



Republic of Kenya

# **KENYA NATIONAL HEALTH ACCOUNTS 2009/10**

**Ministry of Medical Services**

**Ministry of Public Health and Sanitation**



# KENYA NATIONAL HEALTH ACCOUNTS 2009/10

## **DISCLAIMER**

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# ACRONYMS

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AOP</b>	Annual Operational Plan
<b>ART</b>	Antiretroviral treatment
<b>CBS</b>	Central Bureau of Statistics
<b>CH</b>	Child health
<b>CHWs</b>	Community health workers
<b>DPHK</b>	Development Partners for Health in Kenya
<b>ERS</b>	Economic recovery strategy
<b>FBOs</b>	Faith-based organisations
<b>FY</b>	Financial year
<b>GDP</b>	Gross Domestic Product
<b>GOK</b>	Government of Kenya
<b>HENNET</b>	Health NGOs Network
<b>HHEUS</b>	Household Health Expenditure and Utilisation Survey
<b>HIV</b>	Human Immunodeficiency Virus
<b>HMIS</b>	Health Management Information System
<b>HMO</b>	Health Management Organisations
<b>IEC</b>	Information, education, and communication
<b>IP</b>	Inpatient
<b>KAIS</b>	Kenya AIDS Indicator Survey
<b>KDHS</b>	Kenya Demographic and Health Survey
<b>KEPSA</b>	Kenya Private Sector Alliance
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>Ksh</b>	Kenya shilling
<b>MDGs</b>	Millennium Development Goals
<b>MIS</b>	Malaria Indicator Survey

<b>MIPs</b>	Medical Insurance Providers
<b>MoH</b>	Ministries of Health
<b>NACC</b>	National AIDS Control Council
<b>NASCOP</b>	National AIDS Control Programme
<b>NGOs</b>	Non-governmental Organisations
<b>NHA</b>	National Health Accounts
<b>NHSSP II</b>	National Health Sector Strategic Plan II
<b>NHIF</b>	National Hospital Insurance Fund
<b>NSE</b>	Nairobi Stock Exchange
<b>OOP</b>	Out-of-pocket
<b>OP</b>	Outpatient
<b>PEPFAR</b>	President's Emergency Program for AIDS Relief
<b>PLHIV</b>	People living with HIV
<b>RH</b>	Reproductive health
<b>TB</b>	Tuberculosis
<b>THE</b>	Total Health Expenditure
<b>THE<sub>CH</sub></b>	Total Health Expenditure for child health
<b>THE<sub>HIV</sub></b>	Total Health Expenditure for HIV/AIDS
<b>THE<sub>Malaria</sub></b>	Total Health Expenditure for malaria
<b>THE<sub>RH</sub></b>	Total Health Expenditure for reproductive health
<b>THE<sub>TB</sub></b>	Total Health Expenditure for tuberculosis
<b>USAID</b>	United States Agency for International Development
<b>WHO</b>	World Health Organisation

# FOREWORD

Health care financing remains a critical element of the social and economic development of this country. An appropriate financing mechanism will enable the health sector to deliver on critical millennium development goals to which Kenya has made irrevocable commitments. For us to be able to define appropriate funding policies for health, it is imperative that we understand the sources of the health care funding and additionally how this funding is managed and utilised. The National Health Accounts (NHA) does exactly that. We applaud the publication of the 2009/10 NHA, which clearly demonstrates the relative contribution of the government, development partners, private sector institutions and households in financing health. In this regard we wish to thank all partners providing resources for health. We are particularly appreciative of the Kenyan men and women who collectively contributed a third of the total expenditure in the health sector, despite facing other economic and social challenges.

However, health financing in Kenya is still in crisis. The economic meltdown of 2008, from which the world is still recovering, combined with slow economic recovery due to the effect of post-election violence of 2007/08 and the need for the Kenya government to allocate resources to mitigate the effects of drought, which are becoming more frequent, pose threats to stable financing in the health sector. This publication should therefore spur critical thinking as to the alternative sources of financing that we need to explore in order to shield ourselves from such adversity. As we acknowledge the support from our development partners, who contributed 35 percent of funding for health care in 2009/10, we are committed to identifying other mechanisms to mobilise domestic resources.

Our vision is to have a sustainable funding strategy that is firmly grounded in the appropriate contribution of government and private individuals through risk pooling and other related mechanisms. We therefore anticipate accelerating policies that will make universal health insurance scheme a reality and a reliable source of health care funding over the next few decades. Additionally, we remain committed to the Abuja declaration and will work collaboratively within government to progressively increase budgetary allocation to health.

Finally, we would like to thank the team that conceptualised and developed the NHA for the excellent workmanship of the document. We also thank the USAID-funded Health System 20/20 project for the technical support they provided in the NHA development process.

We call upon health policy makers including administrators to analyse the findings of the NHA and utilise the knowledge thereof to make appropriate decisions within the sector that will ensure health resources are used efficiently and to the benefit of the people who need it most.

Thank you,

Hon (Prof.) Peter Anyang' Nyong'o, EGH, MP  
Minister for Medical Services

Hon Beth W. Mugo, EGH, MP  
Minister for Public Health & Sanitation



# ACKNOWLEDGMENTS

The production of the NHA report for FY 2009/10, together with the subaccounts for HIV/AIDS, reproductive health (RH), tuberculosis (TB), malaria, and child health (CH) is the result of enormous contributions from many individuals and institutions. The estimates to inform the NHA report are based on data collected from government ministries, local authorities, parastatals, private firms, development partners and non-governmental organisations (NGOs).

The data collected were systematically entered, and cleaned and analysed by the Ministries of Health's Department of Policy and Planning. The documentation of NHA findings was realised through a collaborative effort by both the Ministry of Medical Services and the Ministry of Public Health and Sanitation Programmes, with technical assistance provided by the USAID-funded Health Systems 20/20 project.

The Ministries of Health would like to acknowledge the financial support provided by the United States Agency for International Development (USAID), World Health Organisation (WHO) and World Bank. The support provided by Maria Francisco, Bedan Gichanga and Joyce Kyalo, all of USAID/Kenya, is greatly appreciated. The USAID-funded Health System 20/20 project provided technical assistance through the efforts of Stephen Muchiri, Michael DeLuca, Nirmala Ravishankar, Jeremy Snider, and Alledia Adams. The guidance provided by Nestanet Workie of World Bank, Kenya Country office is appreciated. Additional guidance provided by the Technical Working Group is also acknowledged.

The Ministries of Health also appreciate the support, cooperation, and information supplied by the government departments, local authorities, private organisations, NGOs, insurance companies, development partners, and private firms, without which the NHA study would not have been complete.

Mr Elkana Ong'uti, Head of the Department of Policy and Planning, oversaw the whole process, while Mr Thomas Maina coordinated the data collection and analysis and the compilation of the NHA report. Other central NHA team members include: Mr Geoffrey Kimani, David Njuguna, Terry Watiri, and Tom Mirasi, from the Policy and Planning Department. Also, we sincerely appreciate the participation of program representatives Dr. Agneta Mbithi (Malaria), Andolo Miheso (Child and Adolescent Health), Dr. Peter Cherotich (NASCOP), and Jones Abisi (Reproductive Health), especially during the report writing.

Finally, estimates of NHAs are a process that must constantly be improved. Users of the data and readers of this report are, therefore, invited to freely comment on its contents, presentation, and format, as this will reveal areas where improvements could be made.

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# EXECUTIVE SUMMARY

## INTRODUCTION

The Government of Kenya (GoK) has made a commitment to prioritise health in the Economic Recovery Strategy and Vision 2030. In addition, as a signatory to the Abuja Declaration in 2001, Kenya made a commitment to increase health allocations to 15 percent of total government allocations. Over the last decade, total health spending in the health sector has increased and this has translated into better health outcomes, as reported in the 2008/09 Kenya Demographic Health Survey (KDHS). In March 2011, the African Union (AU) is organising a meeting of Ministers for Health and Finance to review progress towards meeting the Abuja targets. This 2009/10 National Health Accounts (NHA) provides comprehensive information about health spending in the fiscal year 2009/10. Combined with previous estimations for 2001/02 and 2005/06, findings from this NHA shed light on the nature of financial flows within the Kenyan health sector. They also assist in measuring Kenya's progress towards achieving the Abuja target and other internationally accepted expenditure targets. In addition to estimating general health expenditures, the 2009/10 NHA provides expenditure estimates for five subaccounts, namely HIV/AIDS, reproductive health (RH), malaria, tuberculosis (TB), and child health (CH). The HIV/AIDS and RH subaccounts have been implemented in the past, while the others are being estimated for the first time in this round of NHA. The main findings from the general NHA and the subaccounts are summarized below.

The Ksh/dollar amounts for the 2001/02 and 2005/06 expenditure estimates have been adjusted for inflation and population increase to facilitate comparison with 2009/10 expenditure estimates; all expenditures are reported in 2009/10 real Ksh/US dollars in this report.

## GENERAL HEALTH FINDINGS

Total health expenditure (THE) in absolute value has increased from Ksh 82.2 billion (US\$1,046 million) in 2001/02 to Ksh 122.9 billion (US\$1,620 million), an increase of 49 percent<sup>1</sup>. THE per capita has also increased, from Ksh 2,636 (\$34) in 2001/02 to Ksh 3,203 (\$42) in 2009/10. THE as a percentage of the Gross Domestic Product (GDP) has remained nearly constant, at 5 percent since 2001/02. Government health expenditures as a percentage of total government expenditures declined from 8 percent in 2001/02 to 4.6 percent in 2009/10.

The health sector continues to be predominantly financed by private sector sources (including by households' out-of-pocket (OOP) spending), although the private sector share of THE has decreased from a high of 54 percent in 2001/02 to 37 percent in 2009/10. Public sector financing has remained constant over the last decade, at about 29 percent of THE, while the contribution of donors to THE has more than doubled, from 16 percent in 2001/02 to 35 percent in 2009/10.

The role of the private sector as a financing agent or manager of THE has decreased: in 2009/10, the private sector controlled almost a third of total health spending, compared to nearly 50 percent in 2001/02. NGOs and donors controlled 30 percent of THE in 2009/10 — four times more than in

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<sup>1</sup> All dollar figures are U.S. dollars.

2001/02. Public sector entities that managed 43 percent of THE in 2001/02 controlled just 37 percent in 2009/10.

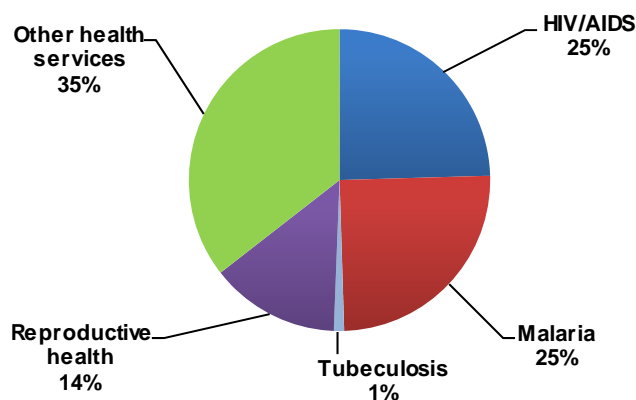
Public health facilities continue to be the major providers of health care services. In 2009/10 they accounted for nearly half (47 percent) of THE, followed by private health facilities, which were responsible for 22 percent. Inpatient care took 22 percent of THE in 2009/10, down from 32 percent in 2001/02. Expenditures on public health programmes increased from 9 percent in 2001/02 to 23 percent in 2009/10.

## SUBACCOUNTS

Kenya implemented the HIV/AIDS subaccount in 2002/03 and 2005/06 and the reproductive health (RH) subaccount in 2005/06. In the 2009/10 NHA estimation, three more subaccounts were taken on for malaria, TB, and child health. This was in response to the need to get a comprehensive overview of expenditures on priority health areas. As shown in Figure E1, HIV/AIDS and malaria each accounted for 25 percent of THE in 2009/10, while RH and TB accounted for 14 percent and 1 percent respectively. The remaining 35 percent of THE was for other health areas that are included in the general NHA but excluded from the subaccounts.

Expenditures on CH services, which cut across the HIV/AIDS, TB, and malaria subaccounts and other general health spending, accounted for 7.5 percent of THE. Due to the overlap with other subaccount spending, the CH expenditures are not shown separately in Figure E1.

**FIGURE E1: TOTAL HEALTH EXPENDITURE (THE) ON PRIORITY AREAS, 2009/10**



## HIV/AIDS SUBACCOUNT FINDINGS

Kenya faces significant challenges in funding its program to provide expanded HIV/AIDS services to HIV-positive individuals in need. Recently, discussions have focused on how to mobilise additional domestic resources to close the huge financing gap in order to support the implementation of the Kenya National AIDS Strategic Plan III. This third HIV/AIDS subaccount will provide insight into the flow of expenditures related to this priority area and has the potential to inform the Joint AIDS Program Review process.



The total health expenditure on HIV/AIDS ( $THE_{HIV}$ ) has doubled since 2001/02, from Ksh 14.3 billion (\$188.6 million) to Ksh 30.1 billion (\$397.5 million) in 2009/10. In 2009/10,  $THE_{HIV}$  accounted for 25 percent of THE and 1.3 percent of the GDP.

Donors continue to finance the bulk of HIV/AIDS expenditures, although their contributions as a percentage of  $THE_{HIV}$  have declined from 70 percent in 2005/06 to 51 percent in 2009/10. The government's contribution to HIV/AIDS expenditures has increased from 7 percent of THE in 2005/06 to 21 percent in 2009/10, due largely to increased expenditures in level 4-6 facilities, which were apportioned to obtain un-earmarked funding to HIV/AIDS.

In 2001/02, the largest financing agent was the public sector, primarily through the Ministries of Health and National AIDS Control Council (NACC), managing 60 percent of  $THE_{HIV}$ , as compared to just 27 percent in 2009/10. The share of  $THE_{HIV}$  managed by NGOs and donors tripled from 15 percent in 2001/02 to 48 percent in 2009/10.

Public health facilities provided over a third of HIV/AIDS services in the three years of estimation, through hospitals, health centres, and dispensaries. However, in 2009/10, community health workers (CHWs) emerged as a predominant provider of HIV/AIDS services, at 21 percent of  $THE_{HIV}$  in 2009/10.

Inpatient curative care expenditures as a percentage of  $THE_{HIV}$  have remained almost constant since 2001/02, while over two-thirds of HIV/AIDS health expenditures went to outpatient curative care and public health programmes. This substantial expenditure on outpatient curative care and public health programmes supported the provision of antiretroviral treatment (ART) as well as preventive health activities including voluntary counseling and testing (VCT).

## REPRODUCTIVE HEALTH SUBACCOUNT FINDINGS

The total health expenditures on reproductive health ( $THE_{RH}$ ) increased from Ksh 12.9 billion (\$170.4 million) in 2005/06 to Ksh 17 billion (\$225.2 million) in 2009/10. Despite the increase in  $THE_{RH}$ , its share of THE increased only marginally, from 0.6 percent in 2005/06 to 0.8 percent 2009/10.

The government is the major source of RH spending, contributing 40 percent in 2009/10 compared to 34 percent in 2005/06. The private sector's role as a financier of  $THE_{RH}$  has declined from a high of 41 percent of  $THE_{RH}$  in 2005/06 to 38 percent of  $THE_{RH}$  in 2009/10.

The public sector continues to be the dominant manager of  $THE_{RH}$ , controlling 57 percent of RH spending in 2009/10. In 2009/10, NGOs and donors managed 11 percent of  $THE_{RH}$ , compared to 2 percent in 2005/06.

Public facilities are the major providers of RH services, accounting for over 50 percent of all services. Expenditures by providers of public health programmes increased more than two-fold, from 4 percent in 2005/06 to 10 percent of  $THE_{RH}$  in 2009/10.

Expenditures on outpatient curative care nearly doubled from 25 percent in 2005/06 to 41 percent in 2009/10, while spending on inpatient RH care declined by 50 percent during the same period.

## MALARIA SUBACCOUNT FINDINGS

In 2009/10, total health expenditure on malaria ( $THE_{Malaria}$ ) was Ksh 30.7 billion (\$405 million), or 25 percent of THE. The private sector (including households, through OOP spending) and the government financed 52 percent and 31 percent of  $THE_{Malaria}$  respectively in that year.

The public sector, through the Ministries of Health and of Local Government, controlled 42 percent of THE<sub>Malaria</sub>, while private entities including households managed approximately 47 percent of malaria health spending.

In 2009/10, public health facilities accounted for 58 percent of THE<sub>Malaria</sub>, compared to 25 percent at private facilities. Over 43 percent of THE<sub>Malaria</sub> was spent on outpatient curative care and 31 percent on inpatient curative care. About 10 percent was spent on preventive health activities.

## TUBERCULOSIS HEALTH SUBACCOUNT FINDINGS

In 2009/10 total health expenditures for TB (THE<sub>TB</sub>) was Ksh 1.4 billion (\$17.8 million), accounting for 1.1 percent of all health spending in Kenya. Donors provided 42 percent of all resources for THE<sub>TB</sub>, followed by the private sector and government, which each contributed almost 30 percent. About 39 percent of THE<sub>TB</sub> in 2009/10 was managed by the public sector; NGOs and donors together controlled 34 percent.

Providers of public health programmes accounted for 36 percent of THE<sub>TB</sub> in 2009/10, with public and private health facilities providing 37 percent and 16 percent respectively. Approximately one third of THE<sub>TB</sub> was used to purchase prevention activities, while 28 percent was used for outpatient curative care in 2009/10.

## CHILD HEALTH SUBACCOUNT FINDINGS

CH services are cross-cutting: there is frequent overlap between spending on CH services and spending on HIV/AIDS, TB, and malaria. CH spending encompasses not only CH specific activities but also activities related to CH that fall within other subaccounts.

A total of Ksh 9.2 billion (\$122 million) was spent in 2009/10 for CH services. The total child health expenditures (THE<sub>CH</sub>) per child below 5 years were Ksh 1,551 (\$20). The largest share of THE<sub>CH</sub> in 2009/10 was provided by donors, at 44 percent, while the private sector, including households, contributed 32 percent.

NGOs and donors managed the largest share of CH spending at 38 percent. Public and private entities managed almost equal amounts, at 31 percent of THE<sub>CH</sub>.

Public health facilities provided 43 percent of THE<sub>CH</sub>. Most of the THE<sub>CH</sub> was used for outpatient curative care at 36 percent, followed by preventive health and inpatient curative care, at 29 percent and 21 percent respectively.

# I. INTRODUCTION AND BACKGROUND

## I.1 CONCEPT AND PURPOSE OF NHA

NHA is a systematic, comprehensive, and consistent method for monitoring resource flows in a country's health system. It is a tool for health sector management and policy development that measures total public and private (including household) health expenditures. It tracks all expenditure flows within a health system, linking the sources of funds to service providers and to the ultimate use of the funds. Thus, NHA answers questions such as: Who pays for health services? How much does each entity pay? What do these resources purchase?

NHA is designed to facilitate the successful implementation of health system goals by policymakers who are entrusted with the responsibility of providing an optimal package of goods and services to maintain and enhance the health of individuals and populations. This is expected to protect families from an unfair financial burden. For any given year, NHA traces all the resources that flow through the health system over time. Due to its internationally standardised framework, it also facilitates comparison across countries.

NHA thus provides essential data for optimising health resource allocation and mobilisation, for identifying and tracking shifts in resource allocations (e.g., from curative to preventive, or from public to private sector), for comparing findings with other countries, and finally, for assessing equity and efficiency in a dynamic health sector environment. Given the flexibility of the NHA, it is also possible to collate NHA findings with other secondary health data to assess whether targeted health interventions are having the desired impact.

## I.2 HISTORY OF NHA IN KENYA

The demand for a comprehensive description of the flow of resources in the health sector to guide policy development was the motivation behind conducting the first round of NHA in Kenya in 1998, for financial year (FY) 1994/95. That first round of NHA utilised household health expenditures data obtained from the Welfare Monitoring Survey of 1994 (Central Bureau of Statistics [CBS] 1994).

Results from the 1998 NHA received mixed reviews from policymakers, who argued that the results underestimated the government's contribution to total health expenditure (THE) in Kenya.

Against this background, the Ministry of Health (MoH) established a NHA team, consisting of the MoH Department of Policy and Planning and the CBS, to carry out a more comprehensive NHA study in 2003 and 2007 (for 2001/02 and 2005/06 expenditures respectively). Due to the involvement of stakeholders in the design and execution of the NHA, the findings were widely accepted. They were used to inform the preparation of the second National Health Sector Strategic Plan (NHSSP) and also to mobilise more funds for the health sector.

This fourth round of NHA, undertaken in 2010 to measure FY 2009/10 expenditures, was funded by the GoK, the United States Agency for International Development (USAID)/Kenya Mission, the World

Health Organisation, and the World Bank. It is expected that the findings of this NHA will be used to shape the financing framework of the health sector in Kenya and will inform the development of the Third NHSSP.

### **I.3 POLICY OBJECTIVES OF THE FOURTH ROUND OF NHA**

The overall objective of this NHA study was to estimate THE in 2009/10, in order to obtain data that would inform health policy formulation and development. The study had seven specific objectives:

- Estimate THE in Kenya.
- Document the distribution of THE by financing sources and financing agents.
- Determine the contribution of each stakeholder in financing health care in Kenya.
- Articulate the distribution of health care expenditures by use.
- Develop a better understanding of the financial flows associated with the following priority health areas in Kenya: reproductive health, HIV/AIDS, TB, malaria, and child health.
- Analyze efficiency, equity, and sustainability issues associated with the current health care financing and expenditure patterns in Kenya.
- Provide estimates to inform the development of the health care financing strategy and the NHSSP III.

### **I.4 SOCIO ECONOMIC AND POLITICAL BACKGROUND**

Over the last decade, there were noticeable improvements in Kenya's economic performance. However, the rise in Gross Domestic Product (GDP) on average only matched population growth, indicating stagnation in incomes for the majority of the population. Economic recovery from the 2008 political crisis was hampered by subsequent external shocks, including food and fuel price hikes in 2008, the global economic crisis in 2008/09, and a drought in 2009. During 2009, the economy continued along the gradual path of recovery that led to an estimated annual growth rate of 2.2 percent. Growth in 2009 was driven by the construction industry, the wholesale and retail trade, and transport and tourism sectors. Average annual inflation eased from 16.2 percent in 2008 to 9.3 percent in 2009 (Economic Survey 2010).

Kenya is a centre for trade and finance in the East Africa region and is considered to be one of Sub-Saharan Africa's most developed economies. Seventy-five percent of Kenya's labour force works in agriculture, which represents 21.4 percent of GDP (Economic Survey 2010). This reflects the large portion of the population living in rural areas. The economy also includes a large service sector (62.3 percent of GDP) as well as a variety of other industries, including consumer goods, plastics, textiles, metals, oil refining, and tourism, which together account for 16.3 percent of GDP (KNBS Statistics 2010.)

Despite its relatively diverse economy, Kenya's economic growth over the past decade has been hindered by electoral violence, severe droughts, and weak investment. The unemployment rate remains high at nearly 40 percent, and nearly half of the country's population is living below the poverty line (CIA 2010). During President Kibaki's first term in office (2003-2007), the government adopted a series of economic reforms, along with efforts to curb corruption, and resumed partnerships with the World Bank and International Monetary Fund. During this period economic growth began to improve, with

GDP climbing from 2.8 percent in 2003 to 5.1 percent in 2004, to 5.9 percent in 2005, to 6.3 percent in 2006, and to 7.1 percent in 2007 (Economic Survey, various years). Thereafter, the economic effects of the violence following the December 2007 general election, compounded by drought and the global financial crisis, brought growth down to less than 2 percent in 2008 (Economic Survey 2009).

Economic inequalities are still a threat in Kenya, as depicted in the Table 1.1 comparing the country to Sub-Saharan Africa region aggregates.

**TABLE: 1.1 INCOME AND INEQUALITY INDICATORS IN KENYA, COMPARED TO SUB-SAHARAN AFRICA AVERAGES**

	Kenya	Year of Data	Average value in Sub-Saharan Africa	Year of Data	Source of Data
<b>Core Module</b>					
GDP per capita (constant 2000 US\$)	453.22	2008	1,053.27	2008	WDI-2010
GDP growth (annual %)	1.69	2008	5.16	2008	WDI-2010
Per capita total expenditure on health at international dollar rate	105.00	2006	147.78	2006	WHO
Private expenditure on health as % of total expenditure on health	39.3	2006	48.94	2006	WHO
Out-of-pocket expenditure as % of private expenditure on health	74.0	2006	78.02	2006	WHO
Gini index	47.68	2005	42.39	2005	WDI-2010

Source: Kenya Health Systems Assessment, 2010 (<http://healthsystems2020.healthsystemsdatabase.org/>).

## 1.5 DEMOGRAPHIC TRENDS

Kenya's population was reported at 38.6 million by the Kenya Population and Housing Census of 2009, with a projected annual growth rate of 2.9 percent. Individuals under 20 years of age account for about 60 percent of the population. Life expectancy, which has been on the decline, is estimated to be about 54.2 years and is expected to fall farther due to the rising incidence of HIV (UNDP, 2009).

**TABLE 1.2: KENYA POPULATION, 2009**

Province	Male	Female	Total
Nairobi	1,605,230	1,533,139	3,138,369
Central	2,152,983	2,230,760	4,383,743
Coast	1,656,679	1,668,628	3,325,307
Eastern	2,783,347	2,884,776	5,668,123
North Eastern	1,258,648	1,052,109	2,310,757
Nyanza	2,617,734	2,824,977	5,442,711
Rift Valley	5,026,462	4,980,343	10,006,805
Western	2,091,375	2,242,907	4,334,282
Kenya	19,192,458	19,417,639	38,610,097

Source: Kenya Population and Housing Census, 2009.

## **I.6 THE HEALTH SECTOR**

The health sector has been identified as one of the key components addressing equity; it is essential to the socio-economic agenda of the Economic Recovery Strategy (ERS) for Wealth and Employment Creation as well as to the social pillar of the Kenya Vision 2030. The mandate of the sector is to ensure that access to basic health services continues to be given priority, with strong emphasis on reaching the poor. Additionally, in order to ensure that the poor have access to quality health care, the sector continues to emphasise the importance of allocating more resources to health promotion and prevention, while at the same time strengthening hospitals so that they can adequately serve as referral centres for the primary health services. Some of the challenges facing the health sector include:

- Insufficient skilled human resources, exacerbated by mal-distribution of available health personnel, with some rural dispensaries left unstaffed
- Inadequate budgetary allocations
- Inadequate and poorly maintained infrastructure
- Widespread poverty

### **I.6.1 MINISTRY'S VISION, MISSION, AND POLICY OBJECTIVES**

The NHSSP II, 2005-2010, was launched in 2005 by the GOK/MoH. The NHSSP set out the agenda for the sector and defined the vision of “creating an efficient and high quality health system that is accessible, equitable and affordable for every Kenyan household”. Its mission is to “promote and participate in the provision of integrated and high quality curative, preventive, promotive and rehabilitative health care services to all Kenyans”. Further, the mandate of the health sector is to formulate policies, set standards, provide health services, create an enabling environment, and regulate the provision of health service delivery. The overall goal set out in the strategic plan is to reduce health inequalities and reverse the downward trends in health related indicators by pursuing six broad policy objectives that are directly linked to the Economic Recovery Strategy (ERS), Vision 2030, and the Millennium Development Goals (MDGs).

### **I.6.2 STRATEGIC OBJECTIVES OF THE HEALTH SECTOR**

The strategic objectives of the health sector as set out in the NHSSP II (2005-2010):

- Increase equitable access to health services
- Improve quality and the responsiveness of services in the sector
- Improve the efficiency and effectiveness of service delivery
- Enhance the regulatory capacity of the Ministries of Health
- Foster partnerships in improving health and delivering services
- Improve financing of the health sector

The Ministries of Health have also developed strategic plans (2008-12) which are linked to NHSSP II and the Medium Term Plan of Vision 2030.

### **I.6.3 MOVEMENT TOWARDS MILLENNIUM DEVELOPMENT GOALS**

In line with the NHSSP I I, the Ministries of Health, with the support of other stakeholders, have been refocusing the investment in the health sector to priority areas in order to reverse the declining health indicators. As reported in the 2008-2009 Kenya Demographic Health Survey, there has been remarkable improvement in health-related indicators since 2003. Table 1.3 provides a summary of the status of MDG-related indicators in Kenya.

**TABLE 1.3: HEALTH SECTOR MDGS INDICATORS STATUS**

<b>MDG Number and Description</b>	<b>Indicator Description</b>	<b>Level (National)</b>	<b>Source and Year</b>
MDG 1 Eradicate Extreme Hunger	% of children under 5 who are underweight	16%	KDHS 2008-2009
	% of children exclusively breastfed for the first 6 months	31.9%	KDHS 2008-2009
MDG 4 Reduce Child Mortality	Infant mortality rate (per 1000 live births)	52	KDHS 2008-2009
	Under 5 mortality rate (per 1000 live births)	74	KDHS 2008-2009
	% of fully immunised children	77%	KDHS 2008-2009
MDG 5 Improve Maternal Health	Maternal mortality ratio (per 100,000 live births): 1993-2003	488	KDHS 2008-2009
	% of births assisted by a skilled health attendant	44%	KDHS 2008-2009
	% of births delivered in a health facility	43%	KDHS 2008- 2009
MDG 6 Combat HIV/AIDS, Malaria, and other diseases	Adult HIV prevalence (women)	8.0	KDHS 2008- 2009
	Adult HIV prevalence (men)	4.3	KDHS 2008- 2009
	Number of people living with HIV/AIDS	1.5 M	NASCOP 2010
	Number of people on ART	440,000	NASCOP 2010
	% of eligible people living with HIV/AIDS on ART	54%	NASCOP 2010
	HIV/AIDS prevalence rate (%)	6.3	KDHS 2008-2009
	TB cases registered	110,345	Ministry of Medical Services, Facts and Figures 2010
	% of outpatient morbidity due to malaria	31%	Ministry of Medical Services, Facts and Figures 2010
	Inpatient malaria mortality as % of total inpatient morbidity	3-5%	Division of malaria control, National Malaria Strategy (NMS) 2009-2017
	% of inpatients with malaria	14%	Kenya Malaria Fact Sheet, Division of malaria Control
	% Households with at least 1 bed net	61%	KDHS 2008-2009
Others not directly Linked to MDGs	Kenya population	38.6 Million	Kenya National Bureau of Statistics – 2009 Census
	Kenya population growth rate	2.9	Kenya National Bureau of Statistics - 2009 Census
	Total fertility rate	4.6	KDHS 2008- 2009
	Life expectancy at birth (male) (2006)	54.3	Ministry of Medical Services, Facts and Figures 2010
	Life expectancy at birth (female) (2006)	59.1	Ministry of Medical Services, Facts and Figures 2010
	Number of nurses per 100,000 population	121	Economic Survey 2010
	Number of doctors per 100,000 population	17	Economic Survey 2010



## 2. METHODOLOGY FOR THE NHA

The Kenya NHA study for 2009/10 was carried out in accordance with the Guide to producing National Health Accounts; with special application for low-income and middle-income countries of 2003 (jointly issued by USAID, World Bank, and WHO); it was informed by both primary and secondary data. A wide range of data and information was collated from various secondary sources, including such materials as government reports, National Hospital Insurance Fund (NHIF) audited accounts, and Association of Insurers (AKI) annual reports. The 2009/10 NHA relied upon estimates from the Household Health Expenditure and Utilisation Survey (HHEUS) of 2007 to estimate household spending on health in 2009/10. In addition, several institutional surveys were used to collect primary data.

### 2.1 HOUSEHOLD HEALTH EXPENDITURE ESTIMATES

The household health expenditure estimates for 2009/10 were projected from the HHEUS of 2007, adjusting for inflation and population change. In the case of the HIV/AIDS subaccount, 2007 data on household expenditure on HIV/AIDS was provided by the Kenya AIDS Indicator Survey (KAIS); adjusted for inflation and the number of people living with HIV/AIDS, this yielded estimates for 2009/10. These household data sets provided the information used to calculate ratios to apportion expenditures by inpatient and outpatient services and by disease areas.

### 2.2 INSTITUTIONAL SURVEYS

The following institutional surveys were conducted to complete the NHA process:

- Employers/private firms
- Public sector organisations providing health services/incurred expenditures on employees' health: includes both Ministries of Health (Ministry of Medical Services and Ministry of Public Health and Sanitation), local authorities, and parastatals
- Donors (both bilateral and multilateral)
- Insurance (public and private)
- Non-governmental organisations (NGOs) involved in health

#### 2.2.1 EMPLOYER SURVEY

The Kenya Private Sector Alliance (KEPSA), an umbrella organisation that represents the interests of the private sector, assisted in generating a list of private firms. This was combined with firms listed by the Nairobi Stock Exchange (NSE) that are not necessarily members of KEPSA. A list of 75 firms was generated to form the sampling frame. The firms were stratified by economic sector: agriculture, finance and investment, commercial, services, or industrial. A sample of 55 firms was drawn, and 44 private firms responded to the survey questionnaire. The information from the responding firms was weighted within each sector and extrapolated to estimate the total health expenditure by private firms in Kenya.

## **2.2.2 GOVERNMENT MINISTRIES/DEPARTMENTS/PARASTATALS SURVEY**

### **2.2.2.1 MINISTRIES OF HEALTH**

For the purpose of this NHA report, the Ministry of Medical Services and the Ministry of Public Health and Sanitation are referred to jointly as Ministries of Health. The Ministries of Health expenditures included the following components:

- Direct expenditures by departments to provide health care goods and services
- Total emoluments of staff delivering the departmental services
- The cost of administrative services provided in support of departments directly delivering health care goods and services

The main sources of the Ministries of Health expenditure data were:

- GoK 2009/2010 Estimates of Recurrent and Development Expenditures (issued by Ministry of Finance)
- Annual 2009/2010 Appropriation Accounts for the period ended 30th June, 2010 (Recurrent and Development)
- Public Expenditure Reviews reports

### **2.2.2.2 LOCAL GOVERNMENT**

The five major local authorities were surveyed in order to generate information on health expenditures by local authorities. The major local authorities surveyed included the cities of Nairobi, Mombasa, and Kisumu, and the major towns of Nakuru and Eldoret.

### **2.2.2.3 STATE CORPORATIONS (PARASTATALS)**

State corporations or parastatals incur health expenditures. Some of them operated their own health care facilities, primarily offering outpatient care to employees and their families. A listing of state parastatals was obtained from the State Statutory Board. Altogether, 120 parastatals were identified to form the sampling frame. Sixty-two major parastatals distributed throughout the country, judged likely to provide health benefits, were selected. Forty-seven parastatals, representing 76 percent of the sample, returned completed survey questionnaires. Expenditure per employee was calculated from data of parastatals that responded and multiplied by the total number of employees in the sample to obtain the total health expenditure by state corporations.

## 2.3 HEALTH INSURANCE

The private insurance sector is fairly developed in Kenya. In 2009, there were 44 licensed insurance companies providing both life and general business insurance. Of these, 21 were medical insurance providers (MIPs). A list of health insurance firms to be surveyed was generated by combining the 21 MIPs with a few health management organisations (HMOs) and insurance brokerage firms that manage health funds for employers. This generated a list of 26 insurance firms. The survey was administered to 26 firms, and 19 firms responded to the survey. Data was obtained on the total reimbursements made by health insurance firms and HMOs to health providers, as well as reimbursements made by insurance brokerage firms. Information was also collected on the nature of health services rendered (e.g. inpatient, outpatient, pharmaceuticals). The results were extrapolated to obtain the total health expenditure by health insurance firms.

## 2.4 DONOR CONTRIBUTION SURVEY

Donor funds are a key component of health sector financing in Kenya. Donor contribution was generated using the Standardised Data Reporting Tool, designed to collect development partners' annual spending on health to inform the Annual Operational Plan (AOP). This tool was also designed to inform NHA, as part of the NHA institutionalisation strategy the Ministries of Health have been implementing since 2007. The donor data was used to validate expenditure information obtained from NGOs.

## 2.5 NON-GOVERNMENTAL ORGANISATIONS SURVEY

Through the assistance of the Health NGOs Network (HENNET), an umbrella organisation of NGOs in the health sector, a list of NGOs was compiled. To form the sampling frame, this was combined with a list of NGOs provided by the Development Partners for Health in Kenya (DPHK), showing NGOs that receive funding from donors to implement health-related activities. A total of 95 NGOs were identified for the survey. Out of that list, 80 NGOs responded to the survey.



## 3. GENERAL NHA FINDINGS

### 3.1 INTRODUCTION

The health sector adopted the NHA as a tool to provide information on resource flows and expenditures and to detail how these resources were used. To this end, four rounds of NHA have been undertaken since 1997. This information has helped mobilise additional resources for the health sector and has helped to guide resource allocation to ensure access and equity of health services, especially to the poor. It is important to note that the 30 percent increase of resources and the introduction of the 10/20 Policy were informed by the NHA findings (MoH 2004).

This section presents estimates of the THE from the 2009/10 NHA estimation and compares them with NHA estimates from 2001/02 and 2005/06, to examine the pattern of health financing in Kenya. The trend of financing is significant, as it highlights government roll-out of programmes that target the poor as well as the general influx of donor funding for key priority programme areas. These indicate the financial effects of policies and health investments made across the three periods.

### 3.2 SUMMARY STATISTICS FOR THE GENERAL NHA EXPENDITURES

In 2009/10, Kenya spent approximately Ksh 122.9 billion (\$1,620 million) on health, an increase of 20 percent over 2005/06 total health expenditures. Table 3 provides a comparison of the health-related indicators for FY 2001/02, 2005/06, and 2009/10. The estimated THE in 2009/10 was approximately 5.4 percent of GDP at current market prices, compared to 4.8 percent in 2005/06 and 5.1 percent in 2001/02.

Per capita health spending was approximately Ksh 3,203 (\$42.2) in 2009/10, increased from Ksh 2,861 (\$39) in 2005/06. The total government health expenditure as a percent of total government expenditures continued to decline, from a high of 8.6 percent in 2001/02 to 4.6 percent in 2009/10. This is despite the government commitment to increase allocations for health to 15 percent of its budget, in line with the Abuja declaration.

**TABLE 3: SUMMARY INDICATORS FROM GENERAL NHA**

Indicators	2001/02	2005/06	2009/10
Total population, 2009 population census	31,190,843	35,638,694	38,610,097
Exchange rate, KNBS	78.6	73.4	75.82
Total GDP at current prices (Ksh)	1,611,269,647,022	2,188,239,880,000	2,273,000,000,000
Total GDP at current prices (\$)	20,499,613,830	29,812,532,425	29,978,897,389
Total government expenditure (Ksh)	304,627,619,387	578,266,691,099	761,800,000,000
Total government expenditure (\$)	3,875,669,458	7,878,292,794	10,047,480,876
Total Health Expenditure (THE) (Ksh)	82,232,016,764	101,977,620,711	122,853,559,803

Total Health Expenditure (THE) (\$)	1,046,208,865	1,389,340,882	1,620,331,836
THE per capita (Ksh)	2,636	2,861	3,203
THE per capita (\$)	33.5	39.0	42.2
THE as a % of nominal GDP	5.1%	4.8%	5.4%
Government health expenditure as a % of total government expenditure	8.0%	5.2%	4.6%
Financing sources as a % of THE			
Public	29.6%	29.3%	28.8%
Private	54.0%	39.3%	36.7%
Donors	16.4%	31%	34.5%
Other	0.1%	0.4%	0%
Financing agent distribution as a % of THE			
Public	42.8%	42.7%	36.6%
Private	49.8%	36.5%	33.9%
NGOs and donors	7.4%	20.8%	29.5%
Provider distribution as a % of THE			
Public facilities	49.4%	44.3%	46.7%
Private facilities	35.7%	29.2%	22.2%
Providers of public health programmes	n/a <sup>2</sup>	n/a	13.8%
Health administration	n/a	n/a	8.4%
Community health workers	n/a	n/a	8.2%
Others	14.9%	26.5%	0.8%
Function distribution as a % of THE			
Inpatient care	32.1%	29.8%	21.9%
Outpatient care	45.2%	39.6%	39.1%
Pharmaceuticals	7.4%	2.6%	2.8%
Prevention and public health programmes	9.1%	11.8%	22.8%
Health administration	5.0%	14.5%	9.0%
Capital formation	n/a	n/a	3.6%
Other	1.3%	1.7%	0.8%

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<sup>2</sup> n/a means data Not Available

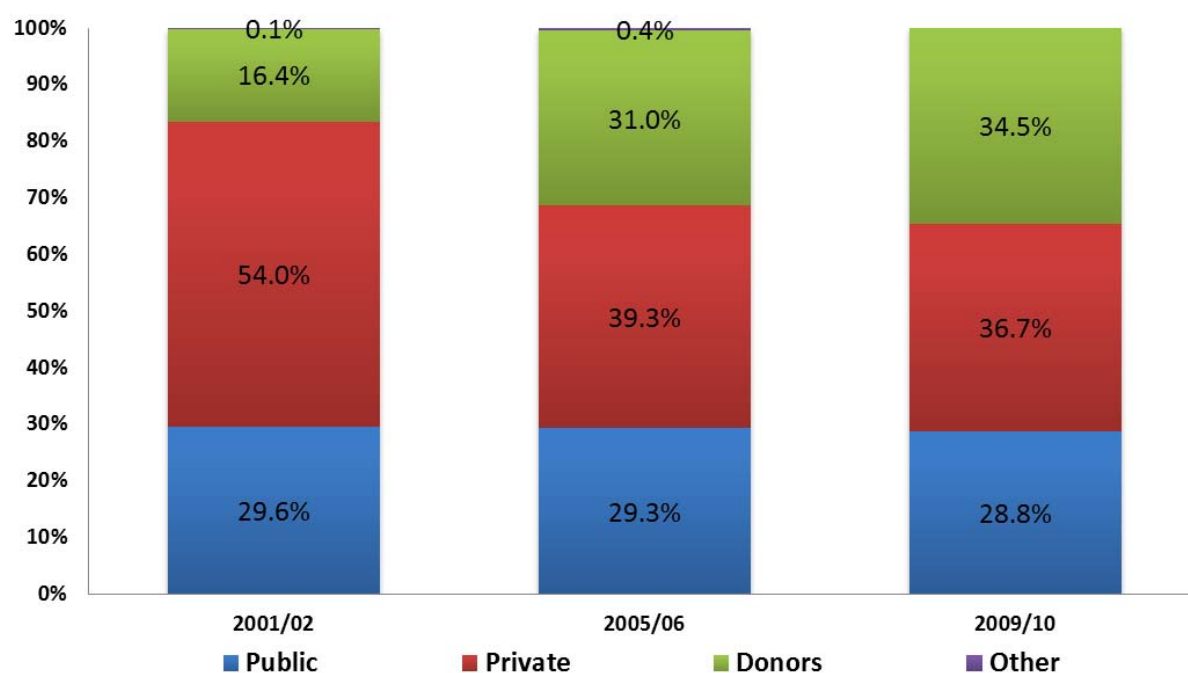
### 3.3 FINANCING SOURCES: WHO PAYS FOR HEALTH CARE?

The NHA Producer Guide defines financing sources as those institutions or entities that contribute funds to finance health care. This includes the government, private firms, households, and donors. This section provides an overall assessment of the trends in contributions from each of these sources.

The private sector remains the single largest source of financing for the health sector, contributing 37 percent of total health spending in 2009/10. However, the private sector contribution to THE has been declining from a high of 54 percent in 2001/02 to the current level, partly because of increased donor inflows to the health sector.

Donors' contribution to THE has been on an upward trend, reaching 35 percent in 2009/10, while government contribution has remained constant at 29 percent since 2001/02. Figure 3.1 shows the sources of THE for 2001/02, 2005/06, and 2009/10.

**FIGURE 3.1: BREAKDOWN OF THE BY FINANCING SOURCE, 2001/02, 2005/06, AND 2009/10**



As shown in Table 3.1, donor contribution to THE was Ksh 42.4 billions in 2009/10, an increase of 34 percent (in absolute terms) over 2005/06 levels. In line with the government objective of increasing funding to the health sector, the government contribution in absolute terms increased by 18 percent over the 2005/06 estimates, reaching Ksh 35.4 billion in 2009/10. THE grew on average by 5 percent annually since 2005/06, a level far below the annual inflation rates, implying that the health sector continues to receive less funding in real terms.

**TABLE 3.1: ABSOLUTE VALUE OF THE BY FINANCING SOURCE,  
2001/02, 2005/06, AND 2009/10**

Source	2001/02	2005/06	2009/10	Percent change (2005/06-2009/10)
Public	24,340,676,962	29,879,442,868	35,381,825,223	18%
Private	44,405,289,053	40,077,204,939	45,087,256,448	13%
Donors	13,486,050,749	31,613,062,420	42,384,478,132	34%
Others	82,232,017	407,910,483	0	-100%
Total	82,232,016,764	101,977,620,711	122,853,559,803	20%

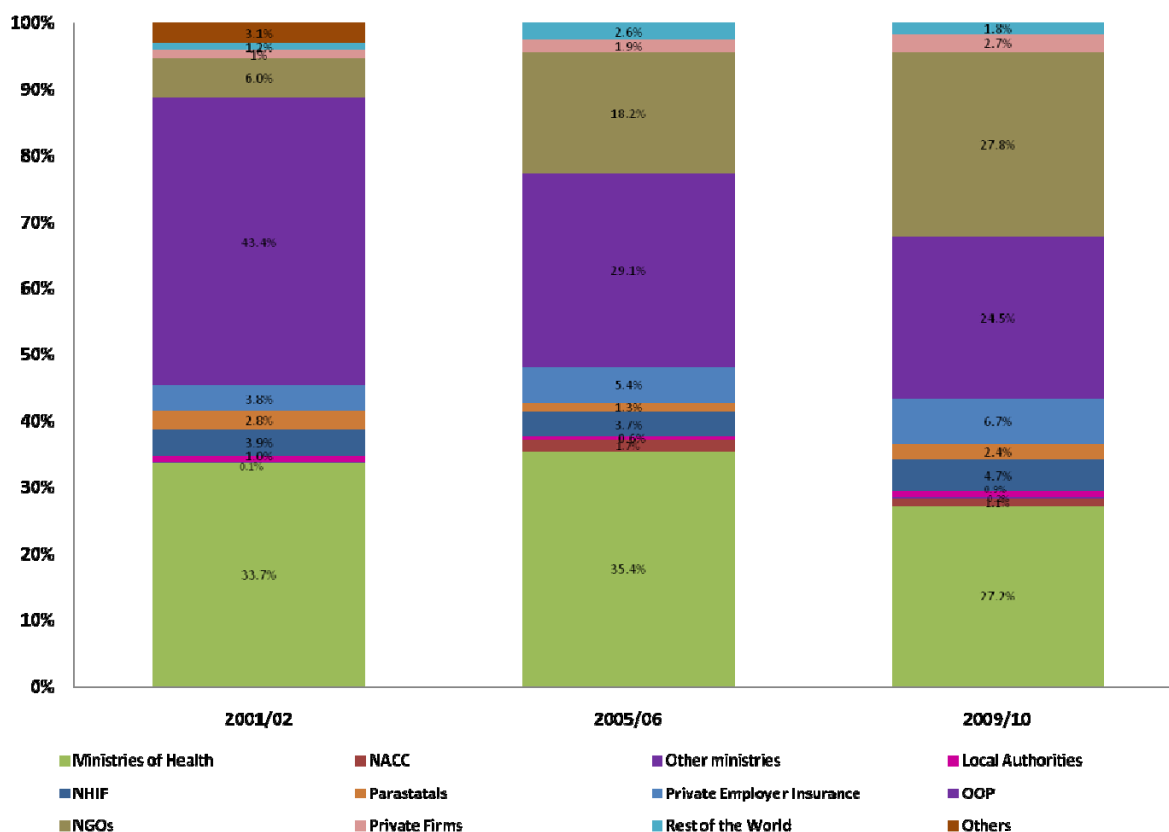
### 3.4 FINANCING AGENTS: WHO MANAGES HEALTH FUNDS?

The NHA Producer Guide (WHO 2003) defines financing agents as institutions that obtain and administer health resources from financing sources to pay for health care services. Resources mobilised by financing sources pass through financing agents who have programmatic control over how the resources are allocated across different health providers. For 2009/10, financing agents include such entities as the Ministries of Health and other ministries implementing health programmes, the National Hospital Insurance Fund (NHIF), private health insurance firms, private and parastatal firms (for health services provided on-site), households (OOP spending), local authorities, the National AIDS Control Council (NACC), Parastatals, NGOs and the rest of the world including donors.



As shown in Figure 3.2, the Ministries of Health continue to be one of major controllers of THE, although their combined share has declined from 35 percent in 2005/06 to 27 percent in 2009/10. The role of NGOs as a manager of THE has increased from 18 percent in 2005/06 to 28 percent in 2009/10. The combined role of insurance entities (NHIF and private insurers) as managers of THE has increased from 7.7 percent in 2001/02 to 11.4 percent in 2009/10, reflecting the increased number of people with medical insurance. Household OOP continues to account for a quarter of all health spending.

**FIGURE 3.2: FINANCING AGENTS OF THE , 2001/02, 2005/06, AND 2009/10**



In absolute values, the resources managed by parastatals doubled from Ksh 1.4 billion in 2005/06 to Ksh 3.0 billion in 2009/10. Other agents that had a notable increase in the funds they controlled (from 2005/06 to 2009/10) are local authorities, NGOs, and private firms. Table 3.2 shows the managers of THE in absolute values for 2001/02, 2005/06 and 2009/10.

**TABLE 3.2: FINANCING AGENTS OF THE BY ABSOLUTE VALUE,  
2001/02, 2005/06, AND 2009/10**

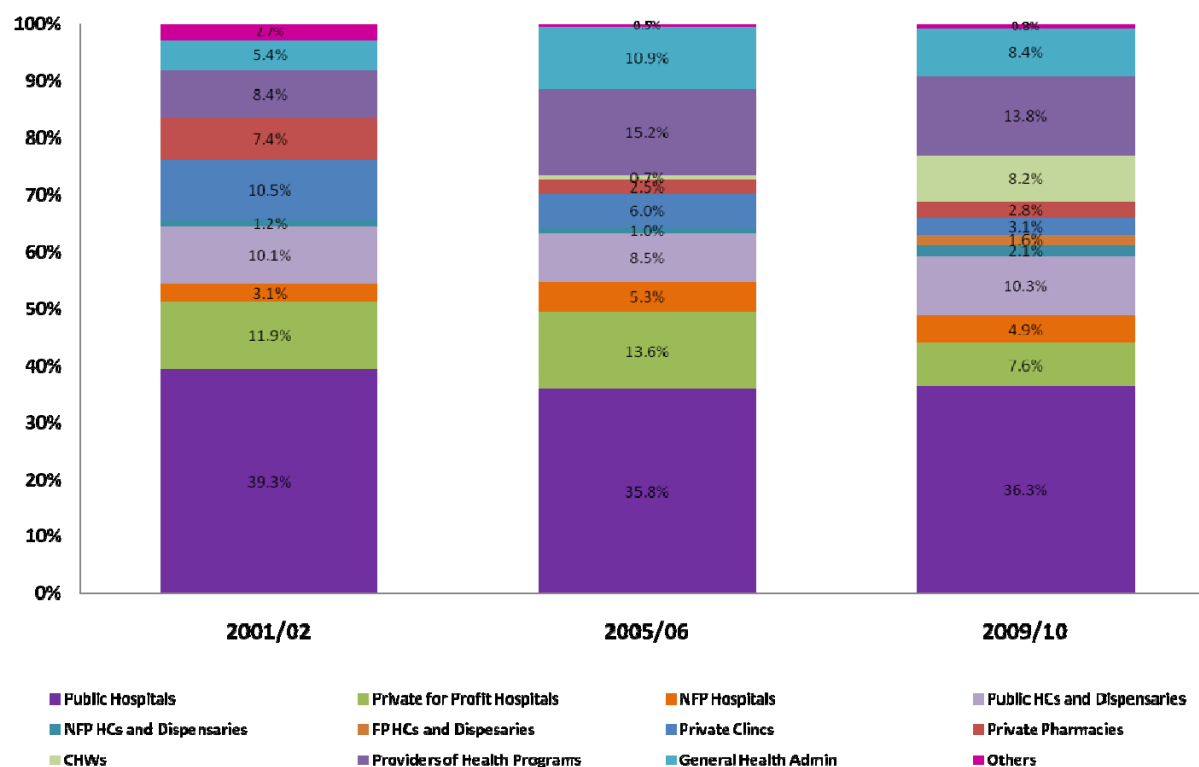
<b>Agents</b>	<b>2001/02</b>	<b>2005/06</b>	<b>2009/10</b>	<b>Percent change (2005/06- 2009/10)</b>
Ministries of Health	27,706,318,188	36,078,350,970	33,459,601,497	-7%
NACC	-	1,752,413,862	,301,728,082	-26%
Other ministries	42,566,019	-	296,253,589	
Local Authorities	848,325,319	588,514,805	1,116,889,928	90%
NHIF	3,233,803,375	3,791,427,337	5,803,838,476	53%
Parastatals	2,317,408,402	1,348,725,333	2,957,902,148	119%
Private Employer Insurance	3,098,297,945	5,543,993,319	8,252,228,595	49%
OOP	35,696,470,988	29,684,923,688	30,074,650,354	1%
NGOs	4,916,278,185	18,590,859,396	34,127,880,676	84%
Private Firms	862,337,797	1,984,914,629	3,296,540,893	66%
Rest of the World	975,558,030	2,613,497,373	2,166,045,565	-17%
Others	2,534,652,516	-	-	
Total	82,232,016,764	101,977,620,711	122,853,559,803	20%

### **3.5 PROVIDERS OF HEALTH CARE: WHO USES HEALTH FUNDS TO DELIVER CARE?**

The NHA Producer Guide defines providers of health care as entities that receive money from financing agents in exchange for or in anticipation of producing the required health care activities. These include: public and private facilities; pharmacies and shops; traditional healers; community health workers; providers of public health programmes; and general health administration and others, as explained below.

Figure 3.3 indicates that, in 2009/10, public hospitals utilised the largest share of THE, at 36 percent, followed by providers of health programmes at 14 percent. There was an increase of resources utilised by public health centres and dispensaries, from 8.5 percent in 2005/06 to 10.3 percent in 2009/10. The combined increase of resources utilised at health centres and dispensaries supports the health sector objective of decentralising care to lower-level facilities.

**FIGURE 3.3: BREAKDOWN OF THE BY PROVIDERS OF HEALTH SERVICES, 2001/02, 2005/06, AND 2009/10**



The amount of THE in absolute values utilised by community health workers (CHWs) increased by 1,307 percent over the 2005/06 levels, to Ksh 10 billion in 2009/10, signifying the important role these providers are undertaking in health care service delivery. The not-for-profit (NFP) Health Centres (HC) and dispensaries utilised Ksh 2.6 billion in 2009/10, up from Ksh 1.0 billion in 2005/06 — an increase of 154 percent. Table 3.3 shows the breakdown of THE by provider for 2001/02, 2005/06, and 2009/10.

**TABLE 3.3: ABSOLUTE VALUES OF THE BY PROVIDER, 2001/02, 2005/06, AND 2009/10**

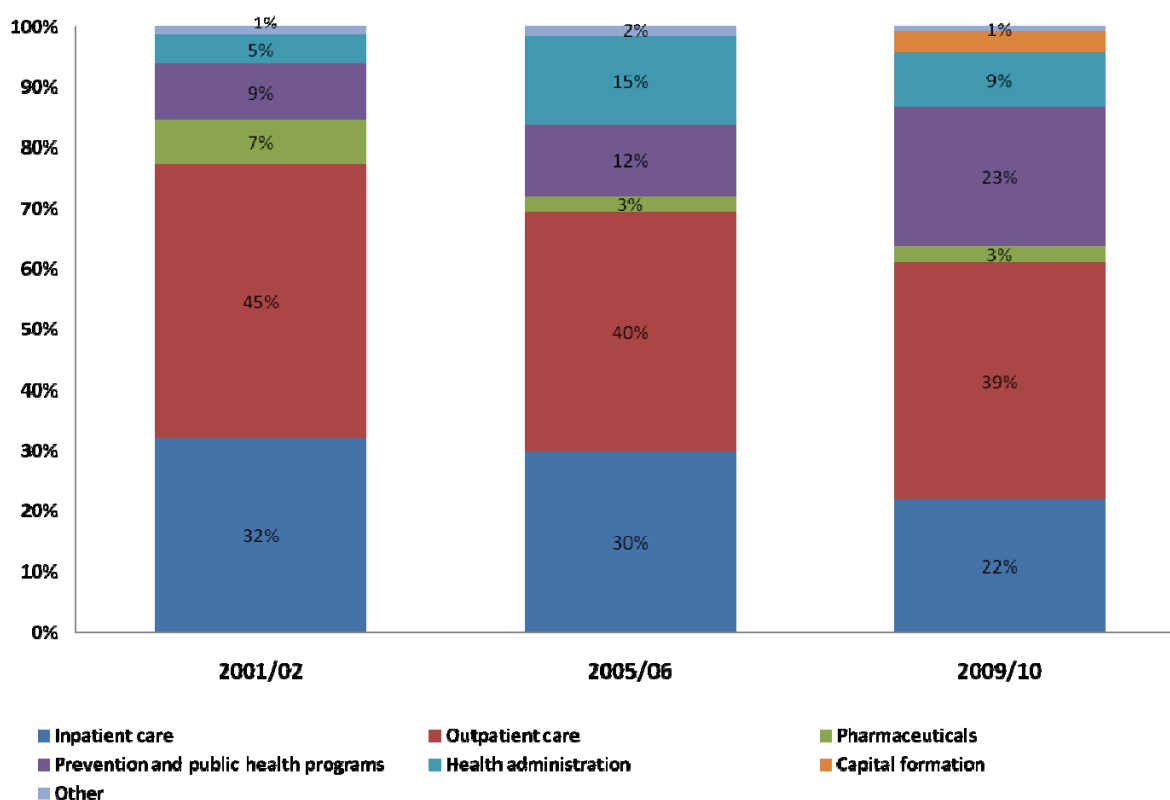
	2001/02	2005/06	2009/10	Percent change(2005/06 & 2009/10)
Public hospitals	32,317,182,588	36,507,988,215	44,626,007,515	22.2%
Private for-profit hospitals	9,785,609,995	13,868,956,417	9,362,063,439	-32.5%
NFP hospitals	2,549,192,520	5,404,813,898	6,021,578,437	11.4%
Public HCs and dispensaries	8,305,433,693	8,668,097,760	12,694,343,009	46.4%
NFP HCs and dispensaries	986,784,201	1,019,776,207	2,586,962,846	153.7%
For-profit HCs and dispensaries	n/a	n/a	1,977,892,119	n/a
Private clinics	8,634,361,760	6,118,657,243	3,812,684,285	-37.7%
Private pharmacies	6,085,169,241	2,549,440,518	3,467,865,574	36.0%
CHWs	n/a	713,843,345	10,040,800,788	1306.6%
Providers of public health programmes	6,907,489,408	15,500,598,348	17,003,708,203	9.7%
General health admin.	4,440,528,905	11,115,560,657	10,335,225,704	-7.0%
Others	2,220,264,453	509,888,104	924,427,885	81.3%
	82,232,016,764	101,977,620,711	122,853,559,803	20.5%

### 3.6 FUNCTIONS OF HEALTH CARE: WHAT SERVICES AND PRODUCTS ARE PURCHASED WITH HEALTH CARE FUNDS?

Health care functions consist of goods and services provided and activities that are performed by health care providers within the boundary of the health accounts. General health care functions include curative care (inpatient and outpatient), provision of pharmaceuticals from independent pharmacies, prevention and public health programmes, health care administration, and capital formation.

Outpatient curative care continues to take the largest portion of THE, at 39 percent in 2009/10, and this has remained nearly constant since 2005/06. In 2009/10, the proportion of THE spent on prevention and public health programmes matched the proportion spent on inpatient curative services, at approximately 22 percent and this reflected an increase in the former and a decrease in the latter. The portion of THE spent on prevention and public health programmes doubled, from 12 percent in 2005/06 to 23 percent in 2009/10, while the portion of THE spent on inpatient curative care declined, from 30 percent in 2005/06 to 22 percent in 2009/10. Figure 3.4 shows the distribution of functions purchased by THE in 2001/02, 2005/06, and 2009/10.

**FIGURE 3.4: DISTRIBUTION OF THE BY FUNCTION, 2001/02, 2005/06, AND 2009/10**



As shown in Table 3.4, the spending in absolute values on prevention and public health programmes increased by 133 percent in 2009/10 over the 2005/06 level. Pharmaceuticals and outpatient curative care showed a 30 percent and a 19 percent increase, respectively, in 2009/10 compared to 2005/06.

**TABLE 3.4: ABSOLUTE VALUES OF THE BY HEALTH FUNCTIONS**

Functions	2001/02	2005/06	2009/10	Percent change (2005/06-2009/10)
Inpatient care	26,396,477,381	30,389,330,972	26,904,929,597	-11%
Outpatient care	37,168,871,577	40,383,137,802	48,035,741,883	19%
Pharmaceuticals	6,085,169,241	2,651,418,138	3,439,899,674	30%
Prevention and public health programmes	7,483,113,526	12,033,359,244	28,010,611,635	133%
Health administration	4,111,600,838	14,786,755,003	11,056,820,382	-25%
Capital formation	-	-	4,422,728,153	n/a
Other	1,069,016,218	1,733,619,552	982,828,478	-43%
Total	82,232,016,764	101,977,620,711	122,853,559,803	20%



## 4. HIV/AIDS SUBACCOUNT FINDINGS

### 4.1 INTRODUCTION

HIV prevalence has remained stable for several years. In 2007, the prevalence was 7.4 percent, declining to 6.3 percent in 2008, a statistically insignificant decline (KDHS, 2008-2009). The number of HIV-infected patients on ART rose from 250,000 in 2006 to 430,000 in 2010, a major increase — but note that the treatment gap may exceed 300,000 patients (KAIS 2007; KDHS 2008/09). This increase in access to treatment has shifted the dynamics of HIV care away from being primarily inpatient-focused. Anecdotal reports indicate that HIV-related bed-occupancy may have declined.

In the last three decades, the GoK with the support of development partners has increased funding for prevention, care, and treatment of HIV/AIDS. Despite these efforts, the disease continues to pose a major public health challenge in Kenya. Rates of new infections are still unacceptably high, and the demand for antiretroviral treatment (ART) is expanding. Additionally, access to prevention services for most-at-risk populations, including discordant couples, is sub-optimal.<sup>3</sup> This occurs against the background of an unpredictable economic environment and a strained health care system, exacerbated by a leveling-off of donor funding and the lack of a sustainable local funding mechanism.

This chapter presents findings from the 2009/10 HIV/AIDS subaccount. It also compares the results with the two previous estimates of HIV/AIDS subaccounts, for 2001/02 and 2005/06.

### 4.2 SUMMARY STATISTICS FOR HIV/AIDS SUBACCOUNT EXPENDITURES

In 2009/10, HIV/AIDS health expenditures ( $THE_{HIV}$ ) was Ksh 30.1 billion (\$398 million) — an increase of 11 percent over the 2005/06 expenditures. This increase may reflect the inflow of HIV/AIDS funding from external sources (PEPFAR, Global Fund, and Clinton Health Access Initiative) as well as the increasing role of the private sector. In 2009/10,  $THE_{HIV}$  accounted for 24.4 percent of  $THE$ , compared to 27 percent in 2005/06.  $THE_{HIV}$  as a percent of GDP increased from 0.9 percent in 2001/02 to 1.3 percent in 2009/10.

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<sup>3</sup> A “discordant couple” is one in which only one of the partners is infected with HIV.

Table 4 summarises HIV/AIDS health expenditure in 2001/02, 2005/06, and 2009/10.

**TABLE 4: HIV/AIDS SUBACCOUNTS SUMMARY STATISTICS, 2001/02, 2005/06, AND 2009/10**

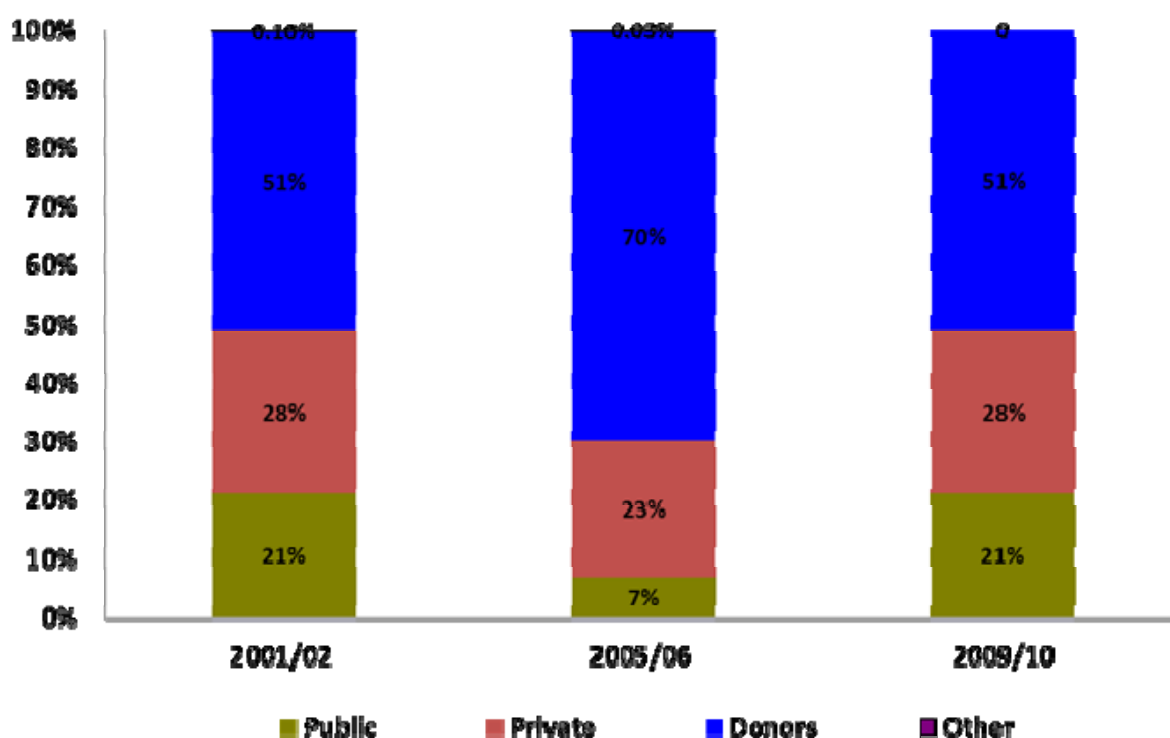
Indicators	2001/02	2005/06	2009/10
Prevalence rate (adults) (KDHS 2008-2009)	6.7%	5.1%	6.3%
Number of people living with HIV/AIDS (NASCOP)	982,685	1,091,000	1,450,000
Total HIV/AIDS health expenditure (THE <sub>HIV</sub> ), Ksh	9,927,769,404	27,086,228,614	30,138,961,493
Total HIV/AIDS health expenditure (THE <sub>HIV</sub> ), \$	126,307,499	256,142,579	397,506,746
HIV/AIDS health spending as a % of general THE	17.4%	26.6%	24.4%
HIV/AIDS health spending as a % of GDP	0.90%	1.20%	1.3%
Financing sources as a % of THE <sub>HIV</sub>			
Public	21%	7%	21%
Private	28%	23%	28%
Donor	51%	70%	51%
Other	0.10%	0.03%	0%
Financing agent distribution as a % of THE <sub>HIV</sub>			
Public	60%	22%	27%
Private	25%	22%	25%
Donor and NGO	15%	56%	48%
Provider distribution as a % of THE <sub>HIV</sub>			
Public facilities	42%	35%	37%
Private facilities	13%	19%	20%
General health administration and insurance	0%	14%	7%
Providers of public health programmes	43%	29%	12%
CHWs	n/a	n/a	21%
Others	2%	3%	3%
Function distribution as a % of THE			
Outpatient	28%	40%	33%
Inpatient	16%	16%	19%
Prevention and public health	47%	27%	32%
Health administration	n/a	n/a	8%
Pharmaceuticals	4%	2%	1%
Others	5%	16%	7%



### 4.3 FINANCING SOURCES OF HIV/AIDS HEALTH CARE: WHO PAYS FOR HIV/AIDS SERVICES?

As shown in Figure 4.1, donors contributed over half (51 percent) of expenditures for HIV/AIDS health care services in 2009/10, a decline from 70 percent in 2005/06. The private sector is still a major financier of HIV/AIDS health expenditures, contributing 28 percent of  $THE_{HIV}$  in 2009/10. There has been an increase in public contribution to  $THE_{HIV}$ , rising from 7 percent in 2005/06 to 21 percent in 2009/10.

**FIGURE 4.1: SOURCES OF  $THE_{HIV}$ , 2001/02, 2005/06, AND 2009/10**



The level of public funding to HIV/AIDS health care services in absolute terms has tripled, from Ksh 1.9 billion in 2005/06 to Ksh 6.3 billion in 2009/10. The role of the private sector as a financier of HIV/AIDS health care services has increased by 35 percent in 2009/10 over the 2005/06 estimates. Table 4.1 provides a breakdown of financing sources for HIV/AIDS health care services in absolute values.

**TABLE 4.1: ABSOLUTE VALUE OF FINANCING SOURCES  
FOR HIV/AIDS HEALTH CARE SERVICES**

Sources	2001/02	2005/06	2009/10	Percent change (2005/06 and 2009/10)
Public	2,084,831,575	1,896,036,003	6,329,181,913	234%
Private	2,779,775,433	6,229,832,581	8,438,909,218	35%
Donor	5,063,162,396	18,960,360,030	15,370,870,361	-19%
Other	9,927,769	8,125,869	-	-100%
Total	9,927,769,404	27,086,228,614	30,138,961,493	11%

#### 4.4 FINANCING AGENTS OF HIV/AIDS HEALTH CARE: WHO MANAGES HIV/AIDS FUNDS?

Figure 4.2 show that NGOs and donors managed the greatest proportion (47 percent) of THE<sub>HIV</sub> in 2009/10. The Ministries of Health managed a smaller share in 2005/06 and 2009/10 (15 percent and 17 percent respectively) than in 2001/02 (56 percent). The role of households as managers of THE<sub>HIV</sub> has remained almost constant at about 20 percent in all three NHA estimates.

**FIGURE 4.2: FINANCING AGENTS FOR HIV/AIDS FUNDS**

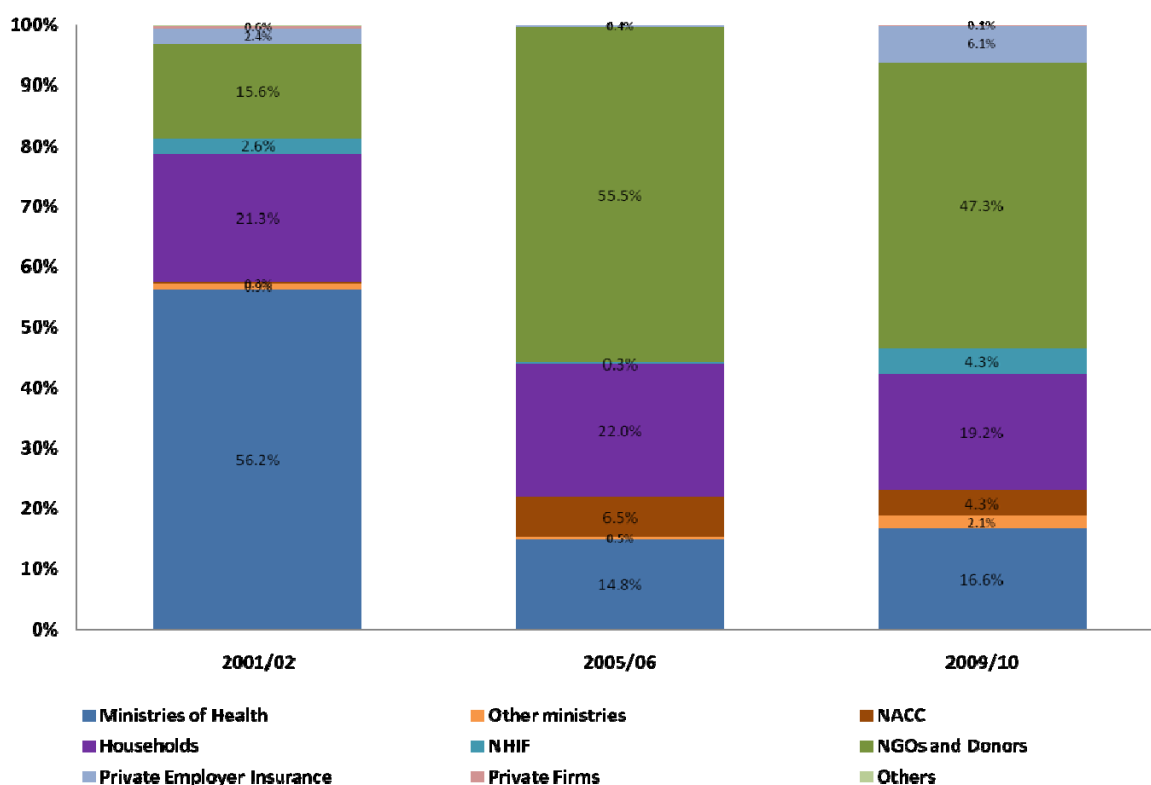


Table 4.2 compares the distribution of absolute values of HIV/AIDS health spending across different agents in the three rounds of THE<sub>HIV</sub> estimates. It is important to note the increasing role of insurance entities in managing HIV/AIDS health expenditures: the NHIF and private employer insurance managed (respectively) 1,496 percent and 1,602 percent more funds in 2009/10 than in 2005/06.

**TABLE 4.2: ABSOLUTE VALUE OF HIV/AIDS FUNDS MANAGED**

<b>Agents</b>	<b>2001/02</b>	<b>2005/06</b>	<b>2009/10</b>	<b>Percent change (2005/06 and 2009/10)</b>
Ministries of Health	5,579,406,405	4,008,761,835	5,009,292,926	25.0%
NACC	29,783,308	1,760,604,860	1,301,728,082	-26.1%
Other ministries	89,349,925	135,431,143	619,934,429	357.7%
NHIF	258,122,005	81,258,686	1,297,157,899	1496.3%
Private employer insurance	238,266,466	108,344,914	1,844,373,091	1602.3%
Households	2,114,614,883	5,958,970,295	5,774,182,991	-3.1%
NGOs and donors	1,548,732,027	15,032,856,881	14,269,144,778	-5.1%
Private firms	59,566,616	-	23,147,296	
Others	9,927,769	-		
<b>Total</b>	<b>9,927,769,404</b>	<b>27,086,228,614</b>	<b>30,138,961,493</b>	<b>11.3%</b>

## 4.5 PROVIDERS OF HIV/AIDS HEALTH CARE: WHO USES HIV/AIDS FUNDS TO DELIVER CARE?

As Figure 4.3 shows, public hospitals continue to be major providers of HIV/AIDS services, utilising 29 percent of THE<sub>HIV</sub> in 2009/10. Expenditures on HIV health care services at private hospitals and NFP hospitals remained almost constant between 2005/06 and 2009/10. CHWs (including community-based organizations and local NGOs) utilised 21 percent of THE<sub>HIV</sub> in 2009/10. Indeed, providers of public health programmes accounted for only 12 percent of total HIV/AIDS expenditures in 2009/10, down from 29 percent in 2005/06.

**FIGURE 4.3: BREAKDOWN OF THE<sub>HIV</sub> BY PROVIDERS**

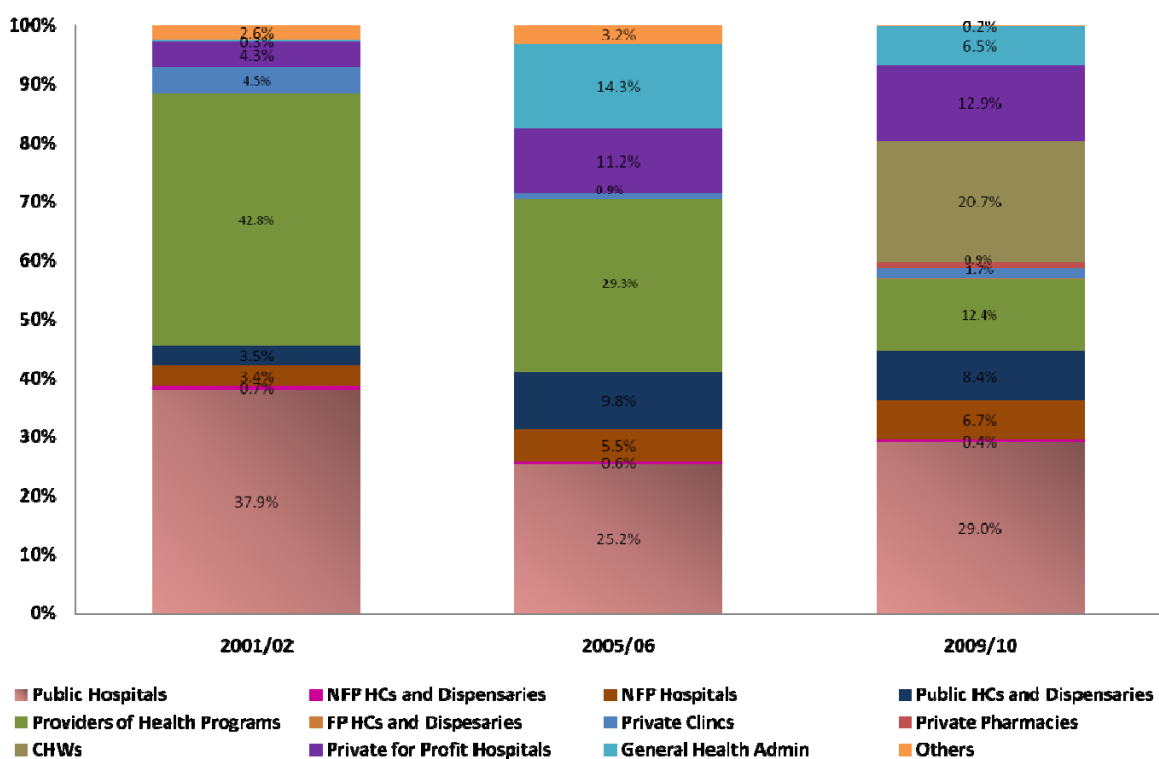


Table 4.3 shows a significant increase (115 percent) in the absolute amount of THE<sub>HIV</sub> utilised at private clinics in 2009/10 as compared to 2005/06. NFP hospitals utilised 35 percent more funds in 2009/10 over the 2005/06 estimates. There was an almost 50 percent decline in the amount used by providers of public health programmes and general health administration between 2005/06 and 2009/10.

**TABLE 4.3: ABSOLUTE VALUE BREAKDOWN BY PROVIDER OF HIV/AIDS SERVICES**

Providers	2001/02	2005/06	2009/10	Percent change (2005/06 and 2009/10)
Public hospitals	,762,624,604	6,825,729,611	875,0707,164	28.2%
Private for-profit hospitals	426,894,084	3,033,657,605	3,898,132,720	28.5%
NFP hospitals	337,544,160	1,489,742,574	2,009,756,414	34.9%
Public HCs and dispensaries	347,471,929	2,654,450,404	2,533,582,230	-4.6%
NFP HCs and dispensaries	69,494,386	162,517,372	133,349,517	-17.9%
FP HCs and dispensaries	-	-	120,771	
Private clinics	446,749,623	243,776,058	524,811,926	115.3%
Private pharmacies	-	-	275,709,067	
CHWs	-	-	6,240,438,071	
Providers of health programmes	4,249,085,305	7,936,264,984	3,749,562,282	-52.8%
General Health Admin	29,783,308	3,873,330,692	1,962,709,463	-49.3%
Others	258,122,005	866,759,316	60,081,867	-93.1%
Total	9,927,769,404	27,086,228,614	30,138,961,493	11.3%

## 4.6 FUNCTIONS OF HIV/AIDS HEALTH CARE: WHAT SERVICES AND PRODUCTS ARE PURCHASED WITH HIV/AIDS FUNDS?

As shown in Figure 4.4, in 2009/10 outpatient curative care accounted for the largest share of  $THE_{HIV}$  at 33 percent, followed by prevention and public health programmes at 32 percent and inpatient curative care at 19 percent. Overall expenditures on curative services (inpatient and outpatient curative care) declined from 56 percent in 2005/06 to 52 percent in 2009/10, while expenditures on prevention and public health programmes increased from 27 percent to 32 percent over the same period.

**FIGURE 4.4: FUNCTIONS FOR HIV/AIDS SERVICES, 2001/02, 2005/06, AND 2009/10**

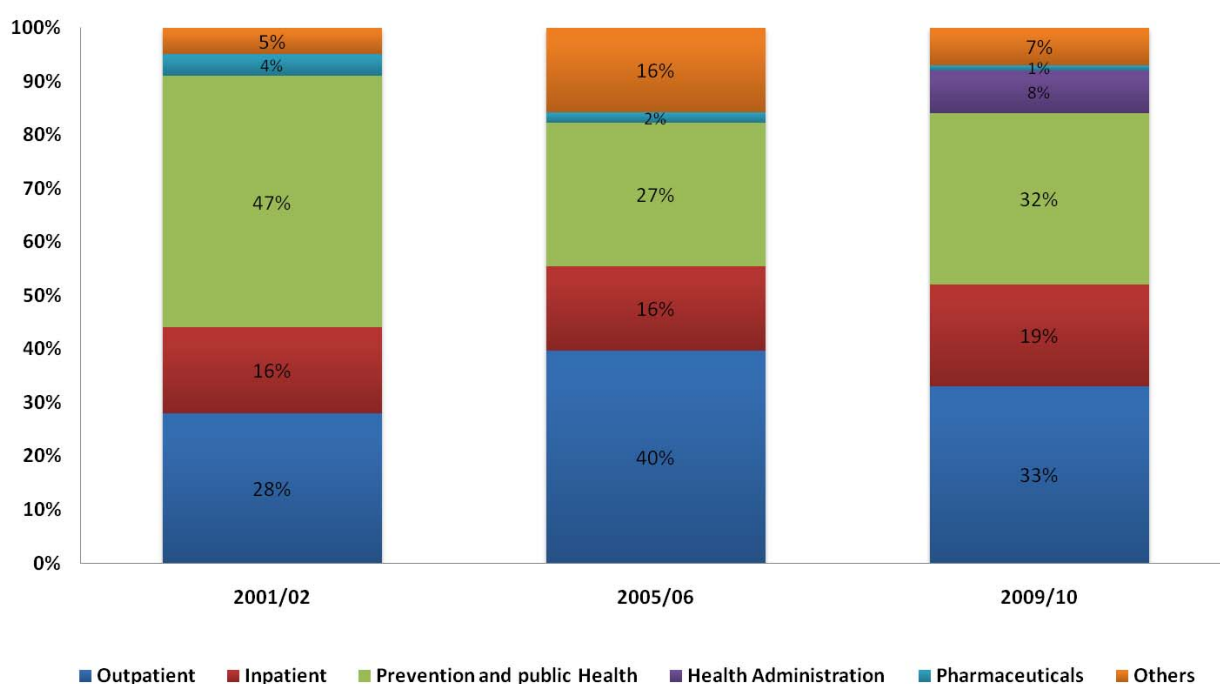


Table 4.4 summarises expenditure trends in absolute values for the three years of THE<sub>HIV</sub> estimates. 2009/10 shows an increase in expenditures on curative inpatient care and prevention and public health programmes from 2005/06 levels, at 41 percent and 32 percent respectively. Expenditures on pharmaceuticals purchased from pharmacies declined by 44 percent between 2005/06 and 2009/10.

**TABLE 4.4: ABSOLUTE VALUE BREAKDOWN BY FUNCTION FOR HIV/AIDS SERVICES**

Functions	2001/02	2005/06	2009/10	Percentage change (2005/06 and 2009/10)
Curative outpatient	4,003,432,579	10,834,491,446	9,945,857,293	-8%
Curative inpatient	2,287,675,759	4,062,934,292	5,726,402,684	41%
Prevention and public health	6,720,047,543	7,313,281,726	9,644,467,678	32%
Health Admin	-	-	2,411,116,919	-
Pharmaceuticals	529,025,019	541,724,572	301,389,615	-44%
Others	757,792,595	4,333,796,578	2,109,727,305	-51%
Total	14,297,973,496	27,086,228,614	30,138,961,493	11%





## 5. REPRODUCTIVE HEALTH (RH) SUBACCOUNT FINDINGS

### 5.1 INTRODUCTION

Reproductive health (RH) programmes are essential to the achievement of the MDGs. The 2007 National Reproductive Health Policy focuses on enhancing the RH status for all Kenyans, as espoused in the NHSSP II, 2005-2010. The NHSSP II is being implemented through the delivery of a minimum package of services commonly referred to as the Kenya Essential Package for Health (KEPH), where reproductive health is a core component.

The Ministries of Health have prioritised the essential components of RH care, including: safe motherhood, maternal and neonatal health, family planning, adolescent/youth sexual and reproductive health, gender issues, reproductive tract infections and cancers, and RH for elderly persons.

Substantial progress has been achieved in the implementation of population policies and programmes. However, maternal mortality in Kenya is unacceptably high. Approximately 488 women per 100,000 live births die due to pregnancy and childbirth-related causes. While family planning knowledge is almost universal among women of reproductive age, contraceptive prevalence rate for modern methods is still low, at 46 percent (KDHS 2008-2009). Nationally, the proportion of children born at home has not changed since 1994, remaining at over 50 percent (KDHS 2008-2009). In order to address these challenges, the Ministries of Health developed the national Reproductive Health Policy in 2007, while at the same time including reproductive health interventions as part of the Kenya essential package for health.

## 5.2 SUMMARY STATISTICS FOR REPRODUCTIVE HEALTH SUBACCOUNT EXPENDITURES

In 2009/10, total reproductive health expenditures ( $THE_{RH}$ ) amounted to Ksh 17 billion (\$225 million), an increase from Ksh 13 billion (\$170 million) in 2005/06. In 2009/10,  $THE_{RH}$  accounted for 13.9 percent of THE and 0.8 percent of GDP in 2009/10; this indicator has remained stable when compared to 2005/06 expenditures. Table 5 summarises the RH expenditures in 2005/06 and 2009/10.

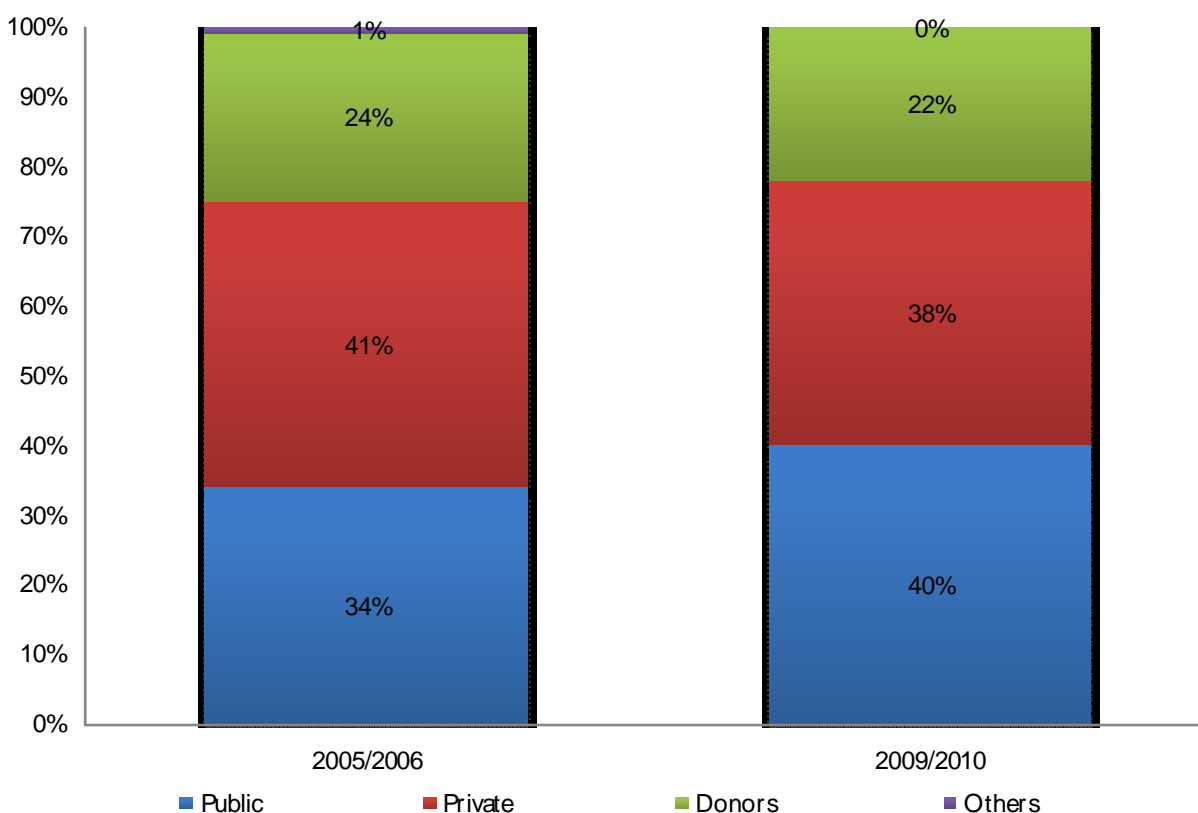
**TABLE 5: RH SUBACCOUNT SUMMARY STATISTICS: 2005/06 AND 2009/10**

Indicators	2005/06	2009/10
Total reproductive health expenditure ( $THE_{RH}$ ), Ksh	12,916,809,063	17,072,681,402
Total reproductive health expenditure ( $THE_{RH}$ ), \$	170,361,502	225,173,851
Reproductive health expenditure as a % of general THE	12.7%	13.9%
Reproductive health expenditure as a % of GDP	0.6%	0.8%
Financing sources as a % of $THE_{RH}$		
Public	34%	40%
Private	41%	38%
Donors	24%	22%
Others	1%	0%
Financing agent distribution as a % of $THE_{RH}$		
Public	54%	57%
Private	44%	32%
NGOs and donors	2%	11%
Provider distribution as a % of $THE_{RH}$		
Public facilities	61%	55%
Private facilities	30%	25%
Provision of public health programmes	4%	10%
Health administration and health insurance	n/a	8%
CHWs	n/a	2%
Others	5%	0%
Function distribution as a % of $THE_{RH}$		
Inpatient	62%	30%
Outpatient	25.4%	41%
Pharmaceuticals	0.1%	1%
Prevention and public health	3.4%	11%
Health administration	5.8%	10%
Capital Formation	0%	6%
Others	3.3%	1%

### 5.3 FINANCING SOURCES OF REPRODUCTIVE HEALTH CARE: WHO PAYS FOR REPRODUCTIVE HEALTH SERVICES?

As shown in Figure 5.1, the public and private sectors (including households) were the primary sources of RH financing in 2009/10, contributing 40 percent and 38 percent respectively. The relative contribution of the public sector increased from 34 percent in 2005/06 to 40 percent in 2009/10.

**FIGURE 5.1: FINANCING SOURCES OF RH SERVICES, 2005/06 AND 2009/10**



In absolute values, the public sector financing of  $THE_{RH}$  increased by 55 percent from Ksh 4.4 billion in 2005/06 to Ksh 6.8 billion in 2009/10. Private and donor funding in absolute terms increased by 23 percent and 21 percent, respectively, between 2005/06 and 2009/10. Table 5.1 provides a breakdown of financing sources for RH spending in absolute values for 2005/06 and 2009/10.

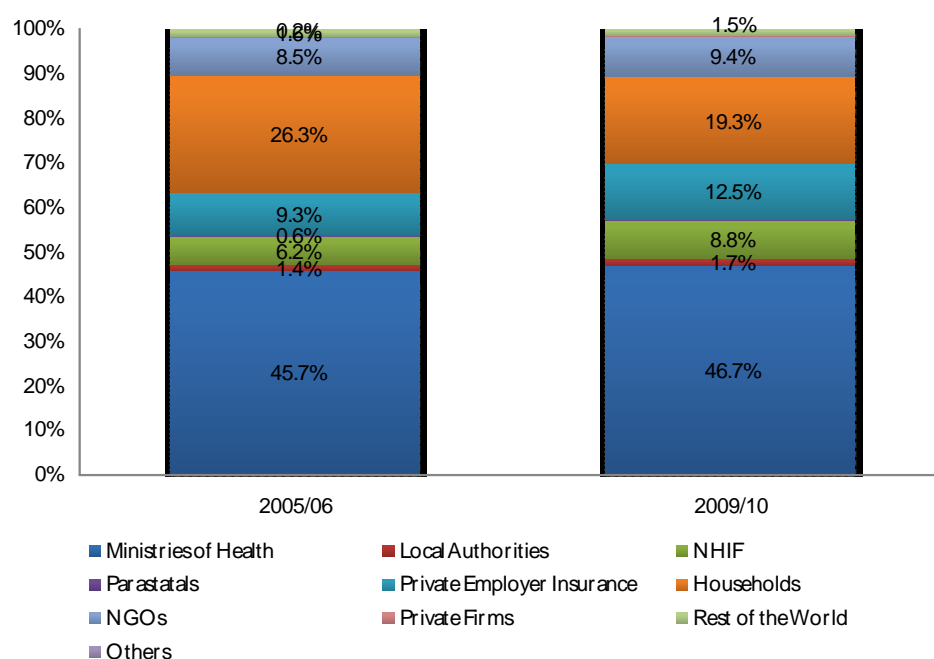
**TABLE 5.1: FINANCING SOURCES FOR RH IN ABSOLUTE VALUES, 2005/06 AND 2009/10**

Source	2005/06	2009/10	Percent change
Public	4,391,715,081	6,829,072,561	55%
Private	5,295,891,716	6,487,618,933	23%
Donors	3,100,034,175	3,755,989,908	21%
Others	129,168,091	-	n/a
Total	12,916,809,063	17,072,681,402	32%

## 5.4 FINANCING AGENTS OF REPRODUCTIVE HEALTH CARE: WHO MANAGED REPRODUCTIVE HEALTH FUNDS?

Figure 5.2 shows the role of various financing agents in managing  $THE_{RH}$ . Overall, 46.7 percent of  $THE_{RH}$  in 2009/10 passed through the Ministries of Health, which continue to be the major financing agents of RH. Households now finance less of  $THE_{RH}$ , at 19.3 percent compared to 26.3 percent in 2005/06.

**FIGURE 5.2: BREAKDOWN OF  $THE_{RH}$  BY FINANCING AGENT, 2005/06 AND 2009/10**



In absolute values, RH resources controlled by NHIF increased by 88 percent in 2009/10 compared to 2005/06. Other notable increases include RH funds managed by private employer insurance and by local authorities, which rose by 78 percent and 35 percent respectively in 2009/10 over the 2005/06 levels. Table 5.2 shows the trend in absolute values and percentage change of each financing agent for 2005/06 and 2009/10.

**Table 5.2 Financing Agents for RH in Absolute Values, 2005/06 and 2009/10**

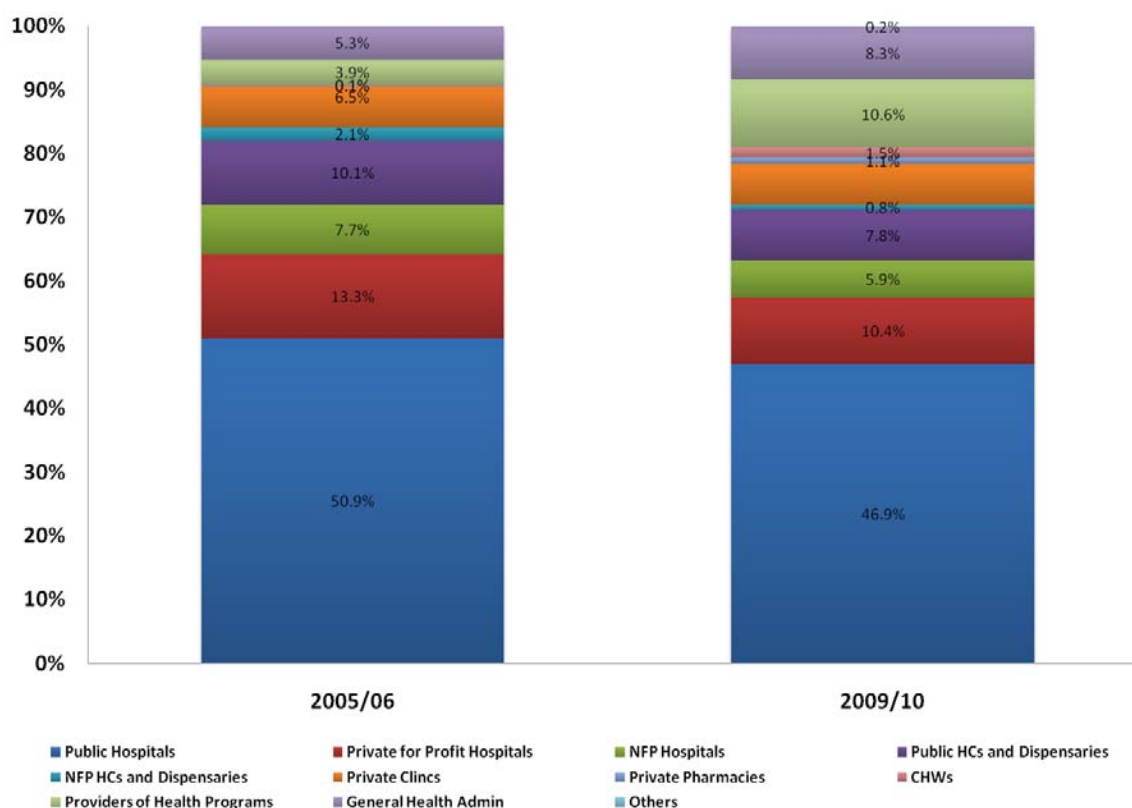
<b>Financing Agents</b>	<b>2005/06</b>	<b>2009/10</b>	<b>Percent change</b>
Ministries of Health	5,902,981,742	7,971,058,412	35.0%
Local authorities	180,835,327	289,706,092	60.2%
NHIF	800,842,162	1,506,676,468	88.1%
Parastatals	77,500,854	1,308,176	-98.3%
Private employer insurance	1,201,263,243	2,142,278,543	78.3%
OOP	3,397,120,784	3,288,234,716	-3.2%
NGOs	1,097,928,770	1,608,194,104	46.5%
Private firms	25,833,618	1,393,125	-94.6%
Rest of the world	206,668,945	263,831,765	27.7%
Others	25,833,618	-	-100.0%
<b>TOTAL</b>	<b>12,916,809,063</b>	<b>17,072,681,402</b>	<b>32.2%</b>

## **5.5 PROVIDERS OF RH HEALTH CARE: WHO USES RH FUNDS TO DELIVER CARE?**

Public hospitals utilised the largest portion of  $THE_{RH}$ , although their share declined slightly from 51 percent in 2005/06 to 47 percent in 2009/10. Public health centres and dispensaries used only 8 percent in 2009/10, down from 10 percent in 2005/06. However, public facilities still remain the major provider of RH services. The amount of  $THE_{RH}$  utilised by providers of public health programmes more than doubled between 2005/06 and 2009/10.

Figure 5.3 shows a comparison of providers of RH services in 2005/06 and 2009/10.

**FIGURE 5.3: BREAKDOWN OF THE<sub>RH</sub> BY PROVIDERS, 2005/06 AND 2009/10**



In absolute values, the amount of resources for THE<sub>RH</sub> utilised by private pharmacies and CHWs increased significantly, by 1,314 percent and 1,907 percent respectively, in 2009/10 above the 2005/06 levels. Table 5.3 shows providers of THE<sub>RH</sub> in absolute values for 2005/06 and 2009/10.

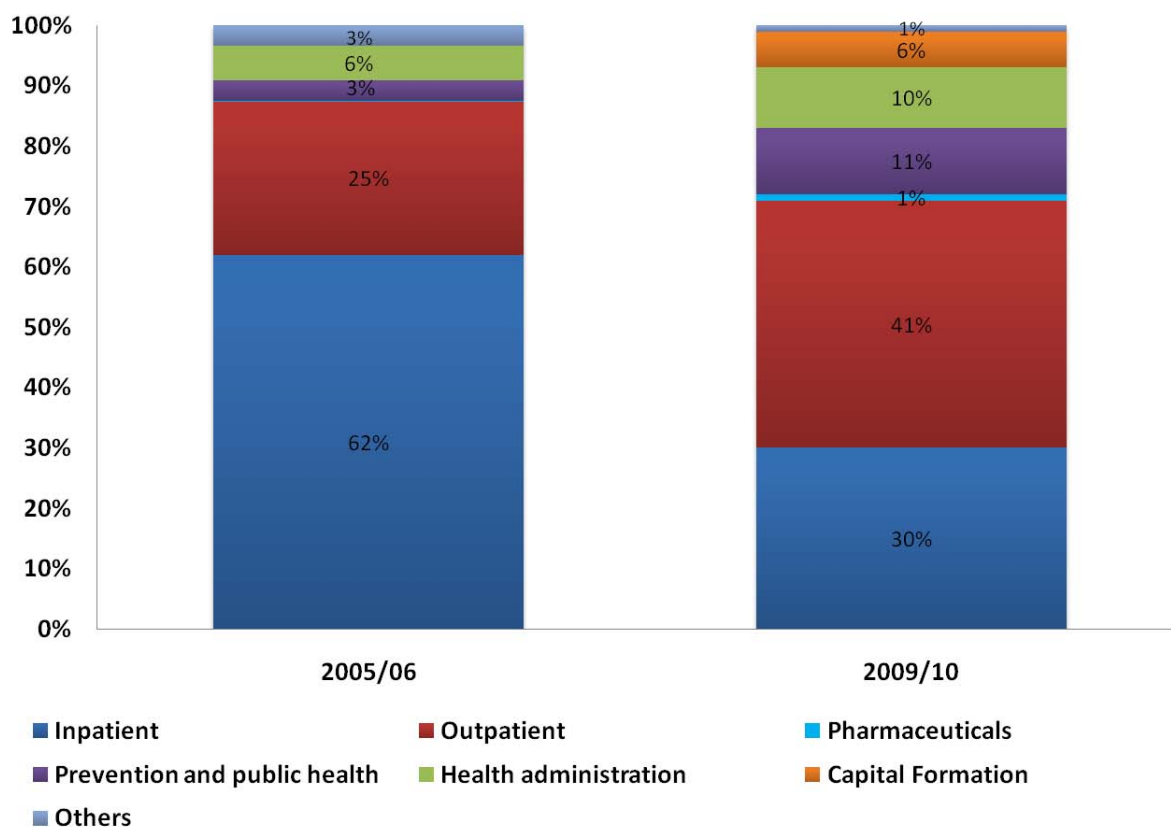
**TABLE 5.3 PROVIDERS OF RH SERVICES IN ABSOLUTE VALUES, 2005/06 AND 2009/10**

Providers	2005/06	2009/10	Percent change
Public hospitals	6,574,655,813	8,011,274,178	21.9%
Private for-profit hospitals	1,717,935,605	1,780,736,891	3.7%
NFP hospitals	994,594,298	1,010,654,642	1.6%
Public HCs and dispensaries	1,304,597,715	1,335,067,791	2.3%
NFP HCs and dispensaries	271,252,990	141,360,134	-47.9%
Private clinics	839,592,589	1,089,483,598	29.8%
Private pharmacies	12,916,809	182,669,351	1314.2%
CHWs	12,916,809	259,241,176	1907.0%
Providers of health programmes	503,755,553	1,816,821,136	260.7%
General Health Admin	684,590,880	1,414,992,922	106.7%
Others	-	30,379,583	
	12,916,809,063	17,072,681,402	32.2%

## 5.6 FUNCTIONS OF RH HEALTH CARE: WHAT SERVICES AND PRODUCTS ARE PURCHASED WITH RH FUNDS?

As shown in Figure 5.4, in 2005/06, 62 percent of  $THE_{RH}$  was used to purchase inpatient curative care compared to just 30 percent in 2009/10, representing a decline of 52 percent. Outpatient curative care accounted for 41 percent of the  $THE_{RH}$  in 2009/10, an increase from 25 percent in 2005/06.

**FIGURE 5.4: RH FUNCTIONS, 2005/06 AND 2009/10**



Resources utilised on pharmaceuticals and on prevention and public health programmes increased sharply in absolute terms between 2005/06 to 2009/10, at 1,222 percent and 328 percent respectively. During the same period, resources used to purchase inpatient care declined by 36 percent. Table 5.4 shows the distribution of  $THE_{RH}$  by function for 2005/06 and 2009/10.

**TABLE 5.4: FUNCTIONS OF RH SERVICES IN ABSOLUTE VALUES, 2005/06 AND 2009/10**

Function	2005/06	2009/10	Percent change
Inpatient	8,008,421,619	5,121,804,421	-36%
Outpatient	3,280,869,502	6,999,799,375	113%
Pharmaceuticals	12,916,809	170,726,814	1222%
Prevention and public health	439,171,508	1,877,994,954	328%
Health administration	749,174,926	1,707,268,140	128%
Capital formation	-	1,024,360,884	n/a
Others	426,254,699	170,726,814	-60%
Total	12,916,809,063	17,072,681,402	32%



## 6. MALARIA SUBACCOUNT FINDINGS

### 6.1 INTRODUCTION

Malaria remains a leading cause of morbidity and mortality in Kenya, impacting the country's socioeconomic status through loss of work and high expenditures on malaria treatment. To address the burden of malaria, the government, in collaboration with other partners, developed the Kenyan National Malaria Strategy (KNMS) 2009-2017 (Ministry of Health, 2009) which builds on the current KNMS 2003-2010. Key achievements have been made in scaling up malaria control interventions. These include rolling out a new malaria treatment policy using Artemisinin Combination Therapy (ACT) and increasing coverage of insecticide-treated nets (ITN), from 4.4 percent (KDHS 2003) to 48.2 percent (KDHS 2008-09).

The malaria indicator survey (MIS) of 2007 found a malaria parasite prevalence of 7.6 percent by rapid diagnostic test (RDT) and 3.5 percent by microscopy among children under the age of five (Division of Malaria Control 2009). Malaria accounts for 30 percent of morbidity and 19 percent of mortality in Kenya (Ministry of Health 2007).

### 6.2 SUMMARY STATISTICS FOR MALARIA FINDINGS

In 2009/10, the total health expenditure on malaria ( $THE_{\text{Malaria}}$ ) was Ksh 30.7 billion (\$405 million), or 25 percent of THE.  $THE_{\text{Malaria}}$  in 2009/10 was equivalent to 1.4 percent of the GDP. Table 6 summarises malaria health expenditures in 2009/10.

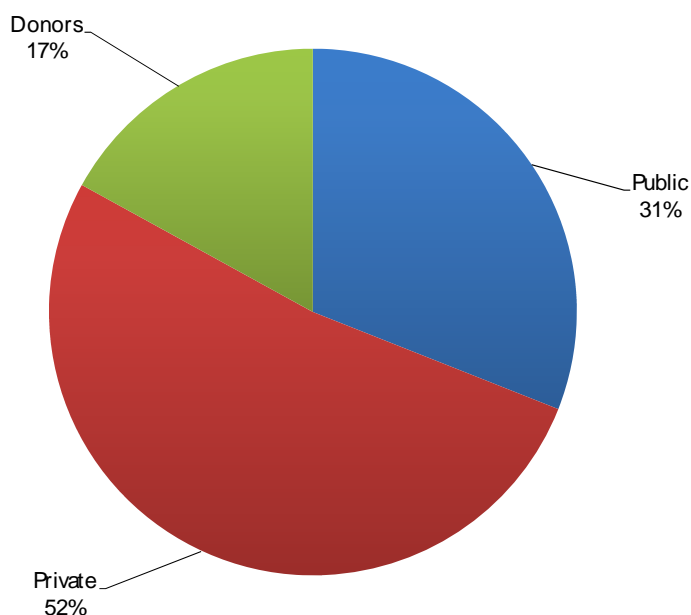
**TABLE 6: SUMMARY STATISTICS FOR MALARIA SUBACCOUNT EXPENDITURES, 2009/10**

Indicators	2009/10
Use of net by pregnant women (2008) (KDHS 2008-09)	48.3%
ITN coverage per household (ownership of at least one net) (2007) (MIS)	63%
Total malaria health expenditure (THE <sub>Malaria</sub> ), Ksh	30,678,543,029
Total malaria health expenditure (THE <sub>Malaria</sub> ), US\$	404,623,358
Malaria spending as a % of THE	25%
Malaria spending as a % of GDP	1.4%
<b>Financing Sources as % of THE<sub>Malaria</sub></b>	
Public	31%
Private	52%
Donors	17%
<b>Financing agent distribution as a % of THE<sub>Malaria</sub></b>	
Public	42.2%
Private	47.1%
NGOs and donors	10.7%
<b>Provider distribution as a % of THE<sub>Malaria</sub></b>	
Public facilities	58.3%
Private facilities	25.2%
General health administration and insurance	5.7%
Providers of public health programmes	1.3%
CHWs	9.2%
Others	0.3%
<b>Function distribution as a % of THE<sub>Malaria</sub></b>	
Outpatient	43.7%
Inpatient	30.6%
Prevention and public health	10.2%
Health administration	6.1%
Pharmaceuticals	4.0%
Others	5.4%

### 6.3 FINANCING SOURCES OF MALARIA HEALTH CARE: WHO PAYS FOR MALARIA SERVICES?

Figure 6.1 shows the relative contribution of the different financers of malaria health spending in 2009/10. The major source of malaria health funding was the private sector (including household funds) at 52 percent, followed by the public sector and donors, at 31 percent and 17 percent respectively.

**FIGURE 6.1: SOURCES OF MALARIA FUNDS, 2009/10**

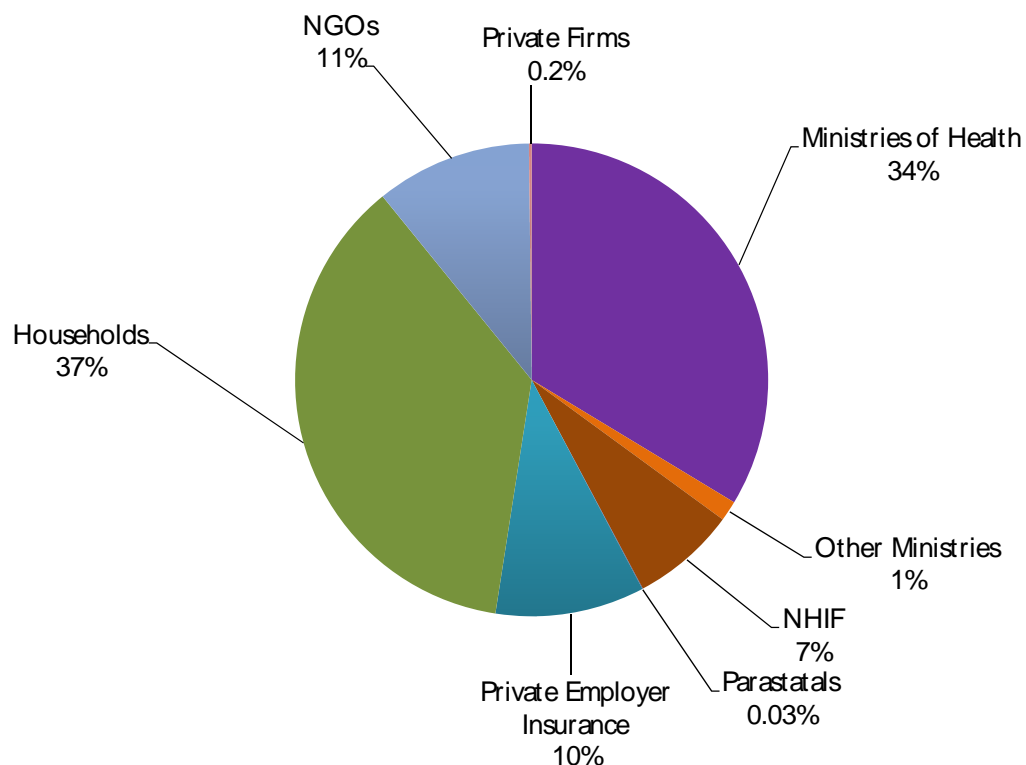


Note that household estimates for malaria expenditures may include treatment for fevers from other causes, contributing to an overestimation of the private sector contribution to *THE*<sub>Malaria</sub>.

## 6.4 FINANCING AGENTS OF MALARIA HEALTH CARE: WHO MANAGES MALARIA FUNDS?

Households are the primary managers of THE<sub>Malaria</sub>, at 37 percent in 2009/10, followed by the Ministries of Health at 34 percent. Figure 6.2 provides a breakdown of financing agents for THE<sub>Malaria</sub> in 2009/10.

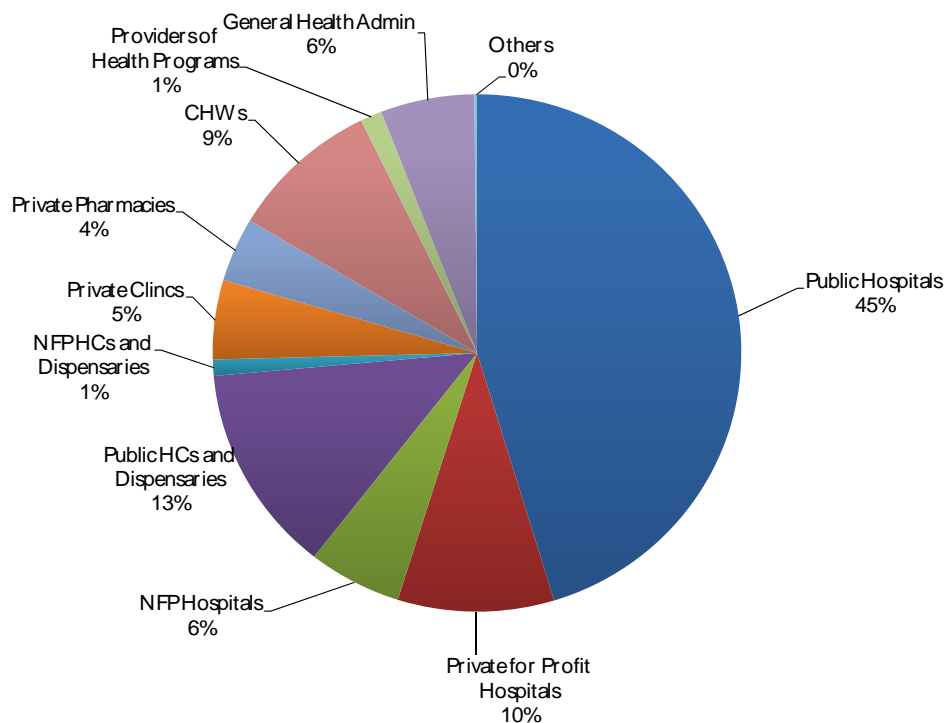
**FIGURE 6.2: MANAGERS OF MALARIA FUNDS**



## 6.5 PROVIDERS OF MALARIA HEALTH CARE: WHO USES MALARIA FUNDS TO DELIVER CARE?

As shown in Figure 6.3, public hospitals utilised the largest proportion of THEMalaria, at 45 percent in 2009/10, followed by public health centres and dispensaries, at 13 percent.

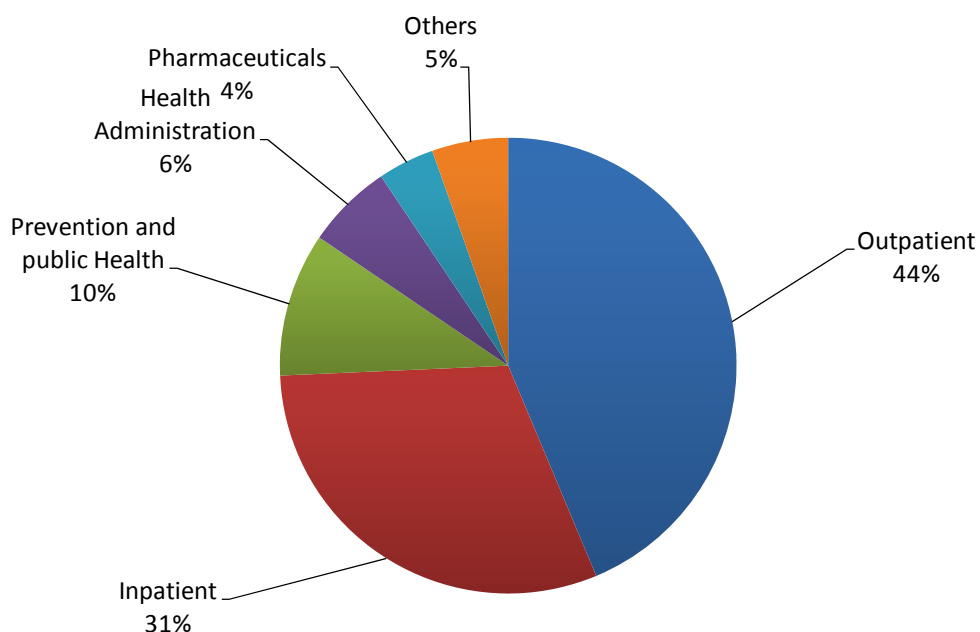
**FIGURE 6.3: PROVIDERS OF THEMALARIA, 2009/10**



## 6.6 FUNCTIONS OF MALARIA HEALTH CARE: WHAT SERVICES AND PRODUCTS ARE PURCHASED WITH MALARIA FUNDS?

About 44 percent of malaria funds were used to purchase outpatient curative care, while 31 percent was used to purchase inpatient curative care. Prevention and public health programmes absorbed 10 percent of THE<sub>Malaria</sub>. Figure 6.4 shows the services purchased with THE<sub>Malaria</sub> in 2009/10.

**FIGURE 6.4: MALARIA FUNCTIONS, 2009/10**



## 7. TUBERCULOSIS SUBACCOUNT FINDINGS

### 7.1 INTRODUCTION

The Ministries of Health are implementing initiatives towards achieving internationally agreed-upon TB control targets, including the TB relevant MDGs. The immediate short-term goal is to sustain the gains already achieved with the 70/85 targets — that is, to detect 70 percent of infectious TB and cure 85 percent of the detected cases, sustaining this effort over a prolonged period of time to achieve the MDGs. The TB MDG requires halting and beginning to reverse both incidence and mortality due to TB by 2015.

Kenya has a large and rising TB disease burden and is ranked among the 22 countries that collectively share about 80 percent of the world's TB cases. The prevalence rate per 100,000 adults in Kenya is 289, as of 2009 (Global Health Facts). Prevalence is associated with the human immunodeficiency virus (HIV); moreover, there is growing resistance to TB medications. Other factors that may be contributing to the TB disease burden in Kenya include high poverty levels with attendant socioeconomic deprivation. This is most evident in urban areas, where there has been a phenomenal growth of overcrowding and substandard housing.

The TB subaccount, which is being implemented for the first time in Kenya, provides an opportunity to estimate the resource flows for TB services. These findings will inform resource mobilisation and allocations. The TB subaccount estimates have been developed in line with specific NHA producer's guidelines.

### 7.2 SUMMARY STATISTICS FOR TB SUBACCOUNT EXPENDITURES

In 2009/10, the total health expenditure for TB services ( $THE_{TB}$ ) was Ksh 1.4 billion (\$17.8 million), representing 0.1 percent of GDP and 1.1 percent of all health spending. Table 7.1 gives summary statistics on TB health expenditures for 2009/10.

**TABLE 7: TB SUBACCOUNT SUMMARY STATISTICS, 2009/10**

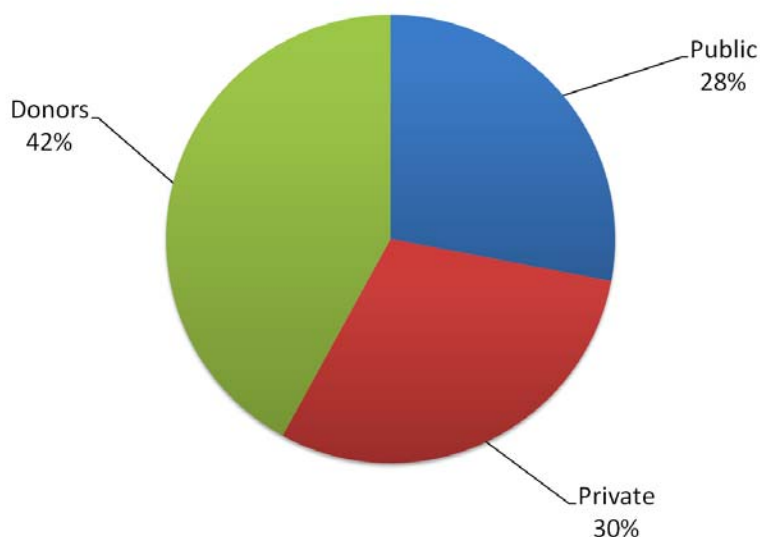
Indicators	
Prevalence rate (per 100,000 adults) (MoH)	289
Number of TB cases (MoH)	132,357
Total TB health expenditure (THE <sub>TB</sub> ) Ksh	1,351,924,263
Total TB health expenditure (THE <sub>TB</sub> ), \$	17,830,708
TB spending as a % of general THE	1.1%
TB spending as a % of GDP	0.1%
Financing sources as a % of THE <sub>TB</sub>	
Public	28%
Private	30%
Donors	42%
Financing agent distribution as a % of THE <sub>TB</sub>	
Public	39%
Private	27%
NGOs and donors	34%
Provider distribution as a % of THE <sub>TB</sub>	
Public facilities	37.4%
Private facilities	16.4%
General health administration and insurance	5.6%
Providers of public health programmes	36.4%
Community health workers	4.1%
Others	0.1%
Function distribution as a % of THE <sub>TB</sub>	
Outpatient	27.1%
Inpatient	17.9%
Prevention and public health	38.9%
Health administration and insurance	8.1%
Pharmaceuticals	2.3%
Others	5.7%

### 7.3 FINANCING SOURCES OF TB HEALTH CARE: WHO PAYS FOR TB SERVICES?

The main financing source for TB activities in 2009/10 was donor funding, at 42 percent of THE<sub>TB</sub>, followed by the private (including households) and public sector resources at 30 percent and 28 percent, respectively. Figure 7.1 provides a breakdown of financing sources for THE<sub>TB</sub> in 2009/10.



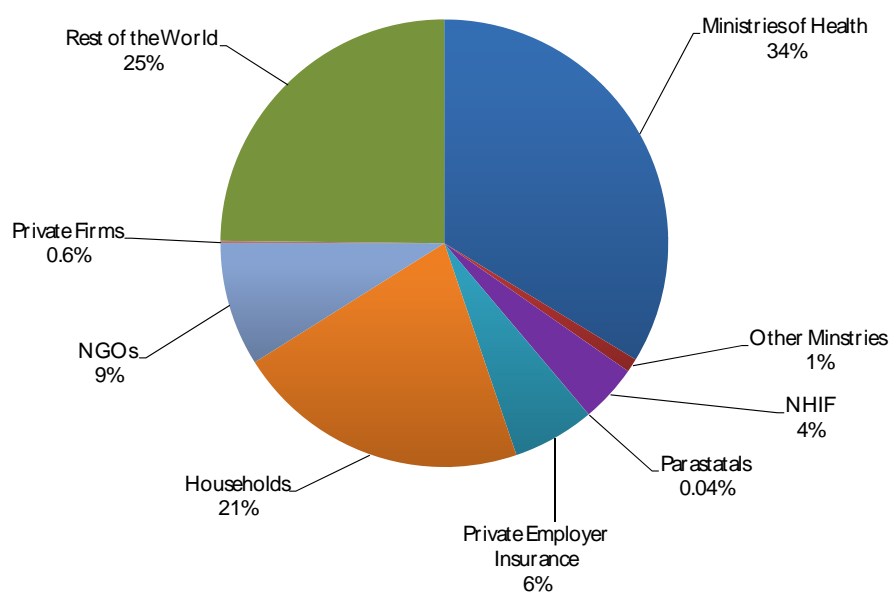
**FIGURE 7.1: FINANCING SOURCES OF TB FUNDS, 2009/10**



## 7.4 FINANCING AGENTS OF TB HEALTH CARE: WHO MANAGES TB FUNDS?

As shown in Figure 7.2, the Ministries of Health managed the largest share of TB funds, at 34 percent in 2009/10; donors and households managed 25 percent and 21 percent, respectively.

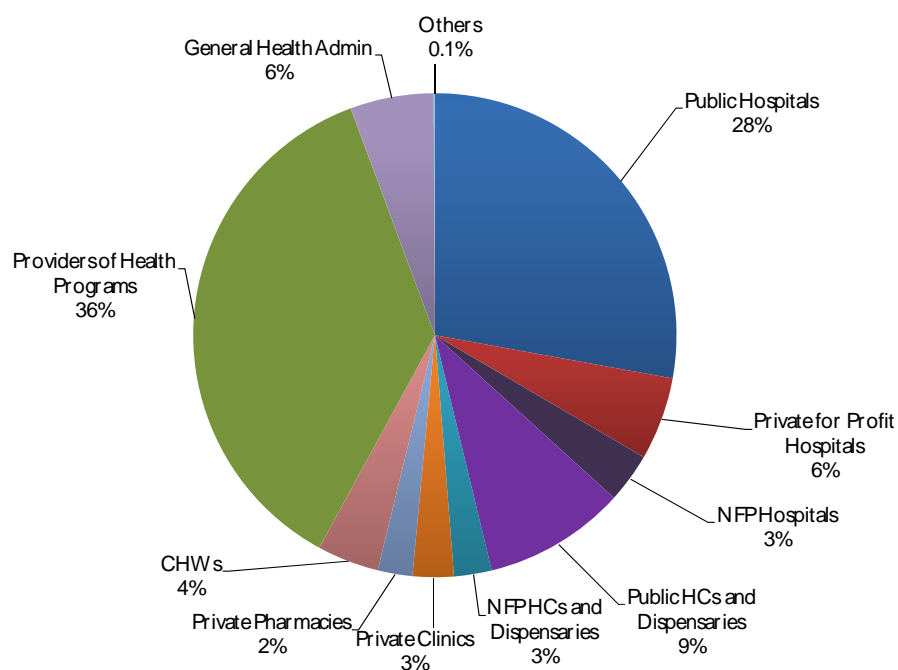
**FIGURE 7.2: FINANCING AGENTS FOR TB HEALTH FUNDS, 2009/10**



## 7.5 PROVIDERS OF TB HEALTH CARE: WHO USES TB FUNDS TO DELIVER CARE?

In 2009/10, providers of public health programmes accounted for the largest share of THE<sub>TB</sub>, at 36.4 percent. Government hospitals and public health centres and dispensaries controlled 28 percent and 9 percent of TB funds, respectively. Figure 7.3 provides a breakdown of THE<sub>TB</sub> distribution by provider.

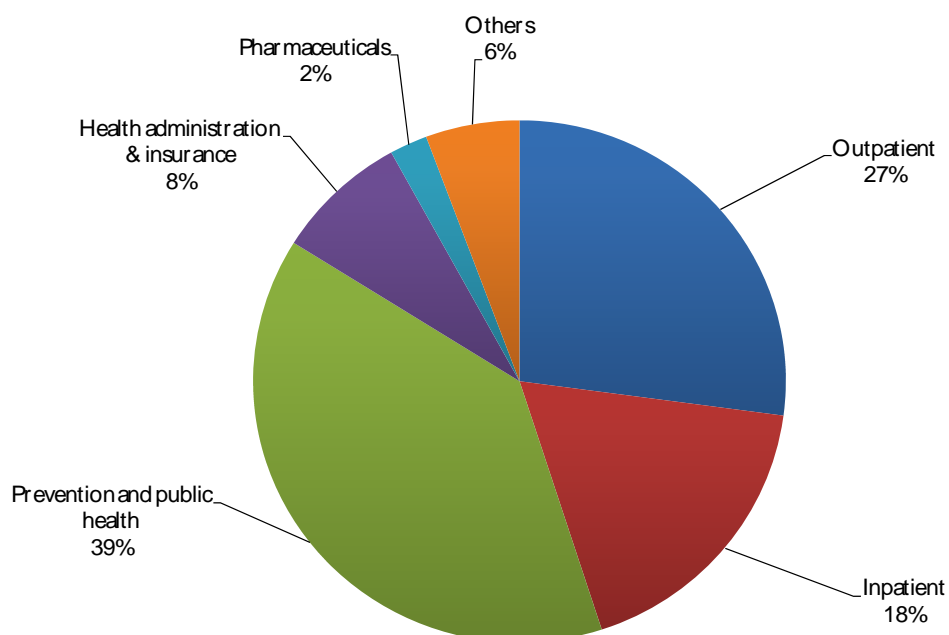
**FIGURE 7.3: PROVIDERS OF TB HEALTH SERVICES, 2009/10**



## 7.6 FUNCTIONS OF TB HEALTH CARE: WHAT SERVICES AND PRODUCTS ARE PURCHASED WITH TB FUNDS?

In 2009/10, prevention and public health activities accounted for the largest proportion of  $THE_{TB}$ , at 38.9 percent, followed by outpatient care, at 27.1 percent. Inpatient curative care accounted for 17.9 percent of  $THE_{TB}$  in 2009/10. Figure 7.4 provides a breakdown of  $THE_{TB}$  by function.

**FIGURE 7.4: BREAKDOWN BY TB FUNCTION, 2009/10**





## 8. CHILD HEALTH SUBACCOUNT FINDINGS.

### 8.1 INTRODUCTION.

Children under the age of five account for 15 percent of the Kenyan population. Children at this age are very vulnerable to diseases. The most common serious childhood ailments are malaria, diarrheal pneumonia, HIV/AIDS, and malnutrition; these diseases account for about 70 percent of childhood morbidity. The government has developed various policies and programmes to combat these diseases, including the Integrated Management of Childhood Illnesses. The government has also focused on building the capacity of service providers and improving the supply of pharmaceuticals and other supplies to health facilities, in collaboration with local and international stakeholders. All these efforts contribute to the effort to achieve child health (CH) targets set out by MDG 4 and other health sector policies.

To achieve these targets, there need to be adequate resources devoted to CH activities. The CH health subaccount provides an opportunity to estimate the resources flows for CH services in Kenya. These findings will inform both overall resource mobilisation for CH and the allocation of CH funds to different types of programmes. The CH subaccount was implemented in Kenya for the first time during this round of the NHA. The estimates have been developed in line with the CH subaccounts NHA producer's guidelines (WHO 2003).

### 8.2 SUMMARY STATISTICS FOR CH SUBACCOUNT EXPENDITURES

In 2009/10 a total of Ksh 9.2 billion (\$122 million) was spent on CH services. The total health expenditure on CH ( $THE_{CH}$ ) represents 0.4 percent of GDP and 7.5 percent of THE.  $THE_{CH}$  per child in 2009/10 was Ksh 1,551 (\$20.5). Table 8 provides summary statistics on CH expenditures for 2009/10.

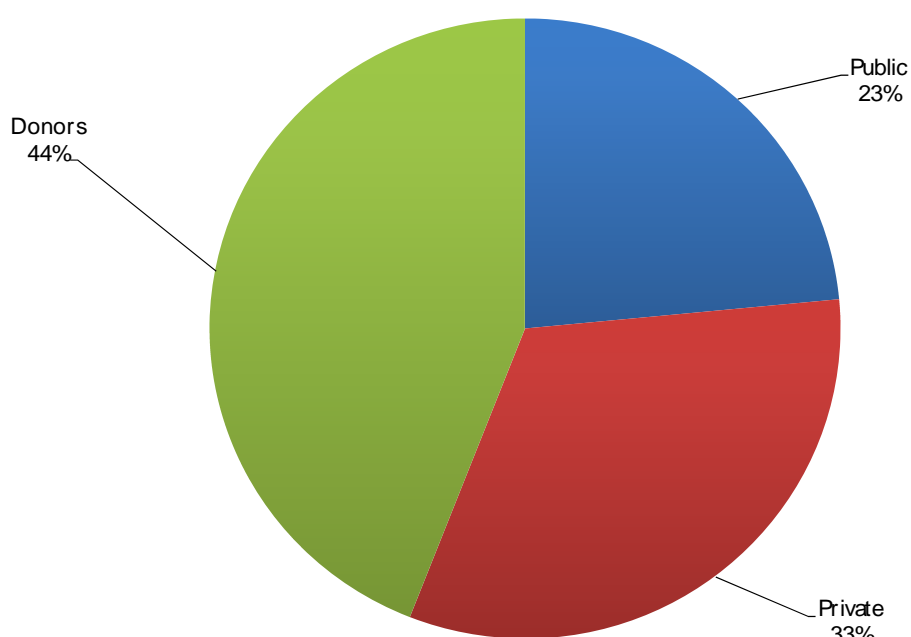
**TABLE 8: SUMMARY STATISTICS ON CH EXPENDITURES FOR 2009/10**

<b>Indicator</b>	<b>2009/10</b>
No of children below five years (2009) (KNBS)	5,940,310
Total CH Expenditure (Ksh)	9,213,420,543
Total CH Expenditure (\$)	121,517,021
Total CH Expenditure per child (Ksh)	1551
Total CH expenditure as a percentage of THE	7.5%
<b>Financing Sources as a % of THE<sub>CH</sub></b>	
Public	23%
Private	33%
Donors	44%
<b>Financing Agent distribution as a % of THE<sub>CH</sub></b>	
Public	31.3%
Private	30.6%
NGOs and donors	38.1%
<b>Provider distribution as a % of THE<sub>CH</sub></b>	
Public facilities	42.6%
Private facilities	23.2%
General Health Administration and insurance	6.6%
Providers of public health programmes	10.5%
CHWs	16.9%
Others	0.2%
<b>Function distribution as a % of THE<sub>CH</sub></b>	
Outpatient	36%
Inpatient	21%
Prevention and public health	29%
Health administration	8%
Pharmaceuticals	2%
Others	4%

### 8.3 FINANCING SOURCES OF CHILD HEALTH CARE: WHO PAYS FOR CHILD HEALTH SERVICES?

Donors and the private sector (including households) were the primary financing sources of THECH spending in 2009/10, accounting for 44 percent and 33 percent respectively. The government financed 23 percent of all THECH expenditure in 2009/10. Figure 8.1 provides a breakdown of financing sources of THECH in 2009/10.

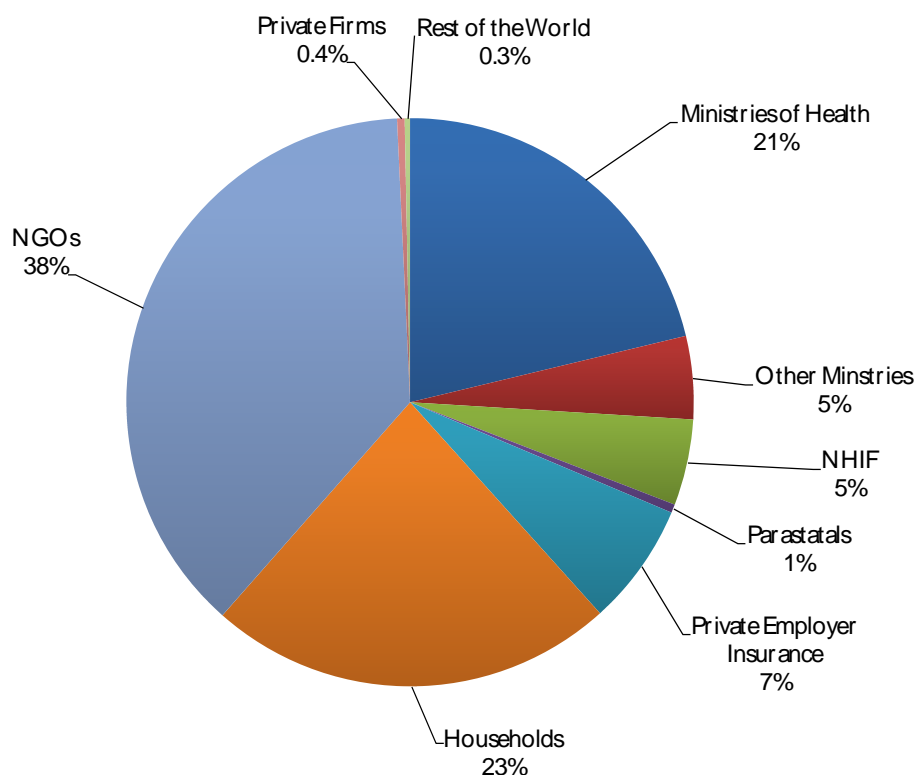
**FIGURE 8.1: FINANCING SOURCES OF CH SERVICES, 2009/10**



## 8.4 FINANCING AGENTS OF CHILD HEALTH CARE: WHO MANAGES CHILD HEALTH CARE FUNDS?

As shown in Figure 8.2, NGOs managed the largest share of THECH expenditures at 38 percent in 2009/10. Ministries of Health and households managed almost equal shares of THECH, at 21 percent and 23 percent, respectively.

**FIGURE 8.2: FINANCING AGENTS FOR CH FUNDS**

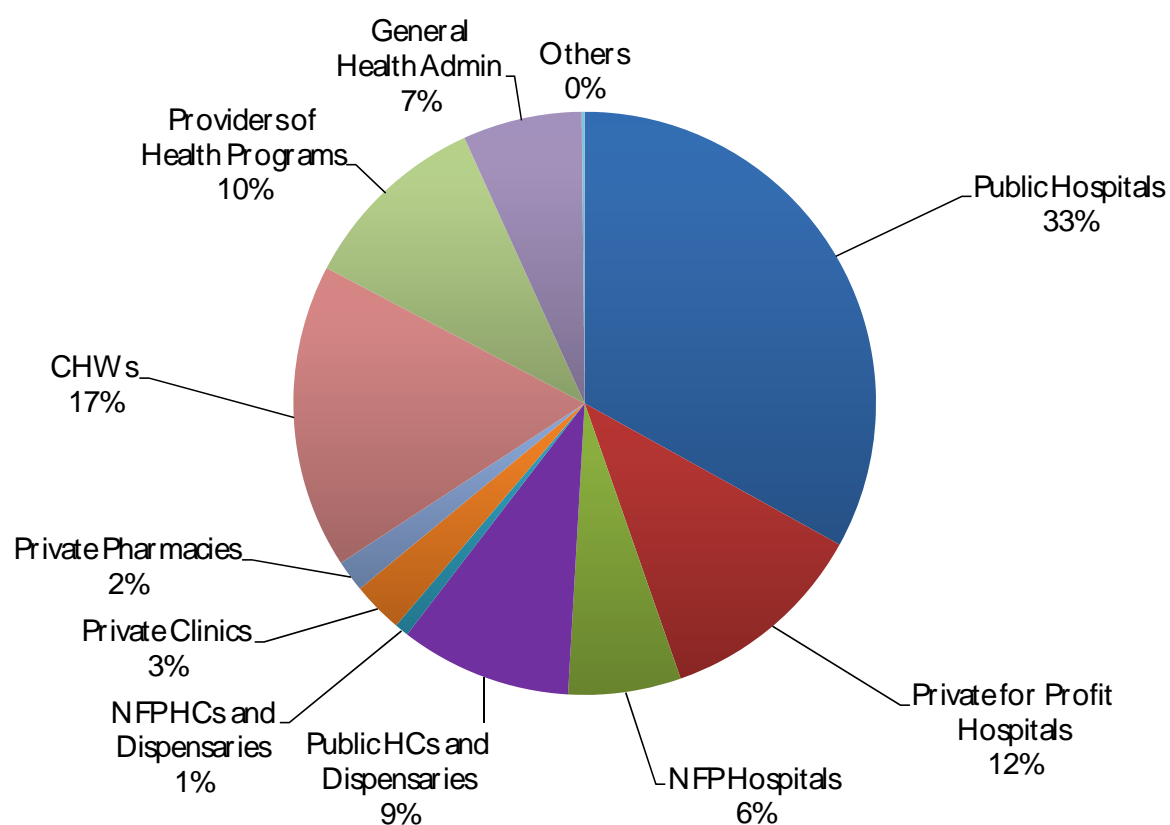




## 8.5 PROVIDERS OF CHILD HEALTH CARE: WHO USES CHILD HEALTH FUNDS TO DELIVER CARE?

The public sector, through government hospitals, utilised the largest share of  $THE_{CH}$ , at 33 percent in 2009/10. CHWss (including traditional birth attendants and community midwives) were the second largest providers of CH services, at 17 percent of  $THE_{CH}$ . Private for-profit hospitals and providers of public health programmes utilised 12 percent and 10 percent of  $THE_{CH}$  respectively in 2009/10. Figure 8.3 provides a breakdown of providers of  $THE_{CH}$  in 2009/10.

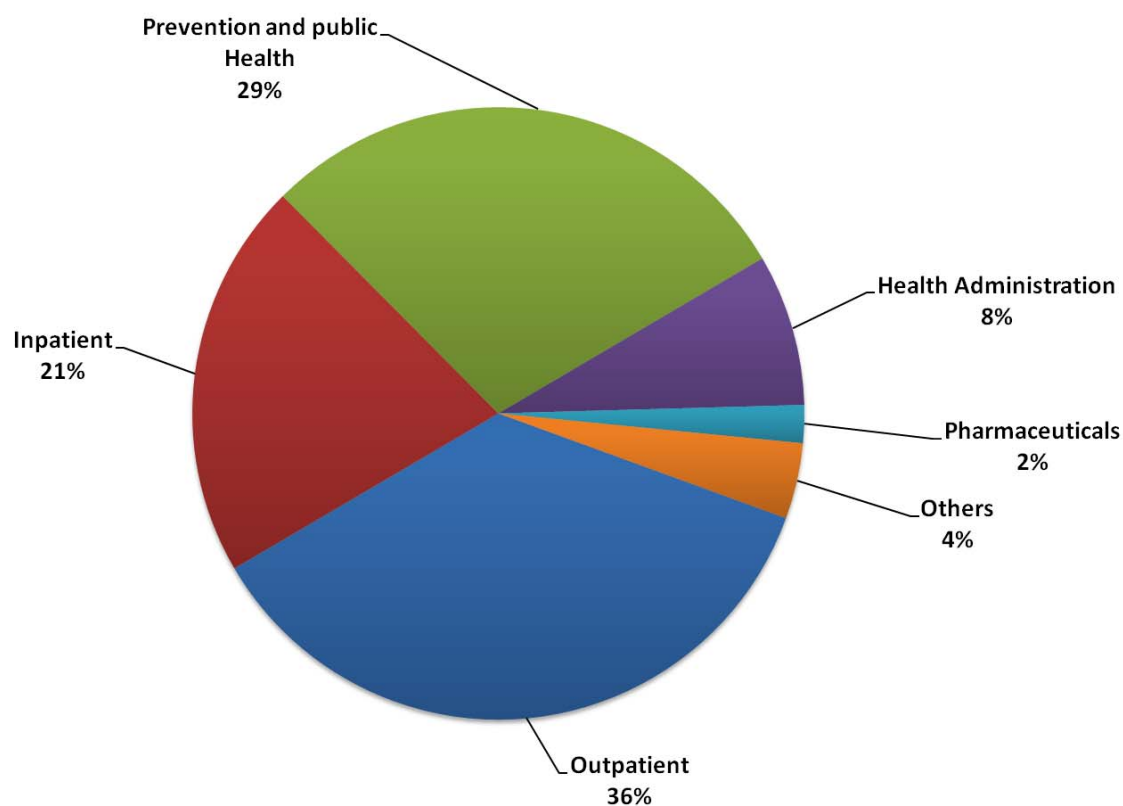
**FIGURE 8.3: PROVIDERS OF CH SERVICES**



## 8.6 FUNCTIONS OF CHILD HEALTH CARE: WHAT SERVICES AND PRODUCTS ARE PURCHASED WITH CHILD HEALTH FUNDS?

As shown in Figure 8.4, outpatient curative services (including treatment and preventive services provided as part of an outpatient visit) represented the largest proportion of  $THE_{CH}$ , at 36 percent, followed by inpatient curative care at 21 percent.

**FIGURE 8.4: CH CARE FUNCTIONS 2009/2010**



## 9. CONCLUSIONS

### 9.1 OVERALL HEALTH SPENDING

The health sector continues to be financed to a great extent by private funds (including household spending); in 2009/10, this sector contributed 37 percent of THE. The public health sector contribution to THE has remained constant at 29 percent since 2001/02, while the donor contribution has more than doubled.

Overall there was a 20 percent increase in THE between 2005/06 and 2009/10, translating into a per capita expenditure of Ksh 3,203 (\$42) in 2009/10. This level of expenditure is comparable to the figure of \$41, recommended by WHO to meet the minimum health package. However, this level is below the per capita expenditure of \$54 recommended by WHO to meet the cost of a minimum health package plus funds to support health system strengthening.

The Ministries of Health continue to be a major controller of THE, although their share has declined from 35 percent in 2005/06 to 27 percent in 2009/10. Public hospitals utilised the largest share of THE, at 36 percent, followed by providers of health programmes at 14 percent. Household OOP continues to account for a quarter of all health spending.

Outpatient curative care continues to take the largest portion of THE, at 39 percent in 2009/10; this has remained constant since 2005/06.

### 9.2 HIV/AIDS HEALTH SPENDING

The HIV/AIDS health expenditures share of THE decreased from 27 percent in 2005/06 to 25 percent in 2009/10. In absolute values however, THE<sub>HIV</sub> increased by 11 percent, from Ksh 27.1 billion in 2005/06 to Ksh 30.1 billion in 2009/10. The role of the private sector as a financing source for THE<sub>HIV</sub> increased from 23 percent in 2005/06 to 28 percent in 2009/10.

In 2009/10, donors financed 51 percent of HIV/AIDS health expenditures, followed by the private sector at 28 percent (increased from 23 percent in 2005/06) and the public sector at 21 percent.

Donors and NGOs were the primary managers of HIV/AIDS health expenditures, managing 48 percent of THE<sub>HIV</sub> in 2009/10, compared with 56 percent in 2005/06.

Public facilities utilised over one-third of THE<sub>HIV</sub>. CHWs have quickly become a predominant provider of HIV/AIDS health services, accounting for 21 percent of THE<sub>HIV</sub> in 2009/10. The majority of HIV/AIDS health expenditures were used to purchase curative services (52 percent), followed by prevention (32 percent).

### 9.3 REPRODUCTIVE HEALTH SPENDING

In 2009/10, THE<sub>RH</sub> amounted to Ksh 17 billion (\$225 million), an increase from Ksh 13 billion (\$170 million) in 2005/06, a 32-percent increase. However, THE<sub>RH</sub> accounted for 13.9 percent of THE and 0.8 percent of GDP in 2009/10 — a level that has remained almost constant since 2005/06.

The public and private sectors (including households) were the primary sources of RH financing in 2009/10, contributing 40 percent and 38 percent respectively. Overall, 57 percent of  $THE_{RH}$  passes through the public sector, primarily through the Ministries of Health.

Public facilities utilised 65 percent of  $THE_{RH}$  in 2005/06, but were used far less in 2009/10, at 55 percent. There has been a large decline in resources used to purchase inpatient curative services, from 62 percent in 2005/06 to 30 percent in 2009/10.

## 9.4 MALARIA HEALTH SPENDING

In 2009/10, the  $THE_{Malaria}$  amounted to Ksh 30.7 billion (\$405 million), equivalent to 1.4 percent of GDP.  $THE_{Malaria}$  on malaria accounted for 25 percent of THE in 2009/10, with over 52 percent of these funds coming from the private sector, including households. Almost 50 percent of malaria expenditures were managed by private agents, while 58 percent were utilised by public health facilities. Outpatient curative care continues to utilise the largest portion of  $THE_{Malaria}$ , at 44 percent in 2009/10.

## 9.5 TB HEALTH SPENDING

In 2009/10, the  $THE_{TB}$  was Ksh 1.4 billion (\$17.8 million), representing 0.1 percent of GDP. TB health expenditures accounted for 1.1 percent of THE in 2009/10, with donors contributing approximately 39 percent of the resources. Public entities managed the largest portion of  $THE_{TB}$ , at 39 percent in 2009/10. Public facilities and providers of public health programmes utilised similar shares of  $THE_{TB}$ , at 37.4 percent and 36.4 percent respectively. About 39 percent of  $THE_{TB}$  was used for prevention and public health activities.

## 9.6 CHILD HEALTH SPENDING

In 2009/10, a total of Ksh 9.2 billion (\$122 million) was spent on CH services, representing 7.5 percent of total health expenditure. Of these funds, donors contributed nearly half (44 percent); together with NGOs, they managed 38 percent of  $THE_{CH}$  in 2009/10. Public facilities utilised 43 percent of  $THE_{CH}$ , while 36 percent went to purchase outpatient curative care services.

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