the health facilities. This was considered useful as some of the questions to be answered were on providers' attitudes towards patients and also to have an idea of the drugs that patients received. Therefore, by administering the questionnaires following the consultation, this enabled such questions as staff attitude towards patients to be captured.

Data on patient utilisation for the three years (2004 – 2006) under study was obtained from the Health Management Information Systems (HMIS) at the health facilities. This

data would have also been obtained centrally from the Ministry of Health but however, the data that is sent to the Ministry of Health is aggregated quarterly, hence the need for collecting the data from the actual health facilities.

The formula for selecting the number of patients depended on the number of patients attending the health facilities.

$$P_n = \frac{\text{Average total number of patients per health facilities per day}}{\text{Total number of patients visiting the health facilities}}$$

Where P_n is equal to the random number allocated to the patient to be interviewed. Therefore every 5th patient was interviewed from the health facilities where data was collected. This was considered useful for comparison purposes as it was noted that the health facilities that were closer to the districts had many patients as compared to the health facilities that were far away from the DHMTs.

3.3 DATA COLLECTION TOOLS

In order to achieve the study objectives, the following instruments were used as shown on table 7.

Table 7: Sources of Data

Variables	Sources of data
Utilisation of health services	Review of patient registers
Perceptions of policy change	Structured interviews with Patients, Structured interviews with Providers, FGDs and informant interviews
Health worker attitude towards patients	Structured interviews and FGDs with patients (was the key informant interviews also a source for this?)
Drug availability data	Health centre pharmacy and structured patient interviews
Perceptions about changes in quality	Structured interviews with Patients and Structured interviews with Providers

There were six major data collection instruments that were used in the data collection for the impact of abolition of user fees in rural Zambia (Appendices 1-6). These included;

patient registry review; structured questionnaires for patient exit interviews and health providers interviews; focus group discussions with patients; key informant interviews with providers and drug availability data collection tool.

3.3.1 Patient Registry Review

The facility data collection tool was used to collect facility utilisation data by illness categories before and after the abolition of user fees (Appendix 1). The health facility utilisation data was very useful in that it was used to achieve the first objective of the study which was to determine the changes in the levels of utilisation of health services after the abolition of user fees. The health facility data was further categorised into the under five and the above five years of age categories. The utilisation data was collected retrospectively from January 2004 to March 2006 as pre (before abolition of user fees) and then from April 2006 to December 2006 as post (after the abolition of user fees). This comprised of the currently top six diseases as recorded in the OPD registers which include: malaria; respiratory infection non-pneumonia; respiratory infection pneumonia; diarrhea diseases non-blood; eye infections and skin infections and the rest were summarised as other diseases. The collection of utilisation data by age categories was considered useful for determining how changes in utilisation by age were affected by the abolition of user fees.

3.3.2 Patient Exit Interviews

The patient exit interviews were used to collect data to answer questions relating to attitude, perceptions of policy removal, communication on the policy removal and perceived changes in the quality of health care delivery (Appendix 5). Exit interviews were chosen over entry interviews because they were designed to answer questions pertaining to health worker attitudes towards patients, the disease or condition that patient had been diagnosed with and also the perceived treatment given to the patient. Since the study was accessing the impact of user fees on facility utilisation, the patient interviews were carried out within the premises of the health facility and lasted between 30-45 minutes. All the patients accepted to be interviewed apart from the two patients who refused for undisclosed reasons. Before the study was conducted, the health facility questionnaire was pre-tested in Kafue District of Lusaka Province. Therefore, after pre-

testing of the questionnaire, the open ended questions were closed according to the major responses that were given upon pre-testing of the data collection tool. The “other option” was also given to allow for the responses that were not part of the outlined expected responses.

3.3.3 Providers Interviews

Health providers’ data collection tool was used to collect data on the perceptions on user fees policy change, health facility preparedness following the abolishing of user fees policy and how providers perceived the policy was going to work (Appendix 4). The provider’s interviews were conducted at the health facilities. The number of health providers interviewed varied across health facilities. The study targeted all the health providers that were available at the health facilities during the time the study was being conducted. It was also noted that the health facilities that were close to the district had more staff as compared to those that were located further from the district. Since structured questionnaires with predominantly close-ended questions restrict respondents to pre-coded options, the health providers’ interviews were supplemented with the informant interviews that were open ended.

3.3.4 Focus Group Discussions

Four focus group discussions were conducted in the two districts comprising of about 8-12 patients. The FGDs were held outside the health facility premises. The participants were selected from the list of patients who were visiting the health facilities. Focus group discussions have been considered useful for this study as participants were given a chance to express themselves (Appendix 6). Focus group discussions were also considered useful to complement to the closed-ended questions that needed more explanations and other questions that were not adequately answered from the structured questionnaires. Therefore, this information was triangulated with the information that came from the patient exit interviews. However it was also noted that during the FGDs, some people were reserved in expressing their opinions. The reason for the reservation was not known.

3.3.5 Key Informant Interviews

Key informant interviews were held with senior management staff of the six health facilities. The open-ended questions were used to probe more on the challenges that the health facilities were facing after the abolition of user fees, how the health facilities had been affected after the abolition of user fees and how the senior management staff felt was the most effective way to implement the user fee policy change. Furthermore, interviews also included a discussion on the government grants which were going to be introduced to correct for the revenue shortfall arising from the removal of user fees. Therefore, the research also investigated the extent to which this occurred (Appendix 3). All the key informants consented to be interviewed. This information was triangulated with similar information that was collected from the providers' interviews.

3.3.6 Drug Availability Data Collection Tool

The drug availability data collection tool was used to collect information on drug supply and availability at the health facilities (Appendix 2). This information was used to determine if the particular health facilities had the essential drugs for the leading six diseases/conditions (i.e. malaria; respiratory infection non-pneumonia; diarrhea diseases non-bloody; respiratory infections-pneumonia; skin infections and eye infections) that are recorded in the OPD registers. Thereafter, the health facilities were checked on the bin cards (cards used to order and receive the drugs), when they last had a stock-out of drugs and for how long the stock-out lasted. The tool was also used to find out if the stock orders were placed on time, if the stock orders were received on time and if the quantities were adequate for the stipulated time. The checklist had options of between one week, two weeks, and three weeks or for more than a month.

3.4 DATA ANALYSIS

This section describes the process for data analysis for each of the study objectives.

3.4.1 Utilisation

All the quantitative data was entered and analysed using a Stata computer package 8.0 version. The impact of user fees removal was measured in terms of the number of visits.

Also the information from the respective tools was used in the process of triangulation to verify findings. Therefore, the results of this study were partitioned into the following:

- 1 Analysis by districts: this was done so as to determine if utilisation was affected by distance from the urban areas.
- 2 Analysis by health facility: to determine how the different health facilities were affected by the abolition of user fees in respect to the distance from the DHMTs. At the time of the study this was considered as one of the major ways that would influence the utilisation data and the responses to the abolition of user fees. The others are analysis by month and analysis by age and disease condition as illustrated on point 3 and 4 below.
- 3 Analysis by month: so as to identify how changes in utilisation levels differed across health facilities in the two districts. The idea of analysing the data by months was to check if there were abnormal increases or decreases for particular months. This also helped to control for seasonal variation as the data was collected over the three years and each month was compared to other months in different years to access if there was a change in utilisation within the same months before and after user fees were removed.
- 4 Analysis by age and disease/condition: these were further partitioned into age categories of below five years and above five years so as to see how changes in utilisation were for particular diseases and how it differed across the age categories.

The data was partitioned into the above four broad categories so as to isolate for certain factors that may influence the changes in utilisation after user fee abolition. For example there can be an observed increase in utilisation which can be caused by other activities or outbreak of epidemics. Therefore to control for this, the reported cases of diseases for the three years under which data was collected were divided into the top six recorded diseases at the health facilities and the rest were classified as other. This was to control against certain biases that may arise. Then other further investigations would have been needed to understand if there was any outbreak.

Furthermore, the analysis was portioned into two districts and then three health facilities in each district. This was to check how the increases in utilisation differed by distance to the health facilities and also between the two districts. All the health facilities where the study was under-taken take part in certain health promotion activities including the distribution of free mosquito nets for the pregnant women and children below the age of five, provision of supplementary food to the under-privileged who have chronic health condition and provision of prophylaxis such as fansider or Coartem to pregnant women to act as an Intermittent Presumptive Treatment (IPT). Therefore, certain activities such as health promotion activities that might have been taking place in one area and not the other may not have caused a bias to the observed results.

The Kruskal-Wallis test was used to determine the impact of user fee removal on facility utilisation by testing if there was a significant difference between before and after user fees were abolished. This was done by comparing the three years that data was collected during the time user fees were in place (2004 and 2005) and following their removal (2006).

Before the Wilcoxon sum rank test was used, the data was tested if it conformed to the normal distribution characteristics using the Shapiro-Wilks test. After performing the exploratory data analysis by the use of the Shapiro-Wilks test, the results revealed that the data was not compatible with the normal distribution. It is for this reason that a non-parametric statistical method (Wilcoxon sum rank test) was used for analysing the impact of user fees on facility utilisation as it is a more useful test for analysing numerical data that makes no assumptions of the underlying normal distributions and cannot be corrected by a suitable transformation. However, it was also important to note that the Kruskal-Wallis test has one major weakness in that, it cannot be used to test for multiple comparison data. Therefore, since this data was collected over a period of three years, the Wilcoxon sum rank test also known as the Mann-Whitney test was also used to test which pairs of the test were significantly different. This was after the results of the Wilcoxon sum rank test showed that there was a significant difference in the number of patients visiting the health facilities in the three years under study.

It is also important to note that One-way Analysis of Variance (ANOVA) would have been used to determine the impact of user fee removal on facility utilisation if the data was parametric. The use of ANOVA requires that the data meet the following three properties: The data is independent, normally distributed and that the variances of the three groups are approximately equal. However, though the data for this study was independent, it was not normally distributed and the variances were not approximately equal for the three years for which the data was collected. Therefore, in this case, the use of ANOVA would have produced misleading results.

3.4.2 Policy Communication to Stakeholders

The second objective of the study was to assess how the policy change was communicated to the key stakeholders. For the purpose of this study the stakeholders were the providers and patients. The stakeholders were asked about the process of communication of the policy change. The health providers were also asked if they were in favour of the policy, how prepared they felt the health facilities were to implement the new policy, and if they perceived the new policy to be a good idea or a bad idea. These questions were supplemented by the use of key informant interviews and focus group discussions with patients. This information was triangulated with other responses such as the patient perceptions on health worker attitude so as to link if the way the policy was communicated to stakeholders had influence on the way the patients perceived treatment after the abolition of user fees.

3.4.3 Attitude and Perceptions

3.4.3.1 Providers

The attitude and perceptions of health care providers were analysed by putting together the responses of the following questions, which were supplemented by key informant interviews.

- Was the abolition of user fees a good or bad idea?
- Did you think the policy of user fees abolition is going to work effectively?
- Was the health facility prepared to implement the new policy?

- What did you feel was the most effective way to implement the new policy?

This data was analysed qualitatively.

3.4.3.2 Patients

The patients were asked what they perceived to have been the reason for the abolition of user fees. The patients were also asked what they perceived as constituting quality services and if they considered health services to have changed after the abolition of user fees. Furthermore, the patients were asked if they considered user fees to have been improving the quality of health services in the rural areas. This data was analysed qualitatively using the above questions as themes.

3.5 DRUG AVAILABILITY

The collected drug availability data was used to determine which drugs were in stock and one that had run out. Furthermore, the patients that were diagnosed with conditions that required drugs such as malaria were asked if they were given any form of drug. For those that were given the drugs, the next question was to find out if the drug that they were given was for the perceived diagnosis. Furthermore, the focus group discussions were used to supplement the drug availability data

3.6 LIMITATIONS

One of the limitations that were encountered during the data collection was that some of the OPD registers were missing in some health facilities. This problem was addressed by referring to other records such as monthly returns forms which the health facility use to report to the districts. Other records such as disease aggregation forms and disease tally sheets were used to ensure that all the needed data was captured. However, it is possible that the missing data might have affected the observed results. The study would have sampled as many health facilities as possible to have much representation but this was very difficult to attain due to lack of time and resources. However, much was done to come up with the desired representation so as to ensure that the two districts were representative.

Another limitation is that of respondent bias. It is possible that the respondents (i.e. patients) would interpret the questions differently. However much was done to simplify the questions for the respondents so that they could understand.

Respondent bias can also arise with respect to medical providers who might not support the change of policy due to the perverse incentives that user fees creates for them such as creation of an extra income to pay for their lunch allowance when they have health facility meetings. Due to the methodological approaches that were deployed for providers' interviews, it is possible that the medical providers would give biased answers towards their perceptions on the abolition of user fees.

Other limitations of this study were specifically caused by the data collection instruments. For instance, the use of close ended questionnaires which do not allow for respondents to express their opinions freely. Also, the survey was limited to users of health facilities and does not reflect the perceptions of the community and non-users and their reasons for not using the health facilities.

Also, the analysis on utilization data did not completely take into account the limitations that may be caused due to seasonal variations, rainy versus dry season and changes in other factors besides abolition of user fees (e.g. changes in household income, structural/infrastructural changes (e.g roads, transport) which can also impact on utilization. Tropical diseases such as malaria which is generally endemic in Zambia are affected by these seasonal variations. But since this study was only conducted one year after user fees were abolished, it was difficult to rule out completely the biases related to this.

Further, the HMIS data has its own limitations in terms of reliability and completeness. Also, the researches were not present to monitor the process when the data was collected and this might have compromised the quality of the data.

3.7 ETHICAL CONSIDERATIONS

The study proposal was submitted for ethical approval at the University of Cape Town Ethics Committee. Permission for access of health facility data was also sought from the local authorities such as the Ministry of Health and the District Health Management Teams. The local authorities were informed of the study before commencement. The methods and approaches used in the study were legally and ethically accepted as they are non-interventional. Informed consent forms were given to all the participants both users and providers who participated in the interviews and confidentiality or anonymity were also ensured (Appendix 6-9).

Both positive and negative results have been reported and will be communicated to all the interested stakeholders as well as the general public who are also expected to benefit from the results of the study.

CHAPTER FOUR RESULTS

4.1 INTRODUCTION

This chapter presents the results of the study and first describes the socioeconomic characteristics of the respondents. Subsequently the chapter describes major changes following the removal of users with respect to the objectives of the study in terms of utilisation, communication of the policy change and perceptions of quality of care and drug availability. Finally the chapter summarises the key results from the analysis.

4.2 CHARACTERISTICS OF THE RESPONDENTS

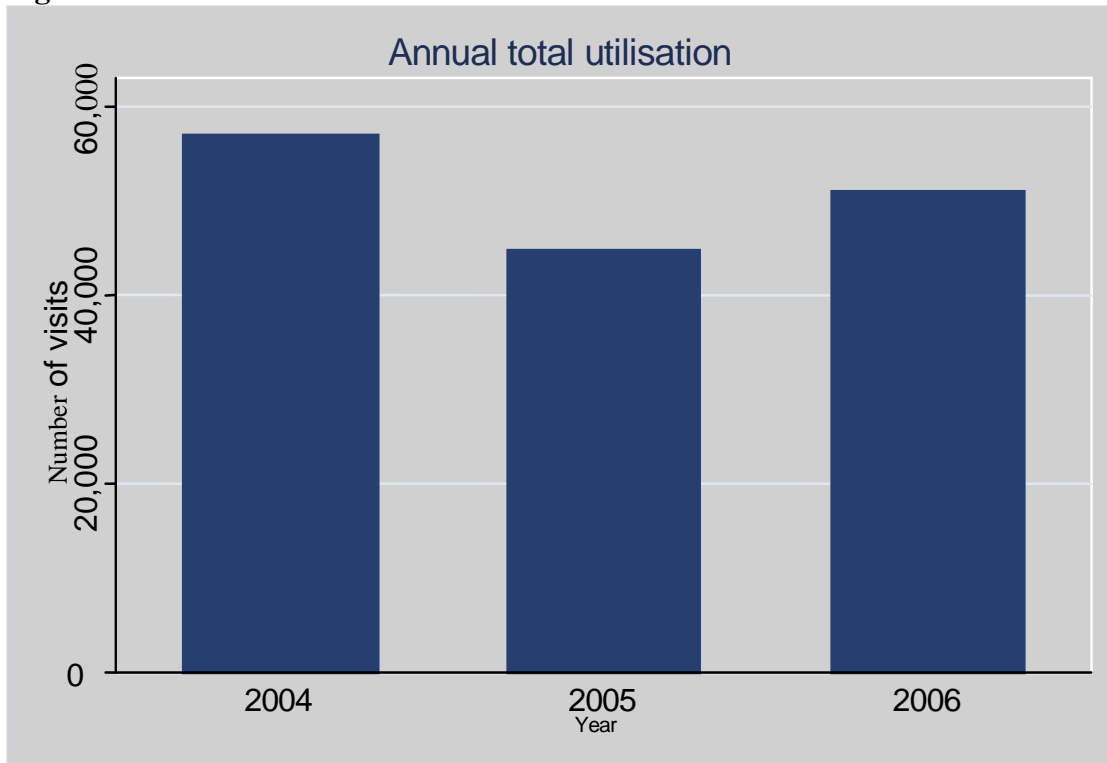
A total of 257 respondents were interviewed of which 229 were patients visiting the health facilities and 28 were health providers (Appendix 10). Two patients' respondents dropped out as they did not want to take part in the interviews for reasons which they did not disclose. About 67% of respondents were married while the widowed and divorced represented 6% and 4%, respectively. Unemployment in the two rural areas was quite high comprising about 38% of the patients interviewed. Casual employment and farming were the major types of occupation each comprising 22% and only 7% of the population was formally employed. The low employment rates in the rural areas is also an indication that most of the people in the rural areas do not have regular income and are vulnerable to the costs associated with seeking health care. Fifty-three percent of respondents had a primary education while 14 % have never been to school at all. Those who attained secondary education consisted of 33 %. Only 4% of the respondents had a tertiary education.

4.3 UTILISATION LEVELS OF HEALTH SERVICES

Utilisation data was collected for all the months from 2004 to 2006 for the six health facilities across the two districts. The highest average number of visits per year was reached in 2004, in 2005 the average number declined though this peaked again in 2006 (Appendix 11).

Utilisation decreased from 56,560 in 2004 to 44,696 in 2005, a decline of 21%. This was during the time when user fees were paid at the point of utilisation of health services in all health facilities in Zambia (Figure 2).

Figure 2: Annual total utilisation



This was followed by a 13% increase between 2005 and 2006 after the user fees were removed from the rural health facilities. A Kruskal- Wallis test was used to test if there was a significant difference in the utilisation levels in the three years under study. The results of the Kruskal-Willis test indicated a significant difference in total utilisation levels by year ($p < 0.05$) as shown in Table 8 below.

Table 8: Kruskal-Wallis Test

Test: Equality of populations (Kruskal-Wallis test)					
Year	Observation	Rank Sum	chi-squared	Degrees of freedom	Probability
2004	72	9549	20.793	2	0.0001
2005	72	6163.5			
2006	72	7756.5			

To test for the difference between the time user fees were in place and the time they were abolished, the Wilcoxon sum rank test was used. The results reveal a significant difference between 2004-2005 and 2005-2006 (p -value < 0.05) (see Table 9 below). This therefore means that there is enough statistical evidence to conclude that the removal of user fees led to an increase in the number of patients utilising health services holding all other things constant.

Table 9: Wilcoxon rank-sum test

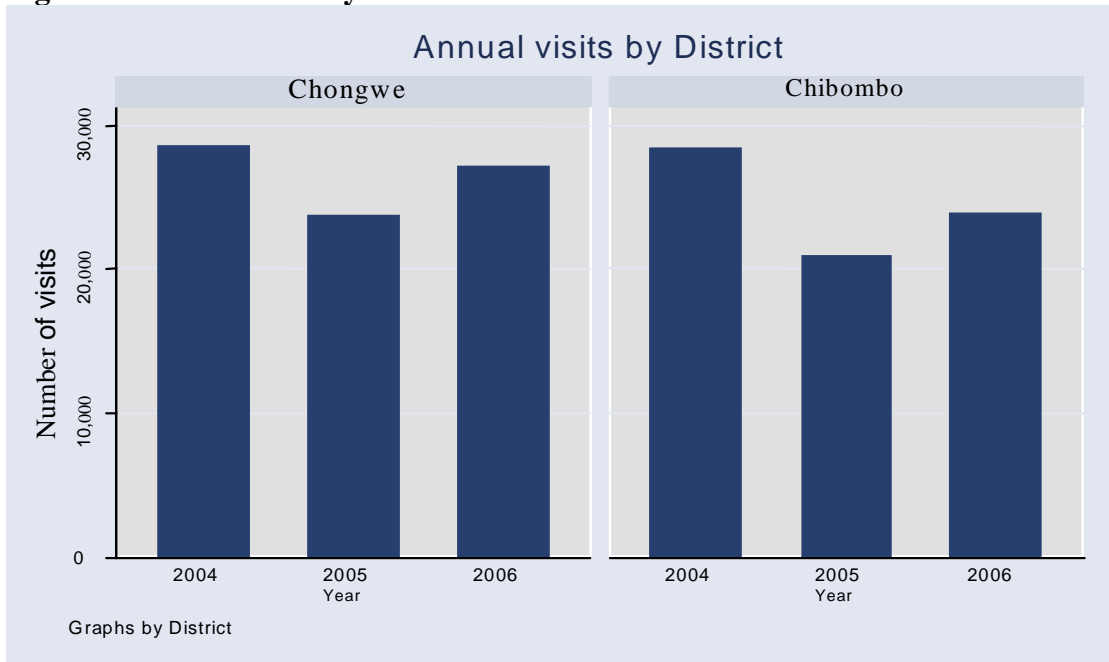
Two-sample Wilcoxon rank-sum (Mann-Whitney) test					
Year	Observation	rank sum	Expected	Hypothesis (Ho)	Probability
2004	72	6405.5	5220	Total (Year =2004)= Total (Year =2005)	Prob > z = 0.0000
2005	72	4034.5	5220		
Combined	144	10440	10440		

Two-sample Wilcoxon rank-sum (Mann-Whitney) test					
Year	Observation	rank sum	Expected	Hypothesis (Ho)	Probability
2005	72	4724	5220	Total (Year =2005)= Total (Year =2006)	Prob > z = 0.0075
2006	72	5716	5220		
Combined	144	10440	10440		

4.4 UTILISATION LEVELS BY DISTRICT

Figure 3 displays results on the utilisation levels by district. By stratifying the data into two districts, utilisation levels show that both Chongwe and Chibombo Districts follow similar trends. The results show that Chongwe District had experienced a smaller decline representing 17% of the reduction in the number of visits between the year 2004 and 2005. Visits in Chibombo District declined by 26%. Though the decline were different, the results further show that both districts experienced similar increases, with Chongwe District having a 12.5% increase and Chibombo District having a 12.1 % increase for the year 2006 after user fees were abolished.

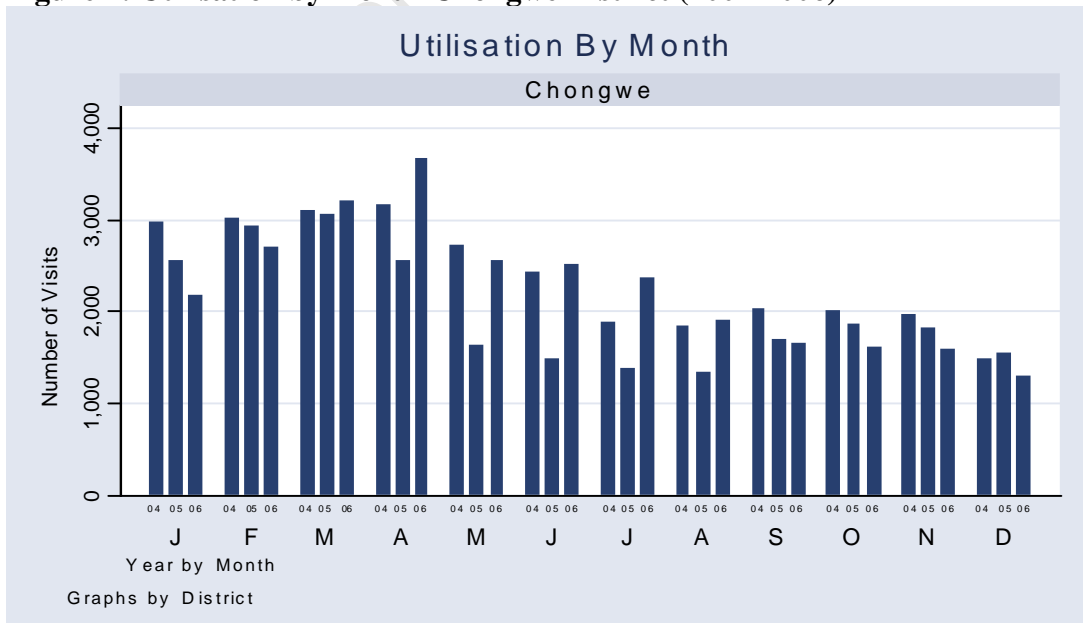
Figure 3: Annual visits by District



4.5 UTILISATION BY MONTH

A comparison by month in Chongwe District shows that there was a decrease in utilisation levels of health services from 2004 to 2005 except for December, which shows a minor increase (Figure 4).

Figure 4: Utilisation by month-Chongwe District (2004-2006)

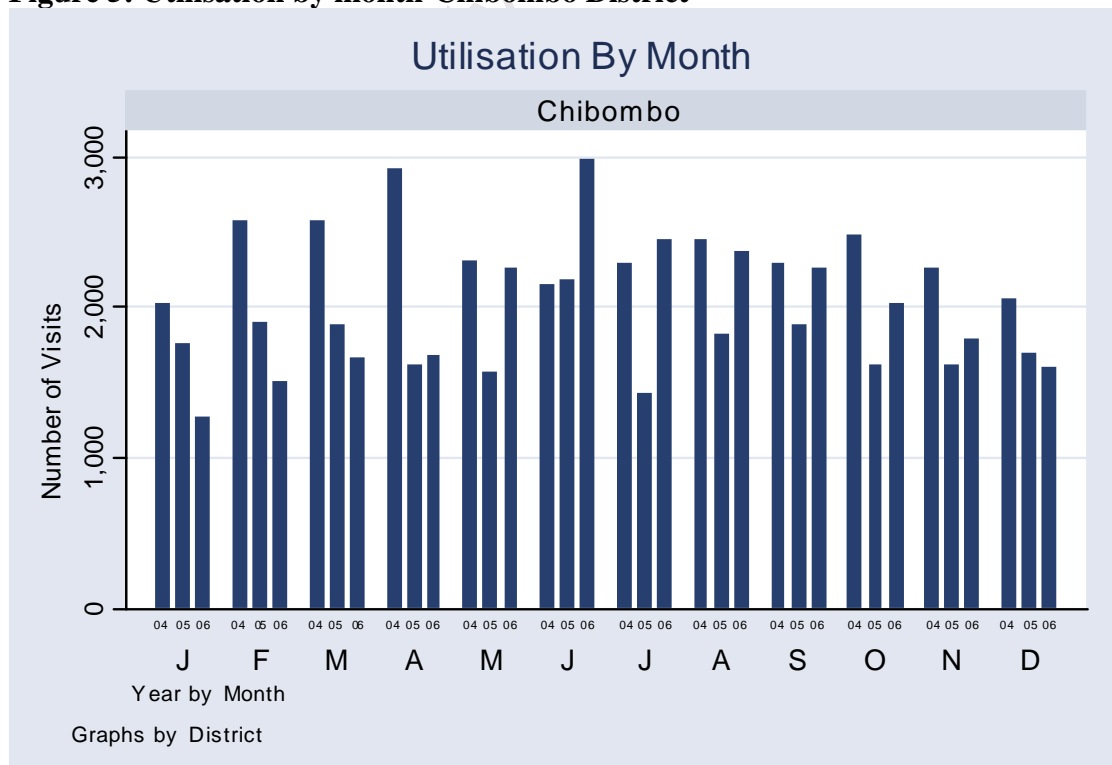


The number of visits for January and February in 2006 were still low as this was before user fees were removed. One month prior to abolition of user fees, in March 2006, health facilities in Chongwe District had already started experiencing the increase in utilisation levels. Upon removal of user fees, April recorded a very significant increase in the number of visits after which utilisation levels started declining. The trend continued until around December 2006 when the health facilities started experiencing some reduction in the number of visits at various health facilities (Figure 4). The drop in utilisation could have been caused by the shortage of drugs in the health facilities.

These results depict the fact that the changes within months for Chongwe District were generally fluctuating, showing that there were both increases and decreases across the months (Figure 4).

In Chibombo District, following removal of user fees, utilisation levels increased in May 2006 and peaked in the month of June and thereafter steadily declined (Figure 5). The decline again could have been caused due to the shortages of drugs in the health facilities

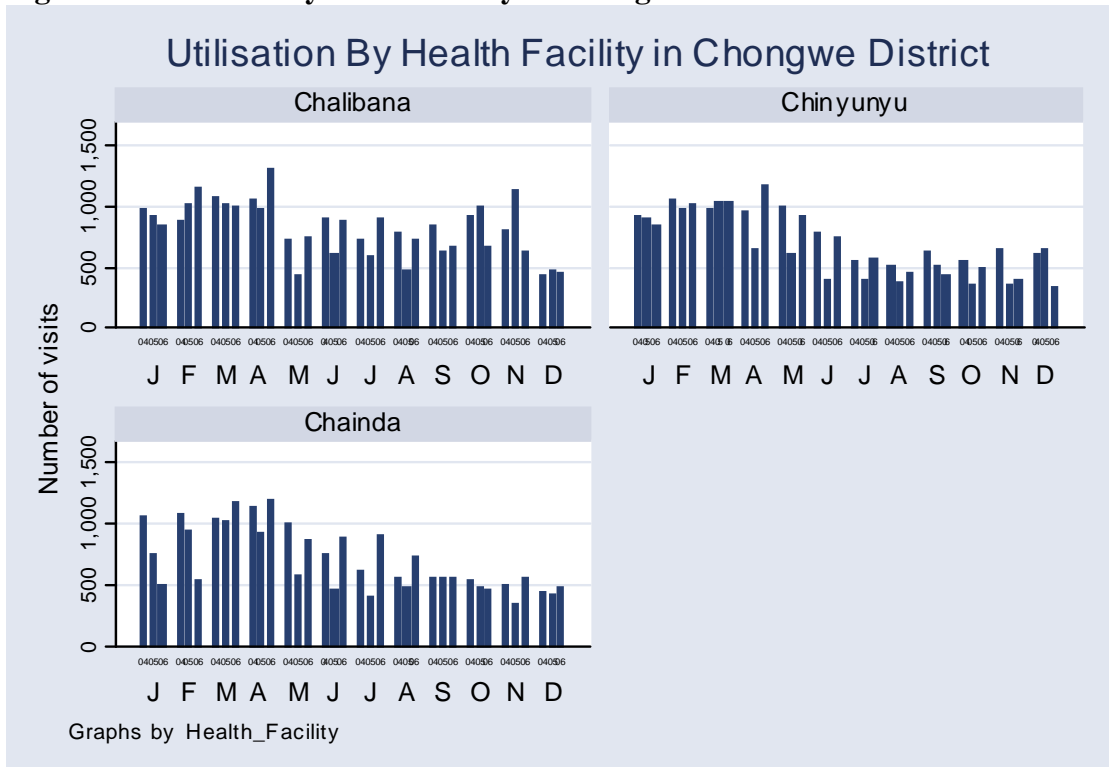
Figure 5: Utilisation by month-Chibombo District



4.6 UTILISATION LEVELS BY HEALTH FACILITY

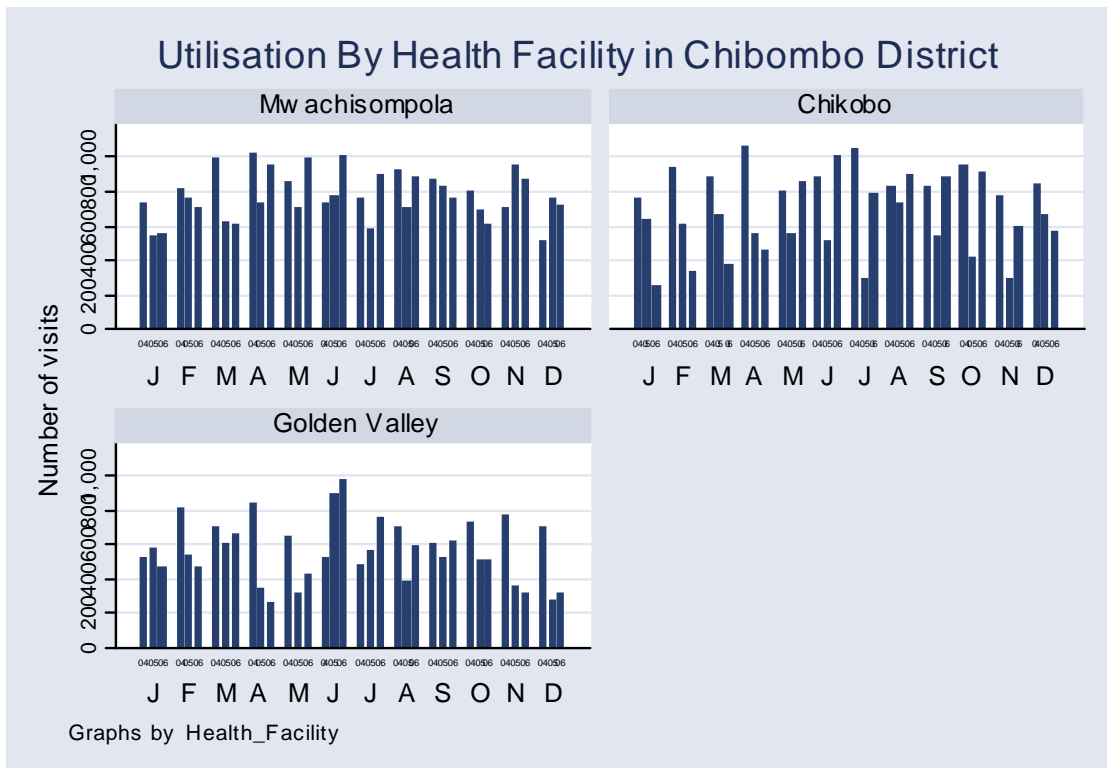
Utilisation levels by health facility, shows that, Chongwe District started experiencing the increases in the number of visits just after removal of user fees in April 2006. All the three health facilities under study had shown increases in the number of visits but started to steadily decline in the second half of the year (Figure 6).

Figure 6: Utilisation by health facility in Chongwe District.



The situation in Chibombo District was somehow different. With the exception of Mwachisompola, the other two health facilities did not experience immediate changes. The increases started in around May 2006 (Figure 7).

Figure 7: Utilisation by health facility in Chibombo District.

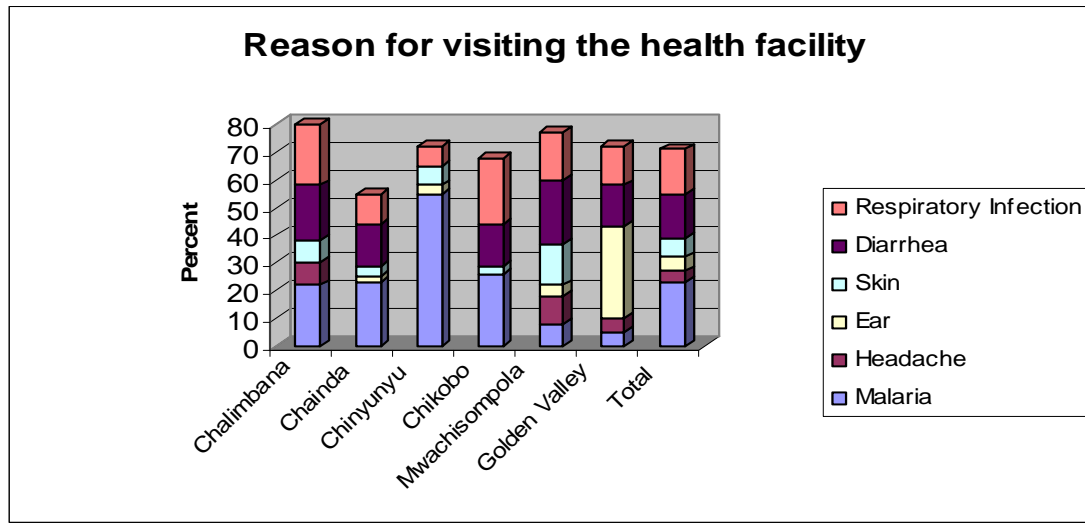


4.7 UTILISATION LEVELS BY DISEASE

The utilisation levels by disease were presented by districts and distance to the health facilities. This is to see if there were differences between the districts and the distance from the District Health Management Team offices in terms of utilisation levels.

Utilisation by disease shows that 23% of those who were interviewed were diagnosed with malaria, followed by respiratory infection non-pneumonia (17%), diarrhea diseases (16%) and skin infections (8%) (Figure 8). In all the health facilities with the exception of Golden Valley, malaria was the leading cause of visitation to the health facilities. Chinyunyu health facility was the highest hit by malaria cases where as Golden Valley health facility had the minimal number of malaria cases.

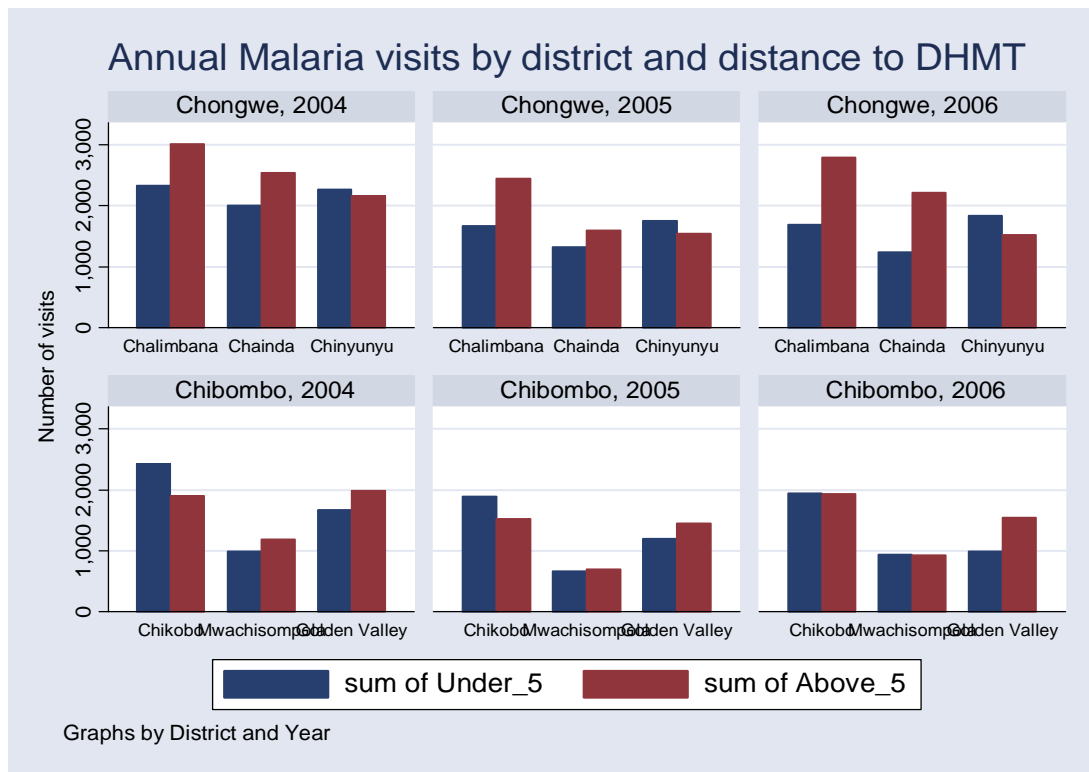
Figure 8: Reason for visiting health facility



4.7.1 Total Malaria Cases by Year

Total malaria cases recorded an increase in the number of visits after the abolition of user fees in the year 2006. This was after malaria had recorded a decline in the total number of visits between 2004 and 2005. In Chongwe District, Chainda health facility had the highest increase in terms of the number of malaria cases as compared to Chinyunyu and Chalimbana health facilities. In Chibombo District, Chikobo health facility which is also closest to the district had the highest increase in terms of malaria cases after user fees were abolished. In both districts, the health facility that was furthest from the DHMT experienced the least increase in terms of the number of visits after user fees were abolished. The increase in the number of visits explains that despite malaria being the leading cause of morbidity and mortality in Zambia, the number of people presenting themselves with malaria at the health facilities in 2005 had declined as shown by the increase after the abolition of user fees on figure 9.

Figure 9: Annual malaria visits by district and distance to DHMT

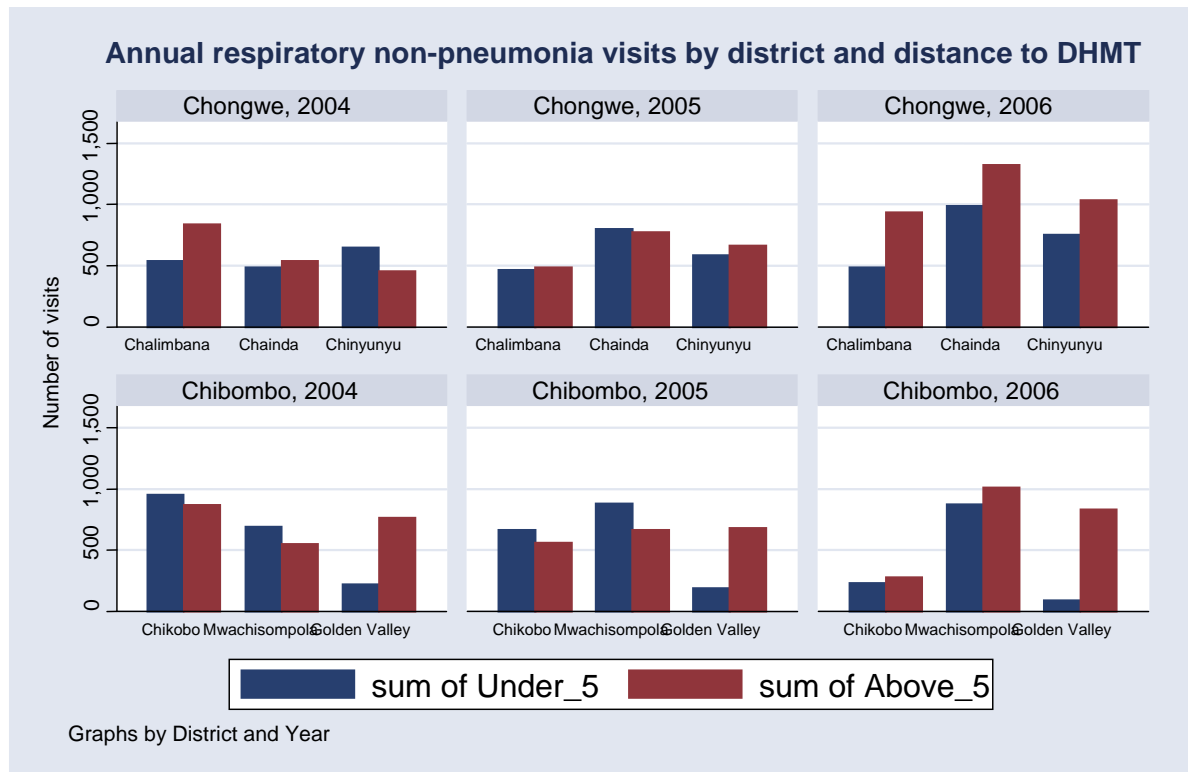


When malaria visits were divided by the age category of below and the above five years, figure 9 shows that there was a decline in both the under five and the above five number of visits between 2004 and 2005. Appendix 12 further shows that, there was an increase in the number of visits for both age categories between 2005 and 2006. However, this increase was higher for the above five years of age category (15%) as compared to the below five age category (less than 5%).

4.7.2 Respiratory Infection Non-Pneumonia

Respiratory infection non-pneumonia is the second leading cause of morbidity recorded in the OPD registers at the health facilities in Zambia. It was interesting to note that respiratory infections non-pneumonia did not record much decline for the period 2004-2005 when the user fees were in place. A major increase of 30% however was noticeable in the year 2006 when the user fees were removed (Figure 10). The highest increases were noted in Chibombo District as compared to Chongwe District.

Figure 10: Annual visits for respiratory non-pneumonia by health facility and distance to DHMT

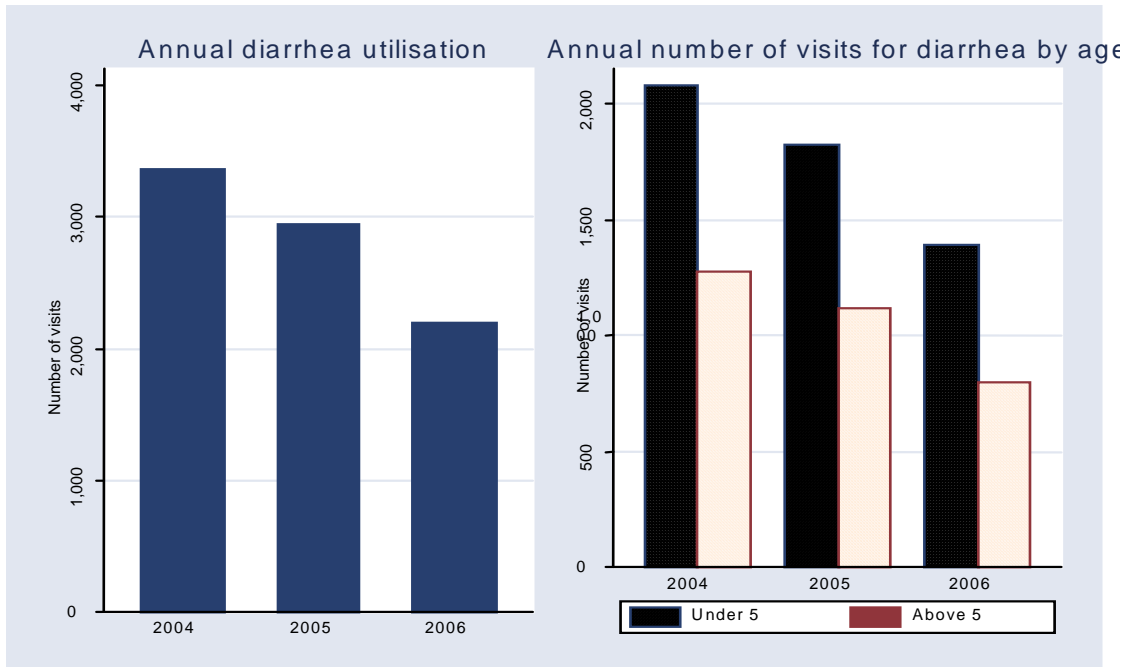


Based on age categories of below five and the above five years, the former did not record much change in utilisation for the periods 2004-2005 and 2005-2006 (Figure 10). In comparison, the above five years of age category, although showed a small decline between 2004 and 2005, increased significantly in 2006 after user fees were removed. The increases were with the exception of Chikobo health facility which is the closest to the DHMT.

4.7.3 Diarrhoea

The number of visits for diarrhea cases declined steadily overall between 2004 and 2006. A similar trend was observed for both the age categories (Figure 11). However, when the data was analysed by health facility the trend did not follow any particular pattern (Appendix 13).

Figure 11: Annual Diarrhea visits by age

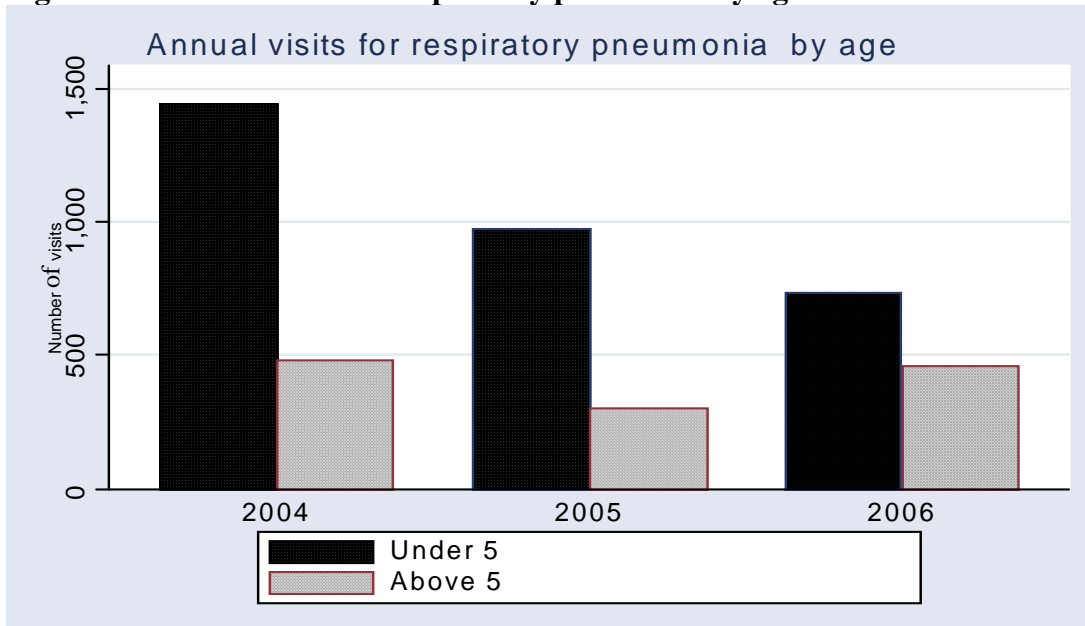


4.7.4 Respiratory Pneumonia

Respiratory pneumonia showed a major decline between 2004 and 2006 even after user fees were removed (Appendix 16).

Following the age category analysis of below five and above five years, the latter showed a significant increase in the number of cases when user fees were removed. However, the below five years age category continued to decline. This would mean that during the time user fees were charged at the point of utilisation of health services in the rural health facilities, most of the above five years were not seeking medical attention from the rural health facilities when compared to the below five years for respiratory infection pneumonia (Figure 12).

Figure 12: Annual visits for respiratory pneumonia by age

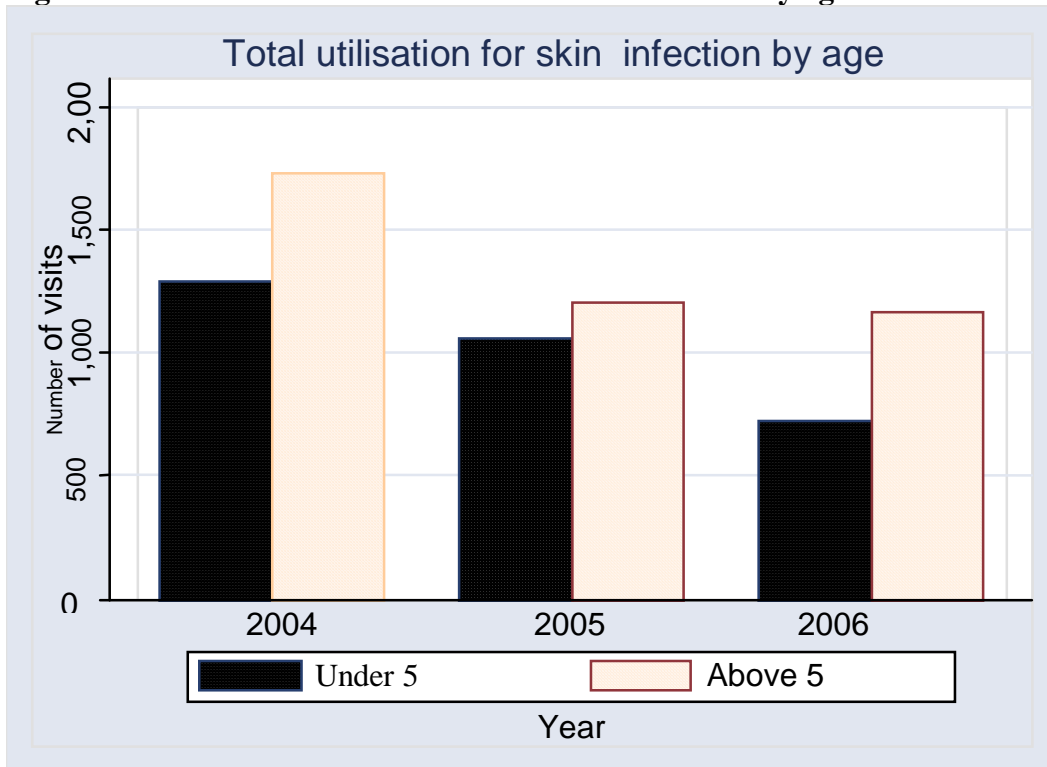


4.7.5 Skin Infection

Like the case with other diseases, it was also noted that the number of visits for skin infections reduced during the period 2004-2005. There was a further reduction in the number of visits even in the period 2005-2006 after the user fees were abolished for the age category of below five years of age. Nonetheless, there was no significant change in the period 2005-2006 for the above five years age category (Figure 13).

However, when the data is segregated by district and health facility, the results do not follow any uniform trend (Appendix 14).

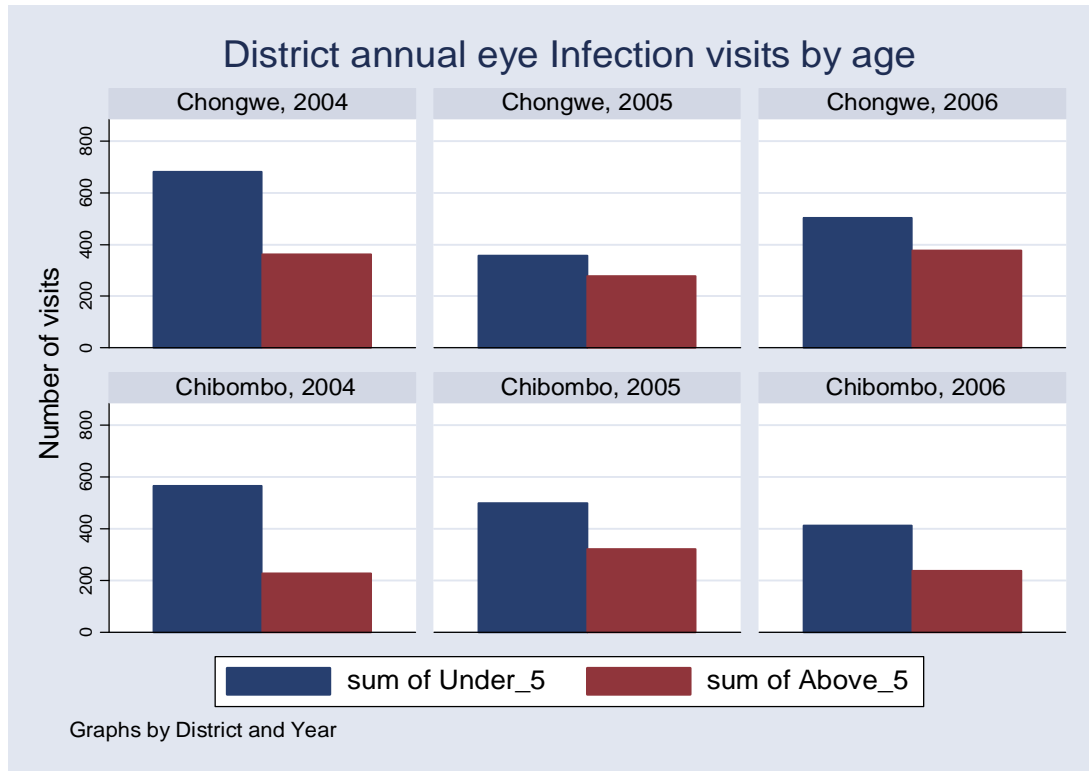
Figure 13: Total utilisation for skin infection by age



4.7.6 Eye Infection

Eye infection cases had experienced a decline for the period 2004-2005. There was an increase in the number of visits in the period 2005-2006 after user fees were abolished (Figure 14).

Figure 14: Annual eye infection by age.



When the results for eye diseases are disaggregated by age categories, the above five years of age did not experience major changes for the three years under study. For the age category of below five years, the number of reported eye infection declined during the period 2004-2005. However, there was an increase in the period 2005-2006 after user fees were abolished. Similar results were also observed even after analysing the data by health facilities (Appendix 15).

4.7.7 Summary

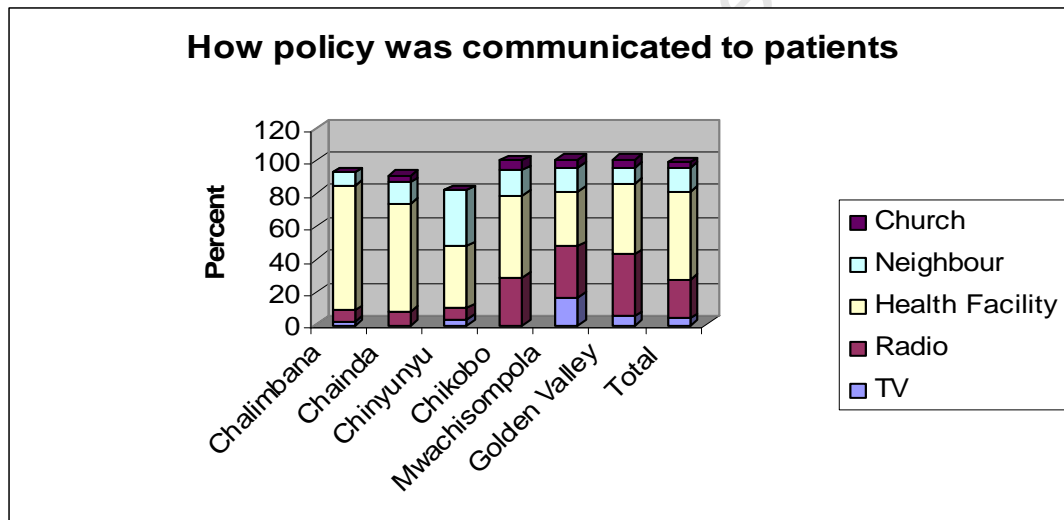
Malaria still continues to be the main reason for health facility visits even after the user fees were removed. Malaria showed that after the abolition of user fees, the above five years of age recorded a much higher increase in the number of cases at the health facilities as compared to the below five years of age. The situation was the same for respiratory infection non-pneumonia. This was not surprising considering that the under five years were exempted from user fees. Diarrhoea continued to record a decline even after user fees were removed, where as both skin and respiratory pneumonia infections

recorded an increase in the above five and a continued decline for the below five years category. For eye infection, the above five years did not record a major change where as the below five years of age category recorded an increase in the number of visits after user fees were removed. Therefore the impact of user fees remove on facility utilisation was not consistent for different disease categories.

4.8 Policy Communication to Key Stakeholders

The other objective of the study sought to find out how the policy change was communicated to patients and the health providers. The results for the patients are displayed in Figure 15.

Figure 15: Policy communication to patients by health facility and distance to DHMT



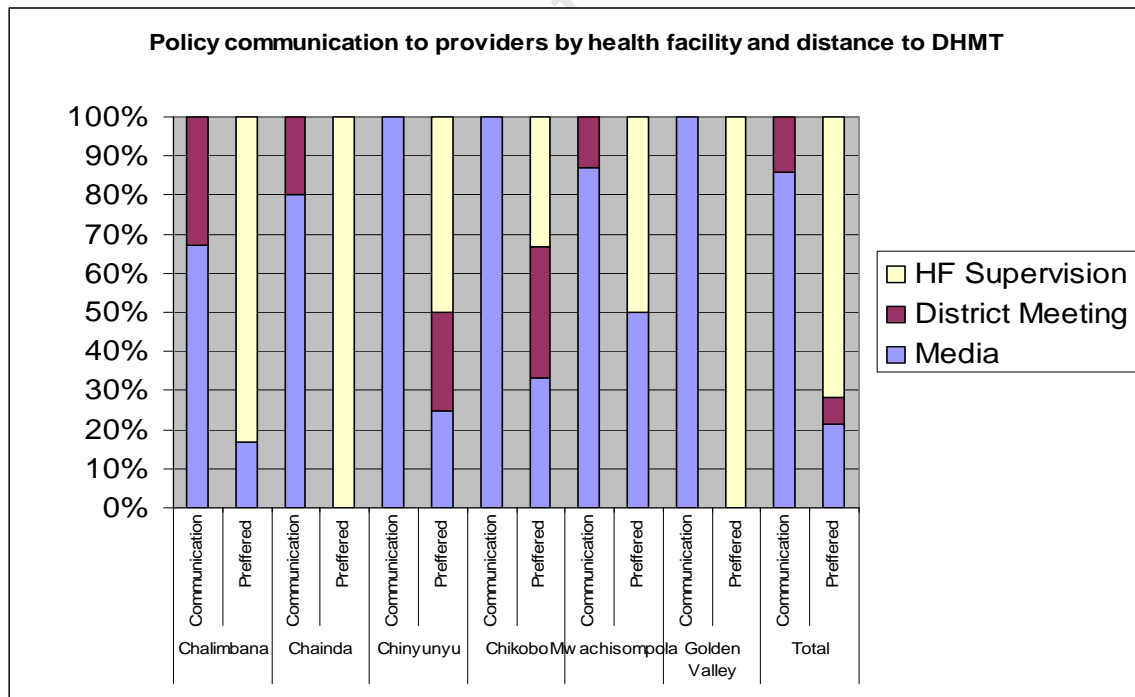
Sixty-three percent of the respondents obtained information about the policy change from the health facilities. This was followed by those who either heard from the neighbour or from a relative (16%). The least number was for those who heard either from television or church each comprising (2 %). Furthermore, by analysing the results by districts and health facilities, the results indicated that the patients were mainly communicated to about user fees removal through the health facilities. In Chongwe District, radio was the other major form of communication through which the users of health facilities were communicated to about the policy change where as in Chibombo District the radio was

the other major form of communication through which the users heard about the removal of user fee policy.

4.9 Providers Communication about User Fee Policy Change

When the providers were asked about how they were informed about the user fee policy change, and the way they would have preferred to be informed, 70% of the providers preferred health facility supervision (Figure 16). However, more than 80% of them received the information through the media. However, those who would have preferred to hear through the media were very few, constituting 11%. Those who indicated that district meetings are the preferred way to be communicated about policy change were about 7%. The results further shows that all the health facilities in the districts were mainly communicated to about the user fee policy change through the media where as all the health facilities had preferred to be communicated to through health facility supervision.

Figure 16: Policy communication to providers by health facility and distance to DHMT



4.10 Perceptions among Stakeholders about User Fees

4.10.1 Service Providers

Health providers were asked about their opinion on the user fee policy change. It was noted that 71% said that the user fee policy change was a bad idea. About 7% of the health providers indicated that they were not sure if they were in support of the user fee policy change. Chinyunyu health facility in Chongwe District and Golden Valley health facility in Chibombo District, the two health facilities that were furthest from the DHMT during the time that the data was collected were of the same opinion that the abolition of user fees was a bad idea (Figure 17)

Figure 17: Perceptions about user fee policy change by health facility and distance to DHMT.

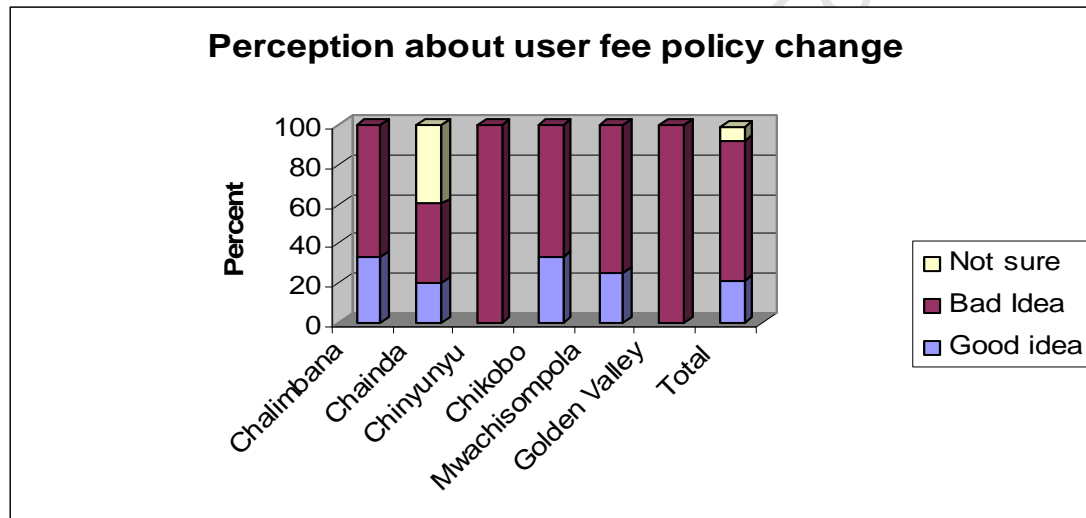
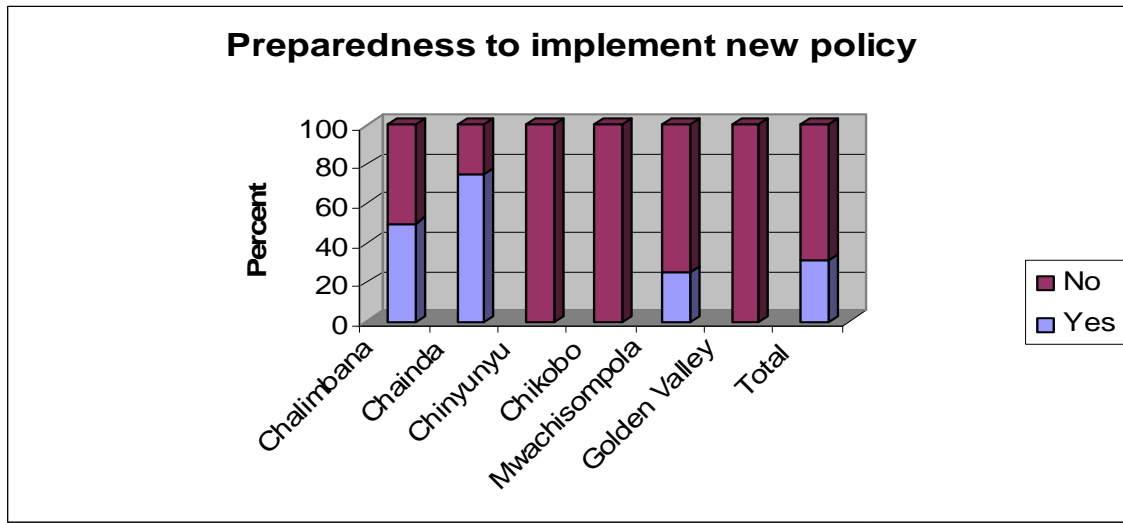


Figure 17 shows that Chinyunyu and Golden Valley health facilities, two health facilities that were the furthest from the DHMT absolutely perceived user fee policy change as a bad idea. The trend was increasing as the distance was approaching the DHMT. On whether the policy would work effectively, most of them (89%) were pessimistic and only 8% were optimistic. With the exception of Chainda health facility in Chongwe District and Mwachisompola health facility in Chibombo District, all the other health facilities indicated that the policy was not going to work effectively (Appendix 18).

Figure 18: Health facility preparedness to implement the new policy by health facility and distance to DHMT



Most of the health providers also felt that the health facilities were not prepared to implement the new policy. This was represented by 69% compared to the 31 % who felt that the health facilities were prepared (Figure 18). Chinyunyu health facility in Chongwe District and Chikobo and Golden Valley health facilities in Chibombo District entirely indicated that the health facilities were not prepared to implement the new policy. This was also the case when Golden Valley and Chinyunyu gave their views on whether the policy change was a good or bad idea.

From the key informant interviews, an officer in charge of Chalimbana health facility narrated that:

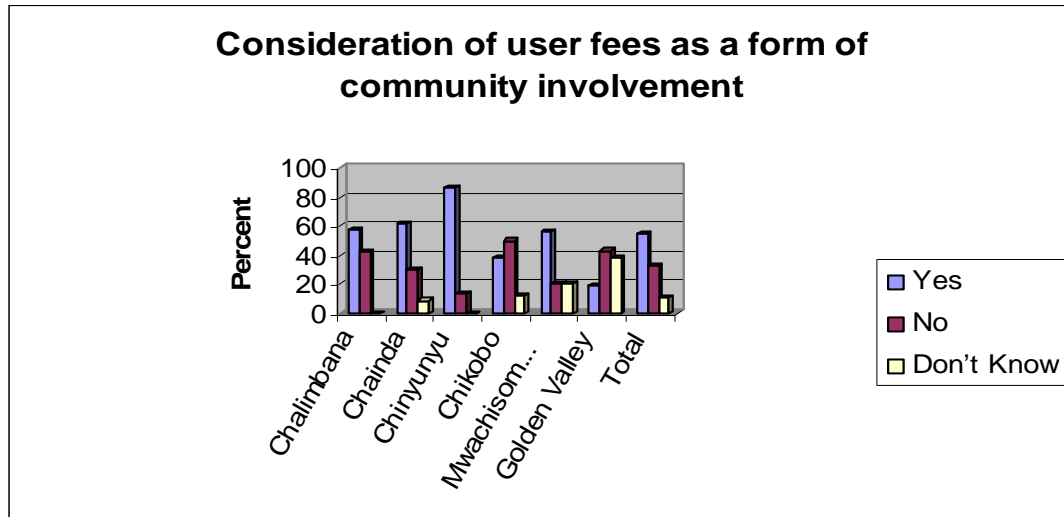
“.... proper ground work was not done on the abolition of user fees..... rural areas should have been well chosen as what defines urban or rural areas, the incentives available.....abolition of user fees should have been done in phases”

4.10.2 Patients

When the patients were asked if they considered user fees as a form of community involvement, 56% of patients considered user fees as a form of community involvement (contribution towards the health services that they receive), 33% said they did not, whereas the rest said they did not know. Chinyunyu health facility in Chongwe District

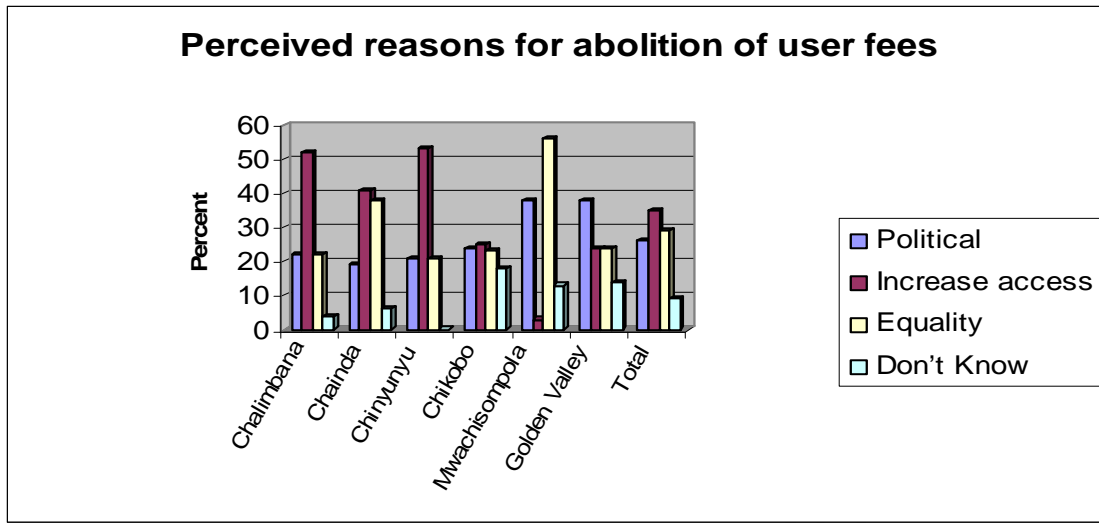
and Mwachisompola in Chibombo District had the highest numbers of those who indicated that user fees were a form of community involvement (Figure 19).

Figure 19: Consideration of user fees as a form of community involvement by health facility and distance to the DHMT



In addition, respondents were asked about what they felt was the reason for the abolition of user fees in the rural areas (see Figure 20). Thirty-five percent of the patients said that user fees were abolished so as to increase access for the poor in the health facilities. Increasing access for the poor was highly cited in Chongwe District. Twenty-seven percent cited political reasons for the policy change. It is important to note that at the time of the policy change, presidential and general elections were about to be held and it was then necessary to know whether or not the elections could have influenced the perceptions of the patients. Equality was the other reason that was given which comprised of 29%. Therefore, 29% represents the respondents who felt that user fees were abolished so that those who do not have money can also afford to utilise health services.

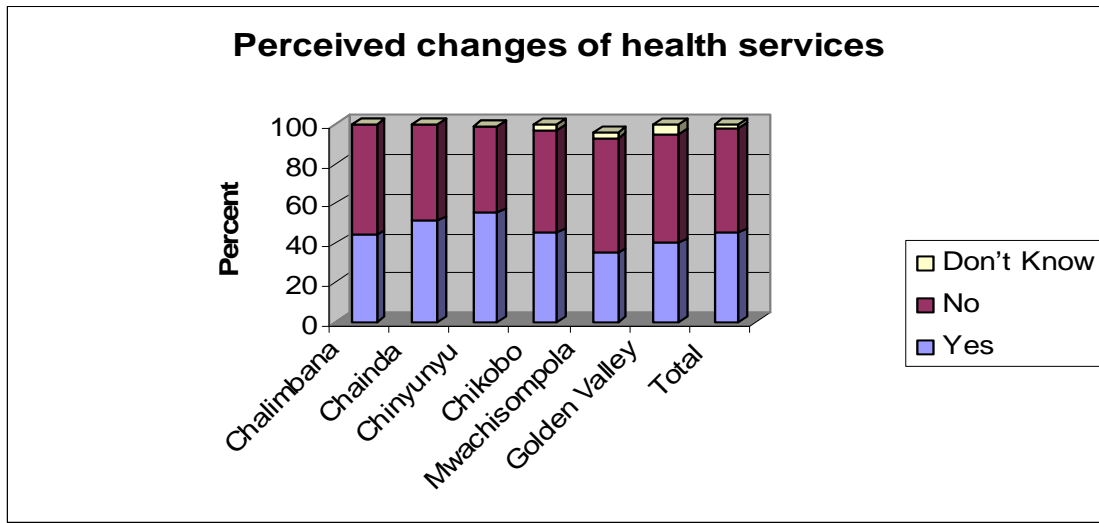
Figure 20: Perceived reasons for abolition of user fees by health facility and distance to the DHMT



4.11 Perceptions about Changes in the Quality of Care

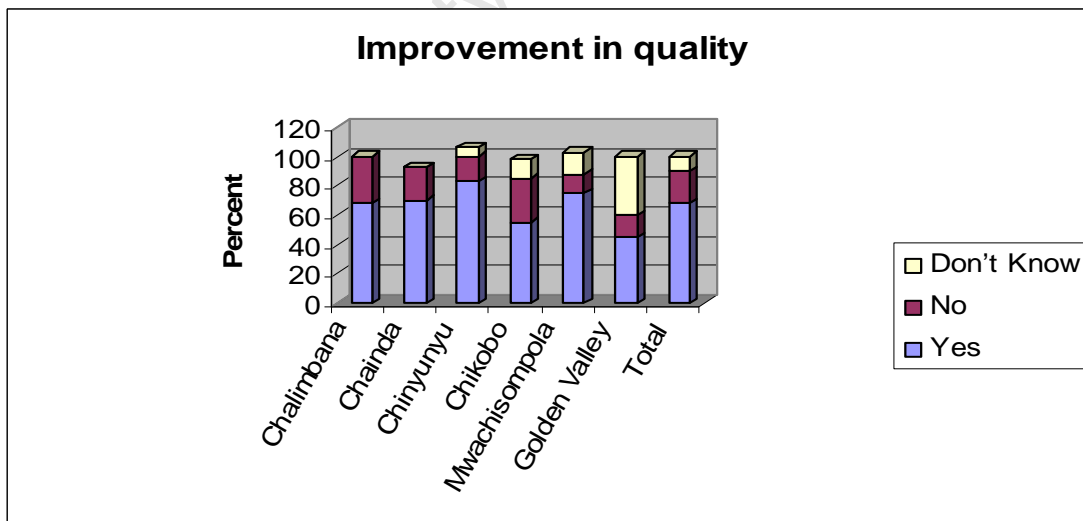
The patients were also asked to respond to a question on perceived changes in the quality of health services after the abolition of user fees and if user fees were improving the quality of health services. It was found that half of the respondents (53%) perceived the quality of care not to have changed after the abolition of user fees in the rural health facilities. This was uniform across all the health facilities that were visited during the data collection process (Figure 21).

Figure 21: Perceived changes of services following the removal of user fees by health facility and distance to the DHMT



Furthermore 68% of patients indicated that user fees improved the quality of health care services. This was also uniform across all the health facilities that were visited during the data collection process (Figure 22).

Figure 22: Perception that user fee policy improves quality of services by health facility



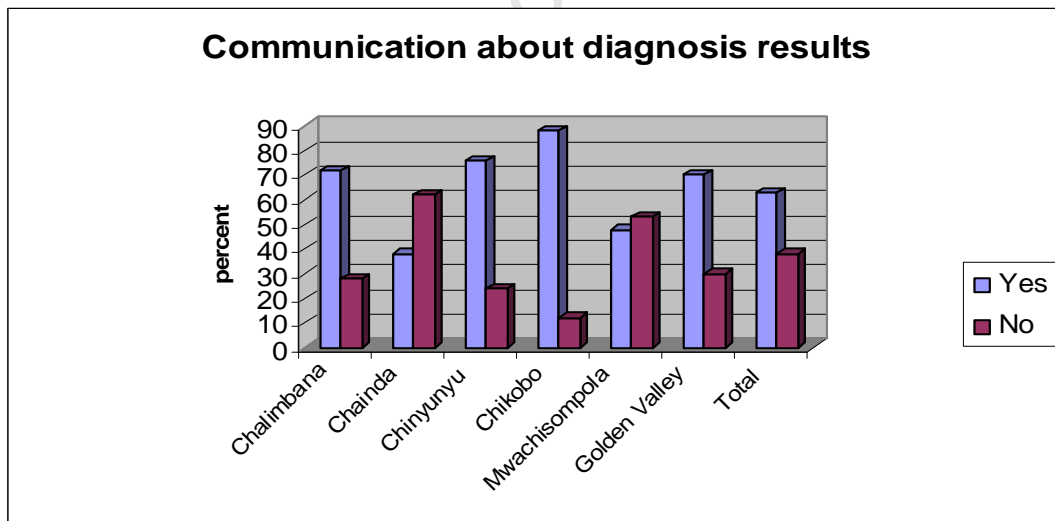
The other thing that was mainly brought out from the FGDs was that the patients considered the provision of drugs as an important component of quality of care. As such, they felt dissatisfied when they were told that drugs were not available and that they would need to buy them. The respondents also indicated that unavailability of drugs

required that they travel long distances to where drugs could be found. Similarly long waiting queues made patients feel that they were insufficient attention by health providers.

“...usually we go to Chongwe clinic due to lack of medicine here, yesterday the queue was very long that we failed to get in.....we were told by the other people who come to the health facility from the villages that there were no drugs here....I will go to Chongwe clinic, I have been told to go and buy panadol, so why come.....”

During the exit interviews, the patients were further asked if they were communicated about the diagnosis results. It was indicated that most of the patients were told about their sickness. For example, 63% agreed to have been told about their sickness whereas 37% denied to having been told (Figure 23). Chainda health facility in Chongwe District and Mwachisompola health facility in Chibombo District were the two health facilities that had more respondents who indicated that they were not communicated to about the diagnosis results.

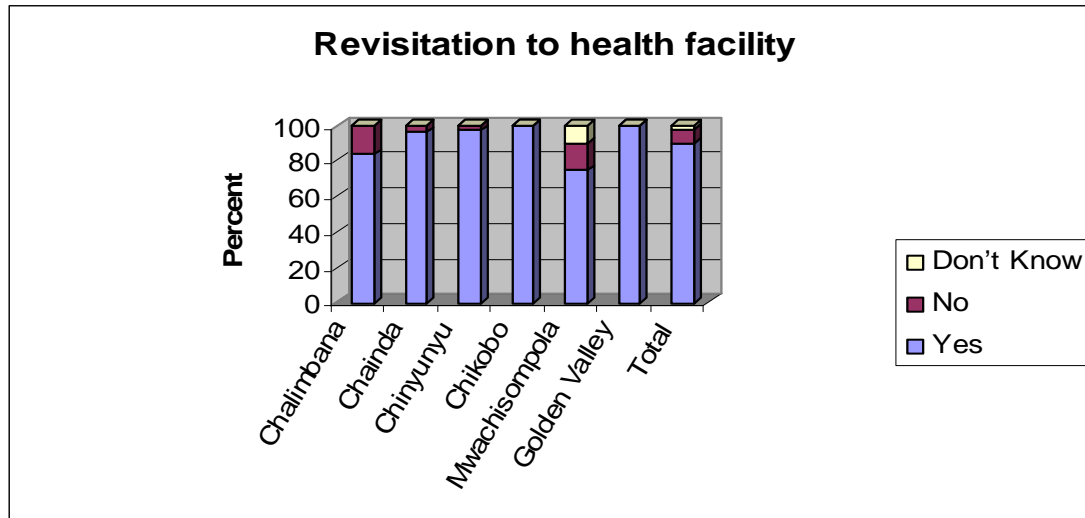
Figure 23: Communication about diagnosis results by health facility and distance to the DHMT



In addition, the patients were asked if they would still come back to the health facilities and most of the patients were affirmative (90%). Only a small proportion comprising 8% did not feel like visiting the health facilities again mainly due to drug shortages. The other 2% were not sure either they were going to revisit the health facilities or not (Figure 24). Therefore most of the patients interviewed were going to come back to the same

health facilities. Chalimbana health facility in Chongwe District and Mwachisompola health facility in Chibombo District had the highest number of respondents who indicated that they were not going to revisit the same health facilities.

Figure 24: Revisitation to health facility by health facility and distance to the DHMT



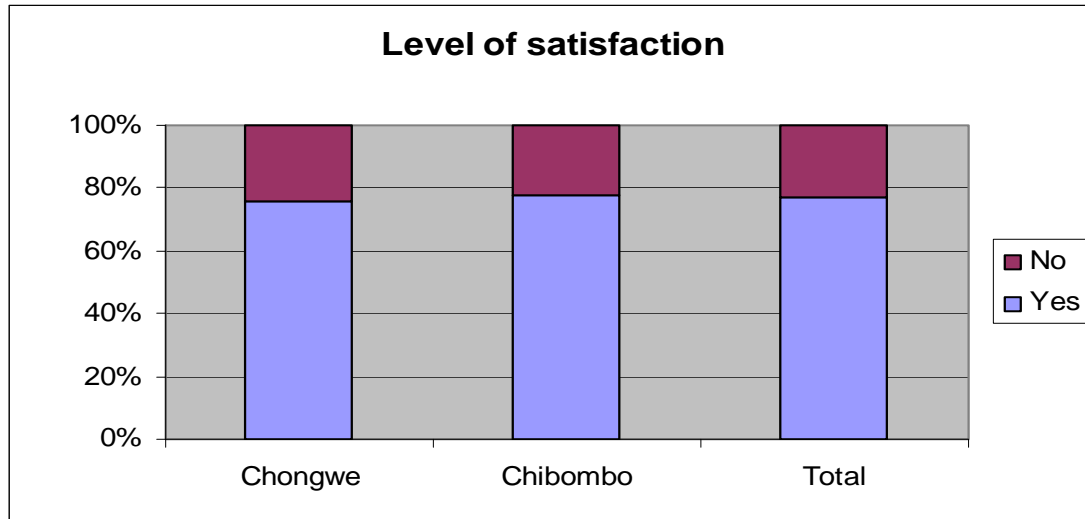
4.12 DRUG AVAILABILITY SITUATION

A comparison by district after checking in the pharmacies revealed that Chongwe District health facilities were experiencing more drug shortages as compared to Chibombo District health facilities after user fees removal. It was noted that Chinyunyu health facility in Chongwe District had ran out of major essential drugs during the research period. It was also noted that though the antimalarial drugs were ordered on time, they were not received timeously. For the antimalarials that were previously ordered, they had finished a week before the research was conducted and the quantities were not adequate for the stipulated time that they were supposed to save. The drugs for diarrhea, skin and eye infections had also run out of stock. Therefore, of the six major drugs that are prescribed for the major diseases, only those for respiratory infections pneumonia and non-pneumonia were available.

In Chibombo District, it was noted that some of the drugs for the major six health conditions were available. This also corresponded with the level of satisfaction of the

health services offered by the health facilities in Chimbombo District. Figure 25 indicates that the level of satisfaction was slightly higher in Chibombo District as compared to Chongwe District. For example, at Golden Valley health facility, they had antimalarial drugs in stock; similarly they had drugs for respiratory and diarrhea diseases but they had run out of stock for skin, eye infections and respiratory non-pneumonia drugs.

Figure 25: Level of satisfaction of health services by district



4.13 Challenges of user fee abolition

4.13.1 Perceptions of Providers

Most of the health provider’s highlighted lack of drugs especially the essential drugs and other medical supplies including cleaning materials as the major challenge facing the rural health facilities after the abolition of user fees. A senior officer of Chikobo health facility noted that drugs supply was erratic and that patients perceived that providers hid the medicines.

“... sometimes patients do not appreciate if they are given one type of medicine, which they actually need they think providers are selfish with the medicine.....user fees used to buy supplementary drugs which are difficult to have now leading to prescription of panadol. The drug supply is erratic...”

The providers also cited the increase in the number of patients visiting the health facilities most of whom they claimed were not even sick as some of the major challenges that the

health facilities were facing after the abolition of user fees. One provider had the following to say:

“We are subjected to attend to people who are not even sick. Some community members just come to collect drugs pretending they are sick. There is now an overload of patients most whom are not really sick..... They used to come to the clinic when they are sick, unlike now they just come the whole family with irrelevant complaints.....whenever they feels like storing some panadol at their homes and claim they have some headaches, because they know its free for all. User fees should be reintroduced”.

Most of the health providers indicated that lower salaries contributed to poor staff morale. Moreover rural hardship allowances were not being honoured despite health workers working under very difficult conditions in the rural areas. This issue of rural hardship allowances by staff was raised in all health facilities where the study was undertaken.

The health providers also expressed worries over the ending of community programmes such as the Neighbourhood Health Committees (NHCs) as a result of budget constraints. User fees were used to finance some of these voluntary programmes that the health facilities used to run.

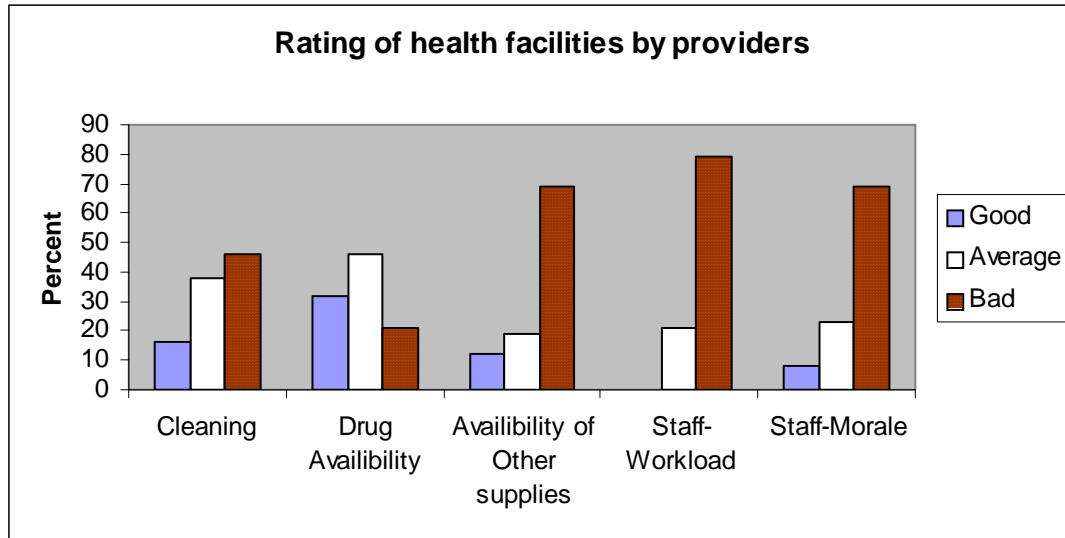
4.13.2 Perceptions on Rating of Health Facilities by Providers

User fees were also used for such services as cleaning the surroundings. Therefore, there was a perception that health facility surroundings were not maintained like previously under user fees. The simple reason that was given was that there were no funds to contract out door servants and casual workers, which used to be taken from user fees revenue previously. The surroundings of some of the health facilities were dirty and the grass was uncut especially during the time the study was being conducted (rain season).

Overall, the providers were asked to rate key aspects of the health facility (cleanliness of the surroundings, drug availability, availability of other supplies, staff workload and staff morale). Of these, almost 80% of the respondents considered the staff workload as heavy.

This was followed by staff morale and availability of other supplies, which were also considered to be bad representing about 70% each. The cleaning of the surrounding was also bad (45%).

Figure 26: Rating of health facilities by providers



4.13.3 Perceptions of Providers on Grants

The other problem that the health providers highlighted was that of the grant. The health providers narrated that the government was supposed to increase the support to the health facilities by increasing the grant following the removal of user fees. The grant payment was very erratic hence and this contributed towards non payment of certain allowances such as rural hardship allowances. Related to this, was that even in times when the grant was provided, it was inconsistent and inadequate. This led to the delay in purchasing essential materials such as disinfectants, which were needed to maintain the health facilities. This problem was raised across all the health facilities.

4.13.4 Perceptions of Patients

The themes drawn from the focus group discussions revealed that communication is bad.

“Sometimes patients are not told what they are suffering from. there was preference in terms of who was to be treated first. The preference was based on those who are known to the health providers. The health providers should improve on the time on which

they report to the health facilities so that those patients who come early to the health facilities are treated early, as they have many other things to do at home”

During the focus group discussions, the discussants also expressed disappointment over critical shortages of drugs as expressed by most members of the discussion group at Chinyunyu health facility. This was so because after walking long distances they found that there was no medicine at the health facilities.

“Nowadays they give prescription and it’s a lot of prescriptions actually.....sometimes they tell you to come for medicine the next day...they used to do a lot of laboratory test if the suspect malaria.... Now we buy medicines, this is what causes people to go to the private.....”

Furthermore, during the focus group discussions that were conducted at Chalimbana health facility, the discussants were asked what they felt were the advantages of user fees. Some of the answers that came out from the discussion were that health providers used to give medicines when user fees were in place. When the medicine was not there, they used to be given something like pain-relief.

Summary

In attempting to achieve the objectives of the study, the results revealed various situations. First and foremost the results indicated that the removal of user fees led to an increase in the number of patients’ visiting the health facilities. Furthermore analysis by age categories indicated that the above five age categories had witnessed a higher increase in the number of visits than the below five age categories. Communication through the health facilities was the most common way that the utilisers of health services heard about the user fee policy removal where as the health providers mostly heard about the policy removal through the government circular which was also the preferred way of hearing about the removal of user fees. From the results it was further noted that the stakeholders were pessimistic that the user fee policy change was going to work effectively.

CHAPTER FIVE: DISCUSSION

5.1 Introduction

This chapter discusses the results of the study focusing on the key issues, which have some policy implications in line with the study objectives.

5.2 THE IMPACT OF ABOLITION OF USER FEES ON UTILISATION AT HEALTH FACILITIES

The study established that there were major declines in utilisation of health services in the two districts under study between 2004 and 2005. Since the districts are classified as rural areas which are characterised by high poverty levels of approximately 74% and high unemployment rates (Central Statistics Office 2004), issues of affordability might explain the poor utilisation of health services during the time that the user fees policy was in place.

It is expected that when user fees are removed, affordability improves and utilisation levels increase. In Uganda, utilisation increased by more than 110% following the removal of user fees in all public health facilities (Amone, Asio et al. 2005). In the two districts under study, upon removal of user fees, utilisation increased by an average of 12.4 %. This increase is less dramatic than one might expect but can also be explained by the fact that the patients under the age of five years were exempted from user fees and hence the policy change did not affect their utilisation patterns in any significant way.

The issues of utilisation levels for the under five age category not changing after the user fees policy removal was not surprising as explained above since this group was exempted from paying user fees even before user fees were abolished. These findings compares with a study that was done in South Africa on the examination of attendance patterns before and after introduction of South Africa's policy of free health care for children aged under 6 years and pregnant women. In this study it was found that free health care substantially increased the use of treatment services by children but not the use of preventive services (under 6 clinics) as these were offered free of charge even before the policy was changed in South Africa (Wilkinson, Sach et al. 1997). Contrastingly, the

above five age categories were directly affected by user fees. Therefore the difference in the number of visits between the time user fees were in place and the time user fees were removed would be mostly attributed to the number of the above five years of age category who were not visiting the health facilities due to user fee charges.

5.3 THE IMPACT OF USER FEE REMOVAL AT DISTRICT LEVEL AND FACILITY LEVEL

Chongwe District is close to Lusaka the capital city of Zambia which would explain why the health facilities in Chongwe District were the first to experience increases in utilisation two months prior to abolition of the fees. The peak in utilisation levels in health facilities in Chongwe District were reached in April 2006, the month in which user fees were abolished.

One of the ways that could be used to explain this would be the fast flow of information in the district that is close to the capital city as compared to the district that is further away from the capital city. Despite the improvement in the level of communication that has been enhanced by the improvement in technology, the Central Statistics Office estimates that more than 74% of the rural people in Zambia live on less than a dollar per day (Central Statistics Office 2004). An implication of this is that many rural households cannot afford radio, television or cell phones and there are limited print media options. This means that communication of important policy decisions (e.g. user fees) is particularly challenging in the rural areas. It is therefore not surprising that those communities closer to the urban centres (Chongwe District) learnt of the policy change faster than the more rural communities (Chibombo District). This is supported by the fact that the health facilities in Chibombo District responded slowly to the changes in utilisation levels as the peak in utilisation was experienced in June 2006 though the abolition was done in April in the same year. It was also noted that in Chibombo District, most of the respondents heard about user fee policy removal through the health facilities.

It was also noted that around the last quarter of the year 2006, almost all health facilities started witnessing some decline in the number of visits in the two districts. One of the reasons that might explain this was drug shortages and other perceived quality of care issues (e.g. long queues, staff attitudes etc.).

5.4 IMPACT ON UTILISATION BY DISEASE

5.4.1 Malaria

The recorded decline in malaria cases in 2005 could be associated with the fact that Zambia started using an effective drug as a first line treatment for malaria cases in all public health facilities since 2004. Zambia was the first country in Africa to adopt Coartem, which is an artemisinin-based combination therapy (ACTs) as the first line treatment for malaria cases in all public health facilities replacing chloroquine (Chanda, Masiye et al. 2005). Therefore, it is also possible that the observed decline in the number of malaria visits to the health facilities could have been caused by the high cure rate of this effective drug thereby reducing re-infections and recurrences of malaria cases.

5.4.2 Respiratory Non-Pneumonia

Respiratory infection non-pneumonia showed a higher increase in the number of visits than any other diseases at the health facilities with different responses between age categories. Unlike malaria, respiratory infection non-pneumonia showed an increase in both the under and above five years age categories, though the increase was more for the above five years. This would therefore mean that the above five years of age visits to health facilities were affected more under the user fees regime when they had such disease as respiratory infection non-pneumonia. Therefore, it is possible that upon removal of user fees the patients were relieved of some extra cost when accessing health services making it cheaper for them to utilise the health facilities when they had such conditions as respiratory non-pneumonia. However, as noted earlier the fee removal policy would not have impacted on under five utilisation since these services were exempt from fees. The increase in utilisation might be perceived as moral hazard by providers and has implications for provider behaviour (Leighton 1995).

5.4.3 Other Diseases

Like respiratory pneumonia infection, total skin infection continued to decline after user fees were abolished, after classification into the below five and the above five years age categories, it was noted that, it was the below five years who continued to register a decline in the number of visits which was less for the above five years age categories.

For the diarrhea cases, the number of visits for both the above five years of age and the below five years of age continued to decline before and after user fees were in place. Therefore, there is need for further research to determine the causes of this decline. It might be due to improved sanitation or other factors outside of the health systems that may affect prevalence levels for diarrhea diseases.

The recorded increase in total eye infection was more from the below five years of age when compared to the above five years of age. But overall, there was a decline in the number of eye infection visits recorded. This could have been due to reduced eye infection within the period of the study.

Summary

The study established that there were major declines in 2005 when user fees were in place and were followed by increases in utilisation after the removal of user fees in 2006. This shows that user fees removal was a positive and necessary step towards achieving the Ministry of Health's objective of providing cost effective free health care as close to the family as possible (Ministry of Health 2006a). It was also observed that Chongwe District with good communication network experienced immediate increases just after user fees were removed as compared to Chibombo District which responded slowly to the change of policy in terms of utilisation of health services at the health facilities. This suggests that the impact of user fees was dependent on proximity of the health facility to the DHMT.

It was also noted that of the top six recorded cases of diseases in the OPD registers, malaria, respiratory infection non-pneumonia and skin diseases had similar trends while,

diarrhea cases, respiratory infection pneumonia and eye infection had also followed a similar trend, on how they impacted on the above five and those who are below five years of age categories. The results also indicated different responses to user fee abolition between age groups. The slow response in the under five changes in utilisation was anticipated as it was mainly linked to the fact that the under five years age category were not directly affected by user fee policy as they were exempted even during the time user fees were in place. For the above five years category, increase in utilisation could be explained by improved financial access arising from the removal of user fees.

5.5 POLICY COMMUNICATION TO KEY STAKEHOLDERS

Communication is a very important element in policy change and can determine the success or failure of policy implementation. Studies that have been done on policy implementation explain that well-implemented policies should involve adequate consultation and should make differences in the lives of the people and be supported by all stakeholders (Mills, Spencer et al. 2001). This would therefore, mean that, though health providers do not have formal political power, leaving them out of the policy process would cause some resistance to policy implementation, as they are part of the main stakeholders in the delivery of health services.

The Zambian case reveals that, most health providers objected to the policy change given their views that the policy would not succeed. Since health workers play a critical role in providing health services, they tend to provide valuable insight into the changing of a health system (Birbeck and Kalichi 2004, Gilson and McIntyre 2005). There was need to adequately consult them before the policy change was effected to ensure that they supported it. If health workers do not support a policy change, this can have implications for their work and their interactions with patients. Moreover, health providers were mainly informed of the policy change through the media though they would have preferred to be informed through health facility supervision. To some extent, this partly explains how a rather hastily implemented policy, which does not adequately consult with front line workers, can suffer from lack of support. Apart from this, there were no

consultations or forums which would have allowed them as providers to share their views on the user fee policy change. It is not surprising then that providers were dissatisfied with the change in policy and generally unsupportive.

Clearly, the level of satisfaction of providers with the policy shift has implications for their attitudes and interactions with patients. If patients are unhappy with the care they receive from the health facility, they may resort to seeking care elsewhere (Asenso-Okyere, Osei-Akoto et al. 1999). This would bring about negative health care seeking behaviour. Negative health care seeking behaviour might draw the patients towards going back to self-treatment measures and sharing of medicines or totally shunning public health facilities. In the long-run, this could increase morbidity and mortality cases even for diseases that can be easily cured especially if most of the patients started delaying treatment until the disease became severe. Therefore, it is very important that key stakeholders like health providers have to be consulted adequately so as to have their support towards policy change particularly those which affects them and their interaction with patients.

In Zambia it was announced in January 2006 that the policy was going to be removed in April the same year. This meant that health facilities were not sufficiently prepared for the policy change. Therefore, although the policy change was appropriate, it was implemented in a radical way, based on feedback from health providers in this study. Preparedness of health facilities is also important for the success of implemented health policy decisions. Therefore, there is need for careful planning and improved resource availability for the provision of adequate services that are likely to arise due to increased utilisation.

The expected shortfall in revenue arising from the removal of user fees was going to be offset by additional funds in the form of grants. The source of this is the increase in government grants from the Highly Indebted Poor Countries (HIPC) initiative (MOH 2006d). Though all the health facilities indicated that they had received the grant, it was noted that the grant was not received on time. These delays in both Chibombo and

Chongwe District contributed to shortages of essential supplies and drugs needed for the effective functioning of the health facilities. In both districts, the grant delays contributed to low staff morale, which in turn can impact on patient-provider interactions.

5.6 PERCEPTIONS OF QUALITY OF HEALTH CARE SERVICES FOLLOWING THE REMOVAL OF USER FEES

The perceived quality of health care services has often been identified in economic literature as an important determinant of utilisation patterns as well as a key factor in determining the successes of the health care financing reform in developing countries (Sepehri and Chernomas 2001). An important component of quality of health care is patient-provider relationships and provider attitudes. Attitude and behaviour of providers towards patients can affect patients' perception of quality of health care. If health workers attitude towards patients is negative, it may have a negative impact on the utilisers of health services. The patients may opt to use other means of health services if they feel like they are not treated accordingly.

From this study Patient-Provider Communication (PPC) was considered to be poor especially in Chongwe District. This meant that there was need to improve communication with patients. It was expected that most of the patients should have been communicated about the reason for their visitation to the health facilities but this was not the case. Patient feedback is important as it enables the patient to know what they are suffering from and may help them to know how to take care of the particular condition or diseases and also how to avoid them in future.

It was further noted that, the patients heard about the policy change from the health facilities, neighbours and relatives though the media was mostly used to announce the policy change. This would mean that the communication method that was used did not target the intended beneficiaries as it was not the major way in which the users of health facilities came to learn about the change of policy. This would also partly explain the reason why the increase in the number of visits was so slow in Chibombo District after

user fees were abolished as the users of the health facilities were learning about the removal of user fees from other people that had visited the health facilities or after themselves visiting the health facilities.

The best way to communicate about policy change in rural areas would have been through the use of such activities as the traditional ceremonies or drama groups or calling of people to one place. The other reason can be attributed to the low levels of education attained in the rural areas as most of those interviewed were illiterate and it is possible that they would not utilise such means of communication as the newspapers. This should give a signal that there is high need to increase the level of communication for the people in rural areas for them to fully benefit from the services. Hearing about the removal of user fees from the health facilities rather than from their homes has a disadvantage that, if the particular patient does not visit the health facility, it would be highly likely that the person may not hear about the removal of user fees, hence may fail to benefit from free health services. Therefore, this would mean that communication for such things as removal of user fees has to be aimed at the intended beneficiaries through the use of appropriate communication mechanisms (e.g. traditional ceremonies, plays etc.) and village meeting.

Given this perception that health services had worsened following the policy change, it is not surprising then that many of the respondents felt that user fees improved the quality of health services as evidenced by the perception of not supporting the removal of user fee policy. This shows how poorly the policy change was done at which is consistent with what was revealed in the literature that poorly implemented policies have failed to adequately respond to the needs of the society (Walt 1994). Therefore, if the quality situation is not quickly addressed then the rural health facilities may face a decline in utilisation

5.7 DRUG AVAILABILITY SITUATION

Most of the patients perceived a change in health services after the removal of user fees. In most health facilities, the patients indicated the previous policy under user fees had better quality of services as compared to the present policy. The quality of health services in Zambia is strongly associated with the availability of drugs (van Der Geest, Macwan'gi et al. 2000). Not surprising, drug availability emerged the major determinant of quality of health services in this study as well. The results of this study indicated that there was inadequate availability of drugs in the health facilities which was worse in some health facilities.

Furthermore, most of the health providers rejected any suggestions that the new policy was going to work effectively as compared to the policy of user fees. This perception was mostly evident in those health facilities that had drug shortages and poor contingency plans to support the increase in utilisation. This further showed how drug availability plays an important role in determining the quality of health care.

Other studies that have been done specifically on drugs also show that drug availability plays an important role in provider-patient interactions. This was the case in the study that was done in Ghana on the “cash and carry mechanisms for drugs”. The study found that the availability of drugs in the health facilities influenced the prescribing habits of health providers. It was found that the health providers took time with the patients to explain how to administer the drugs, this impacted positively on provider-patient interactions (Asenso-Okyere, Osei-Akoto 1999). At the time of the study, it was noted that, drug shortages affected the relationship of health providers with the patients as the patients felt that it was the responsibility of the health providers to ensure that the drugs were available at the health facilities. Therefore, to have a similar scenario in the Zambian situation it was expected that before changing the policy of user fees, the government should have stocked enough medicines and other medical supplies to meet the expected increase in utilisation before the introduction of the new policy. Yet, just after the user fees were abolished, most of the health facilities were ill-prepared for the

increase in patient numbers and the associated demand for drugs and other medical supplies.

In a study that was done by Nabyonga in Uganda, the results revealed that there were persistent drug stock-outs in the first year of user fee abolition, although the situation gradually improved in the second year. Districts became more proficient in drug management and there was more infusion of funds in the health systems (Nabyonga, Desmet et al. 2005). It is hoped that this will be the case for the Zambian situation.

Revenue generated from user fees has been mostly used in an effort to improve structural quality in that it was used to buy essential items that may not be on the list of the medical supplies that the health facility receives. Sometimes the money was used to supplement the shortage of drugs and hiring of cleaning staff to help clean the surroundings (Masiye, Seshamani et al. 2005). The results of this study showed that most of the health facilities did not have the essential drugs for the treatment of the top six diseases that are recorded in the OPD documents. This varied among health facilities as a result of differences in their locations. Chibombo district which is further from Lusaka compared to Chongwe District reported more drug shortages. This might be on account of Chibombo district being further away from the central pharmacies.

5.8 CHALLENGES FOR THE ZAMBIAN HEALTH SYSTEM AFTER USER FEES REMOVAL

Patient utilisation increased across all health facilities after fees were removed but started to decline in the second half of the year. The reasons for this decline were not clear and the possible underlying reasons could be linked to perceptions of declining quality of care. This is an area for further research.

It was important to also note that both patients and providers had linked user fees to revenue generation which can be used for maintaining the facilities, purchase of medical supplies and drugs. Therefore, there is a link between user fees and perceptions of quality of care. Most of the health providers highlighted lack of drugs especially the essential

drugs and other medical supplies including cleaning materials as the major challenge facing the rural health facilities after the abolition of user fees. Shortage of drugs, poor maintenance of the health facilities and poor staff morale which followed the policy removal of user fees can potentially undermine the gains in utilisation at the health facilities. The also found that patients were losing confidence in the health facilities and this might explain the drop in utilisation in the second half of 2006 across both districts. Besides the erratic drug supply, health providers also expressed concern over the increase in utilisation as contributing to low staff morale due to increased staff workload as a major challenge. Of concern, is the finding that providers perceived there is to be a problem of moral hazard on the part of users, which may lead them to discriminate against patients based on perceptions of those who are 'truly in needy and deserving' the health services and those who are not. This may as well in the long run deter patients from seeking care.

The health providers also expressed worries over the ending of community programmes such as the Neighborhood Health Committees (NHCs) and other voluntary programmes which were supported previously from the revenue generated from user fees as a major challenge.

The other challenge that came out was that of the health facilities not been adequately prepared before user fees were removed. This also increased the resistance to policy change by most health providers. This was perpetuated by the inadequate consultation before the policy was removed as most health providers felt that the policy was imposed on them. These coupled with the inadequacy and delays in releasing the government grants meant to replace user fees worsened the situation.

CHAPTER SIX:

CONCLUSIONS AND RECOMMENDATIONS

There is evidence to suggest that there has been an increase in utilisation following the abolition of user fee policy in rural health facilities. The study also found a link between location (i.e. distance from the urban centre) and changes in utilisation.

It was noted that, of the top six recorded cases in the OPD registers, malaria, respiratory infection non-pneumonia and respiratory infection pneumonia experienced upward trends in utilisation following the removal of user fees. In comparison, for skin and diarrhea the number of visits seems to have continued to decline. The underlying reasons for this need to be further explored.

Although the policy was communicated to health providers, the general perception of providers was that they were ill-prepared for the policy change particularly in terms of the increase in utilisation. It was also observed that most health facilities visited had shortages of drugs, with the more distant district experiencing more severe essential drug shortages. It was also observed that the grant which was intended to meet the shortfall in revenue from user fees was very erratic and contributed to problems in drugs and other supply shortages, facility maintenance and effective service provision. This also contributed to the staff being more resistant to the policy and a perception that the new policy was not going to be successful.

The comparatively lower literacy levels and poorer communication means in the rural areas calls for more innovative ways of communicating policy changes and messages. The study results revealed that most of the patients heard about the removal of user fees from the health facilities rather than from their communities which has a disadvantage that, if the particular patient does not visit the health facility, then it is highly likely that the person may not hear about the removal of user fees. There is also need to enhance the level of communication in the rural areas. Traditional gathering should be used as one other source of communication as these attract a lot of participants and mostly local languages are used which would be more beneficial since local languages are

predominantly used in the rural areas. Traditional chiefs also have a major role to play in communicating such policy changes as they command a lot of respects from their communities.

The health providers also expressed concern over the ending of community programmes such as the Neighbourhood Health Committees (NHCs) due to lack of funds. User fees were used to fund such voluntary programmes which required community involvement and provided a forum for patients and providers to interact and communicate. The NHCs are useful in reporting such issues as deaths occurring at home, which may not be reported to the health facilities and hence may not be recorded. They are also useful in mobilising and sensitising committees about health safety and also carrying out health duties such as being the first contact points when the members of the communities fall sick before the cases are taken to the health facilities. Clearly, the absence of NHCs is an important issue for both communities and health facilities.

HEALTH POLICY AND HEALTH SERVICE RECOMMENDATIONS

Based on the finding of the study, it is recommended that the government increase the support to the health facilities and meet the shortfall in terms of the loss in fee revenue through increases in the grant allocation to the health facilities. If this is not resolved, it may reduce the morale of the health providers and lower their confidence and trust in the policy makers. In the long run it may impact negatively on their interactions with patients.

Equally importantly, there is need for immediate government support in the form of monitoring, evaluating and educating health providers on the need for adequately communicating to the patients regarding their health condition, which has implications for patient adherence and overall level of confidence and trust in health providers.

Health facilities need to be prepared for the change in policy. Therefore, there is a need to stock up drugs and other medical supplies and also prepare health providers for the implications of policy change.

One of the limitations that were encountered during the data collection was that some of the OPD registers were missing in some health facilities. Therefore there is need for the Ministry of Health to devise a way to improve record keeping.

There is also a need to train and recruit more health providers and also consider improving their packages of benefits especially by bringing back the rural hardship allowances. This would be an incentive to attract and retain health providers to work in the rural areas and overcome the workload been experienced due to increased utilisation of health services.

Communication to utilisers of health services to inform them about user fees abolition should have followed. Communication would have been done through the use of such activities as traditional ceremonies as these gather rural people's attention. This would have allowed even the disadvantaged districts in terms of network to be equipped with good communication and to enable them all know that user fees were to be abolished. This was evidenced from the results of this study that Chongwe District which is relatively close to Lusaka witnessed increases in utilisation following the removal of user fees sooner than Chibombo District which is relatively further away from Lusaka. However due to lack of resources and the fact that the fieldwork for this study occurred during the rainy season when the roads are almost impassable, it was difficult to reach the more remote and inaccessible areas. Therefore, there is need to investigate the impact of the change in policy in the most remote areas.

There is also need for the government to bring back the community health programmes in the rural areas such as the NHCs as they are necessary for fostering community involvement.

Although the DHMTs had an important role to play in supporting and managing the health facilities and ensuring that structural quality has been maintained, this proved a difficult task to tackle considering the lack of resources that the districts experienced. Therefore it is critical that the DHMTs ensure that:

- a) Essential drugs especially for the most common diseases such as malaria, respiratory infection non-pneumonia, diarrhea, eye and skin infections are adequate and that there are no drug shortages;
- b) Grants for ensuring that health facilities are maintained in terms of general cleanliness and sanitation; and
- c) Strategies for the training and recruitment of more health providers.

A participatory approach which incorporates the views of providers from the outset as opposed to a top-down approach to policy change is recommended. The latter appears to contribute to more resistance and a feeling of alienation among providers.

RESEARCH RECOMMENDATIONS

Although this study did raise issues of a qualitative nature on the impact of the policy on provider-patient relationships and its implications for utilisation, this is an important area for further research.

The methodological approaches that were used for this study have their own limitations. Other participatory approach methods should be deployed to further investigate the provider-patient relationships. Participatory form of qualitative research would also help to answer some of the questions, which the patients had raised during the focus group discussions. For example, patients noted that they were not satisfied with the care that they received from medical providers and more research is required into understanding the underlying reasons.

This study was only limited to users of health facilities and does not reflect the perceptions of the community and non-users and their reasons for not using the facilities.

Therefore further studies should also focus on the households and communities to compare their views on the impact of the abolition of user fees.

Also, the analysis on utilisation data did not completely take into the limitations that may be caused due to seasonal variations, rainy versus dry season and changes in other factors besides abolition of user fees (e.g. changes in household income; structural/infrastructural changes, e.g. roads, transport) which can also impact on utilisation. Tropical diseases such as malaria which is generally endemic in Zambia are affected by these seasonal variations. But since this study was only conducted one year after user fees were abolished, it was difficult to investigate such factors, therefore longitudinal studies should be also considered to factor in such issues so as to determine how they impact on user fees removal on facility utilisation.

Further, the HMIS data, which was the basis for the utilisation analysis for this study, has its own limitations in terms of reliability and completeness. In view of this, prospective studies might be a more appropriate and reliable method for assessing changes in utilisation.

|

REFERENCES

- Abel-Smith, B. (1986). "Funding Health For All: Is Insurance the Answer?" World Health Forum **3**: 3-32.
- Adams, A. and T. Harnett. (1995). The Poor and Cost Sharing in the Social Sectors of Sub-Saharan Africa. Human Resources and Poverty Division, Africa Technical Department, World Bank, Washington, D.C.
- Akin, J., N. Birdsall, et al. (1987). Financing Health services in developing countries: An agenda for reform, A World Bank Policy Study, Washington, D.C.
- Amone, J., S. Asio, et al. (2005). "User fees in private non-for-profit hospitals in Uganda: a survey and intervention for equity". International journal for Equity in Health **4**:6
- Arhim-Tenkorang, C. (2000). Mobilising resources for health: The case user fees revisited. Commission Macroeconomic and Health: Geneva.
- Asenso-Okyere, W.K., A. Anum, et al. (1998). "Cost recovery in Ghana: Are there any changes in health care seeking behaviour?" Health Policy and Planning **13**(2): 181-188
- Asenso-Okere, W.K., I. Osei-Akoto, et al. (1999). "The behaviour of health workers in an era of cost sharing: Ghana's drug cash and carry system". Tropical Medicine and International Health **4**(8): 586-593
- Berman, P. (1995). Health Sector Reform in Developing Countries: Making Health Development Sustainable. Harvard School of Public Health. Boston
- Birbeck, G. L. and E.M. Kalichi. (2004). "Primary healthcare workers, perceptions about barriers to health services in Zambia". Trop Doct **34**(2);p.84-6
- Blas, E. and N. Hearst. (2002). "Health sector reform and equity-learning from evidence?" Health Policy Planning **17**:1-4
- Blas, E. and M. Limbambala. (2001). "User payment, decentralisation and health service utilization in Zambia". Health Policy and Planning **16**: 19-28
- Booth, D., J. Milimo, et al. (1995). "Coping with Cost Recovery." Report to the Swedish International Development Authority, University of Stockholm, Stockholm.
- Burnham, G. M., G. Pariyo, et al. (2004). "Discontinuation of cost-sharing in Uganda". Bulletin of the World Health Organisation March **82**(3): 187-194

- Buse, K., N. Mayes, et al. (2005). *Making Health Policy*, Open University Press, Maidenhead, England
- Central Statistics Office. (2000). "Census of Population and Housing". Retrieved 3rd, December, 2007, from <http://www.zamstats.gov.zm/census/census.asp>
- Central Statistics Office. (2003). *Zambia Demographic and Health Survey 2001/2002*. Lusaka. Central Statistics Office.
- Central Statistics Office. (2004). *Living Conditions and Monitoring Survey Report III of 2002/2003*. Lusaka: Government Printers
- Central Statistics Office, Ministry of Health and Marco International Inc .(2008). *Zambia Demographic and Health Survey 2007 Preliminary Report*. Calverton, Maryland: Central Statistical Office and Marco International Inc.
- Chanda, P., F. Masiye, et al. (2007). "A Cost-effectiveness of Artemether Lumefantine for treatment of uncomplicated malaria in Zambia" *Malaria Journal* **6**:21
- Chitah, M. B. and T. Bossert. (2001). *Decentralisation of Health Systems in Zambia: Resource allocation and District Performance*. Harvard School of public Health, Boston
- Collins D., J. D. Quick, et al. (1996). "The fall and rise of Cost-sharing in Kenya: the impact of phased implementation". *Health Policy Planning* **11** (1): 52- 63.
- Creese, A. (1991). "User charges for health care: A review of recent experience". *Health Policy and Planning* **6**:309-319.
- Culyer, A. J. and A.Wagstaff. (1993). "Equity and equality in health and health care". *Journal of Health Economics* **12**: 431-57.
- Diop, F., A. Yazbeck, et al. (1995). "The impact of alternative cost recovery schemes on access and equity in Niger". *Health Policy Planning* **10**(3): 223-40.
- Directory Publishers of Zambia. (2005). *Zambia Review*. Lusaka, Zambia
- Engida, E. and M. D. Haile.(2002). *Assessment of the free health care provision system in northern Ethiopia (other).In health systems financing in low-income African and Asian Countries*. Clermont Ferrand, France
- Eriksson, P., V. Diwan, et al. (2002). *Health Sector Reforms: What about Hospitals?* Nordic School of Public Health, Goteborg, Sweden

- Fafard, P.2008. "Evidence and Health Public Policy". Retrieved on 11nd November, 2008, from http://www.cprn.org/documents/50036_EN.pdf
- Faschamps, M. and B. Minten. (2007). "Public Service Provision, User fees and Political Turmoil". Journal of African Economies **15**(3): 485-518
- Gertler, P., L. Locay, et al. (1987). "Are user fees regressive? The welfare Implications of health care financing proposals in Peru". Journal of Econometrics **36**(1): 67-68.
- Gertler, P. and J. Van der Gaag. (1990).The willingness to pay for medical care: evidence from two developing countries. Johns Hopkins University Press, Baltimore.
- Gilson, L. (1997). "The lessons of user fee experience in Africa". Health Policy Planning **12**(4): 273-85
- Gilson, L., (1998). The lessons of user fee experience in Africa. Sustainable Health Care financing in Southern Africa in Beattie A, Doherty J,Gilson L, Lambo E, Shaw P., (eds),. World Bank, Washington, D.C.
- Gilson, L. (1998b). "Government Health Care Charges: Is Equity Being Abandoned?" London School of Hygiene and Tropical Medicine **1**: 5.
- Gilson, L. (2000). The dynamics of Policy Change: Lessons from Health Financing Reform in South Africa and Zambia, in Major Applied Research J Tropical Paper No.3. Partnerships for Health Reform Project Abt Associates Inc.: Bethesda, MD
- Gilson, L., D. Kalyalya, et al. (2000). "The equity impacts of community financing in three African countries". International Journal Health planning management.**15**(4): 291-317.
- Gilson, L., D. Kalyalya, et al. (2001). "Strategies for promoting equity: experience with community financing in three African countries". Health Policy **58**(1):37-67
- Gilson, L., M. Magomi, et al. (1995). "The structural quality of Tanzanian Primary health facilities". World Health Organisation Bulletin **73**(1): 105-14
- Gilson, L. and D. McIntyre. (2005). "Removing user fees for primary care in Africa: the need for careful action". British Medical Journal **331**:762-765.
- Gilson, L. and A. Mills. (1995). Health sector reform in Sub-Saharan Africa: Lesson of the Last 10years.In Berman, P., (eds), Health sector reform in developing countries: Making health development sustainable, Harvard University Press, Boston.

- Gilson, L., S. Russell, et al. (1995b). "The Political Economy of User Fees with targeting: Developing Equitable Health Financing Policy." Journal of International Development 7(3): 369-402.
- Hardee, K. and J. Smith. (2000). Implementing Reproductive Health in an Era of Health Sector Reforms: Policy Project, Futures Group International, Washington DC.
- Health Systems Resource Guide. (2007). "Experiences with User fees for Health". Retrieved on 2nd October, 2006, from <http://www.eldis.org/healthsystems/>
- Hjortsberg, C. (2003). "Why do the sick not utilise health care? The case of Zambia". Health Economics 12(9): 755-70.
- Hjortsberg, C. A. and C.N. Mwikisa. (2002). "Cost of access to health services in Zambia. Health Policy Planning" 17 (1):71-77.
- Hutton, G. (2002). User fees and other determinants of health services in Africa: a review of formal and informal health sectors. Report for the SDC/STI Backstopping Mandate
- Hutton, G. (2004). Chanting the path to the World Bank's No blanket policy on user fees.' Health Systems Resource Centre.
- IHSD. (2000). Zambia Country Health Briefing Paper: A paper produced for International Development by IHSD, ISHD limited, London.
- International Monetary Fund. (2006). "Zambia: Selected Issues and Statistical Appendix. IMF Country Report". No. 06/118. IMF: Washington D.C. Retrieved on 13th October, 2006, from www.imf.org
- International Monetary Fund. (2008). "World Economic Outlook Database". Retrieved on 11th November, 2006, from <http://www.imf.org/external/pubs/>
- Kaambwa, C. B. (2002). Willingness to pay for Social Health Insurance in Zambia- A Two stage regression Approach, A Masters thesis submitted to University of Cape Town, Cape Town South Africa.
- Kalumba, K., E. Nangawe, et al. (1994). Looking Forward: Zambia's Health System Reform Agenda into Next Century." In World Health Organisation., (eds), Experiences with Primary Health Care in Zambia, World Health Organisation, Geneva.
- Kalyalya, D. H. and J.T. Milimo. (1996). User fees in the health sector: policy, practice and perceptions. Zambia World Bank Social recovery Project Study Fund 1996: Lusaka. Zambia

- Kanji, N. and N. Jazdoska. (1993). “Structural Adjustment and the Implications for Low-Income Urban Women in Zimbabwe.” Review of African Political Economy **56**(3): 11-26.
- Kipp, W., J. Kamugisha, et al. (2001). “User fees, health staff incentives, and service utilization in Kabore District, Uganda”. Bulletin of the World Health Organisation **79**: 1032-1037
- Kutzin, J. (1995). Experience with Organisational and Financing Reform of the Health Sector. Current Concerns Strengthening Health Services Paper no. 8. WHO/SHS/CC94.3, World Health Organisation. Geneva.
- Leighton, C. (1995). “Overview: Health Financing Reforms in Africa”. Health Policy and Planning **10**(3):213-222.
- Litvack, J. and C. Bodart. (1993). “User fees plus quality equals improved access to health care: results of a field experiment in Cameroon”. Social Science and Medicine **37**(3): 369-83.
- Malama, C., Q. Chen, et al. (2002). “User fees impact access to health care for female children in rural Zambia”. Journal Tropical Pediatric **48**(6): 371-2.
- Masiye, F. (1998). An Evaluation of Cost Sharing Schemes in Zambia’s Health Sector: A case of Kitwe District. A Masters thesis submitted to University of Cape Town, Cape Town South Africa.
- Masiye, F., B.M. Chitah, et al. (2007). Removal of User Fees at Primary Health Care Facilities in Zambia: A study on the effects on utilisation and quality of care. Retrieved on 10th June, 2008, from www.equinetafrica.org/bibl/docs/Di55751FINchitah.pdf
- Masiye, F., V. Seshamani, et al. (2005). Health Care Financing in Zambia: A Study of Possible policy Options for Implementation. UNZA/MOH, Zambia
- Mbuga, J., G. Bloom, et al. (1995). “Impact on user charges on vulnerable groups: the case for Kibwezi in rural Kenya” Social Science Medicine **41**:829 –35.
- Karanga, M., G. H. Bloom, et al. (1995). “Impact of User Charges on Vulnerable Groups: The case of Kibwezi in rural Kenya”. Social Science and Medicine **41** (6): 829 -835
- McIntyre, D. (2007). Learning from experience: health care financing in low and middle-income countries, Global Forum for Health Research, Geneva.
- McIntyre, D., L. Gilson, et al. (2005). “Promoting Equitable Health Care financing in African Context: Current challenges and future prospects” British

- McIntyre, D., M. Thiede, et al. (2005). "What are the economic consequences for household of illness and of paying for health care in low-and middle-income country contexts?" Social Science and Medicine **62** (4): 858-865.
- McIntyre, D., S. Thomas, et al. (2004). "Globalisation and Health Policy in South Africa". Koninklijke Brill NY Leiden **3**: 1-12
- Mcpake, B. (1993). "User charges for health services in developing countries: a review of the economic literature". Social Science and Medicine **36** (11):1397-405.
- Mills, A., S. Bennet, et al. (2001). *The Challenge of the Health Sector Reform; What Must Government DO?* Macmillan, England.
- Mills, A. and Gilson, L. (1988). *Health Economics for Developing Countries: A Survival Kit HEFP working paper*, LSHTM
- Mills, A., E. Spencer, et al. (2001). *Developing Organisation Ethics in Healthcare: A Case-Based Approach to Policy, Practice and Compliance*. University Publishing Group.
- Ministry of Finance and National Planning. (2002). *Zambia Poverty Reduction Strategy Paper (2002 – 2004)*. Lusaka, Ministry of Finance and National Planning.
- Ministry of Health. (1994). *National Health Strategic Plan*. Lusaka, Ministry of Health.
- Ministry of Health. (1995). *Various Annual Reports*. Lusaka, Ministry of Health.
- Ministry of Health. (2000). *National health Strategic Plan*. Lusaka, Ministry of Health.
- Ministry of Health. (2004). *National Health Care Financing Systems*. Lusaka, Ministry of Health.
- Ministry of Health.(2005).*Annual Health Statistics Bulletin*. Lusaka, Ministry of Health.
- Ministry of Health.(2006a). *Removal of user fees in Public health facilities in Zambia*. Lusaka, Ministry of Health.
- Ministry of Health. (2006b). *National Health Accounts 2002-2004*. Lusaka, Ministry of Health.
- Ministry of Health. (2006c). *Zambian National Health Accounts 1999-2002*. Lusaka, Ministry of Health.

- Ministry of Health. (2006d). Guidelines for Removal of User Fees in Public Health Facilities in Zambia. Lusaka, Ministry of Health.
- Ministry of Health. (2007). Zambia National Health Facility Atlas. Lusaka, Ministry of Health.
- Ministry of Health. (2008). Health Institutions in Zambia: A listing of health facilities according to levels and locations for 2008. Lusaka, Ministry of Health.
- Mooney, G .H. (1983). "Equity on health care: confronting the confusion". Health Economics Research effective health care **1**: 4
- Mpuga, P. (2002). Health outcomes after the abolition of Cost-sharing in public hospitals in Uganda. Johannes Kelper University, Linz.
- Mwabu, G. M. (1989). "Non-monetary factors in the household choice of medical facilities". Economic Development and Cultural Change **37** (2): 383-92.
- Mwangi, P. K. (1999). An Analysis of the User-Fee Policy for Health Care in Kenya: Is the effort worth it? A Masters thesis submitted to University of Cape Town, Cape Town South Africa.
- Nabyonga, J., M. Desmet, et al. (2005). "Abolition of cost-sharing is pro-poor: evidence from Uganda". Health Policy Planning **20**(2): 100-108.
- Nolan, B. and V. Turbat. (1995). Cost Recovery in Public Health Services in Sub-Saharan Africa. EDI Technical Maforids. Washington, DC: World Bank
- Nyonator, F. and J. Kutzin. (2005). "Health for some? The effects of user fees in the Volta Region of Ghana". Health Policy and planning **14**(4): 329-341
- Okuonzi, A. S. (2004). "Learning from failed health reform in Uganda". BMJ **329**: 1173-1175
- Pearson, M. (2004). "The case for abolition of user fees for primary health services". Retrieved on 4th April, 2006, from <http://www.dfidhealthrc.org/>
- Phiri, B. (2000). An Economic Evaluation of Reproductive Health Service Delivery in Central Lusaka: A Cost Effective Analysis of Different Modes of Family Planning Service Delivery: Hospital, Clinic and Community Based Distribution. A Masters thesis submitted to University of Cape Town, Cape Town South Africa.

- Pinstrup-Anderson, P. (1993). Economic Crisis and Policy Reforms during the 1980s and their Impact on the poor. Macroeconomics, Environment and Health. World Health Organisation. Geneva.
- Ridde, V. (2003). "Fees-for-services, cost recovery, and equity in a district of Burkina Faso operating the Bamako Initiative". Bull World Health Organisation **81**(7): 532-8.
- Russel, S. (1996). "Ability to pay for health care: Concepts and evidence". Health Policy and Planning **11** (3): 219-237
- Sauerborn, R., A. Nougara, et al. (1994). "The elasticity of demand for health care in Burkina Faso; differences across age and income groups". Health policy planning. **9** (2): 185-92.
- Save the Children. (2004). Bucking the trend: How Sri Lanka achieved good health at low cost challenges and policy lessons for the 21st century , save the Children UK.
- Save the Children. (2005). User Fees: Paying for health services at the point of use. *Save the children UK*.
- Sepehri, A. and R. Chernomas (2001). "Are user charges efficiency-and equity-enhancing? A critical review of economic literature with particular reference to experience from developing countries". Journal of International Development. **13**(2): 183-209.
- Sepehri, A., R. Chernomas, et al. (2003). "If they get sick, they are in trouble: health care restructuring, user fee charges in Vietnam". International Journal of Health Services **33**(1):137-61.
- Sepehri, A., R. Chernomas, et al. (2005). "Penalizing patients and rewarding providers: user charges and health care utilisation in Vietnam". Health Policy Plan.**20**(2): 90-99.
- Starfield, B. (2001). "Improving equity in health: A research agenda". International Journal of Health Services **31**(3):545-66).
- Terra-Souza, A. C., K. E. Peterson, et al. (2000). "Circumstances of death in Ceara, Northeast Brazil: Mothers' health care seeking behaviour during infants' illness". Social science and medicine **5**:1675-93.
- UNICEF. (2007). The state of the World's Children 2008. Hatteras Press, Inc, New York.
- Van Der Geest, S., M. Macwan'gi, et al. (2000). "User fees and Drugs: What did the health reforms in Zambia achieve?" Health Policy and Planning **15** (1): 59-65

- Wagstaff, A. and E. van Doorslaer. (1993). Equity in the finance and delivery of health care: concepts and definitions. In van Doorslaer E., Wagstaff A. and Rutten F. (eds) Equity in the finance and Delivery of Health Care: An International Perspective. Oxford: Oxford Medical Publications
- Wagstaff, A., E. van Doorslaer, et al. (1999). "Equity in the finance of health care: some further international comparisons". Journal of health economics **18**: 263-290
- Walt, G. (1994). Health Policy: An introduction to process and power. Zed Books, London
- Whitehead, M. (1992a). "The concepts, principles and health". International Journal of Health Services **22**: 429 -45
- Whitehead, M. (1992b). The concepts and principles of equity in health. Int J Health Serv. 1992; 22:429-445 (first published with the same title from: Copenhagen. World Health Organisation Regional Office for Europe, 1990 (EUR/ICP/RPD 414)
- Wilkinson, D., E. Gouws, et al. (2001). "Effect of removing user fees on attendance for curative and preventive primary health care services in rural South Africa". Bulletin of the World Health Organisation **79**:665-671
- Wilkinson, D., M.E. Sach, et al. (1997). "Examination of attendance patterns before and after introduction of South Africa's policy of health care for children aged under 6 years and pregnant women". BMJ **314** (7085): 940.
- World Bank. (1993). World Development Report 1993: Investing in Health. New York: Oxford University Press.
- World Bank. (1994). Better Health in Africa: Experience and Lesson Learned. Development or Practice. World Bank, Washington DC., USA
- World Bank. (1995). Adjustment in Africa: Reforms, Results, and the road ahead. Oxford University Press, New York
- World Bank. (1998). Assessing Aid: What Works, What Doesn't, and Why. New York: Oxford University Press.
- World Economic Forum. (2006). "From Funding to Action: Strengthening Health Care Systems in Developing Countries". Retrieved on 27th March, 2006, from <http://www.weforum.org/pdf/whitepaper>.
- Xu, K., Evans. D. B, et al. (2005). The elimination of user fees in Uganda: impact on utilization and catastrophic health expenditures. World Health Organisation. Geneva

Xu, K., D.B. Evans, et al. (2006). "Understanding the impact of the Eliminating of User fees: Utilisation and catastrophic health expenditures in Uganda". Social Science Medical Journal **64**(4): 866- 876.

Yip, C., H. Wang, et al. (1998). Determinants of Patient Choice of Medical Provider: A case Study in rural China. Beijing Medical University, Beijing.

University of Cape Town

LIST OF APPENDICES

Appendix 1.

FACILITY BASED DATA COLLECTION TOOL

Impact of user fee removal on facility utilisation in rural Zambia

Retrospective utilisation data (abolition of user fees)

Facility Characteristics

PROVINCE
DISTRICT
NAME OF HEALTH FACILITY
DATE COMPILED
COMPILED BY

Disease Year	Malaria		Respiratory infection- (non pneumonia)		Diarrhea diseases (non- bloody)		Respiratory infection (pneumonia)		Skin infection		Eye infection		Other		Total for all diseases	
	U5	A5	U5	A5	U5	A5	U5	A5	U5	A5	U5	A5	U5	A5	U5	A5
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JULY																
AUG																
SEP																
OCT																
NOV																
DEC																

Appendix 2: Drug availability data collection tool

Province.....

Name of Health Facility.....District.....

Respondent's Name/Signature.....study Number / ___/___/___/___/___

Occupation of the respondent

- Doctor Clinical officer Nurse Lab technician Midwife CDE
 Environmental Health Technician Don't Know Other(Specify).....

Sex Male Female

1. Staff Availability

1.1. How many members of staff has this facility got?.....

1.2. How many members of staff are full time?.....

1.3. How many members of staff are working part time?.....

2. Drug Supply

	Have you got the drugs for the following conditions?	If no, was the stock order placed on time?	Was the stock order received on time?	Were the quantities adequate for the stipulated time?
Malaria	Yes No	Yes No	Yes No	Yes No
Respiratory Infections (Non-Pneumonia)	Yes No	Yes No	Yes No	Yes No
Respiratory Infections (Non-Pneumonia)	Yes No	Yes No	Yes No	Yes No
Diarrhea Diseases (non-bloody)	Yes No	Yes No	Yes No	Yes No
Respiratory Infection (Pneumonia)	Yes No	Yes No	Yes No	Yes No
Skin Infections	Yes No	Yes No	Yes No	Yes No

2.1 When was the last time you had a stock out?

	Malaria drugs	Respiratory Infections (Non-Pneumonia)	Respiratory Infections (Non-Pneumonia)	Diarrhea Diseases (non-bloody)	Respiratory Infection (Pneumonia)	Skin Infections

Last week						
Two weeks ago						
Three weeks ago						
More than a month ago						

Other (specify).....

2.2 How long did the stock out last if any?

	Malaria drugs	Respiratory Infections (Non-Pneumonia)	Respiratory Infections (Non-Pneumonia)	Diarrhea Diseases (non-bloody)	Respiratory Infection (Pneumonia)	Skin Infections
Less than one week						
More than one week less than two weeks						
More than two weeks less than one month						
Other (specify)						

Appendix 3: Informant interviews

Province.....

Name of Health Facility.....District.....

Respondent's Name/Signature.....study Number / __/__/__/_/___

1. Occupation of the respondent

- Doctor Clinical officer Nurse Lab technician Midwife CDE
 Environmental Health Technician Don't Know Other(Specify).....

2. Sex Male Female

- 3.0 Reimbursement
- 3.1 Did the health facility receive any form of grant? 1. Yes 2. No
- 3.2 (If above answer is yes) what type of grant?
- 3.3 How much was the grant?
- 3.4 When was it disbursed?

4.1. What are some of the challenges you are facing after the abolition of user fee?
(Please record as much as possible)

.....

4.2. How do you think you have been affected by the abolition of user fees?.....

.....

4.3. What do you think would have been the most effective method to implement the user fee policy?.....

.....

Appendix 4: Providers interviews

Provider’s interviews- Knowledge on fee policy change

Name of Health Facility.....District.....
 Respondent’s Name/Signature.....study Number /___/___/___/___

- 1. Occupation of the respondent
 - Doctor Clinical officer Nurse Lab technician Midwife CDE
 - Environmental Health Technician Don’t Know Other(Specify).....
- 2. Sex Male Female
- 3. Are you aware of any changes in the health systems in terms of user fees? Yes No
- 4. Do you think health facilities were prepared to implement the new policy? Yes No

5. Do you think abolition of user fees is an effective way of running the health care system in the rural areas? Yes No
6. Were you communicated to about the policy change (Abolishing of user fees)? Yes No
7. What do you think about the abolition of user fees?
- It was a good idea
 - It was a bad idea
 - I am not sure
 - I don't know
8. How did you know about the policy change on user fees?
- Media (Radio, Newspaper, etc)
 - District meeting
 - Government circular
 - Other (Specify).....
9. . Where you in favour of the abolition of user fees? Yes No
10. . Do you think user fees have improved the quality of services for the poor? Yes No
11. On average how many patients do you treat per day.....
12. . How long have you been working at this facility?.....
13. . On average how many minutes do you take to treat a patient?.....
14. . Do you think the policy will work effectively? Yes No
15. What would you be your most preferred way of communication to you about the policy change?
- Media (Radio, Newspaper, etc)
 - Districts meeting
 - Supervision at the health centre
 - Government circular
 - Don't Know
 - Other (Specify).....
16. What is/are the most current problem(s) the health centre is facing?
- Shortage of skilled labor
 - Shortage of drugs
 - Shortage of laboratory materials
 - Too many patients
 - Other (Specify).....
17. What do you think user fees were mostly used for?
- Buying of drugs
 - Cleaning the surroundings and garbage collection
 - Facilitating health center meeting

- Extra working hours
- Other (Specify).....

18. After the abolition of user fees, how would you rate the following?
- Cleaning of the place
 - Availability of drugs
 - Staff workload
 - Staff morale and motivation
 - Availability of other suppliers (Methylated spirit, cotton wool, e.t.c)

Appendix 5: Patient exit interviews

Name of Health Facility.....District.....

Location: (i) Urban (ii) Peri-urban (iii) Rural

1. Respondent’s Name.....sign.....study Number /___/___/___/___/___
2. Sex.....Age.....
3. Marital status: Single Married Divorced Widowed
4. Employment status
 - Employed
 - Student
 - Unemployed
 - Not applicable
 - Casual employment
 - Farming/Fishing
 - Selling at the market/road side
 - Other (Specify).....
5. Education Level:-
 - None
 - Primary
 - Secondary
 - Tertiary
 - Other (Specify).....
6. How many are you in your family?
7. What influenced you to come to this health facility

- It is the nearest
 - My relative/friend
 - The availability of medicine
 - The health provider's good attitude
 - Other(Specify).....
8. How long does it take you to get to the nearest Health Facility?
- 0-1hrs
 - 1-3hrs
 - Over 3 hrs
10. What is your reason for visiting this health facility?
- Malaria
 - T.B
 - Maternal Health
 - Dental /eye
 - Respiratory infection
 - Diarrhea
 - Other (Specify).....
11. Which other health facility did you visit previously?
- Private facility
 - Government facility
 - Mission hospital
 - Traditional healers
 - Other (Specify).....
12. Did you know about the changes in payment when accessing the health care System? Yes No
13. Do you think the abolition of user fees was a good idea? Yes No
14. How did you know about the policy change?
- TV
 - Radio,
 - Newspaper
 - Health facility
 - From neighbour /relative
 - Other (Specify).....
15. Were you considering user fees as a form of community involvement? Yes No
16. Why do you think user fees were abolished?

- Political gain
- Increase access to service
- Equality
- Other (specify).....

17. Were you communicated to about the reason for your visit? Yes No
18. Were you given any form of treatment? Yes No
19. If yes; what form of treatment where you given?
- Medicine
 - Referral
 - Admission
 - Other(Specify).....
20. Are you satisfied with the services that this health facility offers?
- Yes
 - No
 - Don't Know.
 - Other (Specify).....
21. Do you think the services that patients receive at this health facility have been affected after the abolition of user fees? Yes No
22. Have you been sick before and fail to come to the health facility because of paying for user fees?
- Yes No
23. Do you think user fees where improving the quality of health services offered? Yes No
24. Next time you are sick, do you think you will come to this health facility? Yes No
25. How long did you have to wait before you were given treatment? less than 5 minutes About 10 minutes 20-30minutes More than 30 minutes
26. How much did you have to pay to come to the health clinic/health facility?.....
27. Any comment that you wish to make about the services that you receive here.....
28. Is the drug you have been given appropriate for the treatment? Yes No

Appendix 6: Consent form for patients

Province.....

Name of Health Facility.....District.....

Location: (i) Urban (ii) Peri-urban (iii) Rural

CONSENT FORM

I am gathering information on the abolition of user fees in Zambia. I would like to ask for a few minutes of your time to respond to the questionnaire. You may choose not to participate in this study. Whatever information you give me will not affect the care you receive from the clinic but will help us improve the services that you receive at the clinic. Therefore you should feel free and express your views. The information gathered will be for the sole purpose of research in order to address some of the issues concerning the abolition of user fees in some government health facilities.

Thank you.

Respondent's Name.....sign.....

Appendix 7: Consent form for providers

Province.....

Name of Health Facility.....District.....

Location: (i) Urban (ii) Peri-urban (iii) Rural

I am gathering information on the abolition of user fees in Zambia. I would like to ask for a few minutes of your time to respond to the questionnaire. You may choose not to participate in this study. Whatever information you give me will not affect the care you receive from the clinic but will help us improve the services that you receive at the clinic. Therefore you should feel free and express your views. The

information gathered will be for the sole purpose of research in order to address some of the issues concerning the abolition of user fees in some government health facilities.

Thank you.

Respondent's Name.....sign.....

Appendix 8: Consent form for focus group discussions

Province.....

Name of Health Facility.....District.....

Location: (i) Urban (ii) Peri-urban (iii) Rural

I am gathering information on the abolition of user fees in Zambia. I would like to ask for a few minutes of your time to respond to the questionnaire. You may choose not to participate in this study. Whatever information you give me will not affect the care you receive from the clinic but will help us improve the services that you receive at the clinic. Therefore you should feel free and express your views. The information gathered will be for the sole purpose of research in order to address some of the issues concerning the abolition of user fees in some government health facilities.

Thank you.

Respondent's Name.....sign.....

Appendix 9: Focus group discussion

1. What do you know about user fees?
2. What do you do when you are sick, or when you have someone sick at home?
3. What has been your experience with service providers of late?
4. Do you think you have been treated differently before and after the user fees were abolished?

5. If you have been found with a disease or the person you have taken has been found with a disease, are you given the required drugs?
6. If you are not given the drugs, what do the service providers tell you (probe for how they then treat the patient?)
7. What problems do you experience with service providers at the health facilities when you go there? (*Probe for attitude*).
8. What do you think about seeking treatment at the health facility? (*Probe for health worker attitude, waiting time*)
9. What would you consider as a satisfying service?(*probe for drug availability, attitude, short waiting time*)
10. What do you think were some of the advantages of user fees?
11. What were some of the disadvantages of user fees?
12. What do you think should be improved at this health facility?

THANK YOU FOR YOUR TIME!

Appendix 10: Characteristics of respondents

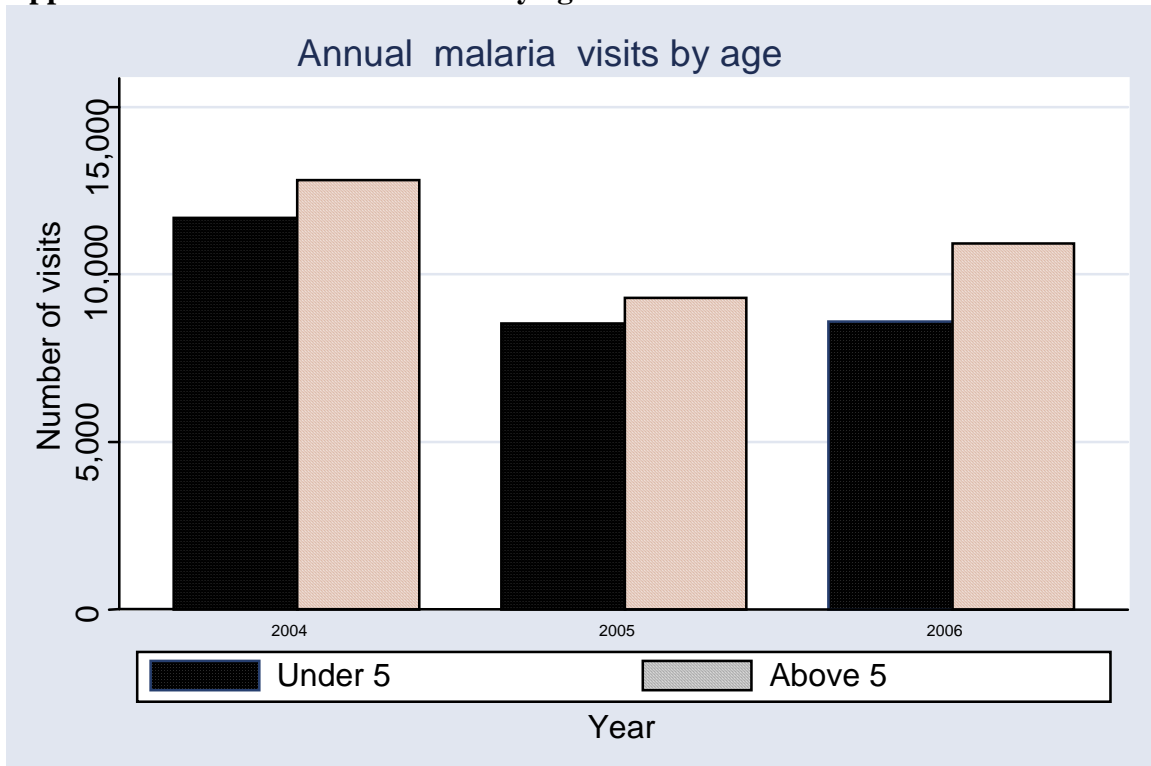
Variable	Frequency	Percent
Providers Occupation		
Clinical Officer	4	14.29
Nurse	10	35.71
Laboratory Technician	1	3.57
Midwife	5	17.86
Classified Daily Employee	4	14.29
Environmental Health Technician	4	14.29
Providers Gender		
Male	9	32.14
Female	19	67.86
Respondents Gender		
Male	69	30.13
Female	160	69.87

Variable	Frequency	Percent	
Marital Status			
Single	50	21.83	
Married	155	67.69	
Divorced	9	3.93	
Widowed	15	6.55	
Employment Status			
Casual Employment	51	22.27	
Student	18	7.86	
Unemployed	86	37.55	
Farming	50	21.83	
Selling at Market	7		3.06
Employed	16	6.99	
Education Level			
None	32	13.97	
Primary	123	53.71	
Secondary	64	27.95	
Tertiary	10	4.37	
AGEGROUP			
10-19	24	10.76	
20-29	103	46.19	
30-39	50	22.42	
40-49	31	13.90	
50-59	5	2.24	
60-70	10	4.49	
70-79			
Total	223	100.00	
Variable	Mean	standard deviation	
Household size 229	5.79	2.49	

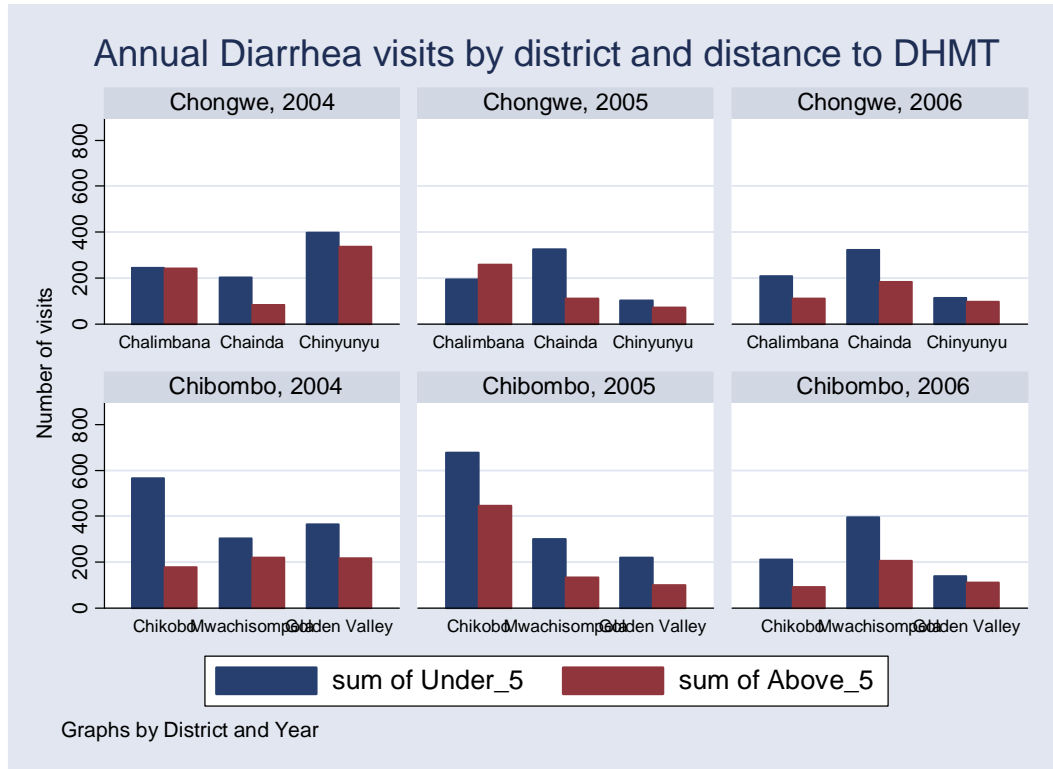
Appendix 11: Average utilisation levels (2004-2006)

	2004	2005	2006
Chongwe District	794.92	660.06	754.50
Chalimbana	840.25	767.42	827.67
Chainda	780.25	616.08	738.08
Chinyunyu	764.25	596.67	697.75
Chibombo District	787.31	581.50	661.86
Chikobo	884.17	536.33	660.50
Mwachisompola	809.50	719.75	796.33
Golden Valley	668.25	488.42	528.75

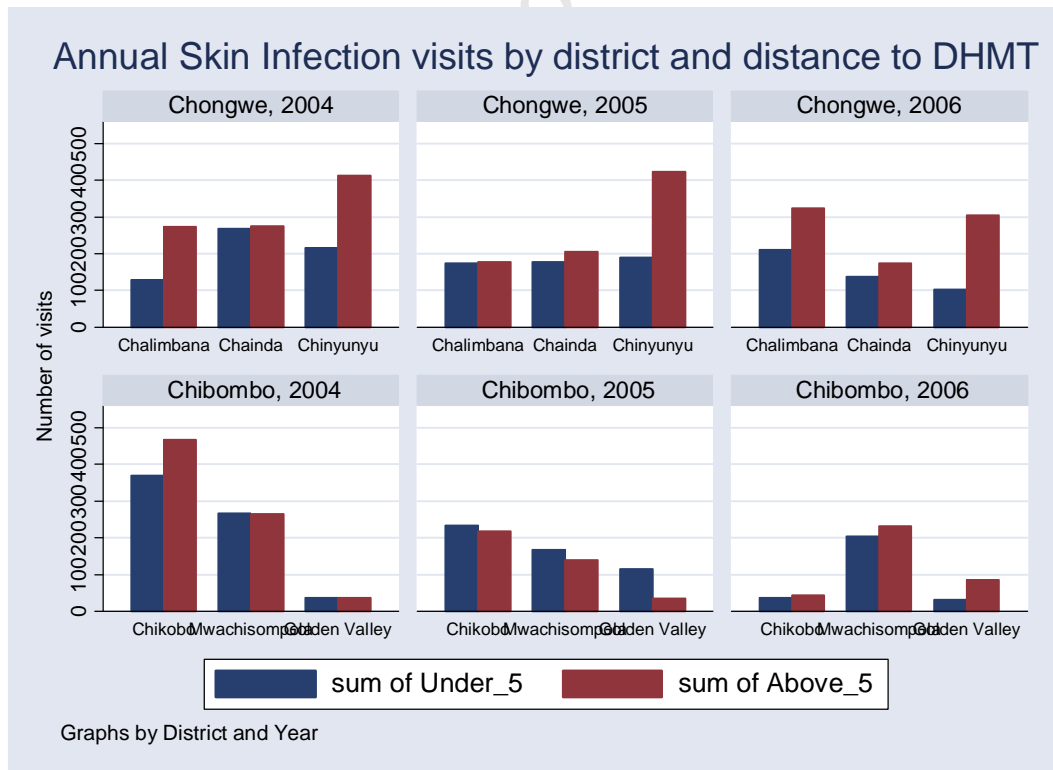
Appendix 12: Annual malaria visits by age



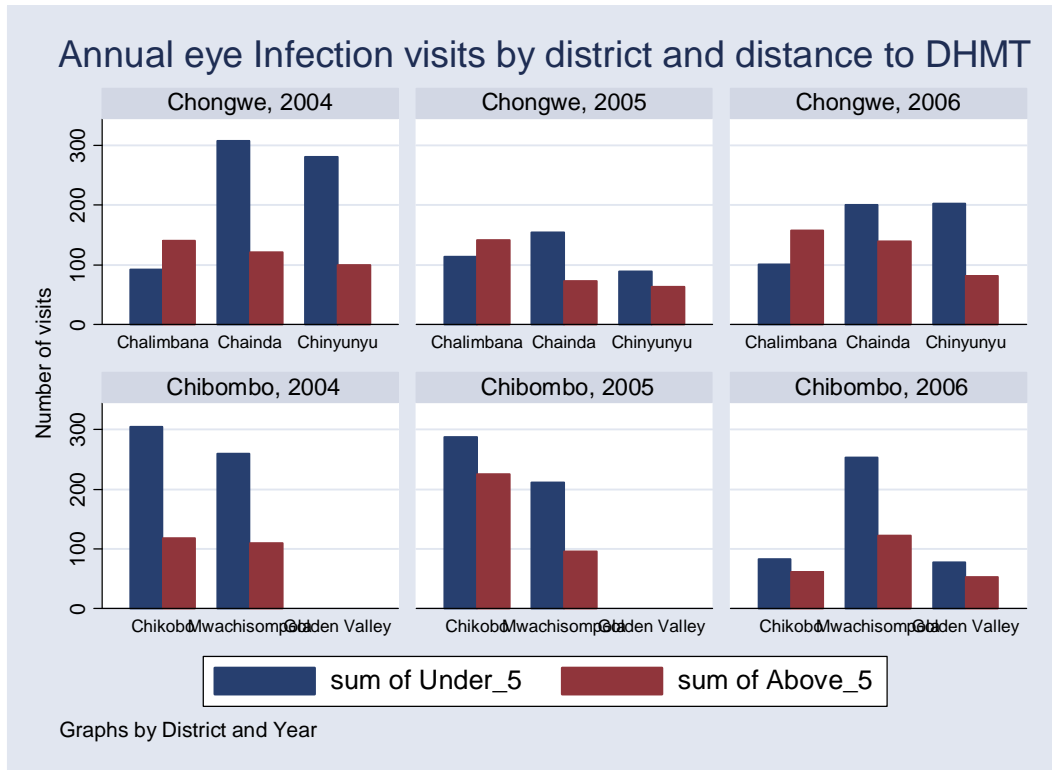
Appendix 13: Annual diarrhea visits by health facility and distance to the DHMT



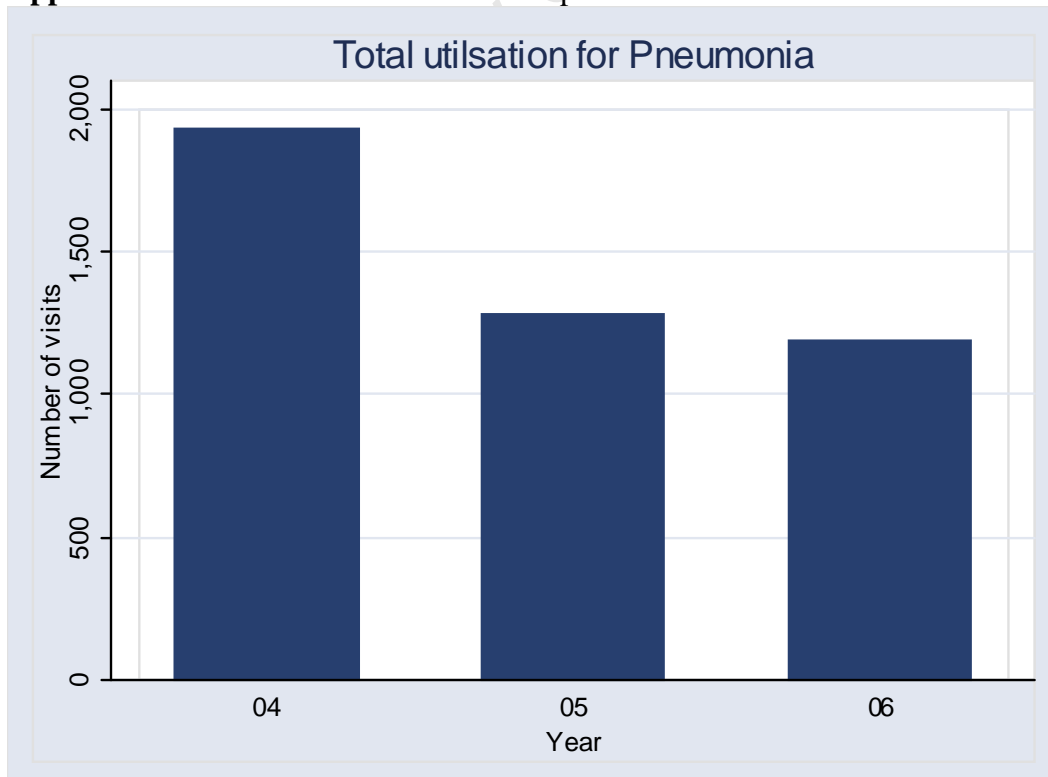
Appendix 14 : Total utilisation for skin infection by health facility and distance to DHMT



Appendix 15: Annual eye infection by district and distance to DHMT

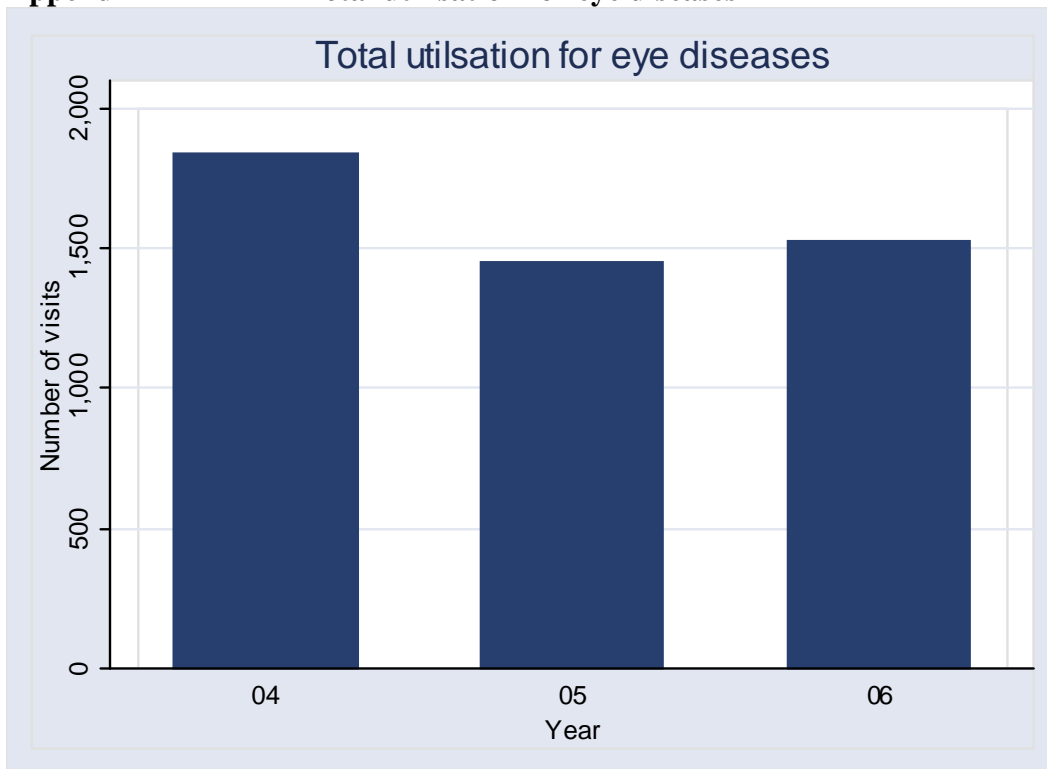


Appendix 16 Total utilisation for pneumonia

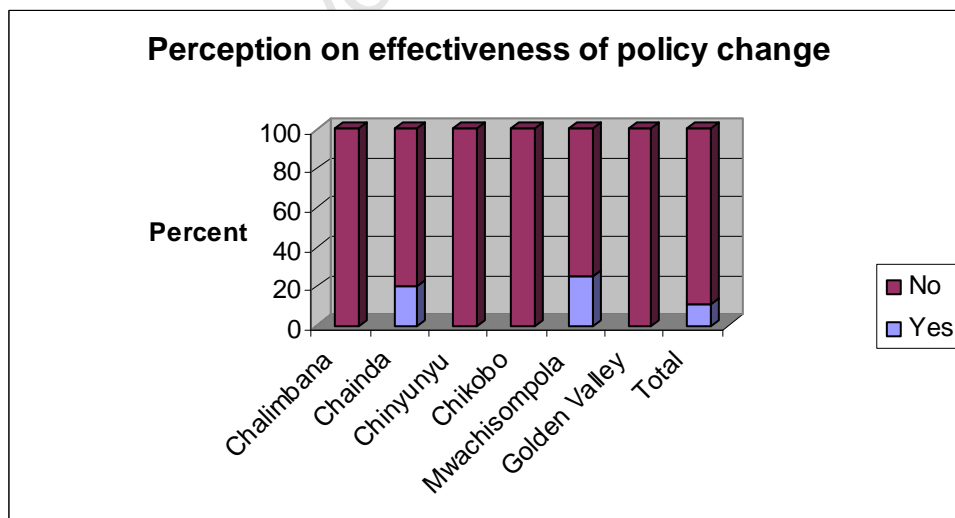


Appendix17

Total utilisation for eye diseases



Appendix 18: Perceptions on effectiveness of policy change by health facility and distance to the DHMT



Appendix 19: Different views of patients and providers

Variables	Yes	No	Don't Know	Total
Those providers who felt the non-fee policy was going to work effectively.	11	89		100
Those providers who felt that the health facilities were prepared to implement new policy	31	69		100
Those providers who felt abolition of user fees is an effective way to run the institutions.	32	68		100
Communication for visitation about the disease that the patient where diagnosed for.	63	37		100
Those patients who felt that they were satisfied with the services	76	23	1	100
Those patients who were given some form of treatment	84	16		100
Those patients who were given the appropriate treatment that they were diagnosed for.	40	60		100
Those patients who felt that they where going to visit the same facility next time they get sick.	90	8	2	100
Those patients who felt that user fees where a form of community involvement	56	33	11	100
Those patients who felt that the services have been affected after user fees removal	45	53	2	100
Those patients who felt that user fees improved quality of health services.	68	12	10	100
Those patients who felt abolition of user fees is a good idea.	87	11	2	100