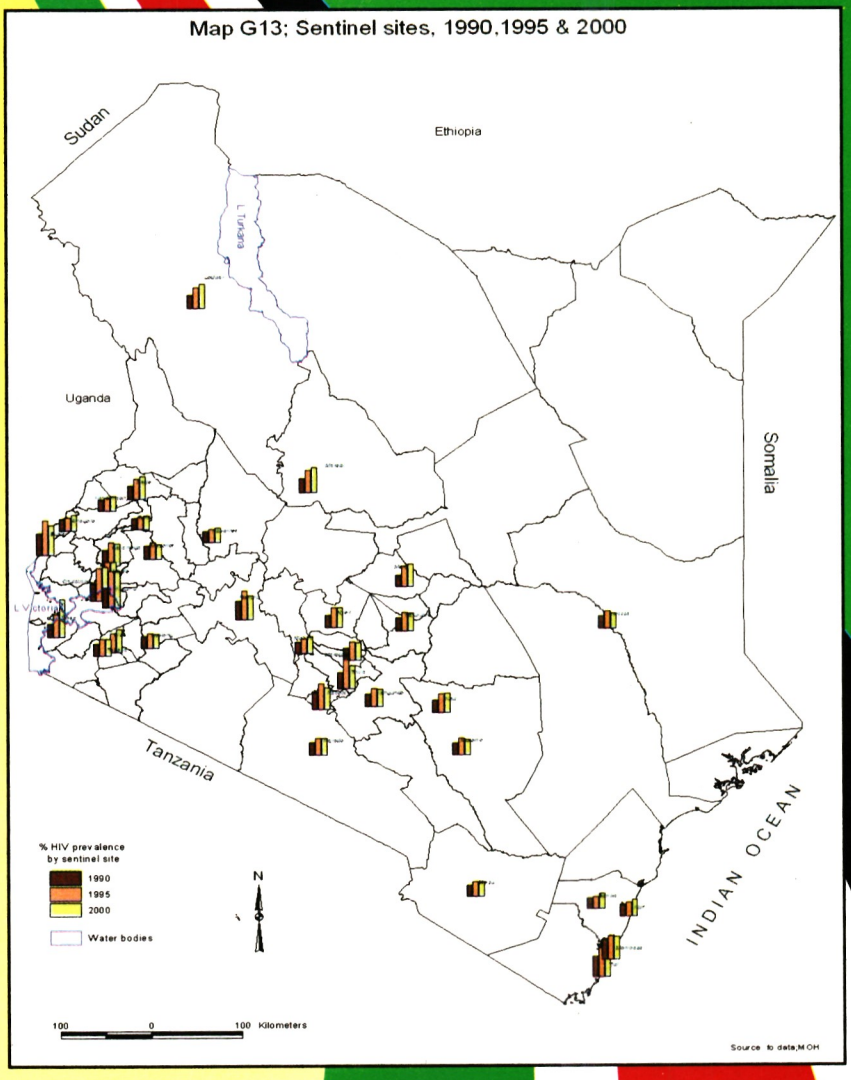
REPUBLIC OF KENYA

KENYA HIV/AIDS DATA BOOKLET



NATIONAL AIDS CONTROL COUNCIL DECEMBER 2005

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Introduction

The Kenya HIV/AIDS Data Booklet 2005 is a new addition to the documentation of the monitoring of the epidemic and HIV response in Kenya. The purpose of the booklet is to share the most recent data that has been collected by various HIV/AIDS Monitoring and Evaluation Framework data sources and contributors. Many of the tables and much of the information has been taken 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. Most of the data represents information gathered in the previous year as per the earlier Kenya National AIDS Strategic Plan (KNASP). In the future, this document will be replicated annually in line with the new KNASP Results Framework.

The audience for the Data Booklet encompasses all those involved in the HIV/AIDS response in Kenya as well as the general public, students, and researchers. Kenya has made significant progress in its response to the 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 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 Data Booklet provides information on facility and non-facility based services and coverage rates and requirements.

Chapter 1: Overview of the HIV/AIDS Epidemic in Kenya

1.1 Estimates of National HIV/AIDS Prevalence

(Estimates by Boaz Cheluget[1], Ahmed Sheikh Abdulahi[2] and John Stover[3] and presented to National HIV/AIDS M&E Committee)

Each year the National AIDS and STD Control Programme (NASCOP) conducts sentinel surveillance for HIV infections at antenatal clinics throughout the country. These sites were selected to provide geographical coverage as much as possible taking into account the various ethnic and socio economic diversities in the country. These data is used to provide information on trends in HIV prevalence and identification of areas where there is high or low prevalence for decisions in some of the responses. In 2003 a national household survey (2003 KDHS) provided a good estimate of HIV prevalence in the adult population aged 15-49. This part of the report describes the use of the sentinel surveillance data and the KDHS to estimate national prevalence in Kenya for 2004 and the implications of that estimate for other indicators of interest, such as the number of people infected, the number of people in need of ART and required targets for PMTCT, orphans and annual deaths due to HIV/AIDS in Kenya.

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 National AIDS and STD Control Programme (NASCOP) implements the HIV sentinel surveillance system in Kenya. Data are collected for both antenatal 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 National AIDS Control Council (NACC) in conjunction with national aids/std control programme spearheads the estimation of national HIV prevalence and other related indicators.

The sentinel surveillance system has been in operation since 1990. It started with 13 sites and has expanded over time to include 43 sites in 2004. The surveillance data for all sites are shown in Appendix 1.

[1] National AIDS Control Council
[2] National AIDS/STI Control Programme
[3] Futures Group

1.3 HIV Prevalence among all Adults Aged 15-49

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.

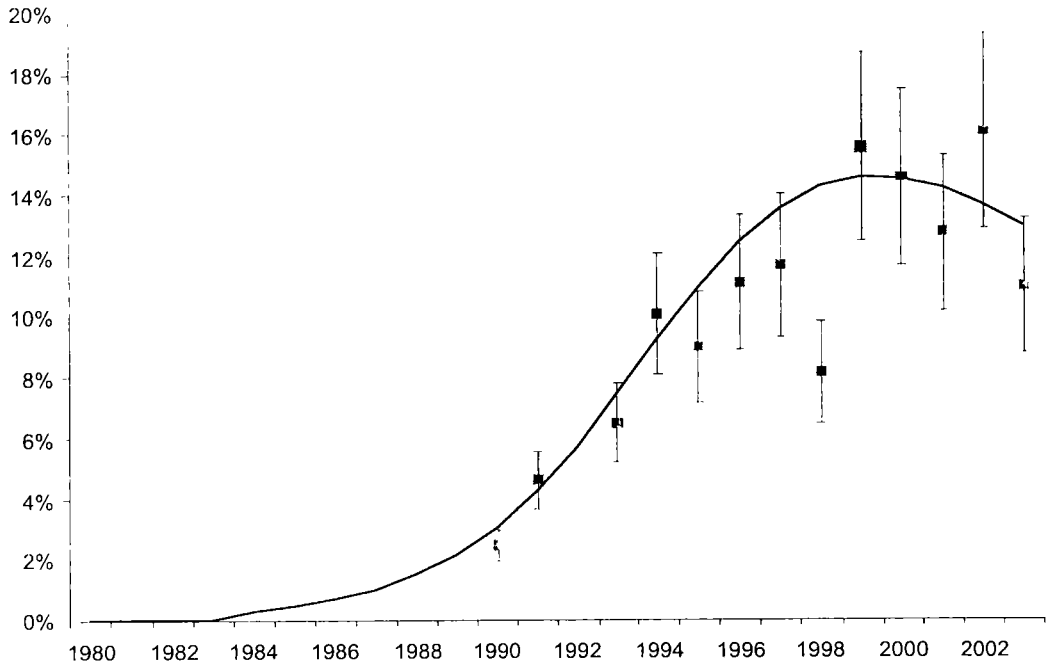
1. **Curve fitting**. Surveillance data are available for almost 15 years for some sites and for only a few years for other sites. Individual estimates are subject to some error due to small sample sizes. The average sample size is about 260. To smooth the year-to-year fluctuations, epidemic curves are fit to the data from each site using the Estimation and Projection Package (EPP) developed by the UNAIDS Reference Group on Estimates, Model and Projections[4]. 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 7 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 2004 would have been somewhat higher.

[4] 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.

For the 18 sites with only four 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.

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: Districts represented by each sentinel site

Province	District	Urban Site	Rural Site
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
	Kisii Central	Kisii	Tabaka
	Kisii North	Kisii	Tabaka
	Kisumu	Kisumu	Chulaimbo
	Kuria	Kisii	Tabaka
	Migori	Kisumu	Chulaimbo

Province	District	Urban Site	Rural Site
	Nyando	Kisumu	Chulaimbo
	Rachuonyo	Kisumu	Chulaimbo
	Siaya	Kisumu	Chulaimbo
	Suba	Suba	Suba
Rift Valley	Baringo	Baringo	Sirikwa/Turbo
	Bomet	Baringo	Kaplong
	Buret	Baringo	Kaplong
	Kajiado	Kajiado	Kajiado
	Keiyo	Baringo	Sirikwa/Turbo
	Kericho	Nakuru	Kaplong
	Koibatek	Baringo	Sirikwa/Turbo
	Laikipia	Nakuru	Njambini
	Marakwet	Baringo	Mosoriot
	Nakuru	Nakuru	Njambini
	Nandi	Baringo	Mosoriot
	Narok	Kajiado	Kajiado
	Samburu	Maralal	Maralal
	Trans Mara	Kajiado	Sirikwa/Turbo
	Trans Nzoia	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
	Lugari	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 oc-

curred 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 - 2004 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.

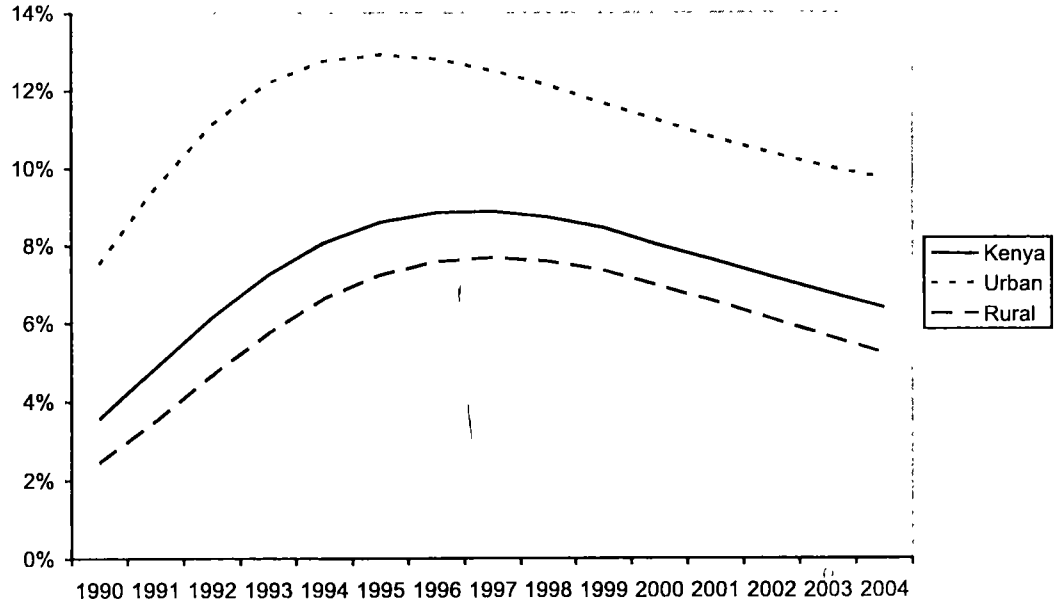
8. **Calculate the consequences of the prevalence estimate.** Once the prevalence estimate is prepared it is used in the Spectrum software package[5] to estimate to consequences including the number of child infections, new infections, AIDS deaths and the need for ART.

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 6.4% in 2004, a reduction of 0.3% from 2003. The direct estimate, using the actual site data for 2001 - 2004, is 5.7%. This represents a significant drop of 1% from the 6.7% found in 2003. These two estimates represent a range, 5.7% - 6.4%, within which the actual prevalence is likely to fall and thus for point estimate, a high part of the midpoint 6.1% is used. In the tables that follow, the higher estimate is used since it provides a complete picture of the prevalence trend since the beginning of the epidemic. Figure 2 shows this trend.

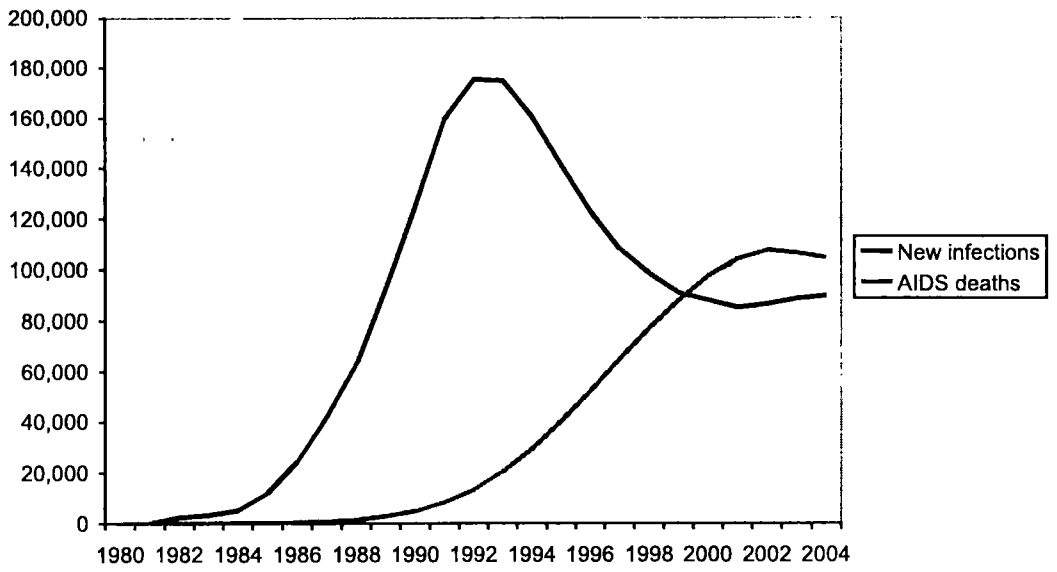
[1] Stover J. Projecting the demographic consequences of adult HIV prevalence trends: the Spectrum Projection Package. Sex Transm Infect 2004; 80 (suppl 1): i14–i18.

Figure 2: HIV Prevalence among Adults 15-49, 1990-2004



The decline in prevalence since the late 1990s does not mean that the problem of HIV/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 2004 there were about 90,000 new adult infections approximately 250 new infections every day. 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 has probably doubled in the last eight years reaching about 105,000 per year in 2004 translating to approximately 300 deaths per day due to HIV, as shown in Figure 3.

Figure 3: Number of new infections and AIDS deaths among



The estimated adult prevalence and number of adults infected by region and sex for 2004 is shown in Table 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 117,000 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 3. Estimates of HIV infection by province are shown in Table 4.

Table 2: National HIV estimates for 2004

	Prevalence	Number HIV+
Adults 15-49		
Total (Range)	6.4% (5.7%-6.4%)	1,057,000 (941,000 – 1,057,000)
Male	4.3%	360,000
Female	8.3%	696,000
Urban	9.7%	421,000
Rural	5.2%	636,000
Adults 50+		96,000
Children 0-14		117,000
Total		1,270,000

Table 3: Prevalence estimates for youth aged 15-24 in 2004

	Prevalence	Number HIV+
Male	0.9%	35,911
Famale	4.9%	189,372
Total	2.9%	225,284

Table 4: Adult HIV prevalence by province in 2004

		Prevalence		
Province	**Number HIV+**	**Total**	**Male**	**Female**
Nairobi	159,000	9.0%	7.1%	10.9%
Central	124,000	5.6%	2.3%	8.9%
Coast	84,000	5.7%	4.8%	6.6%
Eastern	90,000	3.7%	1.4%	5.9%
North Eastern	17,000	3.0%	2.1%	4.0%
Nyanza	292,000	13.1%	10.2%	16.0%
Rift Valley	207,000	5.0%	3.5%	6.6%
Western	85,000	4.5%	3.6%	5.4%
Total	1,057,000	6.4%	4.3%	8.3%

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

1.6 Results: PMTCT and Orphans and Vulnerable Children Needs

The estimates of HIV infection among adults are used to calculate the number of children that become infected through mother-to-child transmission. In 2004 there were almost 120,000 children living with HIV and 30,000 new infections. The transmission of HIV from mother-to-child can be greatly reduced through PMTCT programs that provide counselling 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 counselling 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 90,000 children are in need of cotrimoxazole and 35,000 are in need of ART.

Table 5: Need for PMTCT and child treatment, 2005

Number of births	1,393,000
Births to HIV+ women	83,000
HIV+ births	29,022
Child AIDS deaths	18,000
Children needing ART	35,000
Children in need of cotrimoxazole	93,000

When adults die from AIDS their children become orphans. In 2004 there were an estimated 2.3 million orphans as shown in Table 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 6: Number of orphans by type, 2005

Maternal Orphans	1,414,000
AIDS	849,000
Non-AIDS	565,000
Paternal Orphans	1,337,000
AIDS	482,000
Non-AIDS	855,000
Dual Orphans	439,000
AIDS	343,000
Non-AIDS	96,000
Total Orphans	2,311,000
All AIDS orphans	1,044,000

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
- 83,000 need treatment to prevent mother-to-child transmission of HIV
- 35,000 children need ART and 93,000 need cotrimoxazole prophylaxis
- 250,000 adults need ART
- 2.3 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.

Chapter 2: Monitoring and Evaluation Framework Components: Outcome and Impact Monitoring

2.1 Sentinel Surveillance

The Sentinel Surveillance system, which is implemented annually by NASCOP, was completed on time for year 2004 as planned. The results were presented and discussed at the National M&E Committee in November 2005. The summary of the data are found in Chapter 1 and show the prevalence of HIV on pregnant women that visited the health facilities and were recruited as per the sentinel surveillance protocol.

2.2 Kenya Demographic Health Survey (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. Data and analysis from the 2003 KDHS report are shown in the tables below.

Table 7: Coverage of HIV testing by sex and urban-rural residence during KDHS 2003

Percent distribution of women and men eligible for testing by testing status according to sex and urban-rural residence, Kenya 2003 (unweighted)

	Residence		Province								
Testing status	Urban	Rural	Nairobi	Central	Coast	Eastern	Nyanza	Rift Valley	Western	North Eastern	Total
					WOMEN						
Tested	66.2	81.7	54.5	70.7	80.1	76.1	91.1	81.1	88.0	75.6	76.3
Refused	19.2	11.9	21.5	18.8	14.5	15.1	5.4	11.7	8.7	19.9	14.4
Absent for testing	10.6	3.5	19.3	5.1	2.3	4.6	1.9	2.1	2.4	4.5	6.0
Interviewed in survey	5.9	1.7	11.8	3.0	0.8	2.2	1.4	1.3	1.0	0.0	3.1
Not interviewed	4.7	1.8	7.5	2.2	2.5	2.4	0.6	1.9	1.4	4.5	2.8
Other missing	4.0	2.9	4.6	5.3	2.0	4.2	1.6	4.1	1.0	0.0	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,488	2,815	651	738	488	502	514	702	507	201	4,303
					MEN						
Tested	68.4	76.7	60.2	62.9	66.2	74.5	87.1	75.7	82.7	74.9	70.3
Refused	16.5	11.2	15.3	16.2	21.4	14.0	2.3	10.0	9.9	13.8	13.0
Absent for testing	10.3	7.9	20.8	13.0	8.8	6.1	6.6	9.4	4.9	11.3	12.2
Interviewed in survey	5.8	2.6	9.8	5.4	3.8	2.8	0.8	1.5	1.1	0.5	3.1
Not interviewed	14.5	5.3	21.1	7.6	5.0	3.4	5.7	8.0	3.9	10.8	8.5
Other missing	4.8	4.2	3.6	7.8	3.6	5.3	3.1	4.9	2.6	0.0	4.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,466	2,717	665	739	444	506	488	679	467	195	4,183
					TOTAL						
Tested	62.3	79.3	52.4	66.8	73.5	75.3	89.1	78.4	85.4	75.3	73.4
Refused	17.8	11.5	18.4	17.5	17.8	14.6	4.4	10.9	9.2	16.9	13.7
Absent for testing	15.4	5.7	25.2	9.1	5.9	5.4	4.2	6.2	3.6	7.8	9.1
Interviewed in survey	5.9	2.1	10.8	4.2	2.3	2.5	1.1	1.4	1.0	0.3	3.4
Not interviewed	9.6	3.5	14.4	4.9	3.6	2.9	3.1	4.9	2.6	7.6	5.6
Other missing	4.4	3.5	4.0	6.6	2.8	4.8	2.3	4.5	1.7	0.0	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,954	5,532	1,316	1,477	932	1,008	1,002	1,381	974	396	8,486

Table 8: Coverage of HIV testing by age, education and wealth quintile

Percent distribution of women and men eligible for HIV testing by testing status, by age, education, and wealth quintile, Kenya 2003 (unweighted)

Age, education, and wealth quintile	Testing status									
	Tested		Refused		Absent		Other missing			
	Interviewed	Not interviewed	Interviewed	Not interviewed	Interviewed	Not interviewed	Interviewed	Not interviewed	Total	Number
WOMEN										
Age										
15-19	75.1	0.2	13.4	1.2	3.8	3.4	1.6	1.2	100.0	975
20-24	77.2	0.5	11.7	1.7	2.4	2.3	2.4	1.9	100.0	886
25-29	76.1	0.3	11.2	1.7	3.4	3.3	2.4	1.6	100.0	704
30-34	76.1	0.5	13.3	0.8	4.0	1.3	2.1	1.9	100.0	618
35-39	78.9	0.0	11.8	1.8	1.8	3.5	1.3	0.9	100.0	451
40-44	74.2	0.0	15.7	1.5	2.8	3.5	1.0	1.3	100.0	395
45-49	73.7	0.4	16.8	1.8	3.3	2.9	0.4	0.7	100.0	274
Education										
No education	74.5	1.0	15.1	1.6	1.6	2.6	1.0	2.6	100.0	689
Primary incomplete	81.4	0.2	10.8	1.2	2.1	1.4	1.7	1.1	100.0	1,259
Primary complete	76.7	0.2	13.7	1.3	3.7	1.7	1.5	1.1	100.0	993
Secondary +	72.0	0.0	13.4	1.5	4.4	5.0	2.5	1.3	100.0	1,352
Wealth quintile										
Lowest	84.3	0.6	10.0	0.2	0.9	2.1	0.9	1.1	100.0	661
Second	86.6	0.4	8.7	0.4	0.4	1.0	0.7	1.6	100.0	677
Middle	81.7	0.5	10.2	0.7	1.9	1.6	1.6	1.6	100.0	732
Fourth	77.9	0.1	12.4	1.6	3.2	1.6	2.1	1.2	100.0	822
Highest	63.2	0.0	18.1	2.9	6.1	5.4	2.7	1.6	100.0	1,411
Total	76.1	0.3	12.9	1.5	3.1	2.8	1.8	1.5	100.0	4,303
MEN										
Age										
15-19	75.5	0.4	8.2	1.8	3.8	6.0	1.8	2.4	100.0	928
20-24	67.4	0.1	12.0	3.2	3.7	8.0	2.1	3.5	100.0	791
25-29	64.2	0.6	11.5	3.0	3.3	11.9	1.7	3.8	100.0	637
30-34	68.8	1.4	8.8	2.9	3.5	11.7	1.0	1.9	100.0	513
35-39	68.3	0.7	10.9	2.7	5.8	7.8	1.6	2.4	100.0	451
40-44	69.9	0.8	13.8	1.4	2.2	8.0	0.8	3.0	100.0	362
45-49	68.9	0.4	12.0	2.5	3.3	10.4	1.2	1.2	100.0	241
50-54	74.6	0.4	8.5	2.7	4.2	4.6	1.2	3.8	100.0	260
Education										
No education	69.3	0.8	10.7	2.5	2.0	7.3	1.4	5.9	100.0	355
Primary incomplete	75.1	0.7	8.9	2.1	3.0	6.2	1.8	2.2	100.0	1,250
Primary complete	70.2	0.2	10.9	3.5	3.9	7.5	1.6	2.2	100.0	939
Secondary +	65.9	0.6	11.6	2.0	4.5	10.9	1.5	2.9	100.0	1,627
Wealth quintile										
Lowest	79.5	0.8	9.1	2.2	1.2	4.7	0.8	1.7	100.0	596
Second	79.3	1.1	7.1	1.0	1.4	5.6	1.3	3.2	100.0	624
Middle	74.1	0.3	9.0	3.0	3.1	6.4	1.3	2.8	100.0	703
Fourth	72.9	0.4	11.0	1.9	3.8	4.9	2.0	3.1	100.0	838
Highest	57.4	0.5	13.1	3.5	6.0	14.6	1.9	3.0	100.0	1,422
Total	69.7	0.6	10.5	2.5	3.7	8.5	1.6	2.8	100.0	4,183

Note: Total includes 10 women and 8 men not stated as to education.

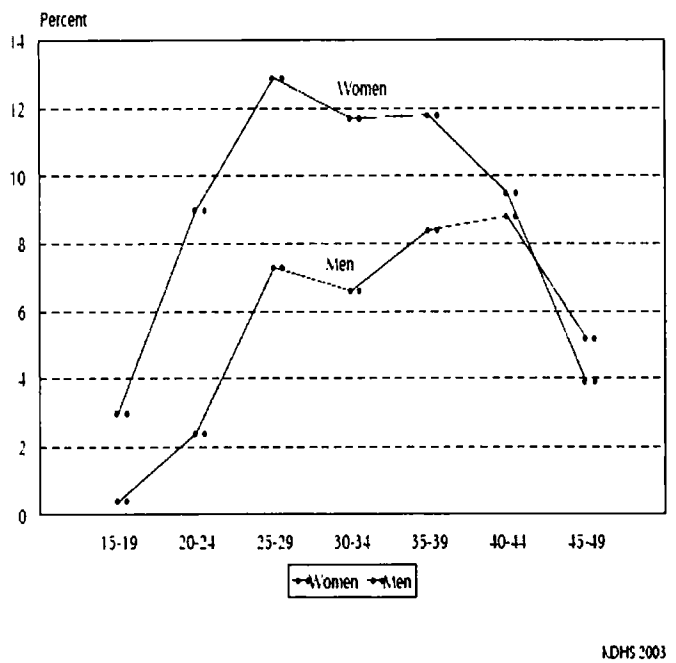
Table 9: HIV prevalence by age

Percentage HIV positive among women age 15-49 and men age 15-54 who were tested, by age, Kenya 2003

	Women		Men		Total	
Age	Percent HIV positive	Number	Percent HIV positive	Number	Percent HIV positive	Number
15-19	3.0	711	0.4	745	1.6	1,456
20-24	9.0	658	2.4	566	6.0	1,224
25-29	12.9	522	7.3	428	10.4	950
30-34	11.7	438	6.6	368	9.4	806
35-39	11.8	345	8.4	321	10.1	666
40-44	9.5	276	8.8	260	9.1	535
45-49	3.9	202	5.2	163	4.4	364
50-54	na	na	3.7	193	na	na
Total age 15-49	8.7	3,151	4.6	2,851	6.7	6,001
Total age 15-54	na	na	4.6	3,043	na	na

na = Not applicable

Figure 4: HIV prevalence by age group and sex



KDHS 2003

Table 10: HIV prevalence by selected socioeconomic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by socioeconomic characteristics, Kenya 2003

Socioeconomic characteristic	Women		Men		Total	
	Percent HIV positive	Number	Percent HIV positive	Number	Percent HIV positive	Number
Residence						
Urban	12.3	779	7.5	716	10.0	1,495
Rural	7.5	2,372	3.6	2,135	5.6	4,507
Province						
Nairobi	11.9	332	7.8	314	9.9	646
Central	7.6	462	2.0	438	4.9	900
Coast	6.6	236	4.8	197	5.8	433
Eastern	6.1	514	1.5	464	4.0	978
Nyanza	18.3	432	11.6	376	15.1	808
Rift Valley	6.9	747	3.6	691	5.3	1,438
Western	5.8	368	3.8	323	4.9	690
North Eastern	0.0	60	0.0	48	0.0	108
Education						
No education	4.4	396	2.7	156	3.9	552
Primary incomplete	9.3	1,052	3.4	982	6.4	2,034
Primary complete	10.6	784	5.9	660	8.5	1,444
Secondary+	8.2	918	5.2	1,053	6.6	1,972
Employment						
Currently working	9.6	1,844	5.9	2,007	7.6	3,851
Not currently working	7.4	1,307	1.5	844	5.1	2,151
Wealth quintile						
Lowest	3.9	505	3.4	431	3.6	937
Second	8.5	580	4.2	501	6.5	1,082
Middle	7.1	597	2.2	528	4.8	1,125
Fourth	9.7	663	4.3	624	7.1	1,287
Highest	12.2	806	7.3	765	9.8	1,571
Ethnicity						
Embu	(2.8)	37	(3.7)	37	3.3	73
Kalenjin	4.9	346	2.0	366	3.4	712
Kamba	8.6	392	1.6	334	5.4	726
Kikuyu	6.6	742	2.8	621	4.9	1,363
Kisii	7.4	171	0.5	163	4.0	334
Luhya	7.9	481	5.1	438	6.6	919
Luo	25.8	361	17.5	341	21.8	702
Maasai	2.8	76	2.2	56	2.5	132
Meru	6.1	172	1.2	165	3.7	337
Mijikenda/Swahili	3.8	137	3.0	116	3.5	254
Somali	0.9	100	1.8	77	1.3	177
Taita/Taveta	11.7	41	7.1	30	9.7	71
Turkana	6.5	39	5.1	45	5.7	84
Kuria	*	19	(5.2)	21	2.7	40
Other	6.7	38	5.6	41	6.1	79
Religion						
Roman Catholic	8.9	800	4.9	756	6.9	1,556
Protestant/Other Christian	9.2	2,087	4.5	1,729	7.0	3,816
Muslim	2.7	204	3.1	175	2.9	378
No religion	11.1	52	5.5	185	6.7	237
Total	8.7	3,151	4.6	2,851	6.7	6,001

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 11: HIV prevalence by selected sociodemographic characteristics

Percentage HIV positive among women and men age 15-49 who were tested, by marital status, pregnancy status for women, and mobility status for men, Kenya 2003

Sociodemographic characteristic	Women		Men		Total	
	Percent HIV positive	Number	Percent HIV positive	Number	Percent HIV positive	Number
Marital status						
Currently in union	8.0	1,897	7.0	1,353	7.6	3,250
Widowed	30.2	133	*	18	31.8	151
Divorced/separated	20.9	126	6.4	96	14.6	222
Never in union	5.6	995	1.6	1,384	3.2	2,378
Ever had sex	9.9	480	1.9	932	4.6	1,413
Never had sex	1.6	515	0.9	451	1.3	966
Type of union						
In polygynous union	11.4	326	11.9	126	11.6	452
Not in polygynous union	7.2	1,571	6.5	1,227	6.9	2,798
Not currently in union	9.8	1,254	2.4	1,498	5.7	2,752
Currently pregnant						
Pregnant	7.3	260	na	na	na	na
Not pregnant/not sure	8.8	2,891	na	na	na	na
Numbers of times slept away						
None	na	na	3.2	1,421	na	na
1-2	na	na	4.2	635	na	na
3-5	na	na	5.1	386	na	na
5+	na	na	9.3	373	na	na
Away for more than one month						
Away for more than 1 month	na	na	3.4	470	na	na
Away always less than 1 month	na	na	7.3	944	na	na
Never away	na	na	3.2	1,421	na	na
Total	8.7	3,151	4.6	2,851	6.7	6,001

Note: Total includes cases missing data on number of times slept away and whether away for more than one month.
An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

Table 12: HIV prevalence by sexual behaviour characteristics

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested, by sexual behaviour characteristics, Kenya 2003

Sexual behaviour characteristic	Women		Men		Total	
	Percent HIV positive	Number	Percent HIV positive	Number	Percent HIV positive	Number
Age at first sex						
< 15	12.4	940	5.1	1,143	8.4	2,083
16-17	9.3	648	5.2	457	7.6	1,106
18-19	9.7	515	4.8	436	7.5	951
20+	6.0	392	6.0	355	6.0	747
First sexual partner was:[1]						
10 or more years older	10.4	66	na	na	na	na
Other Doesn't know	7.7	681	na	na	na	na
Condom use at first sex[1]						
Used at first sexual sex	10.7	93	0.0	108	4.9	201
Did not use at first sex	7.5	654	1.0	674	4.2	1 328
Higher-risk sex in past 12 months						
Had higher-risk sex	17.2	392	4.7	812	8.7	1,204
Had sex, not higher risk	8.3	1,833	6.7	1,213	7.7	3 046
No sex in past 12 months	11.1	411	1.9	374	6.7	785
Number of partners in past 12 months						
1	9.6	2,166	5.4	1,700	7.7	3,866
2	20.4	53	9.7	262	11.5	315
3+	*	6	3.3	64	5.3	70
Number of higher-risk partners in past 12 months						
1	15.7	361	4.8	632	8.7	993
2+	34.0	32	4.4	181	8.8	211
Received money gifts favours for sex in past 12 months						
Exchanged for sex	11.2	119	na	na	na	na
No exchange	9.8	2,106	na	na	na	na
Paid for sex						
In past 12 months	na	na	4.3	86	na	na
Prior to past 12 months	na	na	8.1	269	na	na
Never	na	na	4.9	2,045	na	na
Condom use at last paid sex						
Used	na	na	8.0	173	na	na
Did not use	na	na	6.4	181	na	na
Any condom use						
Ever used condom	12.9	410	5.0	1,230	7.0	1,640
Never used condom	9.5	2,226	5.5	1,170	8.1	3,396
Condom use at last sex in past 12 months						
Used condom at last sex	15.3	124	4.1	357	6.9	481
No condom at last sex	9.6	2,101	6.3	1,668	8.1	3,769
Total	10.1	2,636	5.2	2,399	7.8	5,036

Note: Totals include those with missing or inconsistent information on age at first sex. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Refers to those age 15-24 only.
na = Not applicable

Table 13: HIV prevalence by selected other characteristics

Percentage HIV positive among women and men age 15-49 who ever had sex and who were tested, by whether had a sexually transmitted infection, drank alcohol, had an HIV test, and perceived risk of getting AIDS, Kenya 2003

	Women		Men		Total	
Characteristic	Percent HIV positive	Number	Percent HIV positive	Number	Percent HIV positive	Number
Sexually transmitted infection in past 12 months						
Had STI or STI symptom	19.0	108	14.8	78	17.2	186
No STI, no symptoms	9.7	2,529	4.9	2,322	7.4	4,850
Use of alcohol						
Drank alcohol	18.8	334	6.1	1,353	8.6	1,687
Last month	18.5	145	6.4	808	8.2	953
Ever, not in past month	18.9	189	5.7	545	9.1	734
Never drank alcohol	8.8	2,301	4.2	1,046	7.4	3,348
Perceived risk of getting AIDS						
No risk at all	7.0	764	4.3	728	5.7	1,492
Small risk	11.0	1,077	5.8	1,261	8.2	2,338
Moderate risk	11.0	487	4.6	284	8.6	771
Great risk	14.6	267	7.5	118	12.4	385
HIV testing status						
Ever tested	12.5	446	7.6	428	10.1	875
Never tested	9.7	2,155	4.8	1,965	7.4	4,119
Total	10.1	2,636	5.2	2,399	7.8	5,036

Note: Total includes 40 women and 6 men missing data on risk of getting AIDS

Table 14: HIV prevalence by prior HIV testing

Percent distribution of HIV positive and negative women and men age 15-49 by HIV testing status prior to the survey, Kenya 2003

	Women		Men	
HIV testing status	HIV positive	HIV negative	HIV positive	HIV negative
Ever tested and know results of last test	18.2	12.9	22.8	13.9
Ever tested, does not know results	2.6	1.4	2.2	1.5
Never tested	79.2	85.7	75.0	84.7
Total	100.0	100.0	100.0	100.0
Number	274	2,877	130	2,720

Table 15: HIV prevalence by male circumcision

Among men age 15-54 who were tested for HIV, percentage who are circumcised and percentage HIV positive among circumcised and uncircumcised men, according to background characteristics, Kenya 2003

Background characteristic	All men tested for HIV		Circumcised men		Uncircumcised men	
	Percentage circumcised	Number of men tested	Percentage HIV positive	Number of circumcised men	Percentage HIV positive	Number of uncircumcised men
Age						
15-19	70.3	745	0.5	524	0.0	221
20-24	89.4	566	1.0	506	14.1	60
25-29	87.3	428	5.2	374	21.7	54
30-34	89.3	368	5.5	329	(16.1)	39
35-39	89.4	321	5.4	287	(33.7)	34
40-44	84.3	260	4.2	219	(33.2)	41
45-49	81.9	163	2.9	133	(15.2)	29
50-54	86.4	193	1.9	167	(29.5)	26
Residence						
Urban	82.2	763	5.4	627	16.9	136
Rural	83.8	2,280	2.3	1,911	11.0	369
Province						
Nairobi	80.0	336	6.6	269	13.5	67
Central	89.4	476	2.4	425	*	50
Coast	95.6	210	4.1	201	13.4	9
Eastern	96.1	502	1.6	482	*	20
Nyanza	46.4	408	2.1	189	21.1	218
Rift Valley	86.7	718	2.9	623	6.8	95
Western	86.8	339	3.9	295	1.9	45
North Eastern	100.0	55	0.0	55	*	0
Education						
No education	86.2	187	2.6	162	(0.0)	26
Primary incomplete	75.7	1,038	2.6	785	7.2	252
Primary complete	84.2	706	3.0	594	21.1	111
Secondary+	89.6	1,113	3.5	997	19.1	116
Wealth quintile						
Lowest	73.9	463	1.3	342	11.4	121
Second	82.9	531	2.8	440	9.6	91
Middle	88.9	558	1.3	496	11.8	62
Fourth	86.9	673	3.5	584	8.3	88
Highest	82.5	819	5.0	676	18.6	144
Ethnicity						
Embu	100.0	41	3.3	41	*	0
Kalenjin	90.3	379	2.1	342	(0.0)	37
Kamba	99.4	353	1.7	351	*	2
Kikuyu	92.7	669	3.0	620	0.0	49
Kisii	99.5	172	0.5	171	*	1
Luhya	92.8	460	5.6	427	(0.0)	33
Luo	16.9	367	9.8	62	20.1	305
Maasai	82.5	59	2.2	49	1.4	10
Meru	91.0	187	1.2	170	*	17
Mijikenda/Swahili	100.0	124	2.8	124	*	0
Somali	100.0	86	1.7	86	*	0
Taita/Taveta	96.9	30	7.3	29	*	1
Turkana	44.4	51	0.0	23	(8.1)	28
Kuria	77.3	22	6.2	17	*	5
Religion						
Roman Catholic	81.7	821	2.6	670	14.2	150
Protestant/other Christian	82.2	1,836	3.0	1,510	12.7	326
Muslim	100.0	188	2.9	188	*	0
No religion	86.4	192	5.6	166	(3.6)	26
Total	83.4	3,043	3.0	2,538	12.6	505

Note: Total includes cases with "other" and missing religion and ethnicity. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 16: HIV prevalence among couples

Among cohabiting couples both of whom were tested, percent distribution by HIV test results, according to background characteristics, Kenya 2003

Background characteristic	Both partners HIV positive	Male partner positive, female partner negative	Female partner positive, male partner negative	Both partners HIV negative	Total	Number
Woman's age						
15-19	2.1	0.0	4.4	93.5	100.0	76
20-29	3.9	3.8	6.4	85.9	100.0	457
30-39	4.1	2.6	3.5	89.8	100.0	353
40-49	2.7	2.0	1.6	93.8	100.0	155
Man's age						
15-19	*	*	*	*	100.0	*
20-29	3.7	3.5	5.3	87.5	100.0	244
30-39	3.8	3.3	5.5	87.4	100.0	403
40-54	3.5	2.0	3.2	91.3	100.0	386
Marital status						
Married	3.3	3.1	4.4	89.2	100.0	948
Living together	7.7	0.5	6.0	85.8	100.0	92
Type of union						
Monogamous	3.1	3.1	3.9	89.9	100.0	913
Polygynous	7.5	1.4	9.0	82.1	100.0	128
Residence						
Urban	4.8	3.9	6.4	84.9	100.0	207
Rural	3.4	2.6	4.1	89.9	100.0	833
Province						
Nairobi	5.2	4.7	9.4	80.7	100.0	89
Central	1.6	2.1	1.4	94.9	100.0	134
Coast	1.1	3.5	8.8	86.6	100.0	71
Eastern	2.3	0.0	3.5	94.3	100.0	159
Nyanza	9.8	8.7	8.4	73.2	100.0	169
Rift Valley	2.8	0.6	2.8	93.8	100.0	275
Western	2.2	3.3	3.0	91.5	100.0	121
North Eastern	0.0	0.0	0.0	100.0	100.0	25
Woman's education						
No education	1.8	1.2	0.9	96.1	100.0	143
Primary incomplete	4.5	4.7	7.2	83.6	100.0	373
Primary complete	4.3	0.9	2.9	91.8	100.0	273
Secondary+	2.7	3.1	4.5	89.6	100.0	251
Man's education						
No education	1.7	1.0	1.4	95.9	100.0	94
Primary incomplete	2.7	2.4	4.8	90.1	100.0	289
Primary complete	5.4	2.7	4.4	87.6	100.0	261
Secondary+	3.7	3.8	5.3	87.3	100.0	397
Wealth quintile						
Lowest	2.3	2.2	3.5	91.9	100.0	210
Second	4.0	2.8	4.3	88.9	100.0	211
Middle	2.4	3.3	4.0	90.3	100.0	208
Fourth	2.8	1.5	5.7	90.0	100.0	203
Highest	6.6	4.4	5.3	83.6	100.0	209
Total	3.7	2.8	4.6	88.9	100.0	1,041

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

2.3 Lot Quality Assurance Sampling (LQAS)

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/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/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 targets 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) PLWAH

Preliminary results are presented below. The full results are provided in detail in the LQAS report.

Explanations:

- CI - those communities with Community Initiatives. Numerator is the number of people who responded correctly for the indicator and the denominator is total number of respondents for that indicator.
- No CI - those communities without Community Initiatives. Numerator is the number of people who responded correctly for the indicator and the denominator is total number of respondents for that indicator.
- Conclusion - which of the two types of communities are performing better against the specific indicator
    - o Pink represents that those without CI perform better
    - o Yellow represents that those with CI perform better

Table 17: LQAS Pilot Results, June 2005, Nyanza and Western

NYANZA	CI	No CI	Odds Ratio	Conf. Interval	Conclusion
WOMEN 15-49 Years					
Women Know VCT Site location	125/293	155/300	0.7	.50 - .97	Non CI Perform better
Women Know VCT Benefits	199/302	217/301	0.68	.47 - .96	Non CI Perform better
Women Can risk of MTCT be reduced	192/295	191/292	0.99	.69 - 1.40	No difference
Women know STI signs/symptom in women	182/299	173/300	1.14	.81 - 1.60	No difference
Women know STI signs/symptom in men	131/298	109/300	1.37	.98 - 1.93	No difference
Women have ever used condom	77/297	79/302	0.99	.67 - 1.45	No difference
Women Sex with non regular partner in last yr	71/273	84/250	0.69	.47 - 1.03	No difference
Women Always use condom	18/272	30/261	0.55	.28 - 1.04	No difference
MEN 15-54 Years					
Men Know VCT Site location	131/294	145/301	0.86	.62 - 1.21	No difference
Men Know VCT Benefits	243/303	243/301	0.97	.63 - 1.47	No difference
Men Can risk of MTCT be reduced	223/302	205/299	0.33	.20 - ...56	Non CI Perform better
Men know STI signs/symptom in Men	191/304	173/303	1.27	.91 - 1.78	No difference
Men know STI signs/symptom in women	174/304	161/302	1.17	.84 - 1.64	No difference
Men have ever used condom	151/296	128/303	1.42	1.02 - 1.99	CI Perform better
Men Sex with non regular partner in last yr	104/277	97/277	1.12	.78 - 1.60	No difference
Men Always use condom	22/291	37/287	0.55	.31 - .99	Non CI Perform better
YOUTH 15-24 Years					
Youth Know VCT Site location	125/304	133/304	0.9	.64 - 1.25	No difference
Youth Know VCT Benefits	243/304	236/303	1.13	.75 - 1.70	No difference
Youth Can risk of MTCT be reduced	197/287	184/294	1.31	.91 - 1.87	No difference
Youth know STI signs/symptom in women	150/300	130/303	1.33	.95 - 1.86	No difference
Youth know STI signs/symptom in men	125/300	101/303	1.43	1.01 - 2.02	CI Perform better
Youth have ever used condom	136/263	118/264	1.32	.93 - 1.89	No difference
Youth Sex with non regular partner in last yr	77/210	70/189	0.98	.64 - 1.51	No difference

	CI	No CI	Odds Ratio	Conf. Interval	Conclusion
Youth Always use condom	45/241	48/231	0.88	.54 - 1.41	No difference
Youth Kissing transmits HIV	154/294	126/303	1.55	1.10 - 2.16	CI Perform better
Knows 2 or more ways to prevent HIV Transmission	195/304	173/304	1.35	.96 - 1.90	No difference
Used condom first time had sex	47/245	63/233	0.64	.41 - 1.01	No difference
MOTHERS OF INFANTS					
Mothers Know VCT Site location	133/304	158/304	0.72	.52 - 1.00	No difference
Mothers Know VCT Benefits	219/291	235/304	0.89	.60 - 1.33	No difference
Mothers Can risk of MTCT be reduced	196/294	209/302	0.91	.64 - 1.30	No difference
Knows 2+ ways to prevent HIV transmission	187/304	178/303	1.12	.80 - 1.57	No difference
Knows PMTCT Service Site in District	170/300	196/293	0.65	.46 - .92	Non CI Perform better
Used ANC during pregnancy	266/304	263/304	1.09	.66 - 1.80	No difference
Has Maternal Card showing number of ANC visits	64/278	73/301	0.89	.60 - .1.35	No difference
Counseled during ANC about PMTCT	138/296	149/301	0.89	.64 - 1.24	No difference
Counseled during ANC to take HIV Test	117/287	140/304	0.81	.57 - 1.13	No difference
Took HIV Test	64/272	87/280	0.68	.46 - 1.01	No difference
Gave birth in Health Facility	117/297	122/304	0.97	.69 - 1.36	No difference
Orphans 6 - 18 Years					
Ill in the last month and sought help	124/204	115/204	1.2	.79 - 1.81	No difference
Receive scholastic materials in last 12 months	98/279	83/272	1.23	.85 - 1.79	No difference
Received uniform in last 12 months	76/271	50/268	1.7	1.11 - 2.06	CI Perform better
Received psycho social support last 1 month	58/302	61/293	0.92	.59 - 1.38	No difference
Receive food in last 3 months	66/304	43/298	1.64	1.06 - 2.57	CI Perform better

WESTERN	CI	No CI	Odds Ratio	Conf. Interval	Conclusion
WOMEN 15-49 Years					
Women Know VCT Site location	70/239	52//260	1.66	1.07-2.56	CI Perform better
Women Know VCT Benefits	169/239	174/260	1.19	0 80-1.78	
Women Can risk of MTCT be reduced	138/240	174/260	0.67	0.46-0.98	Non CI Perform better
Women know STI signs/symptom in women	114/240	116/259	1.12	0.77-1.61	
Women know STI signs/symptom in men	76/240	88/259	0.9	0.61-1.33	
Women have ever used condom	65/230	62/258	1.25	0.81-1.91	
Women Sex with non regular partner in last yr	34/162	49/224	0.95	0.56-1.60	
Women Always use condom	9/239	29/260	0.31	0.13-0.71	Non CI Perform better
MEN 15-54 Years					
Men Know VCT Site location	70/233	48/260	1.9	1.22-2.95	CI Perform better
Men Know VCT Benefits	186/240	190/260	1.27	0.83-1.95	
Men Can risk of MTCT be reduced	170/240	170/260	1.29	0.87-1 91	
Men know STI signs/symptom in Men	122/240	130/260	1.03	0.72-1.49	
Men know STI signs/symptom in women	89/240	89/220	0.87	0.59-1.29	
Men have ever used condom	132/232	113/255	1.66	1.14-2.41	CI Perform better
Men Sex with non regular partner in last yr	51/187	61/206	0.89	0.56-1.42	
Men Always use condom	13/240	20/260	0.69	0.31-1.49	
YOUTH 15-24 Years					
Youth Know VCT Site location	78/239	33/260	3.33	2.07-5.39	CI Perform better
Youth Know VCT Benefits	182/240	202/260	0.9	0.58-1.39	
Youth Can risk of MTCT be reduced	144/239	166/260	0.86	0.59-1.25	
Youth know STI signs/symptom in women	89/240	82/260	1.28	0.87-1.88	
Youth know STI signs/symptom in men	75/240	94/260	0.8	0.54-1.18	
Youth have ever used condom	80/185	112/219	0.73	0.48-1.10	
Youth Sex with non regular partner in last yr	55/170	69/197	0.89	0.56-1.40	
Youth Always use condom	31/199	34/226	1.04	0.59-1.83	
Youth Kissing transmits HIV	118/240	129/260	0.98	0.68-1.42	
Knows 2 or more ways to prevent HIV Transmission	151/240	163/260	1.01	0.69-1.48	
Used condom first time had sex	38/198	54/220	0.73	0.54-1.13	
MOTHERS OF INFANTS					
Mothers Know VCT Site location	76/240	58/260	1.61	1.06-2.45	CI Perform better

	CI	No CI	Odds Ratio	Conf. Interval	Conclusion
Mothers Know VCT Benefits	146/240	178/258	1.52	1.07-2.15	CI Perform better
Mothers Can risk of MTCT be reduced	151/240	165/260	0.98	0.67-1.43	
Knows 2+ ways to prevent HIV transmission	116/240	112/258	1.22	0.84-1.76	
Knows PMTCT Service Site in District	124/240	140/260	0.92	0.63-1.32	
Used ANC during pregnancy	207/240	219/260	1.17	0.70-1.99	
Has Maternal Card showing number of ANC visits	62/240	77/260	0.83	0.55-1.25	
Counseled during ANC about PMTCT	110/239	98/260	1.41	0.97-2.05	
Counseled during ANC to take HIV Test	99/239	108/260	1	0.69-1.44	
Took HIV Test	45/234	58/260	0.83	0.52-1.31	
Gave birth in Health Facility	88/240	76/260	1.4	0.95-2.07	
Orphans 6 - 18 Years					
Ill in the last month and sought help	61/87	82/155	2.09	1.15-3.79	CI Perform better
Receive scholastic materials in last 12 months	68/223	60//231	1.25	0.81-1.92	
Received uniform in last 12 months	27/224	19/230	1.52	0.79-2.95	
Received psycho social support last 1 month	61/238	62/155	0.52	0.33-0.82	Non CI Perform better
Receive food in last 3 months	61/240	62/155	0.51	.032-0.81	Non CI Perform better

2.4 Behavioural Surveillance Survey (BSS)

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 cyclists[6], 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/AIDS, sexual history, perception of risk of HIV infection, and HIV testing experience.

[6] Bicyclists who serve as taxis in some of the smaller towns.
The 'border border' name originated with their service on the Kenya-Uganda border.

Table 18: General knowledge about HIV/AIDS among Youth and Adult groups (%)

Population	Know anyone infected or who has died of HIV	Know Healthy Person could be infected with HIV	Know difference between HIV & AIDS	Know of window Period
KDHS (15-24)				
Women	69	83	-	-
Men	68	85	-	-
Out of School(15-24)				
Female	63	85	28	28
Male	68	89	37	33
In-school youth(15-19)				
Female	92	87	81	42
Male	68	84	79	40
Adult Groups				
Men in worksites	91	96	57	37
Policemen	83	95	65	33
Matatu drivers/touts	88	93	43	30
Bodaboda cyclists	91	95	36	33
Women in low income	84	92	29	23
Female sex workers	88	93	35	33
KDSH (15-49)				
Women	74	85	-	-
Men	75	90	-	-

Table 19: Perception of HIV prevention and transmission (%)

Population	Abstinence	Faithfulness to uninfected partner	Condoms	Know of all 3 methods	Comprehensive knowledge of HIV/AIDS (a)
KDHS (15-19)					
Women	74	72	53	48 (b)	—
Men	81	77	60	57 (b)	—
Out of School (15-24)					
Female	82	77	56	44	23
Male	86	80	66	53	30
In-school youth (15-19)					
Female	80	63	30	25	13
Male	75	62	42	26	15
Adult groups					
Men in worksites	94	95	73	68	48
Policemen	87	90	71	62	42
Matatu drivers/touts	85	85	63	50	30
Bodaboda cyclists	89	88	69	58	30
Women in low income	92	92	66	58	33
Female sex workers	89	85	91	73	39
KDHS(15-49)					
Women	79	81	61	58 (b)	—
Men	89	89	72	70(b)	—

(a) entails knowledge of abstinence, faithfulness, condom use, and absence of all six misconceptions about HIV transmission among respondents who ever heard of HIV/AIDS.

Table 20: Multiple sex partnerships among adult respondents who had sex in the last 12 months and HIV testing behavior (%)

Behavior and altitude toward testing	Men in worksites	Policeman	Matatu drivers	Bodaboda cyclists	Women in low –income settings	Female sex workers
Sexual Behavior						
Had non-regular sex partners in the last 12 months (a)	21	35	47	42	12	n.a
Used condom at last sex with non regular partner	57	68	56	55	39	n.a
Had commercial sex partner(s)in the last 12 months (a)	4	6	12	14	2	n.a
HIV Testing						
Ever tested for HIV	24	24	24	24	17	35
Willing to use VCT	83	73	80	86	84	78

(a) Based on respondents who had sex in the last 12 months.

2.5 Special Surveys: Hotspot Mapping of the Northern Corridor Transport Route - Mombasa-Kampala

Introduction

The Strengthening STD/HIV Control Project in Kenya, in conjunction with the Ministry of Transport, NACC and NASCOP undertook a GIS based study in 2004-5 that defined quantitatively the levels of transactional sex, HIV related prevention and treatment facilities/resources and programmatic responses targeting vulnerable groups on the Northern Corridor highway from Mombasa to Kampala. Transactional sex in Kenya is one of the prime determinants of the HIV epidemic with sex workers and their clients the bridge to the general population.

The Nairobi-Mombasa highway is the busiest of the 4 main transport routes in the Central and East African region and the transport workers on the overland routes have geographic preferences for where they stop, refuel, eat, drink and sometimes sleep. These truck stops are also places where transport workers, other travellers, local populations intersect and where sex workers congregate to meet the demand for transactional sex that occurs here.

Hot Spot Findings

It was found that there are 47 significant hot spots of transactional sex on the Mombasa-Kampala corridor and these were surveyed and mapped using GIS. At these spots 3,066 trucks are parked overnight and approximately 8,000 female sex workers ply their trade.

Of the 1,007 bars and lodging were mapped along the road, 60% sold or had condoms available and 90,000 condoms were distributed weekly. The highway communities and transport workers are served by 228 private and public health facilities and 203 pharmacies. Private facilities predominated with more than 90%of the total. Forty-eight per cent of the pharmacies had all 6 first line STI drugs in stock. Twenty Eight percent of hot spots had a VCT facility within the hot spot but these were generally not accessible to these populations due to opening times and other barriers.

Of the transport workers 6.1% spent fewer than 5 nights at home and 61.7% less than 40 nights at home in the year prior to survey. Those who were away from home the longest had the most risky behavior

The prevalence of any STI among the whole group of transport workers over the 12-month period prior top interview was 15%.

On the appearance of STI symptoms, transport workers sought medical treatment, 24 (41%) at a private or mission facility, 16 (27%) at a government facility or 11 (19%) from a pharmacy

The transport workers averaged 2.8 sexual partners in the 12 months prior to interview with just fewer than 33% of the respondents reporting one partner and two-thirds of truckers having multiple partners. For the whole sample, over half of the sexual encounters of these workers over a 12-month period were with FSWs.

About one-third of the trucker's exhibit risky sexual behavior and condom use was approximately 70% with non-marital partners.

Based on data from diaries, sex workers had on average 13.3 clients and undertook 52.9 sexual acts per month with casual clients making up over 80% of the total. Overall reported condom use is 78%, with strongly significant differences in condom use between casual and regular partners. Nine out of ten liaisons with a casual client were protected by condoms.

Occupations of clients of the sex workers were recorded and transport workers make up a third of clients with other prominent categories including police and teachers.

There were 11 programmes that had elements directly targeting truckers and / or FSWs at specific hot spots on the highway. Coverage levels were very low for sex workers with less than 10% of sex workers served by an existing programme.

Despite the existence of these programmes, few truckers have been directly involved in HIV/AIDS prevention and care activities or had knowledge of them.

We used a simple tool for HIV attributable infections estimation, AVERT, and inputs were taken from the data collected on transport and sex workers and we estimate that depending on the condom usage in the population there are between 5,000-10,00 new primary HIV infections on this highway every year with 66% of these preventable with 90% overall condom use.

In summary, there was considerable numbers of vulnerable populations, 6,000 overland transport workers and 8,000 sex workers on any given night at these 47 hot spots of transactional sex between Mombasa and Kampala. Condom use was between 70-90%, average 78%, with one-time casual clients being the most protected of sexual interactions. Sex workers had more than 13 different partners per month, which include a broad range of occupations and socioeconomic classes. Overall we estimate that between 5 and 10,000 primary infections occurred in the past year on this corridor and 66% of these could be prevented with increasing overall condom use to 90%. Currently programs and sexual health services exist but are neither sufficient in terms of coverage(less than 10% of sex workers are covered by a program) or appropriate service delivery.

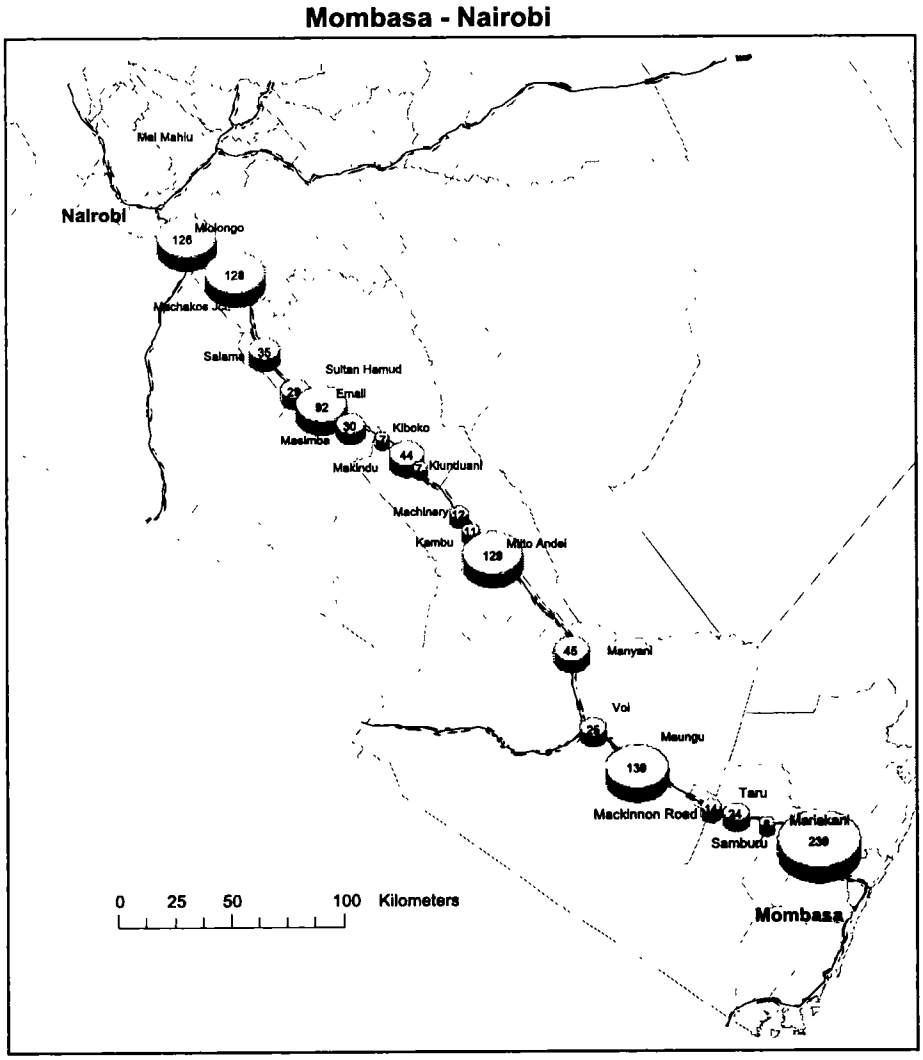
Table 21: Summary of main hot spot elements

Element	Total
No. of Hot Spots	47
No. of trucks parked overnight	3,066
Estimated No. of FSWs	7,750
Total No. bars / lodgings mapped	1,007
Seating capacity in bars	28,298
No. of lodging rooms available	7,539
Health Facilities mapped	224
Pharmacies mapped	203
No. bars / lodges selling / distributing condoms	601
No. bars / lodges having condom dispensers	181
Weekly no. of condoms sold / distributed in bars / lodges	82,324
No. hotspots having VCT facility	13
No. pharmacies having all first-line STI drugs	98

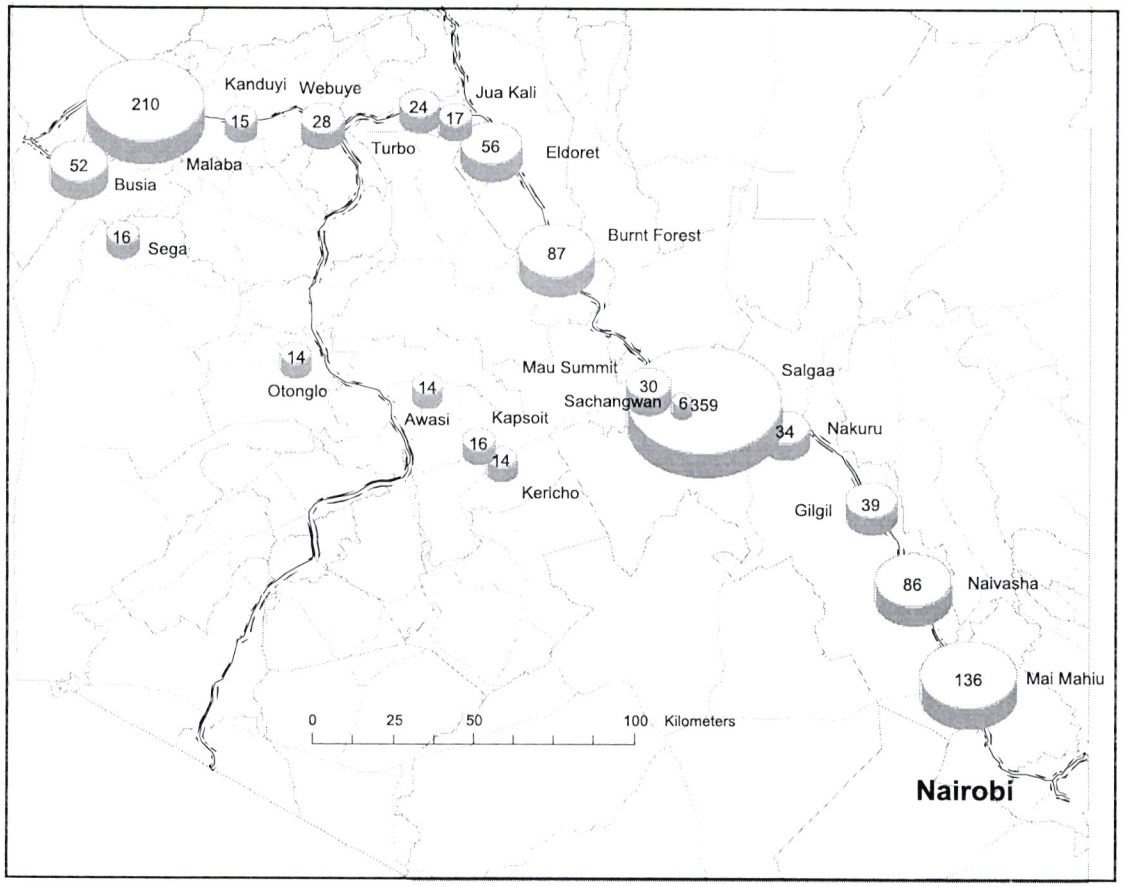
Table 22: Hot Spot Details from Mombasa to Nairobi

Location	Average Trucks Overnight	Female Commercial Sex Workers	Bars	Average Weekly Male Clients in Bars	Average Weekly Female Clients in Bars	Bed Capacity	Condom Dispensers
Morongo	126	400	40	2003	711	3392	5
Machakos Junction	128	50	26	878	202	1380	2
Salaam	35	175	14	257	66	375	1
Sultan Hammed	29	150	16	639	144	522	7
Emali	92	140	22	1100	254	907	11
Masimba	30	150	13	394	57	400	2
Kiboko	7	30	6	115	8	170	1
Makindu	44	350	19	905	210	564	11
Kiunduani	7	30	7	86	12	129	3
Machinery	12	150	7	178	38	202	7
Kambu Market	11	65	12	445	100	369	4
Mtito Andei	129	365	31	964	395	910	2
Manyani	45	45	6	133	18	161	0
Voi	25	22	2	33	4	45	0
Maungu	139	200	11	386	90	393	3
Mackinnon Road	14	12	5	126	23	113	1
Taru	24	50	4	112	13	30	3
Samburu	8	12	2	16	3	27	2
Mariakani	239	300	15	735	124	1041	10

Figure 5: Average Number of Trucks Overnighting at Location



Nairobi - Busia / Malaba



Busia / Malaba - Kampala

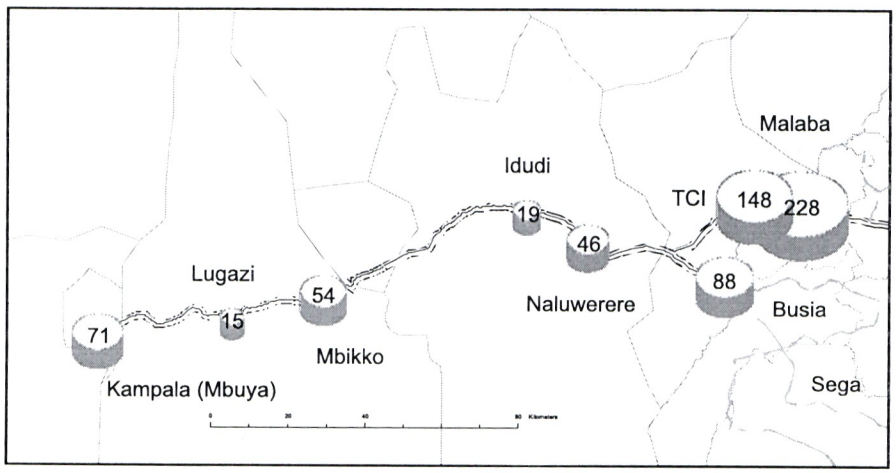


Figure 6: Availability of VCT

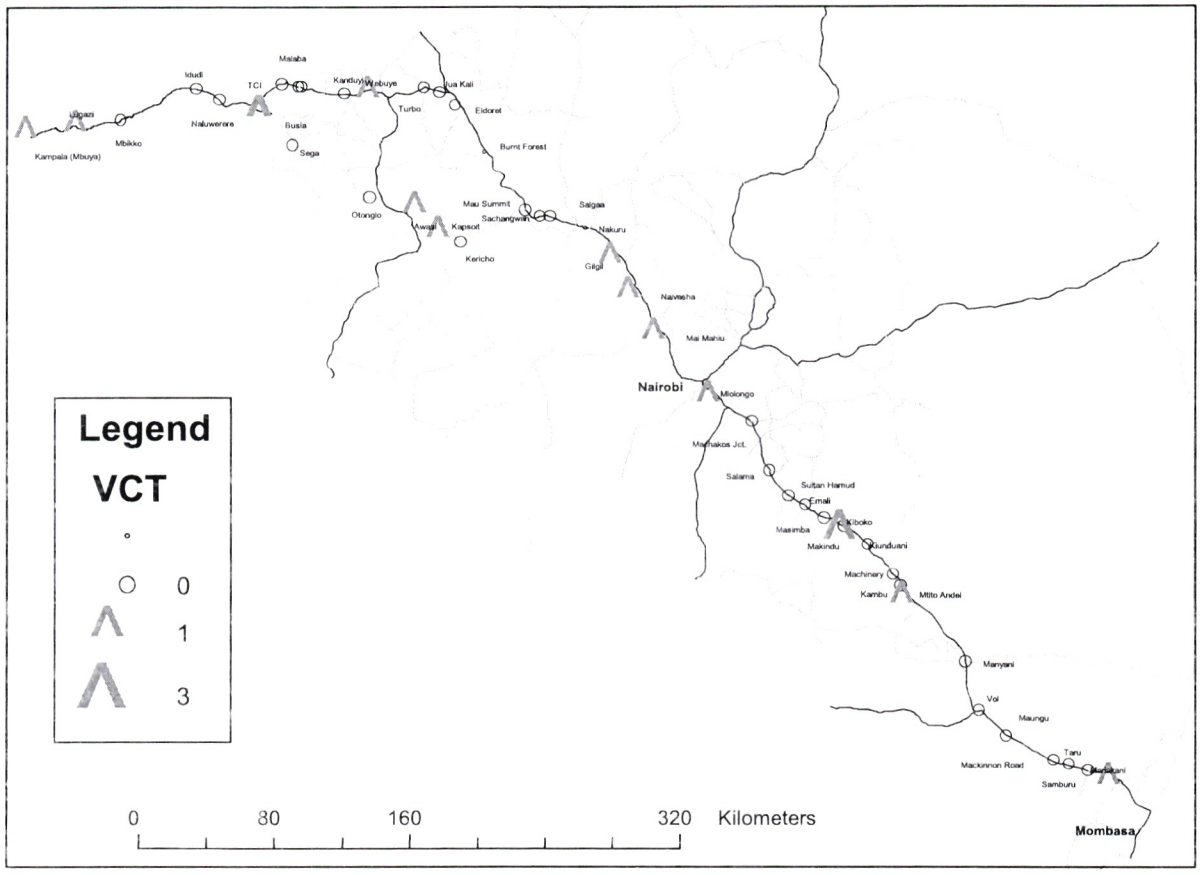
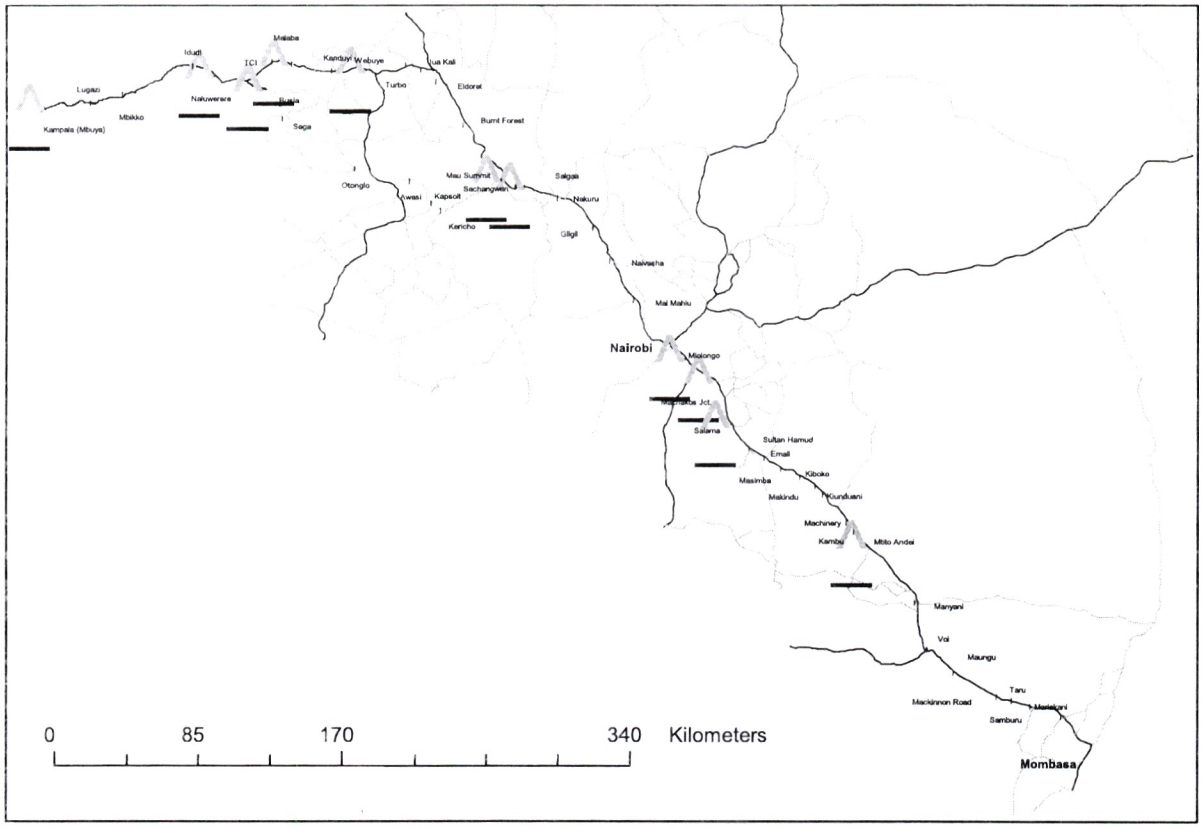


Figure 7: Location of programmes targeting truckers /FSWs



Chapter 3: Monitoring and Evaluation Framework Components: Output and Coverage Monitoring

3.1 Quarterly Programme Report (QPR)

The Quarterly Programme Report is provided by NASCOP and provides data on the facility-based response to HIV/AIDS. In particular, data on VCT services, ART, and PMTCT services are provided every quarter. The facility-based response has undergone dramatic scale-up over the past two years with services becoming operational at a very rapid pace.

Voluntary Counselling and Testing Services

Figure 8: VCT Uptake 2005

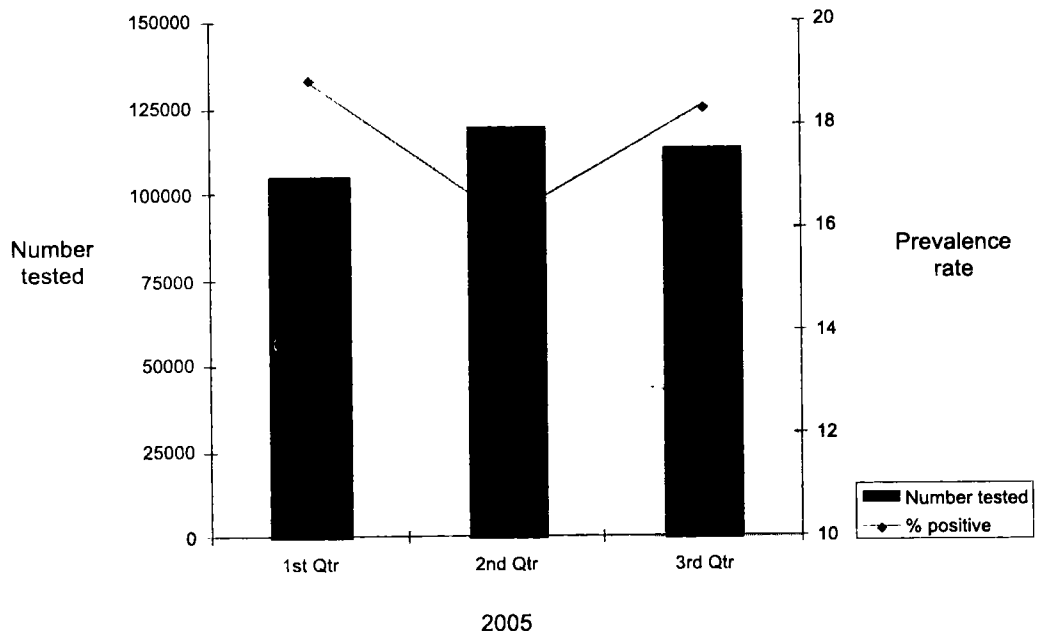


Figure 9: VCT Uptake by Province, Q3 2005

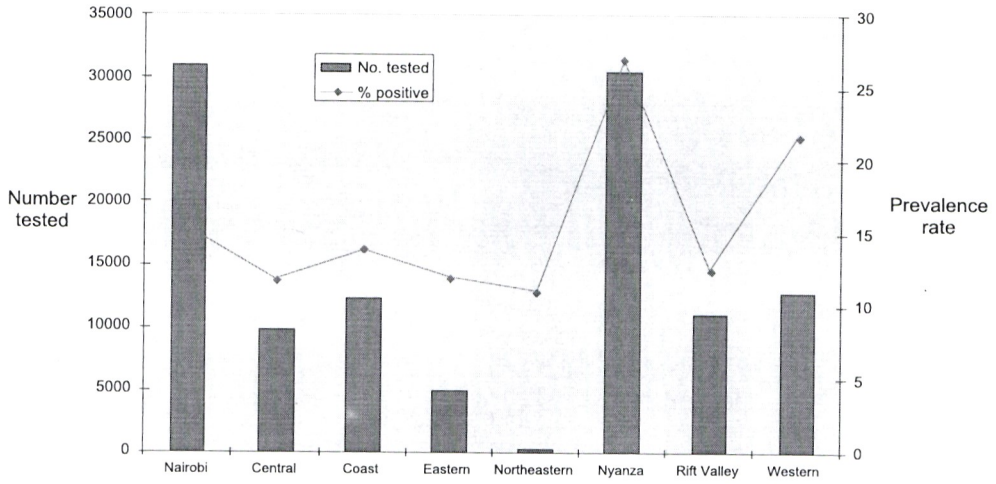
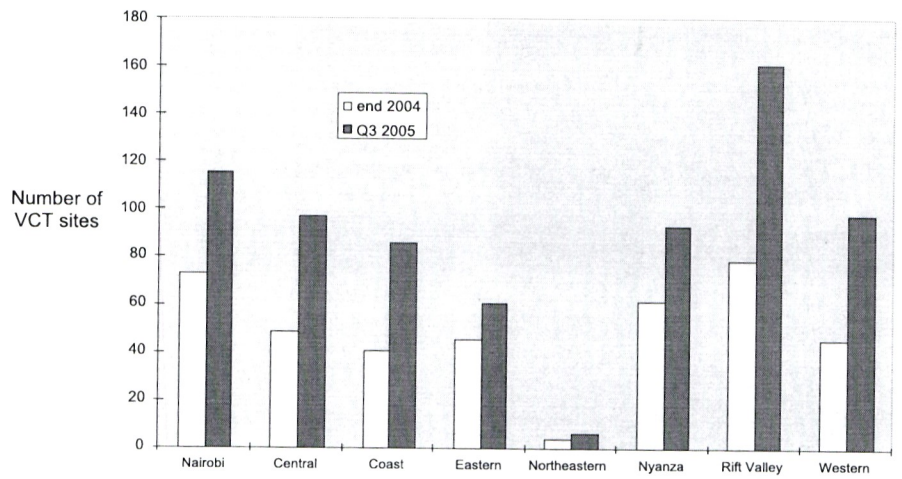
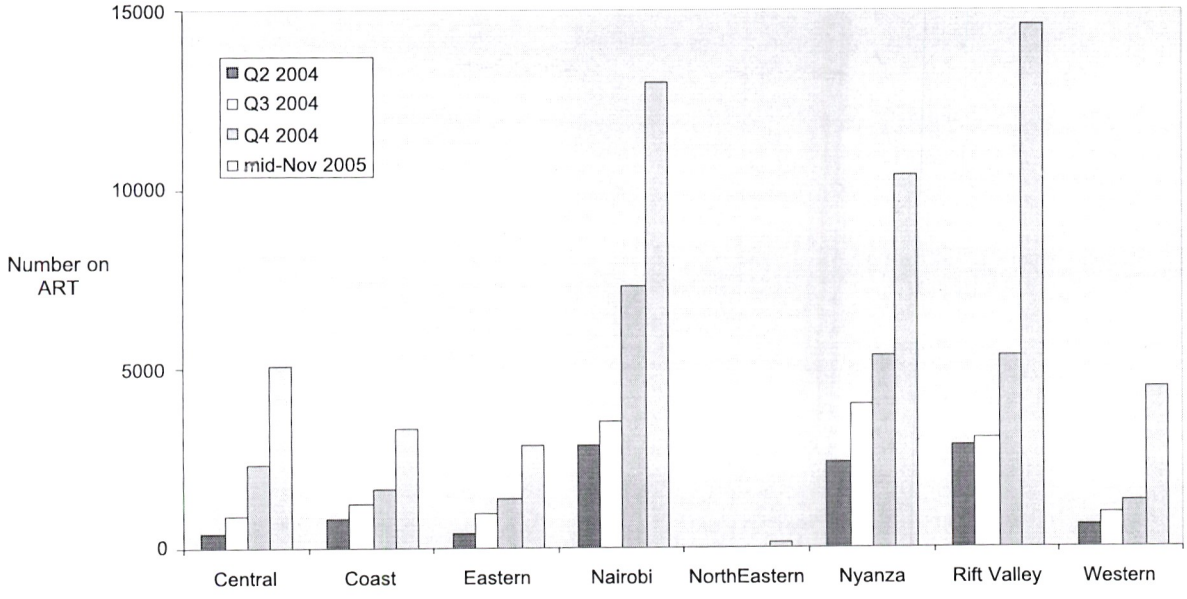


Figure 10: VCT Sites by Province, Q3 2005



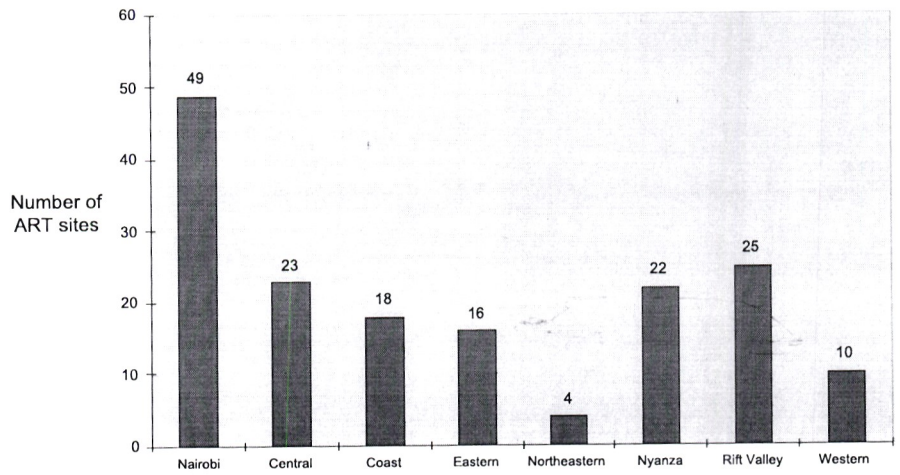
Anti-retroviral Therapy Services

Figure 11: VCT Scale-up 2004-2005



On ARV Therapy	TOTALS
Q2 2004	10,558
Q3 2004	14,753
Q4 2004	24,960
mid-Nov 2005	54,093

Figure 12: NASCOP-registered ART Sites by Province, April 2005



Prevention of Mother to Child Transmission Services

Figure 13: PMTCT Uptake 2004-2005

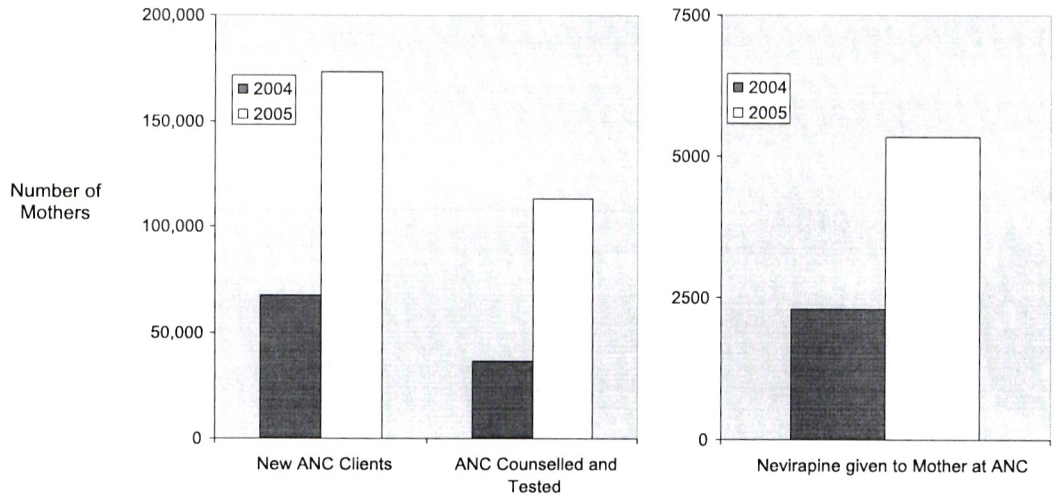
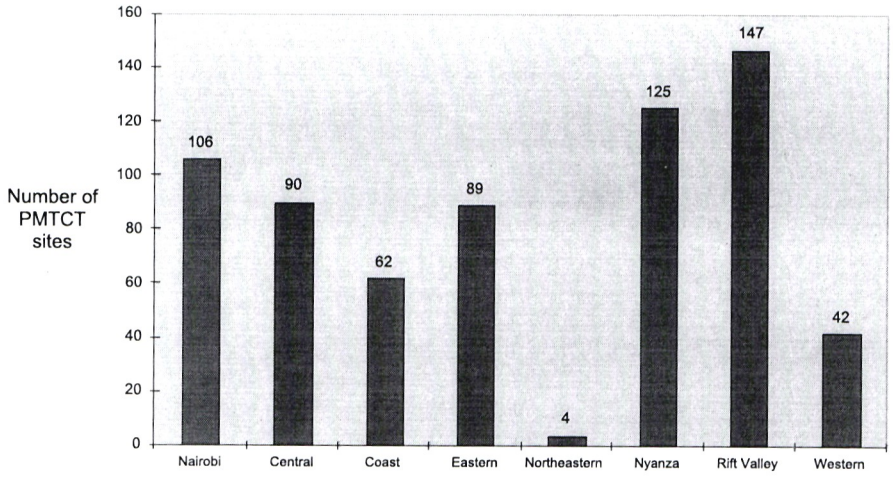


Figure 14: PMTCT Sites by Province, 2005



3.2 Community-Based Programme Activity Reporting (COBPAR)

The Community-Based Programme Activity Reporting system has been piloted and the forms are being finalised in anticipation of a roll-out in early 2006. This system will track all non-facility based HIV activities by such organisations as CBOs, NGOs, and faith-based organisations. They will be reporting to the Constituency AIDS Control Committees (CACCs) in the areas in which they work on a quarterly basis. Data will be entered into a national database and analysis will be shared widely among stakeholders.

The data that is presented below was collected during the initial piloting phase in June and July 2005 in Nyanza and Western Province. The form used did not delineate between funding sources. The second phase of piloting being conducted in December 2005 will test whether such data is able to be collected. The data presented below has not been validated.

Table 23: Community-Based Programme Activity Reporting, First Pilot Data, June-July 2005, Nyanza and Western Province

	JUNE 2005						JULY 2005
	TOWA	GF	PEPFAR	DFID	Others	June Totals	July Totals
The no. of male community volunteers/ health workers/care givers trained to provide HBC this month					608	608	286
The no. of female community volunteers/ health workers/care givers trained to provide HBC this month					1333	1333	445
The number of male clients enrolled in the HBC programme this month					491	491	352
The number of female clients enrolled in the HBC programme this month					952	952	546
The total number of visits made by community volunteers/ health workers to clients in the HBC programme this month					1810	1810	544
The number of households with chronically ill that have benefited from income generating activities (IGA) in this month					1029	1029	591
The number of home-based care kits distributed to community volunteers and care givers in this month					521	521	82
The number of eligible and registered people for ART provided with nutritional supplements in this month					874	874	305
Number of clients with STIs referred to your organization for support in buying drugs in this month - Males					294	294	197
Number of clients with STIs referred to your organization for support in buying drugs in this month - females					410	410	191
Number of clients with STIs provided with drugs for treatment by your organization in this month - males					305	305	82
Number of clients with STIs provided with drugs for treatment by your organization in this month - females					400	400	63

	JUNE 2005						JULY 2005
	TOWA	GF	PEPFAR	DFID	Others	June Totals	July Totals
The number of members enrolled in post test clubs in this month - males					564	564	189
The number of members enrolled in post test clubs in this month - females					754	754	264
Number of post-test club sessions held in this month - males					208	208	55
Number of post-test club sessions held in this month - females					402	402	60
Number of VCT counselors trained by your organization this month - males					192	192	49
Number of VCT counselors trained by your organization this month - females					307	307	72
The number of community volunteers/health workers/care givers trained to provide care and support to OVC in this month - males					809	809	303
The number of community volunteers/health workers/care givers trained to provide care and support to OVC in this month - females					2096	2096	391
The total number of OVC supported by your organization in this month. - Males					5975	5975	858
The total number of OVC supported by your organization in this month. - Females					3199	3199	898
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Medical assistance - Males					1078	1078	392
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Medical assistance - Females					1227	1227	551
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Nutritional assistance - Males					2174	2174	710
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Nutritional assistance - Females					3153	3153	686
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Psycho-social assistance - Males					2964	2964	520
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Psycho-social assistance - Females					1668	1668	565
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Material assistance - Males					1762	1762	552
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Material assistance - Females					1796	1796	657

	JUNE 2005						JULY 2005
	TOWA	GF	PEPFAR	DFID	Others	June Totals	July Totals
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Educational assistance - males					1228	1228	563
List the number of orphans and vulnerable children that received the following types of support from your organization in this month - Educational assistance - females					1178	1178	675
The number of visits made by community volunteers/health workers/staff to OVC in this month					1764	1764	469
The total number of lawyers, magistrates and paralegals that have received training on the rights of PLWHA in this month					126	126	7
The total number of health care workers that have been sensitized on human rights of PLWHA/positive attitudes towards PLWHA this month					1028	1028	97
The number of PLWHA that have been supported to seek legal redress for the violation of their rights in this month					346	346	86
The number of PLWHA have received training to write and register their wills in this month					207	207	64
The total number of PLWHA that have received training on Human rights related advocacy in this month					304	304	94
The number of community health workers/volunteers that have received training on promoting PMTCT in this month					1421	1421	157
Number of sessions on PMTCT promotion conducted by your organization in this month					523	523	98
Number of pregnant women referred to health facilities by your organization in this month					653	653	134
The total number of new radio programmes produced on radio in this month					46	46	3
The total number of hours aired on radio in this month					166	166	4
The total number of new TV programmes produced on TV in this month					27	27	13
The total number hours of new TV programmes aired on TV in this month					62	62	103
The total number of booklets/brochures and posters printed in this month					5774	5774	7838
The total number of booklets/brochures and posters distributed in this month					8535	8535	6924
The total number of t-shirts printed and distributed in this month					1858	1858	584
The total numbers of condoms your organization distributed free in this month - Male Condoms					166413	166413	64222
The total numbers of condoms your organization distributed free in this month - Female Condoms					12624	12624	1490

	JUNE 2005						JULY 2005
	TOWA	GF	PEPFAR	DFID	Others	June Totals	July Totals
The total number of condoms your organization sold in this month Male condoms -					3087	3087	4203
The total number of condoms your organization sold in this month - Female condoms					293	293	2679
The total number of people trained to provide HIV/AIDS prevention education in this month					1730	1730	480
The total number of people provided with HIV/AIDS prevention education in this month					20449	20449	5846
The total number of community health workers/volunteers/care givers your organization has trained to provide support to HIV infected people receiving ART in this month - Males					464	464	137
The total number of community health workers/volunteers/care givers your organization has trained to provide support to HIV infected people receiving ART in this month - Females					691	691	190
The total number of HIV infected people (adults and children) your organization has supported to adhere to ART by community health workers/volunteers/care givers in this month - Males					603	603	226
The total number of HIV infected people (adults and children) your organization has supported to adhere to ART by community health workers/volunteers/care givers in this month - Females					801	801	315

3.3 Kenya Service Provision Assessment (KSPA) Survey 2004

The Kenya Service Provision Assessment (KSPA 2004) was implemented by the National Co-coordinating Agency for Population and Development (NCAPD) 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/AIDS. This part of the report provides results related to HIV/AIDS and TB among the selected facilities. More information on these can be obtained from the KSPA Report 2004.

Table 24: Availability of services for sexually transmitted infections

Percentage of facilities offering services for sexually transmitted infections (STIs), among these percentage where STI services are provided in the indicated service area and STI services offered five or more days per week, by type of facility, managing authority and province, Kenya SPA 2004

Background characteristics	Any STI services	Number of facilities (weighted)	Percentage of facilities where STI services are available in the indicated service area[1]					Percentage of facilities where services for STIs are available at least 5 days per week	Number of facilities offering STI services (weighted)[3]
			Primary location						
			General outpatient	Special clinic[2]	FP	ANC	OPD, FP, and ANC service areas		
Type of facility									
Hospital	97	28	77	23	25	45	18	99	28
Health Centre	97	125	94	6	54	65	37	97	121
Maternity	93	20	96	4	52	75	48	100	19
Clinic	99	8	97	1	59	50	33	100	8
Dispensary	91	249	100	0	55	70	51	95	227
Managing authority									
Government	91	246	94	6	61	63	53	100	224
NGO	76	21	99	1	52	74	51	100	16
Private (for-profit)	94	63	98	1	41	61	29	100	59
Faith-based organization	95	110	99	1	42	77	31	86	104
Province									
Nairobi	83	41	90	10	24	46	14	100	34
Central	88	50	98	2	55	70	47	91	45
Coast	99	49	99	1	42	56	41	93	48
Eastern	88	83	98	1	54	71	41	100	73
North Eastern	86	8	97	3	48	79	46	100	7
Nyanza	98	54	90	10	65	72	51	100	54
Rift Valley	91	126	98	2	54	65	44	93	115
Western	99	29	93	7	71	89	70	100	29
Total[3]	92	440	96	4	53	67	44	96	403

Note: Refer to Table 1.1 for the actual number of facilities included in survey and analysis. Weighting results in small numbers for some categories of facilities.

[1] STI services at the public and NGO facilities are utilized primarily by females, so in almost all cases the special clinic is the gynecologic clinic. Males might receive STI services in urology clinic.

[3] Totals include one stand alone VCT (weighted)

Table 25: Availability of HIV/AIDS services

Percentage of facilities offering the indicated HIVAIDS-related services by type of facility, managing authority and province, Kenya SPA 2004

	Percentage									
	VCT			PMT CT	ART[1]	PEP[1]				
Background characteristics	Counseling services at least one day a week	Testing services at least one day a week	Both services at least one day a week	Service at facility	Service at facility	Available at facility[2]	Referred to another facilty[2]	Not available	Total	Number of facilities (weighted)
Type of facility										
Hospital (all types)	89	91	89	74	52	39	7	54	100	28
Health center	47	46	46	36	12	4	8	88	100	125
Maternity	50	46	45	35	6	0	4	96	100	20
Clinic	36	36	36	16	6	7	4	89	100	8
Dispensary	21	22	21	12	0	0	9	91	100	249
Stand alone VCT	100	100	100	6	6	6	55	39	100	10
Managing Authority										
Government	31	32	31	24	5	1	3	96	100	246
NGO	47	47	47	28	21	18	19	63	100	21
Private (for-profit)	50	50	48	34	15	7	30	63	100	63
Faith based organization	36	35	35	17	6	6	11	84	100	110
Province										
Nairobi	73	73	73	55	19	18	27	55	100	41
Central	30	35	30	14	4	3	5	92	100	50
Coast	40	40	40	37	10	2	13	85	100	49
Eastern	38	38	38	24	12	2	12	86	100	83
North Eastern	12	12	12	7	2	1	2	97	100	8
Nyanza	19	19	19	15	5	3	2	95	100	54
Rift Valley	30	31	30	16	3	3	7	90	100	126
Western	43	36	36	30	5	1	2	96	100	29
Total	36	36	35	24	7	4	9	87	100	440

Note: Refer to Table 1.1 for the actual number of facilities included in survey and analysis. Weighting results in small numbers for some categories of facilities.

[1] ART is Anti-Retroviral Therapy (for AIDS); PEP is post exposure prophylaxis

[2] PEP available to staff of facility anywhere in the facility

[3] Staff referred to another facility to receive PEP

Table 26: System for testing and for providing results for HIV test, Kenya 2004

Percentage of facilities with an HIV testing system and, among these, the percentage using the indicated system for providing HIV test results, and with the indicated documents, Kenya SPA 2004

			Facilities with the means for providing HIV test with:							
Background characteristics	Percentage of facilities with HIV testing system[1]	Number of facilities	HIV test available in facility or affiliated lab[2]	HIV test available or observed record for testing conducted outside facility	Informed consent policy for HIV testing observed in all relevant service sites[3]	Observed register with HIV test results	Observed record for clients receiving HIV test results	All items for indicator[4]	Number of facilities with HIV testing system	Number of service sites with HIV testing system[5]
Type of facility										
Hospital	92	28	98	99	18	57	53	10	26	112
Health Centre	48	125	98	100	57	71	71	31	60	148
Maternity	53	20	81	91	15	62	46	2	11	30
Clinic	36	8	92	92	33	89	89	24	3	5
Dispensary	22	249	91	91	59	92	74	29	54	77
Stand-alone VCT unit	100	10	100	100	89	100	100	83	10	11
Managing Authority										
Government	33	246	94	94	57	76	76	35	81	199
NGO	47	21	100	100	72	94	94	68	10	16
Private (for-profit)	52	63	93	96	44	62	32	7	33	90
Faith based organization	36	110	96	99	36	88	82	23	40	78
Province										
Nairobi	77	41	100	100	32	96	96	27	31	70
Central	36	50	84	85	30	65	50	4	18	42
Coast	40	49	100	100	34	45	44	4	20	82
Eastern	38	83	98	98	87	66	64	45	32	72
North Eastern	13	8	100	100	49	66	66	9	1	2
Nyanza	19	54	99	99	14	86	67	4	10	30
Rift Valley	31	126	100	100	67	93	75	46	39	64
Western	43	29	62	78	35	73	68	32	13	22
Total	37	440	95	96	50	77	69	28	164	383

Note: Refer to Table 1.1 for the actual number of facilities included in survey and analysis. Weighting results in small numbers for some categories of facilities.

[1] The facility either conducts the test (any type of HIV test anywhere in the facility, including ANC clinics), has an affiliated external laboratory where tests are conducted, or has an agreement with an external testing site from where the test results are expected to be returned to the facility.

[2] The facility has rapid test anywhere in the facility (including VCT and PMTCT service sites), has functioning ELISA equipment with all items necessary to conduct a test, or has all items for Western Blot or PCR tests available.

[3] Availability of national guidelines for VCT at a service site counts as having informed consent policy for HIV testing.

[4] Facility has testing capability on or offsite and has all documentation available

[5] There may be several locations within the same facility where the same service is offered. Each such location is defined as a service site.

Table 27: Availability of PMTCT and PMTCT+ services

Percentage of facilities offering PMTCT services, and among facilities offering PMTCT, percentage offering the indicated component of PMTCT services, Kenya SPA 2004

Background characteristics	Percentage of facilities providing any PMTCT services	Number of facilities (weighted)	Percentage of facilities offering the indicated component of PMTCT[1]: Counseling and testing services[2] (V)CT	ARV prophylaxis to prevent MTCT[3]	Infant feeding counseling[4]	Family planning counseling and/or referral[5]	All four items for minimum package PMTCT	ARV therapy for HIV+ women and family members[6]	All items for PMTCT+[7]	Number of facilities offering PMTCT services (weighted)	Number of program sites for PMTCT[8,9] (weighted)
Type of facility											
Hospital (all types)	74	28	98	89	95	91	82	53	48	21	45
Health center	36	125	86	57	85	91	57	10	10	45	67
Maternity	35	20	81	70	67	85	53	3	3	7	13
Clinic	16	8	75	51	93	81	39	12	12	1	2
Dispensary	12	249	82	36	82	81	36	0	0	31	33
Managing Authority											
Government	24	246	86	51	79	89	51	15	15	60	94
NGO	28	21	40	37	94	94	37	3	3	6	10
Private (for-profit)	34	63	94	90	89	96	83	11	11	21	31
Faith based organization	17	110	98	53	98	70	46	24	18	19	26
Province											
Nairobi	55	41	100	82	100	79	78	13	13	22	31
Central	14	50	95	96	100	98	92	25	21	7	11
Coast	37	49	78	61	61	97	61	20	20	18	27
Eastern	24	83	100	38	78	80	36	10	10	20	27
North Eastern	7	8	100	17	100	100	17	17	17	1	1
Nyanza	15	54	98	47	87	100	43	21	21	8	16
Rift Valley	16	126	68	63	99	94	60	15	11	21	32
Western	30	29	68	11	68	72	11	8	7	9	14
Total[9]	24	440	87	58	85	88	56	15	14	106	160

Note: Refer to Table 1.1 for the actual number of facilities included in survey and analysis. Weighting results in small numbers for some categories of facilities.

1 PMTCT is the Prevention of Mother-To-Child Transmission of HIV. Indicated services offered in the facility either as an outpatient or inpatient service

2 Group (or individual) pre-test information or counseling, or individual post-test counseling, and testing services

3 Antiretroviral prophylaxis for HIV positive women and newborns

4 The objective is to assess the mother's personal circumstances in order to help her select the best feeding option for her baby

5 Counseling and referral on family planning offered to HIV positive women

6 Antiretroviral therapy offered to HIV positive women and their eligible HIV positive family members

7 PMTCT + refers to provision of the minimum package of PMTCT services plus ARV therapy (sum of all previous columns)

8 There may be several locations within the same facility where PMTCT services are offered. Each such location is defined as a service site

9 Totals include one stand alone VCT (weighted)

Table 28: Availability of services for tuberculosis

Percentage of facilities that provide the indicated TB services, by type of facility, managing authority and province, Kenya SPA 2004

Background characteristics	Percentage of facilities providing: Any services for TB	TB services through DOTS[1]	TB services not through DOTS	Number of facilities (weighted)
Type of facility				
Hospital	91	78	13	28
Health Centre	65	45	20	125
Maternity	46	4	42	20
Clinic	21	9	12	8
Dispensary	30	16	14	249
Stand alone VCT	0	0	0	10
Managing authority				
Government	54	38	16	246
NGO	13	11	2	21
Private (for-profit)	51	7	44	63
Faith-based organization	23	17	5	110
Province				
Nairobi	32	24	8	41
Central	35	25	9	50
Coast	69	42	28	49
Eastern	45	40	5	83
North Eastern	33	32	1	8
Nyanza	40	17	23	54
Rift Valley	34	18	16	126
Western	81	31	50	29
Total	44	27	17	440

[1] DOTS is "Directly-Observed Therapy - Short Course", WHO's strategy for TB control

Note: Refer to Table 1.1 for the actual number of facilities included in survey and analysis. Weighting results in small numbers for some categories of facilities.

3.4 National Leprosy and Tuberculosis Programme (NLTP)

The NLTP is run by the Ministry of Health. Data is collected on a quarterly basis and an annual report is produced.

Table 29: Tuberculosis case notification by province, average annual increase: 2000-2004

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

Table 30: Health units involved in NLTP programme activities

	GoK	NGO	Private	Total
Hospitals	131	69	20	220
Health Centres	494	66	18	578
Dispensaries	634	84	8	726
Others	3	8	27	38
Total	1262	227	73	1562
Laboratories	596	162	52	810
AFB microscopy	441	136	42	619

3.5 Coverage of Essential HIV/AIDS Services

Much has been done to address the HIV/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/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 18 compares the latest information on service provision with the estimated needs and the targets from the Kenya National HIV/AIDS Strategic Plan (KNASP) 2005-2010.

Table 31: Coverage of essential services

Service	Number provided	Estimated Need	Coverage	KNASP Target
Voluntary counselling and testing (VCT)	300,000	500,000	60%	500,000
Prevention of mother-to-child transmission (PMTCT)	300,000	1,393,000	22%	713,000
Condoms (millions)	120	160	75%	160
Anti-retroviral therapy (ART)	50,000	248,572	20%	186,000

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.

Chapter 4: Resources for the National Response

The resources required for the HIV/AIDS program were estimated by the KNASP at Ksh 178 billion. The details by year and intervention are shown in Table 19. The resources available to the program have increased dramatically over the past several years as shown in Table 20. 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 targets.

Table 32. 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

	2005/06	2006/07	2007/08	2008/09	2009/10	TOTAL
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 33: Total HIV/AIDS Resources by Source of Funding 2000/2001 - 2004/2005 (Ksh 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/AIDS 2005 Public Expenditure Review, Ministry of Health

Appendix 1. HIV prevalence among pregnant women at sentinel surveillance sites, 1990n- 2004

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

Appendix 2: HIV Prevalence, number infected, and AIDS deaths among adults by district in 2004

Province	District	Urban HIV+	Rural HIV+	Total HIV+	Total prevalence	Male prevalence	Female prevalence	AIDS deaths
Central	Kiambu	1,447	28,228	29,675	6.4%	2.7%	10.2%	2,954
Central	Kirinyaga	1,633	10,855	12,488	4.4%	1.8%	6.9%	1,243
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%	1,661
Central	Nyeri	3,116	12,988	16,105	4.5%	1 9%	7.1%	1,603
Central	Thika	15,829	9,866	25,695	6.1%	2 5%	9 6%	2,558
Coast	Kilifi	2,327	5,004	7,331	2 5%	2.1%	2 9%	730
Coast	Kwale	2,666	5,026	7,692	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%	5,998
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%	1,782
Eastern	Makueni	739	10,140	10,879	3 3%	1.3%	5 2%	1,083
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%	1,452
Eastern	Meru North	474	12,896	13,370	3.6%	1 4%	5.7%	1,331
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%	-
Nairobi	Nairobi	168,667	-	168,667	9.6%	3.8%	15.4%	16,792
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	Wajir	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%	1,210
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%	4,096
Nyanza	Kisii Central	2,356	11,463	13,819	4.2%	3 2%	5.1%	1,376
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%	3,937
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%	4,436
Nyanza	Nyando	2,243	13,318	15,561	0.0%	0.0%	0.0%	1,549
Nyanza	Rachuonyo	1,829	21,825	23,654	13.2%	10.3%	16.2%	2,355
Nyanza	Siaya	2,907	19,681	22,588	13.5%	10.5%	16.6%	2,249
Nyanza	Suba	1,791	21,610	23,400	24.4%	18 9%	29.8%	2,330
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%	1,178
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%	1,530
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%	5,772
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%	1,018
Rift Valley	Turkana	2,881	9,057	11,938	4.4%	3 0%	5 7%	1,189
Rift Valley	Uasin Gishu	11,742	8,836	20,578	5.5%	3 8%	7.3%	2,049
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%	4,047
Western	Busia	2,158	8,621	10,779	7 4%	5.9%	9.0%	1,073
Western	Butere/Mumias	4,140	14,009	18,149	7 3%	5.8%	8 8%	1,807
Western	Kakamega	3,754	12,700	16,454	7.3%	5.8%	8.8%	1,638
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

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

Province	District	Adults requiring ART	Children requiring ART	Children requiring cotrimoxazole	Number of orphans
Central	Kiambu	6,981	973	5,712	64,914
Central	Kirinyaga	2,938	409	2,404	27,317
Central	Maragua	2,108	294	1,725	19,606
Central	Muranga	1,997	278	1,634	18,568
Central	Nyandarua	3,925	547	3,211	36,495
Central	Nyeri	3,789	528	3,100	35,229
Central	Thika	6,045	842	4,946	56,208
Coast	Kilifi	1,725	240	1,411	16,037
Coast	Kwale	1,809	252	1,481	16,826
Coast	Lamu	270	38	221	2,512
Coast	Malindi	1,831	255	1,498	17,028
Coast	Mombasa	14,173	1,975	11,597	131,792
Coast	Taita-Taveta	981	137	803	9,124
Coast	Tana River	571	80	467	5,313
Eastern	Embu	1,836	256	1,503	17,075
Eastern	Isiolo	542	76	444	5,042
Eastern	Kitui	1,852	258	1,516	17,225
Eastern	Machakos	4,212	587	3,446	39,166
Eastern	Makueni	2,559	357	2,094	23,798
Eastern	Marsabit	364	51	298	3,385
Eastern	Mbeere	876	122	717	8,143
Eastern	Meru Central	3,431	478	2,807	31,905
Eastern	Meru North	3,145	438	2,574	29,247
Eastern	Meru South	872	122	713	8,108
Eastern	Moyale	166	23	136	1,545
Eastern	Mwingi	1,237	172	1,013	11,507
Eastern	Nithi	384	53	314	3,568
Eastern	Tharaka	-	-	-	-
Nairobi	Nairobi	39,679	5,529	32,466	368,959
North Eastern	Garissa	1,305	182	1,068	12,135
North Eastern	Mandera	1,066	149	872	9,912
North Eastern	Wajir	1,705	238	1,395	15,855
Nyanza	Bondo	2,859	398	2,340	26,588
Nyanza	Gucha	2,026	282	1,657	18,836
Nyanza	Homa Bay	9,678	1,349	7,919	89,994
Nyanza	Kisii Central	3,251	453	2,660	30,229
Nyanza	Kisii North	2,273	317	1,860	21,140
Nyanza	Kisumu	9,304	1,297	7,612	86,511
Nyanza	Kuria	898	125	734	8,347
Nyanza	Migori	10,482	1,461	8,577	97,473
Nyanza	Nyando	3,661	510	2,995	34,040
Nyanza	Rachuonyo	5,565	775	4,553	51,744
Nyanza	Siaya	5,314	740	4,348	49,410
Nyanza	Suba	5,505	767	4,504	51,188
Rift Valley	Baringo	1,692	236	1,385	15,737
Rift Valley	Bomet	1,604	223	1,312	14,913
Rift Valley	Buret	747	104	611	6,949
Rift Valley	Kajiado	1,655	231	1,354	15,388
Rift Valley	Keiyo	966	135	790	8,978
Rift Valley	Kericho	2,784	388	2,278	25,885
Rift Valley	Koibatek	939	131	768	8,727
Rift Valley	Laikipia	3,616	504	2,959	33,623
Rift Valley	Marakwet	606	84	496	5,636
Rift Valley	Nakuru	13,640	1,901	11,161	126,837
Rift Valley	Nandi	1,927	268	1,576	17,916
Rift Valley	Narok	1,038	145	849	9,648
Rift Valley	Samburu	1,348	188	1,103	12,538
Rift Valley	Trans Mara	619	86	507	5,758
Rift Valley	Trans Nzoia	2,405	335	1,968	22,362
Rift Valley	Turkana	2,808	391	2,298	26,115
Rift Valley	Uasin Gishu	4,841	675	3,961	45,015
Rift Valley	West Pokot	1,294	180	1,059	12,031
Western	Bungoma	9,563	1,333	7,824	88,921
Western	Busia	2,536	353	2,075	23,580
Western	Butere/Mumias	4,269	595	3,493	39,700
Western	Kakamega	3,871	539	3,167	35,993
Western	Lugari	1,826	255	1,494	16,984
Western	Mt. Elgon	618	86	506	5,750
Western	Teso	2,109	294	1,726	19,614

Appendix 4: HIV/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

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