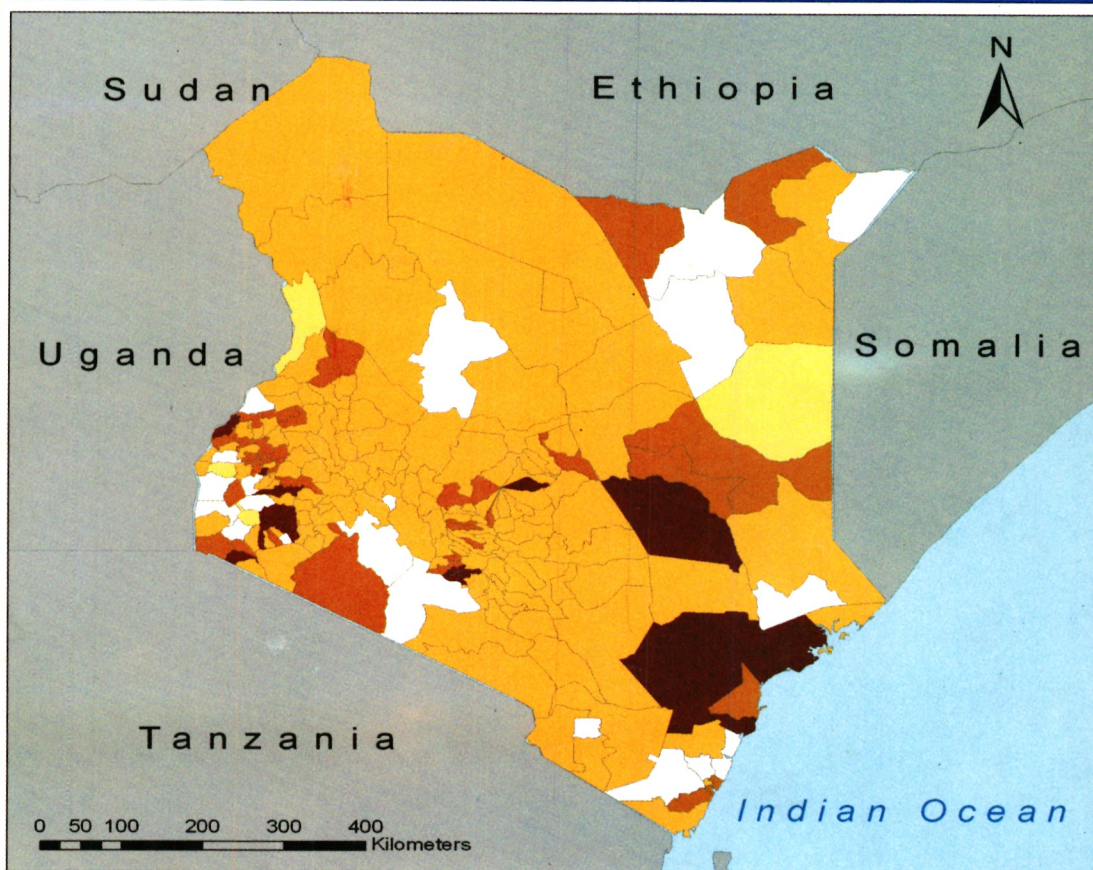




REPUBLIC OF KENYA

KENYA HIV AND AIDS MONITORING AND EVALUATION ANNUAL REPORT 2006

Distribution of HIV and AIDS CSOs by Constituency in Kenya, 2006.



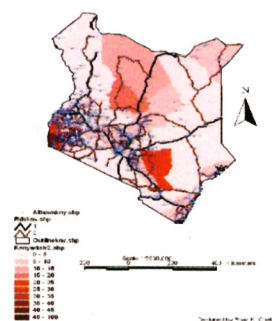
Legend	
	low (less than 10)
	Average (11-36)
	Good number (37-60)
	to verify (Over 60)
	No reports

maisha!

Attribute Data:
NACC COBPAR M&E System

Map Data:
Survey of Kenya

KENYA HIV PREVALENCE BY DISTRICT IN 2003



KENYA HIV AND AIDS
MONITORING AND EVALUATION
ANNUAL REPORT 2006

NATIONAL AIDS CONTROL COUNCIL

Acknowledgements

The Kenya HIV and AIDS Monitoring and Evaluation Annual report for 2006 has been compiled by the National AIDS Control Council Monitoring and Evaluation Division using data from the systems in the national HIV and AIDS Monitoring and Evaluation Framework. National AIDS Control Council would like to acknowledge the contributions from these systems. National AIDS Control Council received support in preparation of this document from the National HIV and AIDS Monitoring and Evaluation Committee. DFID through Constella Futures provided funds to print this report is also highly appreciated.

TABLE OF CONTENTS

List of Acronyms and Abbreviations	5
Introduction.....	7
Chapter 1: Overview of the HIV and AIDS Epidemic in Kenya	8
1.1 Background	8
1.2 Sentinel Surveillance for HIV Prevalence among Pregnant Women.....	8
1.3 HIV Prevalence among all adults 15-49	8
1.4 Methodology for Estimating National HIV Prevalence among all adults 15-49.....	9
1.5 Results: Prevalence among all adults 15-49	13
Chapter 2: Monitoring and Evaluation Framework Component.....	20
(a) Outcome and Impact Monitoring.....	20
2.1 Sentinel Surveillance.....	20
2.2 Kenya Demographic Health Survey (KDHS).....	20
2.3 Lot Quality Assurance Sampling (LQAS)	21
2.4 Behavioral Surveillance Survey (BSS)	22
2.5 HIV and AIDS Socio-economic impact study	23
(b) Special Survey	24
2.6 Kenya Demographic Health Survey (KDHS)	24
2.7 Male circumcision and HIV and AIDS Study in Kenya	26
2.7.1 Background	26
2.7.2 Methods	26
2.7.3 Findings	26
Chapter 3. Operationalization of the Monitoring and Evaluation Framework:	28
Coverage Indicators	28
3.1 Quarterly Programme Report (QPR)	28
3.2 Community- Based Programme Activity Reporting (COBPAP)	29
3.2.1 Introduction to National HIV and Aids National Monitoring and Evaluation system and development National Community Based HIV / AIDS activity work plan 2006.....	29
3.2.2 Structure of the plan and implementation	30
3.2.3 Funding of COBPAP	33
3.3 Kenya Service Provision Assessment (KSPA) Survey 2004.....	39
3.4 National Leprosy and Tuberculosis Programme (NLTP).....	40

3:4.1	Impact of HIV Infection on case - Finding.....	40
Chapter 4: Resource for the National Response.....		42
4.1	Introduction.....	42
4.2	Situational Analysis.....	43
4.3	Ministerial Response.....	43
4.4	Role of National Aids Control Council (NACC).....	44
4.5	Expected outcomes of the Decentralized Mainstreaming of HIV and AIDS in the MTEF process.....	44
4.6	Joint HIV and AIDS Programme Review 2006.....	47
Appendice	49
Appendix 1.	HIV Prevalence among pregnant women at sentinel surveillance sites, 1990-2005	50
Appendix 2:	HIV prevalence, number infected, and AIDS Deaths among adults by district in 2005.....	52
Appendix3:	Needs for treatment and support by District in 2005.....	53
Appendix 4:	HIV prevalence, number infected, and AIDS Deaths among adults by district in 2004.....	54
Appendix 5:	HIV prevalence, by district, 2002-2004.....	55

LIST OF ACRONYMS AND ABBREVIATIONS

ACU	AIDS Control Unit
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
BCC	Behaviour Change Communication
BSS	Behavioral Surveillance Survey
BTC	Blood Transfusion Centre
CACC	Constituency AIDS Control Community
CBO	Community Based Organization
CBS	Central Bureau of Statistics
CCC	Comprehensive Care Centre
CDC U.S	Centres for Disease Control and Prevention
CHW	Community Health Worker
CRIS	Country Response Information System
CSO	Civil Society Organisation
DASCO	District AIDS/STD Coordinator
DARTO	District ART Officer
DC	District Commissioner
DCO	District Clinical Officer
DDO	District Development Officer
DHRIO	District Health Records & Information Officer
DHS	Demographic Health Survey
DIO	District Information Officer
DMEC	District M&E Community
DMOH	District Medical Officer of Health
DPO	District population Officer
DSO	District Statistical Officer
DSS	Demographic Surveillance Survey
DTC	District Technical Committee
ERSWEC	Economic Recovery Strategy for Wealth and Employment Creation
FBO	Faith-Based Organization
FBS	Facility Based Survey
FIDA	International Federation of Women Lawyers
FHI	Family Health International
GoK	Government of Kenya
HBC	Home Based Care
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICASA	International Conference of AIDS and STIS in Africa
IGA	Income Generation Activities
JAPR	Joint HIV/AIDS Programme Review
KDHS	Kenya Demographic and Health Survey
KHADREP	Kenya HIV and AIDS Disaster Response Project
KNASP	Kenya National HIV/AIDS Strategic Plan
KNHRC	Kenya National Human Rights Commission
KSPA	Kenya Service Provision Assessment
LQAS	Lot Quality Assurance Sampling/Supervision
NEPHAK	Network for Empowerment of people Living with HIV/AIDS in Kenya

M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MoEST	Ministry of Education, Science & Technology
MoH	Ministry of Health
MoPND	Ministry of Planning and National Development
MTEF	Medium Term Expenditure Framework
NACC	National Aids Control Council
NAMIS	National HIV/AIDS Management Information Systems
NASCOP	National AIDS and STI Control Programme
NBTC	National Blood Transfusion Centre
NBTR	National Blood Transfusion Centre Report
NCPAD	National Coordinating Agency for Population and Development
NGO	Nongovernmental Organization
NLTP	National Leprosy and Tuberculosis Control Programme
OP	Office of the President
OVC	Orphans and Vulnerable Children
PARTO	Provincial ART Officer
PASCO	Provincial AIDS/STD Coordinator
PEP	Post Exposure Prophylaxis
PHR&IO	Provincial Health Records and Information officer
PLWHA	People Living with HIV/AIDS
PMCT	Prevention of Mother to Child Transmission
PMO	Provincial Medical Officer
PRSP	Poverty Reduction Strategy Paper
SRF	Standard Reporting Format
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Disease
STI	Sexually Transmitted infection
TOWA	Total War Against AIDS
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNGASS	The United Nations General Assembly Special Session on HIV/AIDS
VCT	Voluntary Counselling and Testing

Introduction

The Kenya HIV and AIDS Monitoring and Evaluation Report 2006 is a new addition to the documentation of the monitoring of the HIV and AIDS epidemic and National response in Kenya. The purpose of the report is to share the most recent information that has been collected by various HIV and AIDS Monitoring and Evaluation Framework data sources and contributors. Much of the information has been derived from other reports such as the Kenya Demographic and Health Survey (KDHS) 2003, the behavioural Surveillance Survey (BSS) 2002 and others as per the National M&E Framework.

The audience for the 2006 report encompasses all those involved in the HIV and AIDS response at policy, programming and implementation lever in Kenya as well as the general public, scholars and researchers. Kenya has made significant progress in its response to the HIV and AIDS epidemic and was cited in the most recent UNAIDS Global update (2005) as one of three countries that has experienced a significant drop in HIV prevalence. This has been attributed to safer sexual behaviour through successful behaviour change as well as the rapid scale-up of facility-based services. This 2006 report provides information on facility and non-facility based services and coverage rates and resource requirements.

Chapter 1: Overview of HIV and AIDS Epidemic in Kenya 2005

1.1 Background

Each year the National AIDS and STD Control Programme (NAS COP), Ministry of Health conducts sentinel surveillance for HIV infections at ante-natal clinics throughout the country. This data provide information on trends in HIV prevalence. In 2003 a national household survey (2003 KDHS) provided a good estimate of HIV prevalence in the adult population aged 15-49. This chapter describes the use of the sentinel surveillance data and the KDHS to estimate national prevalence in Kenya and the implications of that estimate for other indicators of interest, such as the number of people infected and the number of people in need of ART.

1.2 Sentinel Surveillance for HIV Prevalence among Pregnant Women

Sentinel surveillance for HIV is designed to provide information on trends in prevalence over time by geographic region. The HIV sentinel surveillance system in Kenya is implemented by the National AIDS and STD Control Programme (NAS COP). Data are collected for both ante-natal clinic (ANC) clients and for STD clinic clients. The STD data are primarily designed to represent high-risk populations while the ANC data represent the general population. Therefore, only the ANC data are used to estimate national prevalence.

The sentinel surveillance system has been in operation since 1990. It started with 13 sites and has expanded over time to include 44 sites today. The surveillance data for all sites are shown in Appendix 1.

1.3 HIV Prevalence among all adults 15-49

Adult HIV prevalence is the percentage of the adult population between the ages of 15 and 49 that is infected with HIV. Although ANC attendees are generally representative of the adult population 15-49, there are some differences between the two groups. For example, the age distribution of pregnant women is different from all women 15-49, all pregnant women are sexually active while some women 15-49 are not sexually active, the fertility of HIV+ women is lower than for HIV- women, and ANC surveillance only measures prevalence among women whereas the total adult population also includes men. As a result the prevalence data from ANC sites need to be adjusted to estimate total adult prevalence. This adjustment is made using the estimate of national adult prevalence (for men and women) for 2003 from the KDHS. The adjustment is calculated

for 2003 and then the same proportional adjustment is applied to the ANC-based estimate for all other years.

1.4 Methodology for Estimating National HIV Prevalence among Adults 15-49

There are eight steps in the preparation of the national estimate based on surveillance data.

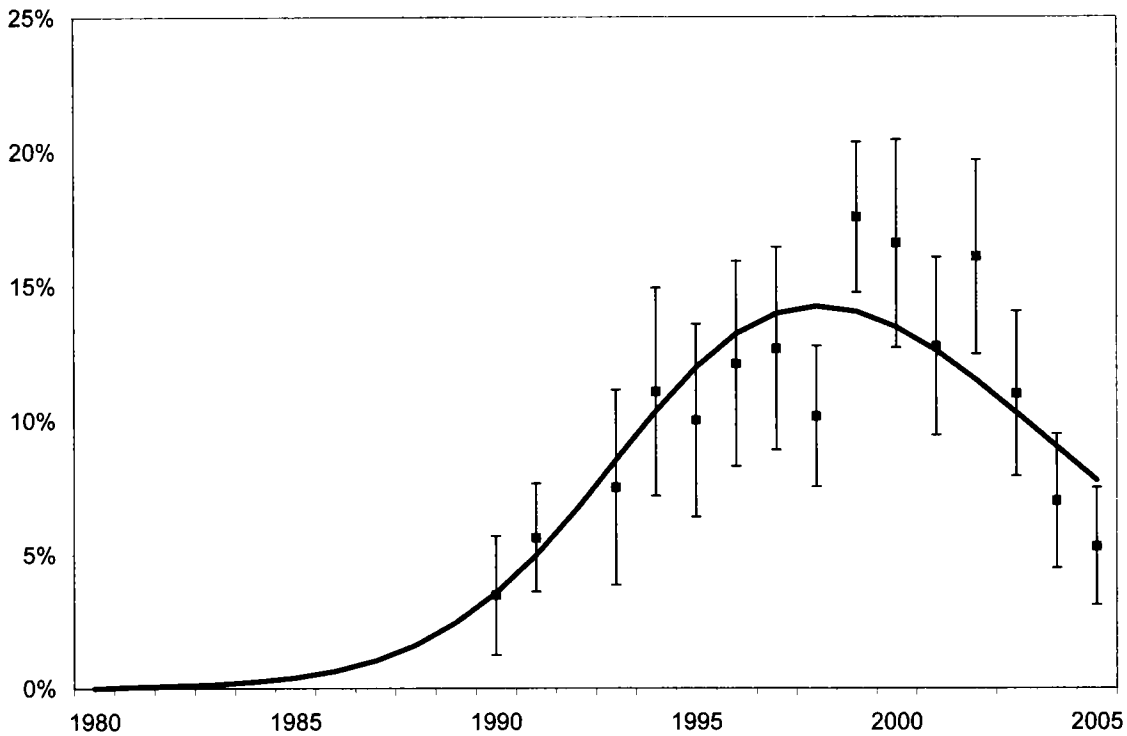
1. Curve Fitting. Surveillance data are available for almost 15 years for some sites and for only a few years for other sites. Individual estimates are subject to some error due to small sample sizes. The average sample size is about 300. To smooth the year-to-year fluctuations, epidemic curves are fit to the data from each site using the Estimation and Projection Package (EPP) developed by the UNAIDS Reference Group on Estimates, Model and Projections¹. The curve indicates the trend through the available data points. Values from these curves (rather than the actual sentinel site point estimates) are used to estimate national prevalence. An example is shown in Figure 1. In this figure the boxes represent the point prevalence estimate, the bars extending above and below these points show the 95% confidence limits around each point and the solid line is the best-fitting curve to these points.

For the 24 sites with 8 years or more of data, the EPP curve fitting package usually determines a reasonable curve fit. However, for many sites the curve fit does vary depending on the initial assumption as to whether prevalence is declining or not. Among the sites with many data points almost all show clear signs of declining prevalence. As a result, the starting assumption for all curve fits was that prevalence is declining. If the curve fits had been done with the assumption that prevalence was not declining then the prevalence estimate for 2005 would have been somewhat higher.

For the sites with five years of data or less, the curve-fitting program cannot be expected to produce useful results. Therefore, curve fits were done by province by aggregating all the surveillance data into urban and rural data sets for each province. Separate curves were fit to the urban and rural data sets for each province. The parameters of these curves were then used as the starting values for each rural site in each province.

¹ Ghys PD, Brown T, Grassly NC, Garnett G, Stanecki KA, Stover J, Walker N. The UNAIDS Estimation and Projection Package: a software package to estimate and project national HIV epidemics. *Sex Transm Inf* 2004, 80 (suppl 1): i5-i9.

Figure 1. Curve fit to Annual Measurements of Prevalence among Pregnant Women at the Ante-natal Surveillance Clinic in Kitale



2. Adjusting for geographic distribution. Kenya currently has over 70 districts. It would be impossible to establish a sentinel site in each district. Therefore, the districts are represented by the available sites. The assignment of sites to districts was done by a technical working group based on similarities in urbanization, ethnic groups, economic activity and geographic proximity. One site is assigned to represent the urban population of each district and one site to represent the rural population. Table 1 shows the sentinel sites and the districts that they represent.

Table 1.1 Districts represented by each sentinel site

<i>Province</i>	<i>District</i>	<i>Urban Site</i>	<i>Rural Site</i>
Central	Kiambu	Fatima	Njambini
	Kirinyaga	Nyeri	Maragua
	Maragua	Nyeri	Maragua
	Muranga	Thika	Maragua
	Nyandarua	Nyeri	Njambini
	Nyeri	Nyeri	Maragua
	Thika	Thika	Maragua
Coast	Kilifi	Kilifi	Bamba
	Kwale	Tiwi	Wesu/Wundanyi
	Lamu	Tiwi	Bamba
	Malindi	Kilifi	Tiwi
	Mombasa	Mombasa	Tiwi
	Taita-Taveta	Kitui	Wesu/Wundanyi
	Tana River	Garissa	Wesu/Wundanyi
Eastern	Embu	Nyeri	Karurumo
	Isiolo	Kitui	Mutomo
	Kitui	Kitui	Mutomo
	Machakos	Thika	Kangudo
	Makueni	Kitui	Mutomo
	Marsabit	Garissa	Mutomo
	Mbeere	Meru	Karurumo
	Meru Central	Meru	Karurumo
	Meru North	Meru	Karurumo
	Meru South	Meru	Karurumo
	Moyale	Garissa	Mutomo
	Mwingi	Kitui	Kangudo
	Nithi	Meru	Karurumo
	Tharaka	Meru	Karurumo
Nairobi	Nairobi	Nairobi	
North Eastern	Garissa	Garissa	Garissa
	Mandera	Garissa	Garissa
	Wajir	Garissa	Garissa
Nyanza	Bondo	Kisumu	Chulaimbo
	Gucha	Kisii	Tabaka
	Homa Bay	Suba	Suba
Nyanza	Kisii Central	Kisii	Tabaka
	Kisii North	Kisii	Tabaka
	Kisumu	Kisumu	Chulaimbo
	Kurla	Kisii	Tabaka
	Migori	Kisumu	Chulaimbo
	Nyando	Kisumu	Chulaimbo
	Rachuonyo	Kisumu	Chulaimbo
	Siaya	Kisumu	Chulaimbo
	Suba	Suba	Suba
	Rift Valley	Baringo	Baringo
Bomet		Baringo	Kaplong
Buret		Baringo	Kaplong
Kajiado		Kajiado	Kajiado
Keiyo		Baringo	Sirikwa/Turbo
Kericho		Nakuru	Kaplong
Kolbatek		Baringo	Sirikwa/Turbo
Lalikipia		Nakuru	Njambini
Marakwet		Baringo	Mosoriot
Nakuru		Nakuru	Njambini
Nandi		Baringo	Mosoriot
Narok		Kajiado	Kajiado
Samburu		Maralal	Maralal
Trans Mara		Kajiado	Sirikwa/Turbo
Trans Nzola		Kitale	Mosoriot
Turkana		Lodwar	Sirikwa/Turbo
Uasin Gishu		Kitale	Sirikwa/Turbo
West Pokot		Kajiado	Sirikwa/Turbo
Western	Bungoma	Mt. Elgon	Teso
	Busia	Busia	Mbale
	Butere/Mumias	Kakamega	Mbale
	Kakamega	Kakamega	Mbale
	Lugarl	Kakamega	Mbale
	Mt. Elgon	Mt. Elgon	Mt. Elgon
	Teso	Mbale	Mbale
Vihiga	Kakamega	Mbale	

3. Estimating the size of the adult population. The total population for each district is estimated for all years from 1990 to 1999 by interpolating between the population at the time of the 1989 census and the population at the time of the 1999 census. The adult population 15-49 by district and urban/rural residence for the 1989 and 1999 censuses are based on special tabulations provided by the Central Bureau of Statistics. Urban and rural populations for each district are projected beyond 1999 at the 1989-1999 growth rates for that district. Growth rates are limited to 11.5% per year in order to avoid continuing the very high growth rates that occurred for some districts with small urban populations in 1999. The result is an adult population that is growing at about 4% per year after 1999.

4. Estimating the number of HIV infections. The number of adults between the ages of 15 and 49 infected with HIV is estimated by multiplying the number of urban adults in each district by the HIV prevalence in the urban site associated with that district and the number of rural adults by the HIV prevalence in the rural site associated with that district.

5. Estimating national adult prevalence. National prevalence is estimated by summing the number of infected adults 15-49 for all districts and dividing by the total population 15-49.

6. Adjusting adult prevalence. The estimate for 2003 is compared with the KDHS estimate for 2003. The ratio of these two estimates is an adjustment factor which is applied to all years in order to adjust ANC prevalence to represent prevalence among all adults.

7. Direct estimate of national prevalence. A second method of estimating national prevalence was also implemented. In this approach the actual site prevalence values are used rather than the smooth curves. This approach can only be used for the period 2001 – 2005 when the number of sites has been constant. When the actual site prevalence values are weighted by the population they represent, an estimate of national prevalence is produced. An estimate produced in this manner is subject to more year-to-year variation than when smooth curves are used, but it may also provide a better estimate when prevalence is changing quickly.

8. Estimating the uncertainty range around the prevalence estimate. The UNAIDS Reference Group on Estimates, Models and Projections recently analyzed the uncertainty involved in estimates of national prevalence. The group developed the methods for including uncertainty from a number of different factors such as uncertainties in the curve fitting procedures and how well prevalence among pregnant women represents prevalence among all adults. These techniques were

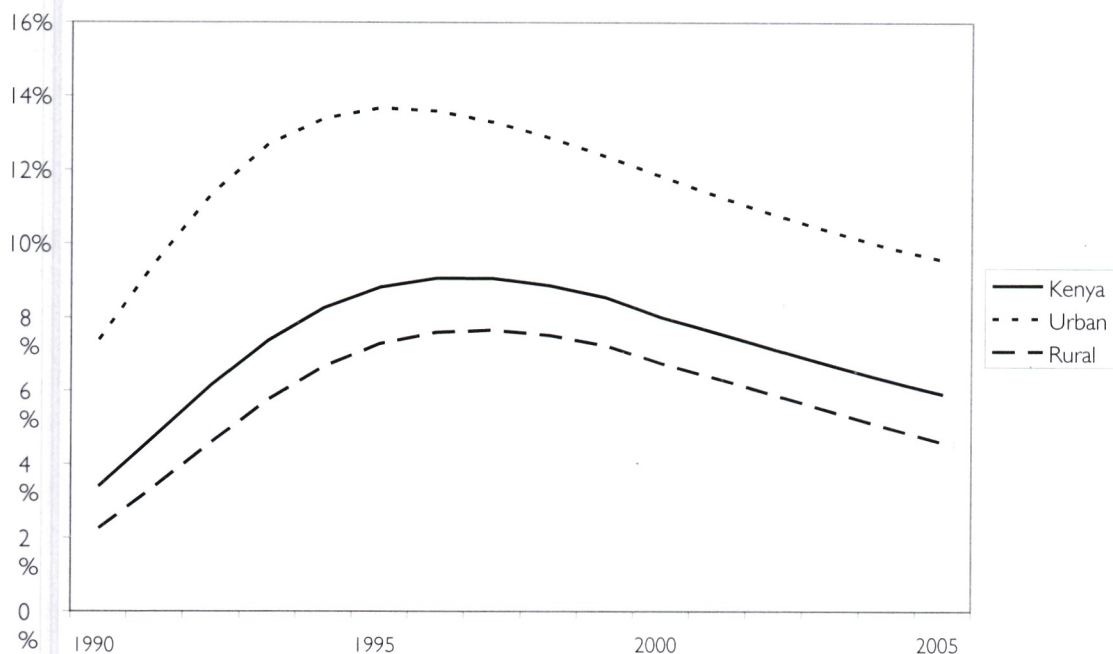
applied to 69 countries including Kenya. The methods and results are described elsewhere.ⁱ

Once the prevalence estimate is prepared it is used in the Spectrum software packageⁱⁱ to estimate the consequences that results from the state of the epidemic that has been derived including the number of children infected, new infections, AIDS deaths and the need for ART.

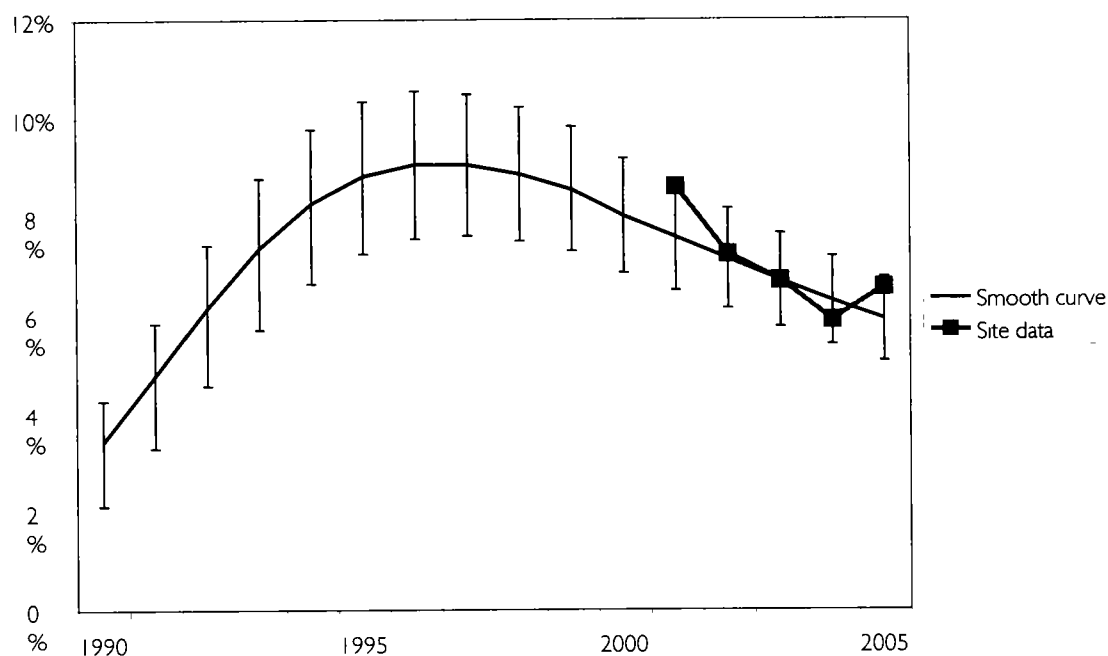
1.5 Results: Prevalence among all adults 15-49

The method of fitting smooth curves to the data from each surveillance site yields an estimated adult HIV prevalence of 5.9% in 2005, a reduction of 0.8% from 2003, as shown in Figure 2. It indicates that national prevalence peaked at just over 9% in 1996/1997 and that urban prevalence peaked somewhat earlier (1995) at almost 14%. The current estimate of urban prevalence is about 9.6% and rural prevalence is 4.6%.

Figure 2. HIV Prevalence among Adults 15-49, 1990-2005

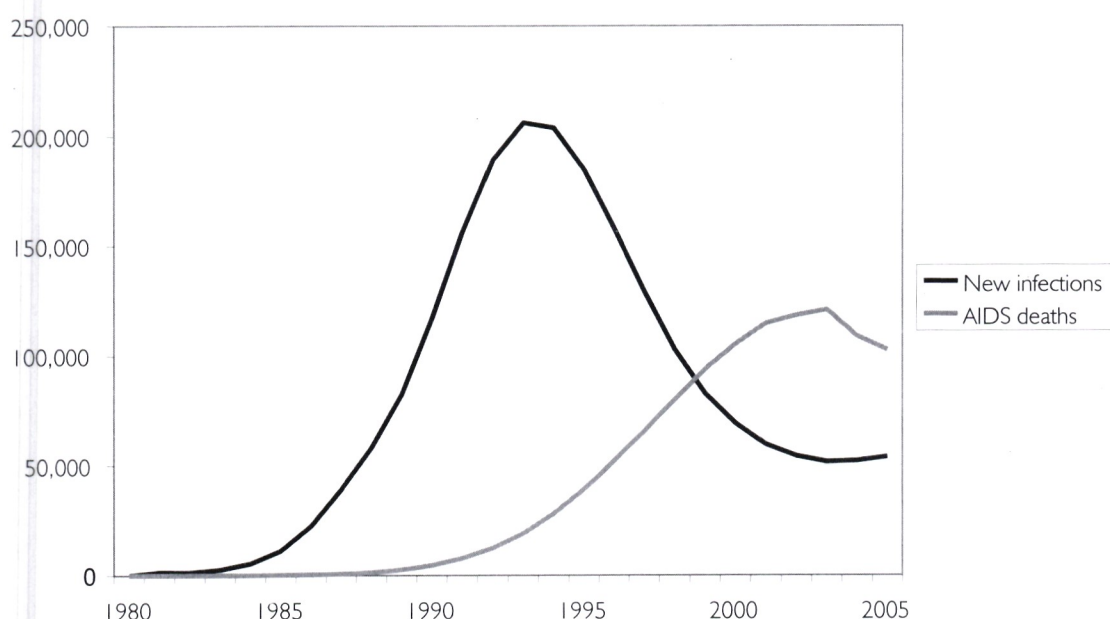


The direct estimate, using the actual site data for 2001 – 2005, produces a higher figure for 2005 of 6.5%, as shown in Figure 3. The weighted site data is somewhat higher in 2005 than in 2004 probably just reflecting the annual fluctuations due to sample differences. The smooth curve between the points is probably the best indicator of the trend. Figure 3 also shows the plausibility ranges around the national estimate. They indicate that national prevalence in 2005 was between 5.0% and 6.8%.

Figure 3. HIV Prevalence among Adults 15-49, 1990-2005

The decline in prevalence since the late 1990s does not mean that the problem of HIV and AIDS is over. The number of people infected declines when the number of AIDS deaths exceeds the number of new infections. New infections occur every day, especially among young people. In 2005 there were almost 60,000 new adult infections. The number of AIDS deaths has been increasing rapidly as a result of the rise in new infection in the mid-1990s. The annual number of adult AIDS deaths reached a peak of about 135,000 in 2003. It would have stayed at roughly that level for the next three years but the increasing number of people receiving anti-retroviral therapy (ART) has reduced the annual number of AIDS deaths to about 115,000 in 2005 as shown in Figure 4. This implies that ART programs have averted about 39,000 deaths since 2001

Figure 4. Number of new infections and AIDS deaths among adults, 1980-2005



The estimated adult prevalence and number of adults infected by region and sex for 2005 is shown in Table 1.2. It indicates that about one million adults, 15-49 are living with HIV. There are also almost 100,000 people over the age of 49 living with HIV and 156,000 children, for a total of almost 1.3 million people infected with HIV. Estimates of infection and prevalence among youth between the ages of 15 and 24 are shown in Table 1.3. Estimates of HIV infection by province are shown in Table 1.4.

Table 1.2. National HIV estimates for 2005

	Prevalence	Number HIV+
Adults 15-49		
Total	5.9%	1,024,000
(Range)	(5.0%-6.8%)	(870,000 – 1,180,000)
Male	4.0%	349,000
Female	7.7%	675,000
Urban	9.6%	438,000
Rural	4.6%	586,000
(Adults 50+)		96,000
(Children 0-14)		156,000
Total		1,276,000

Table 1.3. Prevalence estimates for youth aged 15-24 in 2004 and 2005

Year	Prevalence		Number HIV+	
	2004	2005	2004	2005
Male	0.9%	0.8%	35,911	32,900
Female	4.9%	4.5%	189,372	172,000
Total	2.9%	2.6%	235,284	204,700

Table 1.4. Adult HIV prevalence by province in 2005

Province	Number HIV+	Prevalence		
		Total	Male	Female
Nairobi	188,000	10.0%	7.9%	12.0%
Central	116,000	5.0%	2.1%	7.9%
Coast	94,000	6.1%	5.1%	7.0%
Eastern	86,000	3.4%	1.3%	5.4%
North Eastern	13,000	2.0%	1.4%	2.6%
Nyanza	251,000	10.8%	8.4%	13.2%
Rift Valley	182,000	4.1%	2.8%	5.4%
Western	95,000	4.7%	3.7%	5.6%
Total	1,024,000	5.9%	4.0%	7.7%

The national and provincial estimates are produced by summing the district estimates. The district estimates are shown in Appendix 2.

The estimates of HIV infection among adults are used to calculate the number of children that become infected through mother-to-child transmission. In 2005 there were about 156,000 children living with HIV and 25,000 new infections. The transmission of HIV from mother-to-child can be greatly reduced through PMTCT programs that provide counseling and testing to all pregnant women and treatment for those women who are HIV+. As Table 5 shows, the total number of pregnant women needing counseling and testing each year is almost 1.4 million. About 85,000 pregnant women were HIV+ and could benefit from treatment to prevent transmitting the virus to their babies.

HIV+ children can benefit from cotrimoxazole prophylaxis and ART. Cotrimoxazole is recommended for all children born to HIV+ mothers until their own HIV status can be determined, usually at about 18 months of age. Cotrimoxazole is continued for children found to be HIV+. About 106,000 children are in need of cotrimoxazole and 39,000 are in need of ART.

Table 1.5. Need for PMTCT and child treatment, 2005

Number of births	1,423,000
Births to HIV+ women	64,000
HIV+ births	22,500
Child AIDS deaths	20,000
Children needing ART	39,000
Children needing cotrimoxazole	106,000

When adults die from AIDS their children become orphans. In 2005 there were an estimated 2.4 million orphans as shown in Table 1.6. The definition of an orphan used here is a child under the age of 18 who has lost at least one parent. Forty-five percent of these children, just over one million, have lost a parent to AIDS.

Table 1.6. Number of orphans by type, 2005

Maternal Orphans	1,514,000
AIDS	945,000
Non-AIDS	568,000
Paternal Orphans	1,408,000
AIDS	568,000
Non-AIDS	841,000
Dual Orphans	472,000
AIDS	382,000
Non-AIDS	90,000
Total Orphans	2,450,000
All AIDS orphans	1,193,000

These figures illustrate the magnitude of the task to provide prevention, care and treatment, and support services for all who need them. They indicate that:

- 1.4 million pregnant women need counseling and testing each year to determine their HIV status
- 85,000? need treatment to prevent mother-to-child transmission of HIV
- 39,000 children need ART and 106,000 need cotrimoxazole prophylaxis
- 260,000 adults need ART
- 2.4 million orphans need care and support from their extended families and communities

These figures describe the national needs. Since services are organized at the local level there is also a need for estimates by district. Precise district-level estimates require detailed analysis of the demographic and epidemiological trends in each district. For this report approximations of the district-level indicators have been prepared by distributing the national needs according to the number of people infected by district. These figures are only approximations but should provide an indication of the magnitude of need by district. The figures are given in Appendix 3.

National response

Much has been done to address the HIV and AIDS epidemic and its consequences. A comprehensive response requires many things, including service provision, community mobilization, strong leadership, appropriate policies, coordination and management, research, support to people living with and affected by HIV and AIDS, programs to protect human rights and fight stigma and discrimination, resource mobilization, evaluation and monitoring, etc. Indicators have been developed to monitor progress in most of these areas. In this report, we focus on small number of indicators for which data are readily available and which are directly related to the epidemiological estimates. These include the coverage of VCT, PMTCT, and ART services, condom distribution, and financial resources.

Table 1.7 compares the latest information on service provision with the estimated needs and the targets from the Kenya National HIV and AIDS Strategic Plan (KNASP) 2005-2010.

Table 1.7. Coverage of essential services as per May 2005

Service	Number provided	Estimated Need	Coverage	KNASP Target
Voluntary counseling and testing (VCT)	400,000+	500,000	80%	500,000
Prevention of mother-to-child transmission (PMTCT)	375,000	1,423,000	26%	713,000
Condoms (millions)	93	160	58%	160
Anti-retroviral therapy (ART)	118,000	263,000	45 %	186,000

Notes

1. The target for VCT assumes 2 million people tested annually with 500,000 tested at VCT sites and 1.5 million receiving clinical testing including pregnant women

2. The target for PMTCT is based on the assumptions that 80% of pregnant women will attend an ANC facility at least once, 80% of facilities will offer PMTCT and 80% of women will accept.

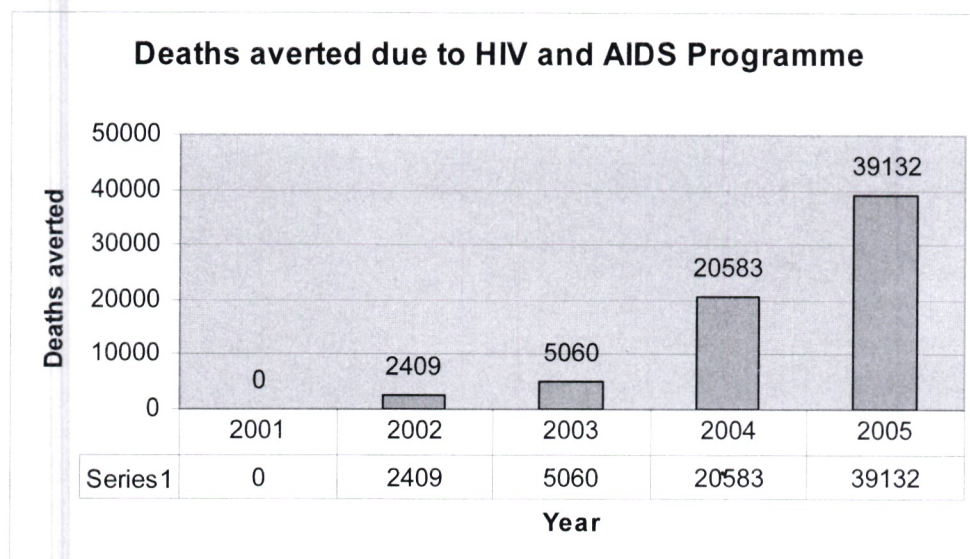
The resources required for the HIV and AIDS program were estimated by the KNASP at KSh 178 billion. The details by year and intervention are shown in Table 8. The resources available to the program have increased dramatically over the past several years as shown in Table 9. While the resources available were nearly equal to the needs in 2004, the needs increase rapidly as programs as expected to expand to meet the 2009/10 target.

Deaths Averted due to ART Programme.

A Spectrum model was used to estimate the impact of ART programme.

The results obtained are as in the graph below. The graph shows the number of adults that would have died if there was ~~ART~~ ART Programme complemented by an overall HIV and AIDS multi sectoral Programme.

Figure 5: Deaths averted due to HIV and AIDS Programme by year



Chapter 2:

Implementation of the National HIV and AIDS Monitoring and Evaluation Framework

(a) Impact and Outcome monitoring

2.1 Sentinel Surveillance

The Sentinel Surveillance System, which is implemented annually by the NASCOP, was completed on time for year 2005 as planned. The data for 2005 was presented to the National HIV and AIDS Monitoring and Evaluation Committee in July 2006 and approved for use in generation of various relevant national estimates for 2005. The summary of the data has been reported in Chapter 1.

2.2 Kenya Demographic and Health Surveys (KDHS)

The Central Bureau of Statistics, in conjunction with National AIDS/STI Control Programme of the Ministry of Health and the National AIDS Control Council with other agencies, conducted a population-based survey that assessed behavioural indicators and HIV testing among some members of the household randomly selected as per the KDHS protocol implemented. In Kenya, DHS has been conducted in 1993, 1998 and 2003. The 2003 survey included an HIV testing component. It is planned that another DHS will be carried out in 2008 as reflected in the National M&E Framework and Implementation Manual. A KDHS 2003 report¹ was written, printed and launched. Dissemination of the KDHS report was also carried at the national and provincial levels by the Central Bureau of Statistics.

The KDHS reports can be obtained from the CBS website: www.cbs.co.ke

KDHS data is also available on the ORC MACRO website: www.measuredhs.com

¹ Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], and ORC Macro. 2004. Kenya Demographic and Health Survey 2003, Calverton, Maryland :CBS, MOH and ORC Macro.

It is planned that the 2008 DHS will not include HIV testing as the testing will have been done in the 2007 Kenya HIV and AIDS Indicator Survey being planned to be carried by Central Bureau of Statistics of Kenya in conjunction with the Ministry of Health and Office of the President's Special Programmes.

Several HIV and AIDS programmes were developed based on the insight gained from the KDHS data of 2003. Among the programmes initiated or strengthened are programmes focusing on young people, discordant couples, vulnerable groups, youth friendly HIV and AIDS services. Many other studies such as HIV and alcohol, circumcision and HIV, were stimulated by the data.

2.3 Lot Quality Assurance Sampling

Lot quality assurance sampling is a statistical technique used to check quality assurance in production industries. It has been adapted to be used by health Programme supervisors to:

- (i) Estimate coverage of Programme activities.
- (ii) Set priority interventions in the programme areas.
- (iii) Community diagnosis

It has been planned in the Monitoring and Evaluation framework that LQAS will be used by the CACCs periodically as above. Budget will be secured to build capacity among the CACC personnel to undertake this activity. As the country decentralizes many of its decision-making structures, CACC is one of the decentralized structures that is responsible of managing HIV and AIDS activities in the country. It will be carrying out prioritization of interventions in the community in relation to available resources. It is envisioned that the CACCs will be using LQAS data as the basis of making decisions on activities to be undertaken in the constituency.

Lot quality assurance sampling or supervision for large country was done in Nyanza and Western provinces in February 2004 to April 2004. It involved training the CACCs in the selected provinces to be able to undertake LQAS in order to use it undertake regular monitoring of their programs. The methodology will be replicated in other provinces as it gives the advantage of collection and estimation of outcome indicators at a lower level. It also assists the CACCs to establish priority areas for HIV and AIDS interventions. This is very important at this time when the government is decentralizing the management and monitoring of developmental activities to the communities. The methodology maybe initially expensive but after it has been entrenched into the supervisory activities of the CACCs; it will be far much cheaper than any other known survey. It will move the communities a notch higher in HIV and AIDS management decision-making. The

provinces were divided into those with community initiative activities funded and those where community initiative activities had not been funded.

Five target groups were assessed based on the national indicators in the logical framework for the strategic plan 2000-2005.

These groups were:-

- (a) Women 15-49 years
- (b) Men 15-54 years
- (c) Youth 15-24 years
- (d) Mothers of infants
- (e) Orphans 6-18 years
- (f) PLWHA

Preliminary results were highlighted in the first edition of the HIV and AIDS statistical booklet². A full report³ has now been completed and can be obtained from National AIDS Control Council website www.nacc.or.ke

The findings on the 6 groups targeted are well highlighted.

2.4 Behavioral Surveillance Survey

Behavioral Surveillance Survey (BSS) is one of the sources of outcome data on vulnerable groups in the Kenya national HIV and AIDS monitoring and Evaluation framework. Two BSSs have been done in Kenya. One was done in coast province by Family Health International, Kenya office in 2000 and national one was carried out in 2002 and 2003 for baseline data in various HIV and AIDS risk group.

Data for the baseline Kenya Behavioural Surveillance Survey were collected between 2002 and 2003 from seven populations perceived to be at high risk of HIV infection: youth both in and out of school, men in large worksites, policemen, matatu drivers and touts, bodaboda cyclists⁴, women in low-income communities, and female sex workers. Over 17,800 respondents participated in the survey, which was carried out in 10 districts chosen to represent high and low HIV prevalence areas near HIV sentinel surveillance sites in different regions of the country. Information was collected on a range of topics including sociodemographic characteristics, knowledge about HIV and AIDS, sexual

² Republic of Kenya. December 2005. Kenya HIV and AIDS data booklet. Office of the President. National AIDS Control Council, Chancery Building, Valley Road, Nairobi, Kenya.

³ Chelugot B, Okudo L, Osoro B., Valadez J, Vargas W. April 2006. *An Assessment of Community Initiatives of Constituency AIDS Control Councils in Western and Nyanza Provinces: Decentralized Program Monitoring Using the LQAS Method*. National AIDS Control Council, Chancery Building, Nairobi, Kenya

⁴ Kenya. Ministry of Health. Behavioural Surveillance Survey 2002: summary report, HIV and AIDS and sexually transmitted infection in Kenya. Nairobi: National AIDS/STI Control Program, Ministry of Health; 2005

history, perception of risk of HIV infection, and HIV testing experience. A full report⁵ can be obtained from National AIDS/STD Control Programme (NAS COP) or at its websites: www.aidskenya.org

Findings of this study were disseminated at a national forum and reports printed and distributed.

2.5 HIV and AIDS SOCIO – ECONOMIC IMPACT STUDY

The study, commissioned in 2006, assessed the socio- economic impact of HIV and AIDS on economic development, labour force, women and children. The findings from the assessment will provide the necessary information for the development of appropriate strategies to mitigate against the disease burden. In this regard therefore, a comprehensive analysis of the impact was undertaken in the following key sectors: - Agriculture, Health, Industry/ commerce, Education, Transport & Communications and the Governance, Justice, Law and Order Sector (GJLOS). These sectors are believed to be strategic and effective in expanding the national response due to the specific mandate and/or vulnerability of the population they serve. However, current epidemic trends indicate that HIV and AIDS epidemic is particularly rife in all sectors. The impact of the epidemic was analyzed in the context of sector specific Economic Recovery Strategy (ERS) targets and the consequent link with the Kenya National HIV and AIDS Strategic Plan (KNASP) strategic vision of mitigating socio- economic impact of the epidemic and the Millennium Development Goals (MDGs).

A report provides findings recommendations on the following:

- (i) Household, gender and Children
- (ii) Commerce and Industry Sector
- (iii) Education Sector
- (iv) Macro – Economic impacts

Furthermore, the report emphasis the need to carry out sector-specific assessment of HIV and AIDS impact in various sectors.

(b) Special Surveys

2.6 Kenya Demographic and Health Surveillance Surveys (KDHSS)

The African Population and Health Research Centre (APHRC) convened a week-long dissemination of Health and Demographic Surveys in Kenya. Health and Demographic Surveys results from Kilifi, Nairobi and Kisumu were presented.

The presentations covered findings on the following areas:

- i. Causes of Morbidity and Mortality among the populations surveyed.
- ii. Effects of migration on migrants.
- iii. Income generating activities stability among the new entrants to slums in Nairobi.
- iv. Prevalence of orphan hood and morbidity and mortality among orphans.
- v. Education and quality of education among the populations surveyed in Kenya.

The reports are available at the APHRC.

The following presentations were made:-

- (a) Use of facility based reports and DSS to monitor burden of specific diseases in Kilifi.
- (b) Mortality patterns in Rusinga highlands
- (c) What are the causes of morbidity and mortality in rural Nyanza
- (d) The role of DSS in evaluating progress towards MDGs and other national development targets.
- (e) Burden of disease profile in the Nairobi DSS area
- (f) Potential of DSS to influence policy
- (g) Household ability to pay for treatment costs in Kilifi: an equity analysis
- (h) Maternal Health in the slum settlements of Nairobi, Kenya.
- (i) Health seeking for childhood illnesses in Nairobi slums.
- (j) Measuring vaccine coverage in relation to vaccine clinics in Kilifi DSS.
- (k) Are residents of rural Nyanza utilizing available health services?
- (l) Orphan hood in a rural community in Kilifi district, Kenya.
- (m) How big is the burden of adult mortality on children in rural Nyanza.
- (n) Assessing the effect of Mother's Migration on childhood mortality in the informal settlements of Nairobi
- (o) Migration and the Urbanization of Poverty in sub-Saharan Africa: The Case of Nairobi City, Kenya
- (p) Primary school enrolment rates in Nairobi's slum and non slum areas
- (q) What quality of education do slum children receive?
- (r) Evidence from the Kisumu Health & Demographic Surveillance System

(s) Progression and Transition to Secondary Education:

(t) How big are the Disparities Within and Between Slum and Non-slum Communities?

Useful results for HIV and AIDS Monitoring and Evaluation in Kenya.

Population profile of the DSS area in Kisumu (high HIV and AIDS prevalence area in Kenya)

Population: 1 35,887 (2005 mid-year pop.) of the DSS area

- Males constitute 47.1%
- Children under 15 years: 44.2%
- Children under 5 years: 15.9%
- Adults aged 65+: 7.0%
- Total Fertility Rate (TFR) = 5.2

Figure 6: Causes of death among adults & adolescents in DSS area of Nyanza

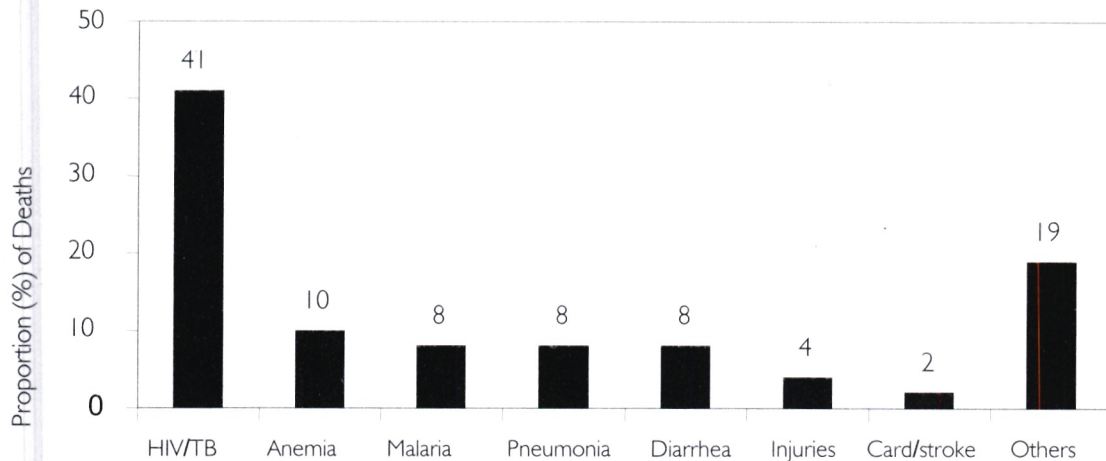
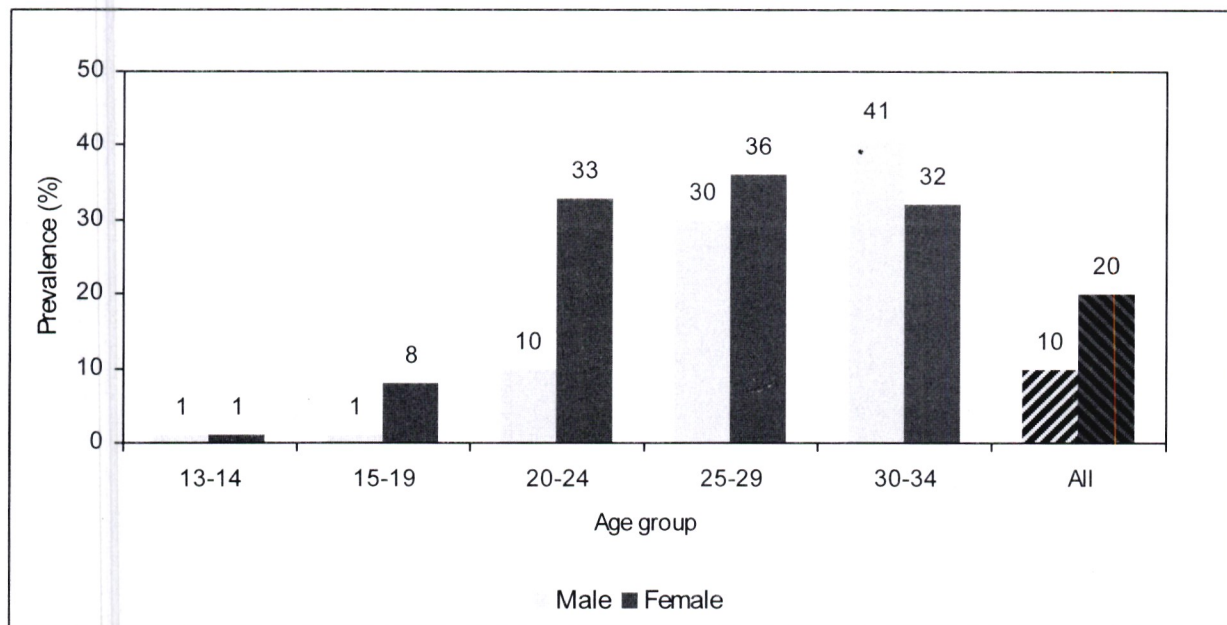


Figure 7: HIV Prevalence In the DSA by Age & Sex (2003/2004)



2.7 Male Circumcision and HIV and AIDS Study in Kenya⁶

2.7.1 Background

Male circumcision provides significant protection against HIV-1 infection. A randomized controlled trial was conducted in Kenya to test the protective effect of male circumcision, and to assess safety and changes in sexual behaviour.

2.7.2 Methods

2,784 men aged 18-24 years were randomized as candidates for inclusion either for circumcision or control (no circumcision), and assessed through HIV testing, medical examinations and behavioural interviews during follow-ups at 1, 3, 6, 12, 18 and 24 months. HIV sero-incidence was estimated using the Kaplan-Meier method, in an intent-to-treat analysis. An as-treated analysis was also performed, using Cox regression with a time-dependent covariate for circumcision status at follow-up. Behavioural change was assessed using generalized estimating equations.

2.7.3 Findings

The trial was stopped on December 12, 2006, after a third interim analysis reviewed by the Data and Safety Monitoring Board. The median length of follow-up was 24 months. 22 and 47 participants tested HIV positive in the circumcision and control groups, respectively. The relative risk of HIV infection in circumcised men was 0.47 (95% CI: 0.28, 0.78), corresponding to a reduction in HIV incidence of 53%. Adjusting for non-adherence to treatment and excluding four men determined to be seropositive at enrollment, the protective effect was 60% (95% CI: 32, 77). Adverse events were few (1.5%) and resolved quickly. Behavioural risk compensation after circumcision was not observed.

⁶ Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. Bailey RC, Moses S, Parker CB, Agot K, Maclean I, Krieger JN, Williams CF, Campbell RT, Ndinya-Achola JO, The Lancet - Vol. 369, Issue 9562, 24 February 2007, Pages 643-656.

Table 2.1: Incidence Rates for Intervals of Follow-up⁷

Follow-up Intervals	Circumcision Rate (%) [CI]	Control Rate (%) [CI]	Total Rate (%) [CI]
0-6 Months	0.8 [0.3, 1.3]	1.0 [0.4, 1.5]	0.9 [0.5, 1.2]
6-12 Months	0.2 [0.1, 0.7]	1.4 [0.8, 2.2]	0.8 [0.5, 1.3]
12-18 Months	0.0 [0.0, 0.5]	0.7 [0.3, 1.5]	0.3 [0.1, 0.7]
18-24 Months	1.0 [0.5, 2.1]	1.2 [0.6, 2.4]	1.1 [0.7, 1.8]
0-24 Months	2.1 [1.2, 3.0]	4.2 [3.0, 5.4]	3.1 [2.4, 3.9]

Interpretation

Male circumcision is confirmed as significantly reducing risk for HIV acquisition among young men in Africa. However voluntary, safe and affordable circumcision services must be integrated with other HIV preventive interventions where appropriate and provided as expeditiously as possible.

⁷ Incidence rates are expressed as percents and given with 95% confidence intervals. The estimates for 0-6 months and 0-24 months are based on Kaplan-Meier methods. For other intervals the estimates are based on the number of new incidents of HIV infection detected for the interval divided by the number of participants at risk during the interval.

Chapter 3:

Operationalization of the Monitoring and Evaluation Framework

Coverage Indicators

3.1 Quarterly Programme Report (QPR)

The QPR is the primary facility based reporting system managed by NASCOP. This system routinely tracks a number of national HIV and AIDS health indicators at the health facilities in Kenya. NASCOP maintains the overall management of this data source. Each health facility is provided with a form 726 that is filled out and sent to the District Health Information Officer. The DHIO aggregates the data in to a new form, (Form 727) which is sent to the NHIS.

The tools for data collection together with the accompanying registers have been printed. Piloting of this system was launched in Western Province in October 2006. The system is set to be rolled-out in all health facility in the country after incorporation of pilot findings.

Currently reporting on this system is by the various programs in parallel and their completeness varies from one programme data stream to another. A summary of the reports received is summarized below.

Table 3.1. Reported number of people on ARVs

ARV Report - 2006					
No.	Province	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1	Central	4,421	6,926	7,470	13,543
2	Coast	2,499	5,180	5,699	8,748
3	Eastern	3,350	5,296	7,484	8,379
4	Nairobi	16,161	20,181	22,358	24,737
5	North Eastern	57	82	82	169
6	Nyanza	12,488	14,628	18,848	26,943
7	Rift Valley	9,739	16,765	12,260	27,671
8	Western	5,773	5,773	5,931	9,836
Total		54,488	74,831	80,132	120,026

Table 3.2. Number of individuals counseled and Tested through VCT outlets

YEAR	Male	Female	T. M& F	M+ve	F+ve	T+ve
2001	17547	15836	33383	2810	3602	6412
2002	42320	37345	79665	5156	7845	13000
2003	179546	158787	338333	10348	17966	28315
2004	176090	164310	340400	18092	33020	51112
2005	231660	279365	499448	27279	49538	76817
Sep-06	286485	311073	627709	19866	28536	48402
TOTALS	839165	855931	1918938	83551	140507	224058

Table 3.3 ANC Mothers counselled and tested

PROVINCE	CUMULATIVE 2004-2005	2006				Total
		1st Quarter	2nd Quarter	3 rd Quarter	4 th Quarter	
WESTERN	52175	14918	16181	17546		100820
RIFT VALLEY	35192	24206	22932	28531		110861
NYANZA	94368	20685	24055	20846		159954
NEP	4354	2272	2472	2753		11851
NAIROBI		22941	18707	19535		61183
EASTERN	11136	21440	21646	22103		76325
COAST	46870	19226	16544	17357		99997
CENTRAL	38852	16014	12675	16447		83988
TOTAL	282947	141702	135212	145118		704979

3.2 Community Based Programme Activity reporting (COBPAP)

3.2.1 Introduction to National HIV and AIDS Monitoring and Evaluation System and development of National Community Based HIV and AIDS Activity Work plan 2006

The main aim for the National HIV and AIDS M&E system for 2006 was the operationalization of the country's first-ever HIV and AIDS Monitoring and Evaluation Framework that was launched in August 2005. In the Framework, it is acknowledged that Community Based HIV and AIDS reporting system is non-existent at the national level despite enormous resources used in the activities at the community level by the CBOs, FBOs and NGOs through various projects including KHADREP, Global Fund, PEPFAR and other contributions in the fight against HIV and AIDS. This therefore translates to the fact

that there is no complete picture of the activities that are geared towards control of HIV and AIDS at the community level and thus, it could be difficult to explain some of the impacts experienced at this level on the three priority areas of the strategic plan.

In the Framework, it is recognized that development of this system is of paramount importance and, at the same time, is a process that needs to be carefully managed. This implies the need for dedicated human resources, defined procedures, clear roles and responsibilities, work plans and dedicated budgets. The operationalization and eventual management of the National M&E system has been captured in the M&E Implementation Manual, which was discussed with M&E stakeholders at various national HIV and AIDS M&E committee meetings technical working group meeting.

The activities necessary for the operationalization of the COBPAR work plan have been identified and budgets developed. This report focuses mainly on the development, resource mobilization and rollout of the COBPAR system.

Delays in funding have delayed roll-out of COBPAR, but significant progress has still been made in 2006.

Here we describe the chronology of the development of the COBPAR system in three main frames:-

- (a) Development and printing of the COBPAR tools and accompanying manuals.
- (b) Capacity Building for the managers at the decentralized levels and that of the implementers
- (c) Other necessary plans to ensure that lessons learned are used to assist in improvement of the data source management.

3.2.2 Structure of the plan and implementation

The COBPAR work plan follows the structure of any M&E Implementation process; this is to ensure consistency and a good flow between the implementation manual and its complementary implementation / work plan.

The table below summarizes the progress made towards the full implementation of COBPAR from its inception in 2004.

Table 3.4. Progress in COBPAR

	Activities	Deadline		Responsibility
1. Indicators				
A	Identify indicators for COBPAR system	Done	2004	NACC, WB, MEASURE, PEPFAR, UNAIDS
B	Finalize indicators with stakeholders and major funding agencies and organizations	Done	2004	NACC, MEASURE
C	Develop COBPAR detailed indicator definitions	Done	2005	NACC, WB
D	Agree on the Indicators definitions with stakeholders and major funding organizations	Done	2005	NACC
E	Submission of Indicators to the M&E technical working group	Done	2005	NACC
2. Development of COBPAR reporting tools and accompanying manuals				
A	Draft COBPAR data reporting form	Done	2005	NACC, MEASURE, WB
B	Discuss COBPAR reporting form with technical working group	Done	2005	NACC
C	Pilot COBPAR reporting form in Kisumu	Done	2005	NACC
D	Present findings to the M&E committee	Done	Sep 2005	NACC
E	Incorporate changes approved by the M&E Committee into the tool and reporting system.	Done	Sep 2005	NACC
F	Re piloting of the improved tool and data flow system in Nairobi CACCs	Done	Dec 2005	NACC
G	Development of the pilot results report	Done	Jan 2006	NACC
H	Presentation of the Phase ii pilots results/recommendations to the M&E committee	Done	Jan 2006	NACC
I	Finalization of the COBPAR data collection tool	Done	Feb 2006	NACC
J	Translation of the COBPAR reporting tools and accompanying documents to Kiswahili	Done	April 2006	NACC Futures
K	Type setting of the COBPAR data collection form	Done	May 2006	NACC
L	Printing of the COBPAR data collection form	End of May 2006*		NACC
M	Development and approval of COBPAR operational manual	Done	May 2006	NACC
N	Development of the COBPAR training manual.	Done	April 2006	NACC
O	Presentation of COBPAR training manual to M&E committee for approval	Done	May 2006	NACC
P	Incorporation of the COBPAR training manual into the operational manual	Done	May 2006	NACC
Q	Printing of the COBPAR operation manuals	Done	June 2006	NACC

	Activities	Deadline	Responsibility
H	Sign written agreements with major funding organizations to ensure that the organizations they fund sent reports to the respective CACCs where they working.		Pending NACC
3. Capacity building for the Management of COBPAP information system			
A	Ensure that there is enough funding to carry out capacity building.	Done	April 2006 NACC
B	Procure Training Venues for Provincial Training	Done	May 2006 NACC
C	Distribute Provincial TOT funds to the relevant Field officers	Done	June 2006
B	Training of TOT for COBPAP country rollout (DDOs, 2 CACCs persons per CACC)	Done	June 2006 NACC
C	Training of implementers (CBOs, FBOs, NGOs) 2 persons per implementing agency (Coordinator and Secretary, Or M&E Officer for NGOs)	Done	July NACC
D	Disbursing of M&E operational costs to the CACCs and districts, for Supervision, follow up of non-reporting, and making phone calls where necessary.	TBD* No funds were available	July NACC
E	Up grading the CBO/NGO database	done	July NACC
F	Hiring of 5 data entry consultants	3 hired due to limited availability of funds	November 2006 NACC
G	Received of the data for entry at the national office	ongoing	July and October NACC
H	One Supervisory visit per province by National office to the CACCs and Implementers	No funds available as yet	July to September NACC
4. COBPAP information products			
A	Development of the COBPAP quarterly report formats for the National, District and CACC	Done	June 2006 NACC
B	Development of the data use manual for COBPAP		June – September NACC, MEASURE
C	Capture COBPAP data into the database	On going	October 2006 NACC
D	Supervise data capture		Continuous NACC
E	Prepare quarterly COBPAP report by the CACCs	TBD	October, 2006 CACCs
F	Incorporate quarterly COBPAP report into the quarterly National M&E report	Done	December 2006 NACC
G	Present report for approval to the national M&E committee		Feb 2007 NACC
H	Approval of the quarterly M&E report by the committee.		Feb 2007 NACC
I	Prepare COBPAP annual report		Feb 2007 NACC

	Activities	Deadline	Responsibility
5. Dissemination to Stakeholders and data use			
A	Development of data use guideline		Negotiations on NACC, MEASURE
B	CACC hold quarterly data use and review meeting		Dec 2006 DDO, CACC coordinator
C	District hold quarterly data review and use meeting		Dec 2006 DDO
D	Ensure all quarterly reports are available		Dec 2006 M&E Coordinator
E	Incorporate all COBPAP reports to National annual M&E report		Jan 2007 Head M&E
F	Hold one national M&E meeting where national annual report is presented to the stakeholders		March 2007 or Dec 2006 JAPR Coordinator
G	National M&E report is used in JAPR		Dec 2006 Head, M&E
H	Revise COBPAP implementation strategy and manuals where necessary		Feb 2007 Head, M&E

- *Implies subject to availability of funds
- ? Consultations with relevant stakeholders is ongoing

3.2.3 Funding of COBPAP

Development of COBPAP has been ongoing since 2004. All the funding for the activities accomplished up to 2005 was mainly through KHADRE Project, a World Bank Credit to Kenya. Delays in the subsequent World Bank TOWA project led to the need to engage alternative sources including government and donors to assist in funding and to prepare a priority budget for an initial 6-month period. The initial and priority budgets appear below.

Table 3.5 Initial budget for the operationalization of the COBPAP system

	Activity	Budget KSh	Budget USD
1	CBOs training on COBPAP forms and reporting	19,922,500	265,633
2	Printing of COBPAP form	821,007	11,447
3	COBPAP follow up and analysis	6,750,000	90,000
4	CBOs inventory	1,387,500	18,500
5	M&E operations	1,300,000	17,333
6	Verification and Auditing	380,000	5,067
7	CACCs and DTCs training on data use	4,539,500	60,406
	Total	35,100,507	468,386

Table 3.6 Priority Budget for 6 months of initial implementation

	Activity	Ksh	USD
1	CBOs training on COBPAP forms and reporting	19,922,500	265,633
2	Printing of COBPAP form	821,007	11,447
3	COBPAP follow up and analysis	3,375,000	45,000
4	CBOs inventory	1,387,500	18,500
5	M&E operations	650,000	8,667
6	Verification and Auditing	380,000	5,067
	Total	26,536,007	354,313

Table 3.7 Budget arranged by regions

Province	Approximate number of implementers (2 persons will be trained per implementer *)	Budget per region in Ksh.	Source of funds
Nyanza	1,300	2,600,000	Constella-Futures
Western	950	1,900,000	GOK
Coast	750	1,500,000	MEASURE/GOK
Rift Valley	1,500	3,000,000	MEASURE/GOK
Central	1,000	2,000,000	GOK
Eastern	1,000	2,000,000	GOK
Nairobi	1,500	3,000,000	GOK
North Eastern	500	1,000,000	GOK
TOT training	500	5,500,000	UNDP

- Training of one person is approximated to be Ksh 1000 at the CACC level

Table 3.8 Number of people that have been trained on COBPAP Monitoring and Evaluation System and those to be trained at the community level

Region	Number of CACCS	Number of implementers	TOTs already trained DDO, CACC coordinator and Statistical assistant	Average number of people to be trained per CACC
Nyanza	32	1342	77	154
Western	24	750	57	79
Coast	21	750		71
N R. Valley	23	500	63	41
S. R. valley	25	500	57	41
Central	29		66	68
Eastern	36	1000	86	55
Nairobi	8	1500	18	375
North Eastern	11	500	27	90
Total	209	3000	317	974

Table 3.9 Inventory Data: Submission of COBPAP Inventory Forms as of 21st December 2006

Region/Province	Total Constituencies	Sending CACCS	Percentage reporting	No. of Forms Received
Central	29	29	100%	1,077
Coast	21	16	76%	794
Eastern	36	36	100%	1,107
Nairobi	8	7	88%	1,665
North Eastern	11	6	55%	206
North Rift	23	23	100%	514
Nyanza	32	14	44%	784
South Rift	26	23	88%	456
Western	24	24	100%	1,005
National Totals	210	178	85%	7,608

Table 3.10 Example of COBPAN Analysis: Western Province Distribution of 1,008 implementing agencies by target groups served

	Constituency	Respondents	Infants and Young Children	School Age Youth	Adult Women	Adult Men	Adults Living with HIV and AIDS	HIV Infected Children	OVCs
Bungoma	Bumula	31	19%	51%	54%	29%	80%	25%	61%
Bungoma	Kanduyi	16	25%	31%	43%	25%	68%	56%	50%
Bungoma	Kimillili	41	14%	48%	51%	39%	68%	29%	56%
Bungoma	Sirisia	51	17%	41%	47%	31%	66%	39%	60%
Bungoma	Webuye	25	60%	92%	84%	80%	88%	76%	92%
Busia	Budalangi	31	29%	48%	48%	45%	67%	29%	70%
Busia	Butula	27	25%	55%	62%	48%	81%	25%	77%
Busia	Funyula	34	11%	41%	52%	32%	82%	29%	61%
Busia	Nambale	37	16%	59%	78%	62%	48%	21%	62%
Butere	Butere	39	20%	48%	66%	48%	66%	23%	64%
Butere	Khwisero	37	37%	64%	59%	54%	64%	27%	56%
Butere	Matungu	58	67%	74%	70%	53%	84%	58%	65%
Butere	Mumias	35	8%	37%	54%	37%	68%	14%	40%
Kakamega	Ikolomani	43	4%	74%	58%	44%	67%	9%	53%
Kakamega	Lurambi	36	30%	61%	63%	58%	88%	50%	75%
Kakamega	Malava	20	35%	65%	65%	45%	90%	25%	45%
Kakamega	Shinyalu	45	15%	15%	24%	15%	91%	11%	33%
Lugari	Lugari	41	12%	70%	68%	51%	68%	29%	73%
Mount Elgon	Mount Elgon	47	23%	61%	74%	53%	74%	21%	53%
Teso	Amagoro	78	14%	57%	65%	50%	56%	12%	50%
Vihiga	Emuhaya	51	37%	66%	76%	56%	96%	50%	72%
Vihiga	Hamisi	54	46%	68%	70%	38%	90%	35%	59%
Vihiga	Sabatia	36	11%	41%	38%	30%	69%	5%	36%
Vihiga	Vihiga	95	24%	47%	61%	51%	91%	51%	76%
Provincial Total		1,008	25%	55%	60%	45%	76%	31%	60%

Table 3.11 Example of COBPAN Analysis: Central Province Distribution of 996 implementing agencies by target groups served

District	Constituency	Respondents	Infants and Young Children	School Age Youth	Adult Women	Adult Men	Adults Living with HIV and AIDS	HIV Infected Children	OVCs	Others
Kiambu	Githunguri	44	25%	34%	61%	43%	75%	38%	47%	6%
Kiambu	Kabete	36	41%	58%	58%	44%	86%	61%	77%	36%
Kiambu	Kiambaa	36	38%	50%	55%	41%	69%	47%	55%	38%
Kiambu	Lari	36	19%	41%	36%	27%	83%	30%	63%	5%
Kiambu	Limuru	36	27%	58%	47%	30%	77%	38%	41%	0%
Kirinyaga	Gichugu	27	29%	92%	92%	85%	59%	14%	29%	0%
Kirinyaga	Kerugoya/ Kutus	35	31%	60%	57%	37%	82%	37%	60%	11%
Kirinyaga	Mwea	35	42%	77%	82%	74%	74%	54%	74%	20%
Kirinyaga	Ndia	35	14%	45%	45%	31%	91%	42%	62%	17%
Maragua	Kandara	37	29%	72%	54%	40%	89%	62%	78%	27%
Maragua	Kigumo	34	50%	79%	85%	73%	73%	67%	61%	2%
Maragua	Maragua	35	25%	65%	57%	48%	77%	37%	60%	5%
Muranga	Kangema	44	6%	40%	54%	34%	65%	9%	45%	0%
Muranga	Kiharu	30	70%	83%	63%	56%	66%	53%	56%	3%
Muranga	Mathioya	35	5%	14%	22%	25%	48%	20%	34%	20%
Nyandarua	Kinangop	33	21%	33%	36%	21%	84%	30%	33%	12%
Nyandarua	Kipipiri	34	11%	73%	44%	32%	88%	38%	58%	2%
Nyandarua	Ndaragua	35	65%	88%	88%	82%	100%	71%	91%	11%
Nyandarua	Oi-Kalou	30	26%	60%	63%	36%	76%	20%	40%	20%
Nyeri	Kieni	37	21%	59%	54%	43%	75%	40%	72%	32%
Nyeri	Mathira	32	37%	78%	65%	53%	75%	43%	62%	37%
Nyeri	Mukurweni	31	29%	74%	58%	58%	58%	32%	61%	9%
Nyeri	Nyeri Town	31	32%	64%	80%	54%	45%	32%	54%	12%
Nyeri	Othaya	29	20%	51%	72%	65%	37%	31%	44%	48%
Nyeri	Tetu	33	36%	63%	72%	57%	81%	63%	69%	12%
Thika	Gatanga	35	34%	68%	54%	42%	85%	31%	57%	5%
Thika	Gatundu North	35	5%	40%	42%	25%	74%	14%	31%	8%
Thika	Gatundu South	32	18%	31%	40%	25%	62%	28%	62%	3%
Thika	Juja	34	29%	55%	41%	23%	70%	38%	58%	14%
Total		996	28%	58%	57%	44%	74%	39%	57%	14%

Table 3.12 Provisional Analysis: Western Province Distribution of 1,013 implementing agencies by type

District	Constituency	Total	NGOs	CBOs	FBOs	Private	Unspecified
Bungoma	Bumula	31	0%	100%	0%	0%	0%
Bungoma	Kanduyi	16	6%	93%	0%	0%	0%
Bungoma	Kimillili	43	0%	93%	2%	0%	4%
Bungoma	Sirisia	51	1%	76%	0%	0%	21%
Bungoma	Webuye	26	0%	76%	0%	0%	23%
Busia	Budalangi	32	18%	68%	0%	0%	12%
Busia	Butula	27	0%	88%	11%	0%	0%
Busia	Funyula	34	2%	94%	0%	0%	2%
Busia	Nambale	37	2%	97%	0%	0%	0%
Butere	Butere	39	0%	94%	0%	0%	5%
Butere	Khwisero	37	10%	67%	0%	0%	21%
Butere	Matungu	58	1%	91%	0%	0%	6%
Butere	Mumias	35	0%	77%	5%	0%	17%
Kakamega	Ikolomani	43	4%	79%	9%	0%	6%
Kakamega	Lurambi	36	5%	86%	5%	0%	2%
Kakamega	Malava	20	0%	85%	15%	0%	0%
Kakamega	Shinyalu	45	0%	93%	4%	0%	2%
Lugari	Lugari	41	9%	85%	0%	0%	4%
Mount Elgon	Mount Elgon	47	4%	87%	6%	0%	2%
Teso	Amagoro	78	1%	79%	14%	0%	5%
Vihiga	Emuhaya	51	0%	96%	1%	0%	1%
Vihiga	Hamisi	54	3%	94%	0%	0%	1%
Vihiga	Sabatia	36	2%	97%	0%	0%	0%
Vihiga	Vihiga	96	8%	84%	1%	0%	6%
Provincial Totals		1,013	3%	86%	3%	0%	6%

Table 3.13 Provincial Analysis: Central Province Distribution of 1,000 implementing agencies by type

District	Constituency	Total	NGOs	CBOs	FBOs	Private	Unspecified
Kiambu	Githunguri	44	0%	93%	0%	0%	6%
Kiambu	Kabete	36	5%	91%	0%	0%	2%
Kiambu	Kiambaa	36	0%	91%	2%	0%	5%
Kiambu	Lari	36	0%	97%	2%	0%	0%
Kiambu	Limuru	36	5%	94%	0%	0%	0%
Kirinyaga	Gichugu	28	3%	64%	0%	0%	32%
Kirinyaga	Kerugoya/ Kutus	35	2%	85%	0%	0%	11%
Kirinyaga	Mwea	35	0%	88%	8%	0%	2%
Kirinyaga	Ndia	35	0%	97%	2%	0%	0%
Maragua	Kandara	37	0%	97%	2%	0%	0%
Maragua	Kigumo	34	0%	82%	2%	0%	14%
Maragua	Maragua	35	2%	94%	0%	0%	2%
Muranga	Kangema	44	0%	100%	0%	0%	0%
Muranga	Kiharu	31	6%	70%	9%	0%	12%
Muranga	Mathioya	36	2%	88%	0%	0%	8%
Nyandarua	Kinangop	33	0%	96%	0%	0%	3%
Nyandarua	Kipipiri	34	0%	100%	0%	0%	0%
Nyandarua	Ndaragua	35	2%	94%	2%	0%	0%
Nyandarua	Ol-Kalou	30	6%	90%	3%	0%	0%
Nyeri	Kieni	38	0%	97%	0%	0%	2%
Nyeri	Mathira	32	0%	81%	0%	0%	18%
Nyeri	Mukurweni	31	0%	96%	3%	0%	0%
Nyeri	Nyeri Town	31	3%	90%	0%	0%	6%
Nyeri	Othaya	29	0%	96%	0%	0%	3%
Nyeri	Tetu	33	3%	93%	0%	0%	3%
Thika	Gatanga	35	2%	91%	2%	0%	2%
Thika	Gatundu North	35	2%	97%	0%	0%	0%
Thika	Gatundu South	32	0%	93%	0%	0%	6%
Thika	Juja	34	2%	85%	2%	0%	8%
Provincial Totals		1,000	1%	91%	1%	0%	5%

3.3 Kenya Service Provision Assessment (KSPA) Survey 2004

Kenya Service Provision Survey (KSPA) is one of the survey methods identified by the National AIDS Control Council to be used in assessment of the extent and quality of the HIV and AIDS services to the Kenyan community in health facilities. It is planned to be carried out after DHS or HIV and AIDS population based surveys.

The Kenya Service Provision Assessment (KSPA 2004) was implemented by the National Co-ordinating Agency for Population and Development (NCPAD) of the Ministry of Planning and National Development in conjunction with Ministry of Health with technical

assistance from ORC Macro. The survey was carried out to provide information on health facilities preparedness in the country to provide services for TB, sexually transmitted diseases and HIV and AIDS. Some key results were reported in the 2005 Data Booklet. The report¹ for this survey has been completed, printed and disseminated and is available from National Coordinating Agency for Population and Development.

3.4 National Leprosy and Tuberculosis Programme (NLTP)

The NLTP is a programme of the Ministry of Health. Data is collected on a quarterly basis and an annual report⁸ is produced. It is an important source of Monitoring and Evaluation data for HIV and AIDS. The data presented in the tables below are extracted from the most recent report¹.

Table 3.14 Tuberculosis case notification by province, average annual increase: 2000-2005

Province	2000	2001	2002	2003	2004	2005	Annual increase '04-05'	Average annual increase (%)
Nairobi	12,963	13,983	15,979	18,360	19,871	19,486	-2	9
Central	5,387	5,906	7,075	8,686	9,508	9,281	-2	12
Coast	7,714	8,305	9,313	9,922	9,923	10,455	5	6
Eastern	8,895	10,734	11,937	13,756	16,270	16,910	4	14
North Eastern	2,242	2,155	2,736	2,959	3,088	3,412	10	9
Nyanza	10,714	13,095	14,788	17,527	19,262	20,999	9	15
Rift Valley South	6,939	7,515	7,985	9,874	11,320	11,209	-1	10
Rift Valley North	5,222	6,436	7,202	8,080	10,041	9,684	-4	14
Western	4,083	4,888	5,099	6,146	6,500	6,965	7	11
Kenya	64,159	73,017	82,114	95,310	105,783	108,401	2	11

3.4.1 The Impact of HIV infection on case-finding

The HIV epidemic is closely associated with the TB epidemic and also has increased the proportion of smear-negative pulmonary disease which now nearly equals that of smear-positive disease. NLTP in its 2005 annual report suggests that HIV may have contributed to the increase in cases of TB that require re-treatment.

NLTP has reported that it started implementing a countrywide HIV prevalence surveillance system amongst registered TB patients in the last half of 2005. New case recording and reporting tools, incorporating HIV data, were distributed to all TB treatment facilities by July

⁸ Republic of Kenya. 2005. National Leprosy and Tuberculosis programme Annual Report 2005. Ministry of Health, National Leprosy and Tuberculosis Control Programme, Nairobi, Kenya.

2005. The system helps NLTP to track the proportion of TB patients receiving HIV related interventions including HIV testing and counselling, Cotrimoxazole preventive therapy and anti-retroviral treatment.

NLTP reports that it implemented the HIV Diagnostic testing and Counselling (DTC) policy that was launched by Ministry of Health in 2005. Table 20 reports results of HIV testing of TB patients.

Table 3.15 Number and Proportions of TB cases reported, tested for HIV and tested positive for HIV.

	Quarter 3			Quarter 4			Quarter 3+4		
	Nr reported	Nr% tested	Nr % HIV+	Nr reported	Nr% tested	Nr % HIV+	Nr reported	Nr% tested	Nr % HIV+
All cases reported	28,413			27,432			55,845		
Cases reported with "new system"	17,713 (62%)	5,582 (32%)	3,343 (60%)	24,082 (88%)	9,912 (41%)	5,501 (55%)	41,795 (75%)	15,494 (37%)	8,899 (57%)

SOURCE: NLTP annual report of 2005.

CHAPTER 4: RESOURCES FOR THE NATIONAL RESPONSE

4.1 INTRODUCTION

Sustainable financing for HIV and AIDS is one of the emerging challenges of the response to the epidemic. The changing phases of the epidemic in Kenya have brought into focus the need for sustainable financing given the emerging long-term interventions required within the population. These interventions include treatment, care and support of People Living with AIDS as well as support to the rapidly increasing number of orphans and community level coping mechanisms.

To address these and other interventions, a strong multi-sectoral response that includes well thought out strategies and resource allocation, at a decentralized level, is required in order to effectively implement the Kenya National HIV and AIDS Strategic Plan 2005/06 to 2009/10 (KNASP). For sectors and Line Ministries to play their rightful role, they have to design relevant strategies, mobilize resources and ensure efficient implementation through adequate involvement at lower levels. This calls for a marked departure from previous practice where only a few sectors and Line Ministries participated in mainstreaming HIV and AIDS interventions into their strategies and budgeting processes.

At macro level, the development challenges of HIV and AIDS such as human resource needs, good governance and competition for resources are still not well understood and key sectors of the economy have not adequately prepared themselves to mitigate against the impact of the epidemic. As a result, only token attention and resources are accorded to the fight in many Sectors/Line Ministries. An analysis of resource allocation for HIV and AIDS in the Public Sector reveals that the vast majority of funding for HIV and AIDS comes from or through the Health Sector and the Office of the President (under the National AIDS Control Council), reflecting the fact that the fight has not yet been fully integrated in the National Development Planning and Budgeting Process.

At decentralized level (where the bulk of HIV and AIDS activities take place), the limited resource allocation within sectors and line Ministries for HIV and AIDS is compounded by lack of effective linkage with the national planning and budgeting processes. There is therefore need to strengthen mainstreaming, through a two- pronged approach, from the top and from the bottom.

4.2 SITUATIONAL ANALYSIS

Much of the focus on financing HIV and AIDS interventions to-date has been on securing funds for the scale-up of prevention, care and treatment services, the source and long-term reliability of those funds was a secondary issue. Furthermore, the effective engagement of decentralized levels in planning and resource allocation has tended to be taken for granted. Now, as more and more people are put on life-long anti-retroviral treatment (ART), the commitment to long-term financing becomes more and more of a central issue. Equally, the need to ensure that sectoral strategies and resource allocation at national level is informed by what is happening at lower level is crucial.

The KNASP estimates that the comprehensive national response will cost US\$ 338 million in 2005/06 increasing to US \$605 million in 2009/10. In 2005/06, Kenya received approximately US \$ 226 million for the HIV and AIDS response from both internal and external sources. Of this large amount of funding, over 90% comes from external sources with Government of Kenya contributing a small percentage. Adding to this problem is the unreliability of some of the external funding sources and the fact that Government planning and funding for HIV and AIDS response at sectoral and line Ministry level remains weak.

4.3 MINISTERIAL RESPONSE

In mainstreaming HIV and AIDS within sectors, line ministries and the decentralized level there has to be a deliberate departure from the past trend. Generally, the Ministerial response to HIV and AIDS to-date has been characterized by:

1. Focus on internal awareness building among ministerial staff. Though largely successful, it is not, however, a sufficiently comprehensive response to HIV and AIDS.
2. Reliance on funding from NACC for HIV and AIDS activities. Very few ministries allocated funds for HIV and AIDS activities out of their own budget.
3. Reliance on NACC funding resulted in most AIDS Control Units (ACUs) working independently of the mainstream ministry structure such as planning and finance thus making their HIV and AIDS activities, plans and funding geared towards responding to NACC rather than existing ministry structures.
4. Limited involvement of decentralized levels in planning, budgeting and implementation of multi-sectoral response to HIV and AIDS.

It is against this background that the mainstreaming HIV and AIDS endeavor has grown out of the MTEF involvement, particularly when it was realized that it would not be possible to advocate for increased funding for HIV and AIDS activities from the various ministries if

HIV and AIDS was not an integral part of the Ministries strategies and plans. This therefore required that HIV and AIDS be prioritized throughout planning and budgeting process. This should happen not only at the National level but down to the district and community levels. It is therefore critical that key players at sectoral and line ministry level both at national and decentralized be effectively engaged in the mainstreaming process.

4.4 ROLE OF NATIONAL AIDS CONTROL COUNCIL (NACC)

The National AIDS Control Council (NACC), as the coordinating body of the KNASP, has taken on the task of ensuring the realization of a multi- sectoral HIV and AIDS response with the objective of supporting the mainstreaming of HIV and AIDS into ministerial planning and advocating for additional resources to be allocated by each ministry to fund the HIV and AIDS response through:-

- i. Advocating for greater involvement in the commitment to the National HIV and AIDS response from within Government of Kenya.
- ii. Engagement in the Kenya's budget process, the Medium Term expenditure Framework (MTEF), in order to solicit for additional funds for HIV and AIDS activities in the various sectors and ministries of the Kenyan Public Sector.
- iii. Formulation of appropriate ministerial strategies to respond to HIV and AIDS
- iv. Focus on planning, strategy development and subsequent budgeting of the plans and strategies in the MTEF process.

So far this effort which has been at national level has begun to bear fruit by way of increases sectoral/line Ministry allocation for HIV and AIDS activities. However, there is an urgent need to strengthen linkage with the decentralized level to facilitate bottom-up planning and ownership of interventions. This will further facilitate effective implementation of HIV and AIDS at operational level.

4.5 EXPECTED OUTCOMES OF THE DECENTRALIZED MAINSTREAMING OF HIV AND AIDS IN THE MTEF PROCESS

- i. Public Sector plans and budgets informed and owned from bottom-up, which fully reflect HIV and AIDS priorities.
- ii. Strengthening of evidence-based planning and budgeting in the public sector with regards to HIV and AIDS.
- iii. Increased funding allocation for HIV and AIDS activities from GoK budget.

- iv. Increased number of ministries allocating funds for HIV and AIDS activities through MTEF process, thereby strengthening the multi-sectoral response.
- v. Increased capacity of decentralized level to inform development and implementation of Line Ministry Strategic Plans that integrate HIV and AIDS.
- vi. Greater understanding of the impact of HIV and AIDS on various sectors leading to appropriate mitigation strategies being developed and implemented.
- vii. Strengthened decentralization of planning and budgeting in the public sector.
- viii. Increased capacity of NACC and partners to engage in MTEF and Mainstreaming initiative.

4.6 JOINT HIV AND AIDS PROGRAMME REVIEW 2006

NACC and stakeholders established the JAPR mechanism in 2002 as a forum to review the progress made in the delivery of the KNASP. Over the years the JAPR Forum has become an important mechanism not only to review the progress on the implementation of KNASP but also the development of Agenda of critical issues in the National Response to HIV and AIDS in Kenya.

In October 2006 the 5th National JAPR was held for two days which had been preceded a Decentralized process of District and Provincial consultations in 38 Districts and 9 Regions. The objectives of the JAPR 2006 were:

- i) Review the progress toward achievement of the KNASP 2005/6-2009/10 with special focus on the response at the constituency, district and provincial levels,
- ii) Enhance the linkages between the JAPR, National planning and budgetary process.
- iii) Strengthen the decentralize structures at the District and Constituency levels to lead decentralized JAPR meetings.

The JAPR process in 2006 was an improvement over the previous years due to three inputs in the process, namely:

- a) The decentralized process which provided opportunity for all multi-sectoral stakeholders to contribute to the process and output at the regional, district and constituency,

- b) Parallel discussions at the national JAPR process within the framework of the Monitoring and Coordination Groups (MCGs) representing the four KNASP priority areas. This was the first time in the history of the JAPR process to have parallel groups meet and give members an opportunity to make their contributions at national level.
- c) Engagement of the Vulnerable Groups in the JAPR and the National response to HIV and AIDS whose views have included in the final recommendations and the Results Framework for 2006/7-2008/9

The JAPR 2006 achieved its objectives and useful recommendations and rich Results Framework developed. One such recommendation which will have a far-reaching effect is the establishment of a Steering Committee to coordinate the activities of ICC-HIV and AIDS and also advise NACC on policy and strategic leadership issues.

Table 4.1 KNASP 2005-2010 Estimated resources required (Ksh millions)

	2005/06	2006/07	2007/08	2008/09	2009/10	TOTAL
PREVENTION						
Youth focused interventions	1,017	1,416	1,853	2,341	2,883	9,509
Sex workers and clients	35	37	38	39	41	190
Workplace	210	278	349	425	503	1,765
Harm reduction programmes	14	20	24	27	31	116
Uniform Services	59	83	109	135	164	550
Other vulnerable populations	118	166	217	271	327	1,099
Condom provision	2,181	2,426	2,747	3,095	3,472	13,921
STI management	422	466	513	561	612	2,575
VCT	740	789	777	830	886	4,021
PMTCT	953	1,363	1,357	1,351	1,450	6,476
Behaviour change communication	240	240	120	80	40	720
Blood safety	365	426	487	548	656	2,482
Post-exposure prophylaxis	40	55	70	85	108	360
Total: Prevention	6,395	7,765	8,661	9,788	11,173	43,782
IMPROVING OF QUALITY OF LIFE						
Home-based care	265	323	345	380	423	1,737
Palliative care	163	217	116	158	176	830
Diagnostic testing	78	95	113	130	147	563
Treatment of opportunistic infections	1,668	1,712	1,364	1,384	1,249	7,376
OI prophylaxis	117	163	212	261	314	1,067
Lab HAART	55	93	139	173	216	677
ARV therapy	4,000	5,231	7,458	8,352	9,357	34,397
Training	27	39	57	69	81	273
Nutritional support	133	164	259	299	357	1,212
Protection of Human Rights	723	795	835	835	835	4,022
Total: Improving of Quality of Life	7,228	8,833	10,897	12,041	13,156	52,154
MITIGATION OF SOCIO-ECONOMIC IMPACT						
Mitigation policy	883	1,076	724	808	1,352	4,843
Mitigation advocacy	1,261	1,537	1,087	808	451	5,144
Livelihood and social security	1,261	1,537	1,087	1,213	1,352	6,449
Mitigation programmes	3,153	3,842	6,881	8,287	9,236	31,400
Community empowerment	757	922	724	808	901	4,113
Human resource planning	252	307	362	202	225	1,349
Total: Mitigation of Socio – Economic Impact	7,568	9,221	10,865	12,127	13,516	53,298
PROVISION OF SUPPORT SERVICES						
Financing and procurement	770	770	770	770	770	3,850
Communication, coordination & networking	1,514	1,844	1,811	2,021	2,253	9,443
Monitoring and evaluation	2,018	2,459	2,173	1,617	1,802	10,069
Research	505	615	724	808	901	3,553
Institutional capacity building	505	615	724	808	901	3,553
Total: Support Services	5,311	6,303	6,203	6,025	6,627	30,469
OVERALL TOTAL (Ksh. million)	25,226	30,737	36,218	40,424	45,054	177,659
OVERALL TOTAL (US\$ million)	315	384	453	505	563	2,221

**Table 4.2. Total HIV and AIDS Resources by Source of Funding
2000/2001 - 2004/2005 (Kshs Million)**

	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	All years 2000-2005
GOK	70	10	120	40	156	396
Donors budgetary	302	1,165	1,796	2,685	6,794	12,742
Donors non-budget	1,760	3,539	4,136	5,487	11,961	26,884
NGOs	10	26	19	22	52	129
Households		4				4
Total	2,142	4,744	6,071	8,234	18,963	40,155

Source: HIV and AIDS 2005 Public Expenditure Review, Ministry of Health.

APPENDICE

Appendix 1. HIV prevalence among pregnant women at sentinel surveillance sites, 1990 – 2005

	Clients	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Bamba	Rural							1%					9%	5%	1%	2%	2%
Baringo	Mixed												10%	6%	4%	6%	4%
Busia	Urban	16%	9%	29%	21%	22%	21%	27%	28%	28%	32%	20%	15%	16%	16%	16%	14%
Chulaimbo	Rural						20%	26%		35%	24%	29%	25%	22%	22%	14%	8%
Fatima	Rural												22%	8%	10%	7%	4%
Garissa	Mixed	4%		4%	3%	14%	5%	4%	7%	4%	4%		9%	4%	2%	1%	1%
Kajiado	Mixed						5%	6%	9%	6%			8%	5%	4%	2%	3%
Kakamega	Mixed	4%	12%	14%	8%	13%	11%	9%	9%	14%	10%	10%	11%	14%	13%	9%	9%
Kangudo	Mixed												14%	7%	4%	5%	5%
Kaplong	Rural							3%	5%	4%	4%	2%	9%	6%	3%	3%	4%
Karurumo	Rural					1%	9%		26%	10%			6%	4%	7%	3%	3%
Kilifi	Mixed												10%	5%	8%	4%	5%
Kisii	Urban	1%	3%	0%	2%	8%	3%	15%	15%	13%	11%	14%	17%	14%	9%	6%	7%
Kisumu	Urban	18%	18%	19%	19%	29%	24%	26%	32%	27%	25%	33%	29%	26%	26%	11%	15%
Kitale	Mixed	2%	5%	20%	7%	10%	9%	11%	12%	8%	16%	15%	13%	16%	11%	7%	5%
Kitui	Mixed	0%	4%	1%	7%	19%	3%	3%	5%	8%	7%	12%	17%	6%	6%	6%	8%
Lodwar	Urban												16%	18%	13%		7%
Maragua	Rural								10%	5%		8%	8%	8%	5%	6%	5%
Maralal	Mixed												15%	13%	18%	8%	4%
Mbale	Rural					11%	10%		15%	10%	11%	23%	11%	11%	8%	10%	10%
Meru	Mixed	2%			1%	10%	8%	15%	13%	21%	28%	23%	10%	5%	8%	3%	5%
Mombasa	Urban	9%	16%	10%	16%	10%	15%	11%	16%	14%		10%	14%	15%	16%	10%	11%
Mosoriot	Rural					1%	12%		8%	1%	1%	5%	4%	3%	3%	5%	4%
Mt. Elgon	Mixed												21%	6%	5%	5%	5%
Mutomo	Rural												2%	5%	4%	5%	3%
Nairobi	Urban	5%	12%	13%	17%	15%	16%	16%			17%	17%	14%	13%	11%	10%	10%
Nakuru	Urban	9%	12%	12%	22%		26%	10%	24%	23%	25%	9%	12%	12%	10%	7%	7%
Njambini	Rural								4%	2%		7%	6%	6%	10%	10%	7%
Nyeri	Mixed	2%	3%	8%	2%	5%	20%	8%	6%	15%		12%	11%	8%	8%	6%	5%
Sinkwa-Turbo	Rural												5%	5%	4%	5%	4%
Suba	Rural												31%	34%	41%	30%	33%
Tabaka	Rural												11%	4%	9%	3%	3%
Teso	Rural													6%		4%	4%
Thika	Mixed	2%	9%	2%	27%	39%		12%	18%	31%	16%	19%	11%	7%	8%	8%	8%
Tiwi	Mixed					16%	23%			31%	21%	12%	10%	7%	10%	7%	7%
Wesu-Wundanyi	Rural												7%	5%	3%	3%	2%

Appendix 2. HIV prevalence, number infected, and AIDS deaths among adults by district in 2005

Province	District	Urban HIV+	Rural HIV+	Total HIV+	Total	Male	Female	AIDS deaths
					prevalence	prevalence	prevalence	
Central	Kiambu	1,009	23,417	24,426	5.1%	2.1%	8.1%	2,500
Central	Kirinyaga	1,564	10,275	11,838	4.0%	1.7%	6.3%	1,211
Central	Maragua	370	8,163	8,533	3.9%	1.6%	6.1%	873
Central	Muranga	1,049	7,136	8,186	4.1%	1.7%	6.5%	838
Central	Nyandarua	1,184	12,848	14,032	5.2%	2.2%	8.2%	1,436
Central	Nyeri	2,909	12,148	15,057	4.1%	1.7%	6.5%	1,541
Central	Thika	17,622	9,099	26,721	6.0%	2.5%	9.5%	2,734
Coast	Kilifi	1,864	4,707	6,571	2.2%	1.8%	2.5%	672
Coast	Kwale	3,763	5,356	9,119	3.5%	3.0%	4.1%	933
Coast	Lamu	736	570	1,306	3.2%	2.7%	3.7%	134
Coast	Malindi	1,989	7,352	9,341	5.7%	4.8%	6.6%	956
Coast	Mombasa	66,535	-	66,535	13.1%	11.0%	15.1%	6,809
Coast	Taita-Taveta	1,510	2,997	4,507	3.3%	2.8%	3.8%	461
Coast	Tana River	121	2,511	2,632	2.6%	2.2%	3.0%	269
Eastern	Embu	2,292	4,423	6,715	3.3%	1.3%	5.3%	687
Eastern	Isiolo	1,192	1,256	2,447	4.2%	1.6%	6.7%	250
Eastern	Kitui	1,092	6,980	8,072	3.4%	1.3%	5.4%	826
Eastern	Machakos	4,509	15,172	19,681	4.7%	1.8%	7.5%	2,014
Eastern	Makueni	736	10,073	10,810	3.2%	1.3%	5.2%	1,106
Eastern	Marsabit	144	1,356	1,500	3.0%	1.2%	4.7%	154
Eastern	Mbeere	67	2,962	3,029	2.7%	1.1%	4.3%	310
Eastern	Meru Central	3,739	8,620	12,359	3.2%	1.3%	5.2%	1,265
Eastern	Meru North	401	10,514	10,916	2.7%	1.1%	4.4%	1,117
Eastern	Meru South	343	2,521	2,863	2.9%	1.1%	4.6%	293
Eastern	Moyale	226	457	683	2.6%	1.0%	4.2%	70
Eastern	Mwingi	738	5,301	6,038	4.3%	1.7%	6.9%	618
Eastern	Nithi	-	1,243	1,243	2.7%	1.1%	4.3%	127
Eastern	Tharaka	-	-	-	0.0%	0.0%	0.0%	-
Nairobi	Nairobi	196,920	-	196,920	10.7%	4.2%	17.1%	20,152
North Eastern	Garissa	977	3,025	4,002	2.0%	1.4%	2.6%	410
North Eastern	Mandera	545	2,620	3,165	2.0%	1.4%	2.6%	324
North Eastern	Wajir	340	4,741	5,082	2.0%	1.4%	2.6%	520
Nyanza	Bondo	1,562	7,550	9,112	10.6%	8.2%	13.0%	932
Nyanza	Gucha	730	6,945	7,675	3.5%	2.7%	4.3%	785
Nyanza	Homa Bay	7,391	33,181	40,571	22.6%	17.6%	27.7%	4,152
Nyanza	Kisii Central	2,483	10,846	13,329	3.7%	2.9%	4.6%	1,364
Nyanza	Kisii North	1,208	7,455	8,663	3.6%	2.8%	4.4%	887
Nyanza	Kisumu	20,661	8,829	29,490	14.0%	10.8%	17.1%	3,018
Nyanza	Kuria	941	2,714	3,655	3.9%	3.0%	4.8%	374
Nyanza	Migori	9,598	26,671	36,270	11.1%	8.6%	13.5%	3,712
Nyanza	Nyando	1,499	10,048	11,547	0.0%	0.0%	0.0%	1,182
Nyanza	Rachuonyo	1,514	17,830	19,344	10.1%	7.9%	12.4%	1,980
Nyanza	Siaya	2,273	14,581	16,854	10.4%	8.1%	12.7%	1,725
Nyanza	Suba	1,855	21,267	23,122	22.6%	17.6%	27.7%	2,366
Rift Valley	Baringo	538	6,175	6,714	3.1%	2.1%	4.1%	687
Rift Valley	Bomet	63	6,259	6,322	2.6%	1.8%	3.4%	647
Rift Valley	Buret	36	2,530	2,566	2.6%	1.8%	3.4%	263
Rift Valley	Kajiado	1,686	4,595	6,282	2.3%	1.6%	3.1%	643
Rift Valley	Keiyo	166	3,659	3,826	3.1%	2.1%	4.1%	391
Rift Valley	Kericho	2,790	7,510	10,300	3.1%	2.1%	4.1%	1,054
Rift Valley	Koibatek	715	2,999	3,715	3.1%	2.1%	4.1%	380
Rift Valley	Laikipia	4,945	7,387	12,333	5.8%	4.0%	7.7%	1,262
Rift Valley	Marakwet	-	3,017	3,017	2.6%	1.8%	3.5%	309
Rift Valley	Nakuru	20,466	24,714	45,180	6.0%	4.1%	7.8%	4,624
Rift Valley	Nandi	687	8,076	8,762	2.7%	1.8%	3.5%	897
Rift Valley	Narok	596	3,188	3,784	2.3%	1.6%	3.1%	387
Rift Valley	Samburu	1,367	3,526	4,893	6.8%	4.7%	9.0%	501
Rift Valley	Trans Mara	131	2,089	2,221	3.0%	2.1%	4.0%	227
Rift Valley	Trans Nzoia	2,654	7,868	10,522	3.2%	2.2%	4.1%	1,077
Rift Valley	Turkana	2,982	8,224	11,206	3.8%	2.6%	5.0%	1,147
Rift Valley	Uasin Gishu	10,365	7,709	18,074	4.7%	3.2%	6.1%	1,850
Rift Valley	West Pokot	170	4,583	4,753	3.0%	2.1%	4.0%	486
Western	Bungoma	3,957	43,348	47,304	6.5%	5.1%	7.8%	4,841
Western	Busia	2,364	8,576	10,940	7.6%	6.0%	9.2%	1,120
Western	Butere/Mumias	4,907	14,555	19,462	7.5%	5.9%	9.0%	1,992
Western	Kakamega	4,135	12,261	16,396	7.5%	5.9%	9.0%	1,678
Western	Lugari	571	7,578	8,148	6.9%	5.5%	8.4%	834
Western	Mt. Elgon	191	4,788	4,979	4.5%	3.6%	5.5%	510
Western	Teso	1,340	8,739	10,079	6.8%	5.3%	8.2%	1,031

Appendix 3. Needs for treatment and support by district in 2005

Province	District	Adults requiring ART	Children requiring ART	Children		Number of orphans
				requiring cotrimoxazole	requiring cotrimoxazole	
Central	Kiambu	6,284	942	5,476	58,448	
Central	Kirinyaga	3,046	457	2,654	28,328	
Central	Maragua	2,195	329	1,913	20,418	
Central	Muranga	2,106	316	1,835	19,587	
Central	Nyandarua	3,610	541	3,146	33,577	
Central	Nyeri	3,874	581	3,375	36,028	
Central	Thika	6,875	1,031	5,990	63,939	
Coast	Kilifi	1,691	253	1,473	15,723	
Coast	Kwale	2,346	352	2,044	21,821	
Coast	Lamu	336	50	293	3,124	
Coast	Malindi	2,403	360	2,094	22,352	
Coast	Mombasa	17,118	2,566	14,915	159,208	
Coast	Taita-Taveta	1,160	174	1,010	10,786	
Coast	Tana River	677	102	590	6,298	
Eastern	Embu	1,728	259	1,505	16,069	
Eastern	Isiolo	630	94	549	5,856	
Eastern	Kitui	2,077	311	1,809	19,315	
Eastern	Machakos	5,064	759	4,412	47,094	
Eastern	Makueni	2,781	417	2,423	25,866	
Eastern	Marsabit	386	58	336	3,589	
Eastern	Mbeere	779	117	679	7,248	
Eastern	Meru Central	3,180	477	2,770	29,573	
Eastern	Meru North	2,808	421	2,447	26,120	
Eastern	Meru South	737	110	642	6,852	
Eastern	Moyale	176	26	153	1,634	
Eastern	Mwingi	1,554	233	1,354	14,449	
Eastern	Nithi	320	48	279	2,974	
Eastern	Tharaka	-	-	-	-	
Nairobi	Nairobi	50,665	7,595	44,143	471,204	
North Eastern	Garissa	1,030	154	897	9,575	
North Eastern	Mandera	814	122	710	7,574	
North Eastern	Wajir	1,307	196	1,139	12,160	
Nyanza	Bondo	2,344	351	2,043	21,804	
Nyanza	Gucha	1,975	296	1,721	18,366	
Nyanza	Homa Bay	10,438	1,565	9,095	97,082	
Nyanza	Kisii Central	3,429	514	2,988	31,895	
Nyanza	Kisii North	2,229	334	1,942	20,730	
Nyanza	Kisumu	7,587	1,137	6,611	70,566	
Nyanza	Kuria	940	141	819	8,747	
Nyanza	Migori	9,332	1,399	8,131	86,789	
Nyanza	Nyando	2,971	445	2,589	27,632	
Nyanza	Rachuonyo	4,977	746	4,336	46,287	
Nyanza	Siaya	4,336	650	3,778	40,330	
Nyanza	Suba	5,949	892	5,183	55,328	
Rift Valley	Baringo	1,727	259	1,505	16,065	
Rift Valley	Bomet	1,627	244	1,417	15,128	
Rift Valley	Buret	660	99	575	6,139	
Rift Valley	Kajiado	1,616	242	1,408	15,032	
Rift Valley	Keiyo	984	148	858	9,154	
Rift Valley	Kericho	2,650	397	2,309	24,647	
Rift Valley	Koibatek	956	143	833	8,889	
Rift Valley	Laikipia	3,173	476	2,765	29,510	
Rift Valley	Marakwet	776	116	676	7,218	
Rift Valley	Nakuru	11,624	1,743	10,128	108,109	
Rift Valley	Nandi	2,254	338	1,964	20,967	
Rift Valley	Narok	974	146	848	9,054	
Rift Valley	Samburu	1,259	189	1,097	11,707	
Rift Valley	Trans Mara	571	86	498	5,313	
Rift Valley	Trans Nzoia	2,707	406	2,359	25,177	
Rift Valley	Turkana	2,883	432	2,512	26,814	
Rift Valley	Uasin Gishu	4,650	697	4,052	43,249	
Rift Valley	West Pokot	1,223	183	1,066	11,374	
Western	Bungoma	12,171	1,825	10,604	113,192	
Western	Busia	2,815	422	2,452	26,178	
Western	Butere/Mumias	5,007	751	4,363	46,569	
Western	Kakamega	4,218	632	3,675	39,233	
Western	Lugari	2,096	314	1,827	19,498	
Western	Mt. Elgon	1,281	192	1,116	11,915	
Western	Teso	2,593	389	2,259	24,117	

Appendix 4 HIV prevalence, number infected, and AIDS death among adults by district in 2004

Province	District	Urban HIV+	Rural HIV+	Total HIV+	Total	Male	Female	AIDS deaths
					Prevalence	Prevalence	Prevalence	
Central	Kiambu	1,447	28,228	29,675	6.4%	2.7%	10.2%	2954
Central	Kirinyaga	1,633	10,855	12,488	4.4%	1.8%	6.9%	1243
Central	Maragua	409	8,554	8,963	4.2%	1.8%	6.7%	892
Central	Muranga	996	7,493	8,488	4.4%	1.8%	7.0%	845
Central	Nyandarua	1,285	15,399	16,684	6.4%	2.7%	10.2%	1661
Central	Nyeri	3,116	12,988	16,105	4.5%	1.9%	7.1%	1603
Central	Thika	15,829	9,866	25,695	6.1%	2.5%	9.6%	2558
Coast	Kilifi	2,327	5,004	7,331	2.5%	2.1%	2.9%	730
Coast	Kwale	2,866	5,026	7,892	3.0%	2.6%	3.5%	766
Coast	Lamu	536	612	1,148	2.9%	2.4%	3.3%	114
Coast	Malindi	2,381	5,403	7,784	5.0%	4.2%	5.7%	775
Coast	Mombasa	60,248	-	60,248	12.3%	10.4%	14.3%	5998
Coast	Taita-Taveta	1,395	2,776	4,171	3.1%	2.6%	3.6%	415
Coast	Tana River	146	2,282	2,429	2.5%	2.1%	2.9%	242
Eastern	Embu	2,286	5,519	7,806	4.1%	1.6%	6.5%	777
Eastern	Isiolo	1,090	1,215	2,305	4.1%	1.6%	6.6%	229
Eastern	Kitui	930	6,945	7,874	3.4%	1.3%	5.4%	784
Eastern	Machakos	4,400	13,505	17,905	4.3%	1.7%	6.9%	1782
Eastern	Makueni	739	10,140	10,879	3.3%	1.3%	5.2%	1083
Eastern	Marsabit	172	1,375	1,548	3.0%	1.2%	4.9%	154
Eastern	Mbeere	80	3,642	3,723	3.5%	1.4%	5.7%	371
Eastern	Meru Central	3,897	10,689	14,585	4.0%	1.6%	6.5%	1452
Eastern	Meru North	474	12,896	13,370	3.6%	1.4%	5.7%	1331
Eastern	Meru South	398	3,308	3,707	3.7%	1.5%	5.9%	369
Eastern	Moyale	238	468	706	2.8%	1.1%	4.5%	70
Eastern	Mwingi	628	4,632	5,260	3.9%	1.5%	6.2%	524
Eastern	Nithi	-	1,631	1,631	3.5%	1.4%	5.6%	162
Eastern	Tharaka	-	-	-	0.0%	0.0%	0.0%	0
Nairobi	Nairobi	168,667	-	168,667	9.6%	3.8%	15.4%	16792
North Eastern	Garissa	1,066	3,267	4,332	2.3%	1.6%	3.0%	431
North Eastern	Mandera	615	2,855	3,470	2.3%	1.6%	3.0%	345
North Eastern	Wanjiir	389	4,999	5,388	2.3%	1.6%	3.0%	536
Nyanza	Bondo	1,962	10,192	12,155	13.7%	10.7%	16.8%	1210
Nyanza	Gucha	724	7,887	8,611	4.0%	3.1%	4.9%	857
Nyanza	Homa Bay	7,134	34,006	41,140	24.4%	18.9%	29.8%	4096
Nyanza	Kisii Central	2,356	11,463	13,819	4.2%	3.2%	5.1%	1376
Nyanza	Kisii North	1,199	8,465	9,664	4.1%	3.2%	5.0%	962
Nyanza	Kisumu	27,280	12,268	39,548	18.4%	14.2%	22.5%	3937
Nyanza	Kuria	893	2,923	3,816	4.4%	3.4%	5.3%	380
Nyanza	Migori	11,538	33,021	44,559	14.4%	11.2%	17.6%	4436
Nyanza	Nyando	2,243	13,318	15,561	0.0%	0.0%	0.0%	1549
Nyanza	Rachuonyo	1,829	21,825	23,654	13.2%	10.3%	16.2%	2355
Nyanza	Siaya	2,907	19,681	22,588	13.5%	10.5%	16.6%	2249
Nyanza	Suba	1,791	21,610	23,400	24.4%	18.9%	29.8%	2330
Rift Valley	Baringo	587	6,607	7,194	3.7%	2.5%	4.9%	716
Rift Valley	Bomet	82	6,735	6,817	3.0%	2.0%	3.9%	679
Rift Valley	Buret	52	3,124	3,177	3.0%	2.0%	3.9%	316
Rift Valley	Kajiado	1,864	5,171	7,035	2.8%	1.9%	3.6%	700
Rift Valley	Keiyo	190	3,915	4,104	3.7%	2.5%	4.8%	409
Rift Valley	Kericho	3,674	8,159	11,833	3.8%	2.6%	5.0%	1178
Rift Valley	Koibatek	781	3,209	3,989	3.7%	2.5%	4.9%	397
Rift Valley	Laikipia	6,490	8,881	15,370	7.7%	5.3%	10.2%	1530
Rift Valley	Marakwet	-	2,577	2,577	2.5%	1.7%	3.3%	257
Rift Valley	Nakuru	28,295	29,688	57,983	8.0%	5.5%	10.5%	5772
Rift Valley	Nandi	774	7,416	8,190	2.6%	1.8%	3.4%	815
Rift Valley	Narok	638	3,772	4,410	2.8%	1.9%	3.6%	439
Rift Valley	Samburu	1,546	4,185	5,731	8.3%	5.7%	10.8%	571
Rift Valley	Trans Mara	147	2,485	2,632	3.6%	2.5%	4.7%	262
Rift Valley	Trans Nzoia	3,101	7,121	10,223	3.2%	2.2%	4.2%	1018
Rift Valley	Turkana	2,881	9,057	11,938	4.4%	3.0%	5.7%	1189
Rift Valley	Uasin Gishu	11,742	8,836	20,578	5.5%	3.8%	7.3%	2049
Rift Valley	West Pokot	200	5,300	5,500	3.6%	2.5%	4.8%	548
Western	Bungoma	2,086	38,564	40,650	6.2%	4.9%	7.5%	4047
Western	Busia	2,158	8,621	10,779	7.4%	5.9%	9.0%	1073
Western	Butere/Mumias	4,140	14,009	18,149	7.3%	5.8%	8.8%	1807
Western	Kakamega	3,754	12,700	16,454	7.3%	5.8%	8.8%	1638
Western	Lugari	525	7,239	7,764	6.9%	5.4%	8.3%	773
Western	Mt Elgon	104	2,525	2,629	2.7%	2.1%	3.2%	262
Western	Teso	1,192	7,774	8,966	6.7%	5.3%	8.1%	893
Western	Vihiga	1,880	1,460	3,340	9.3%	7.2%	11.0%	668

APPENDIX 5: HIV and AIDS Prevalence by District, 2001-2003.

DISTRICT CODE	FIRST_DIST	SUM_AREA KM2	DISTRICT	%PREVALENCE 2001	%PREVALENCE 2002	%PREVALENCE 2003
101	NAIROBI	692.9900	Nairobi	12.9	14.2	7.7
201	KIAMBU	1312.9660	Kiambu	9.4	6.3	4.7
202	KIRINYAGA	1475.4370	Kirinyaga	7.6	7.9	4.3
203	MURANGA	933.4870	Muranga	8.7	7.9	4.3
204	NYANDARUA	3275.6450	Nyandarua	10.0	6.3	4.7
205	NYERI	3340.9080	Nyeri	8.4	6.3	4.3
206	THIKA	1961.9160	Thika	9.0	6.3	4.3
207	MARAGUA	865.8060	Maragua	8.8	6.3	4.3
301	KILIFI	4805.1220	Kilifi	8.3	4.0	3.8
302	KWALE	8340.8830	Kwale	7.7	6.5	3.1
303	LAMU	6612.2700	Lamu	7.9	4.0	3.8
304	MOMBASA	189.3360	Mombasa	14.4	5.8	7.7
305	TAITA TAVETA	17107.7960	Taita-Taveta	12.7	5.8	3.1
306	TANA RIVER	38215.4470	Tana River	7.0	4.0	3.1
307	MALINDI	7728.6810	Malindi	12.9	4.0	7.7
401	EMBU	730.8860	Embu	7.0	4.0	5.1
402	ISIOLO	25350.9210	Isiolo	7.7	5.3	3.1
403	KITUI	20449.3230	Kitui	9.6	5.3	3.1
404	MAKUENI	7994.0000	Makueni	9.1	5.3	3.1
405	MACHAKOS	6225.6580	Machakos	11.8	6.7	4.6
406	MARSABIT	61421.4440	Marsabit	15.5	4.0	3.1
407	MBEERE	2092.2380	Mbeere	8.0	4.0	5.1
408	MERU CENTRAL	2984.8510	Meru Central	11.4	4.0	5.1
409	MOYALE	9588.2140	Moyale	11.2	4.0	3.1
410	MWINGI	10088.9050	Mwingi	9.8	6.7	4.6
411	MERU NORTH	3953.5350	Meru North	8.0	4.0	5.1
412	THARAKA	1558.8180	Tharaka	8.0	4.0	5.1
413	MERU SOUTH	1085.0160	Meru South	8.1	4.0	5.1
501	GARISSA	44707.3890	Garissa	15.5	4.0	3.1
502	MANDERA	26377.3210	Mandera	15.5	4.0	3.1
503	WAJIR	56696.8350	Wajir	15.5	4.0	3.1
601	GUCHA	660.4510	Gucha	11.3		4.3
602	HOMA BAY	1153.6880	Homa Bay	24.0	34.0	27.7
603	CENTRAL KISII	655.3860	Kisii Central	10.7	4.3	4.3
604	KISUMU	885.8690	Kisumu	24.8	21.8	17.2
605	KURIA	583.9700	Kuria	12.4	4.3	4.3
606	MIGORI	2009.0600	Migori	26.8	34.0	17.2
607	NYAMIRA	896.1250	Kisii North	7.0	4.3	4.3
608	RACHUONYO	961.6720	Rachuonyo	26.8	34.0	17.2
609	SIAYA	1519.8940	Siaya	26.8	21.8	17.2
610	SUBA	1149.9480	Suba	26.8	34.0	27.7

611	BONDO	891.7050	Bondo	26.8	21.8	17.2
612	NYANDO	1172.5110	Nyando	26.8	21.8	17.2
701	BARINGO	8643.8980	Baringo	6.2	4.5	3.3
702	BOMET	1437.1110	Bomet	7.6	6.0	2.3
703	KEIYO	1438.0770	Keiyo	6.8	4.5	3.3
704	KAJIADO	21313.2100	Kajiado	6.2	7.5	3.8
705	KERICHO	2111.7130	Kericho	13.4	6.0	2.3
706	KOIBATEK	2309.0630	Koibatek	7.9	4.5	3.3
707	LAIKIPIA	9478.7450	Laikipia	7.3	6.3	4.7
708	MARAKWET	1585.1300	Marakwet	5.4	2.9	2.4
709	NAKURU	7199.7210	Nakuru	7.2	6.3	4.7
710	NANDI	2873.6830	Nandi	7.2	2.9	2.4
711	NAROK	15103.2590	Narok	4.6	7.5	3.8
712	SAMBURU	21072.1830	Samburu	13.4	7.5	10.7
713	TRANS MARA	2847.3980	Trans Mara	4.4	7.5	3.3
714	TRANS NZOIA	2484.9930	Trans Nzoia	12.3	4.5	2.4
715	TURKANA	68374.7090	Turkana	12.0	7.5	3.3
716	UASIN GISHU	3366.4840	Uasin Gishu	6.2	4.5	3.3
717	WEST POKOT	9101.1570	West Pokot	5.8	4.5	3.3
718	BURET	1398.3880	Buret	5.4	6.0	2.3
801	BUNGOMA	2068.2160	Bungoma	9.0	6.3	6.1
802	BUSIA	1143.1800	Busia	12.9	6.3	6.1
803	MT ELGON	944.2610	Mt. Elgon	21.7	6.3	4.0
804	KAKAMEGA	1394.8480	Kakamega	8.2	10.8	6.1
805	LUGARI	670.1150	Lugari	9.2	10.8	6.1
806	TESO	559.6530	Teso	12.1	6.1	6.1
807	VIHIGA	562.7880	Vihiga	8.8	10.8	6.1
808	BUTERE/MUMIAS	945.0520	Butere/Mumias	8.9	10.8	6.1

¹ Morgan M, Walker N, Gouws E, Stanecki KA, Stover J. Improved plausibility bounds about the 2005 HIV and AIDS estimates. *Sex Transm Infect* 2006;82(Suppl III):iii71-iii77.

² Stover J. Projecting the demographic consequences of adult HIV prevalence trends: the Spectrum Projection Package. *Sex Transm Infect* 2004; 80 (Suppl 1): i14-i18.

maisha!

For further information contact:

National AIDS Control Council
The Chancery Building, 6th Floor, Valley Road
P.O. Box 61307, Nairobi, Kenya
Telephone: 2711261/2715144 Fax: 2711072/2711231
E-mail: info@nacc.or.ke
www.nacc.or.ke