



HIV AND AIDS IN AFRICA

Public Policy Issues and Foreign Roles

Joel Samoff

The broader context: the
HIV/AIDS crisis globally—

Global summary of the AIDS epidemic, December 2007

Number of people living with HIV in 2007

Total	33 million [30 – 36 million]
Adults	30.8 million [28.2 – 34.0 million]
Women	15.5 million [14.2 – 16.9 million]
Children under 15 years	2.0 million [1.9 – 2.3 million]

People newly infected with HIV in 2007

Total	2.7 million [2.2 – 3.2 million]
Adults	2.3 million [1.9 – 2.8 million]
Children under 15 years	370 000 [330 000 – 410 000]

AIDS deaths in 2007

Total	2.0 million [1.8 – 2.3 million]
Adults	1.8 million [1.6 – 2.1 million]
Children under 15 years	270 000 [250 000 – 290 000]

Global estimates for adults and children, 2007

- **People living with HIV** **33 million** [30 – 36 million]
- **New HIV infections in 2007** **2.7 million** [2.2 – 3.2 million]
- **Deaths due to AIDS in 2007** **2.0 million** [1.8 – 2.3 million]

2007 global HIV and AIDS estimates

Children (<15 years)

- **Children living with HIV** **2.0 million** [1.9 – 2.3 million]
- **New HIV infections in 2007** **370 000** [330 000 – 410 000]
- **Deaths due to AIDS in 2007** **270 000** [250 000 – 290 000]

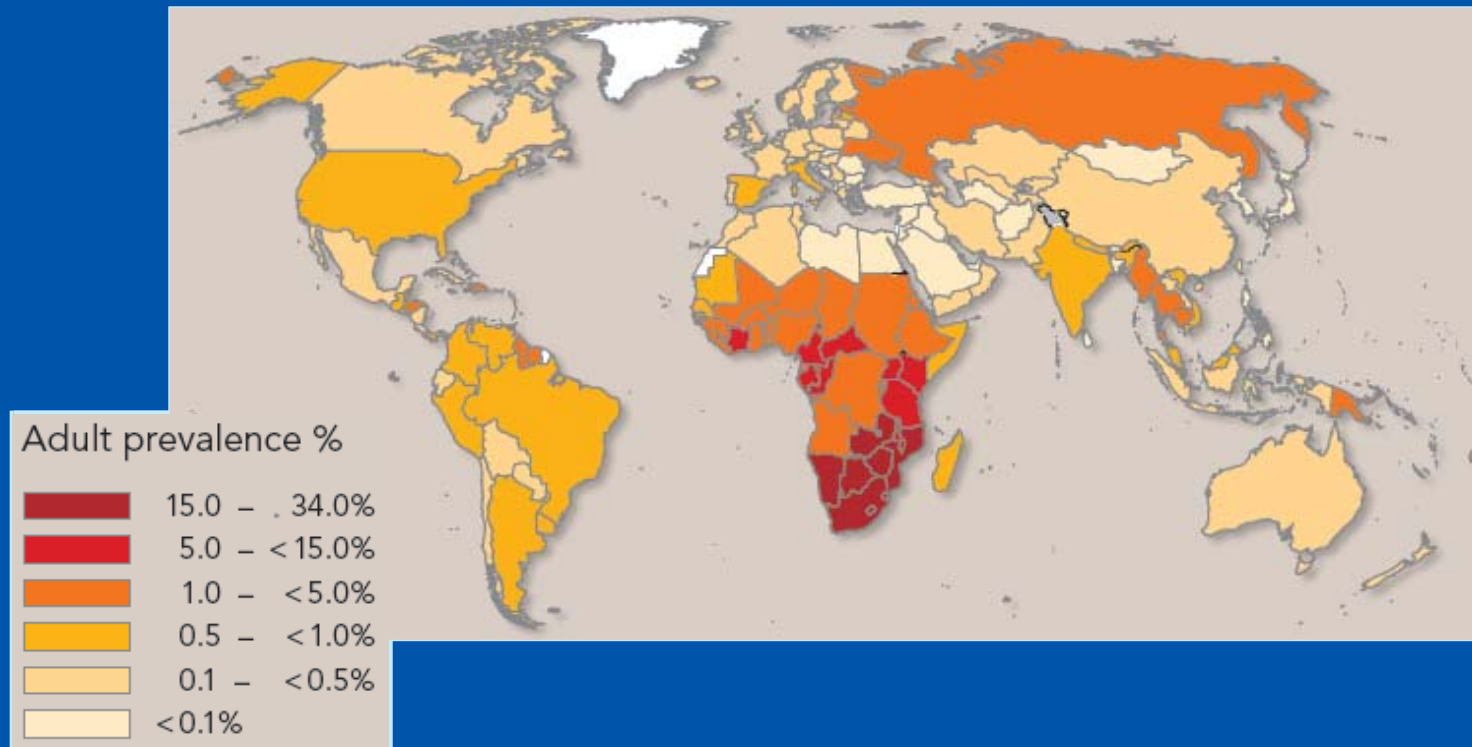
Over 7400 new HIV infections a day in 2007

- More than 96% are in low and middle income countries
- About 1000 are in children under 15 years of age
- About 6300 are in adults aged 15 years and older of whom:
 - almost 50% are among women
 - about 45% are among young people (15-24)

HIV/AIDS in the World / in Africa—

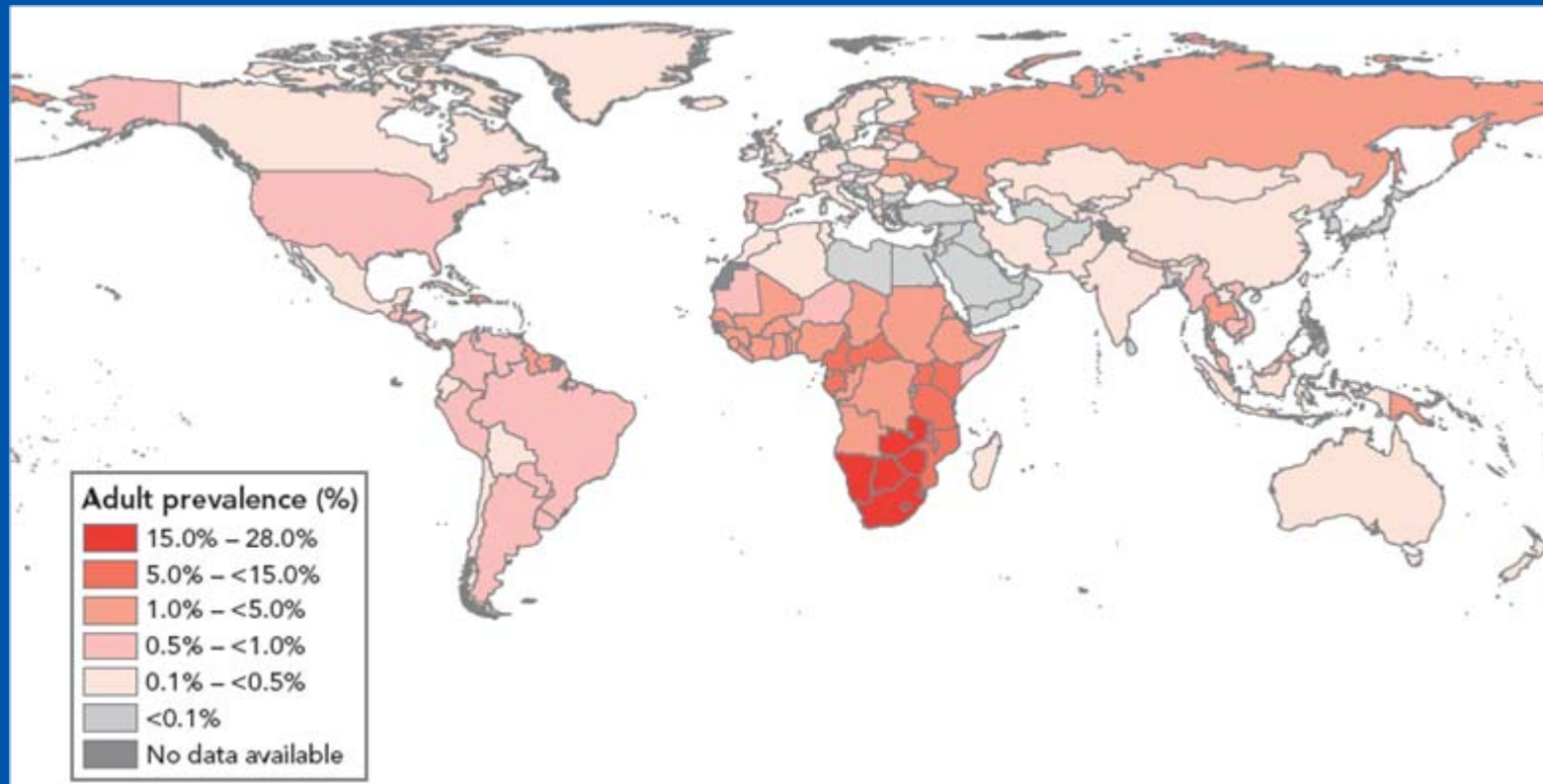
A global view of HIV infection

38.6 million people [33.4–46.0 million] living with HIV, 2005



A global view of HIV infection

33 million people [30–36 million] living with HIV, 2007



Adults and children estimated to be living with HIV, 2007



Total: 33 million (30 – 36 million)

Estimated number of adults and children newly infected with HIV, 2007



Total: 2.7 million (2.2 – 3.2 million)

Estimated adult and child deaths from AIDS, 2007



Total: 2.0 million (1.8 – 2.3 million)

Children (<15 years) estimated to be living with HIV, 2007



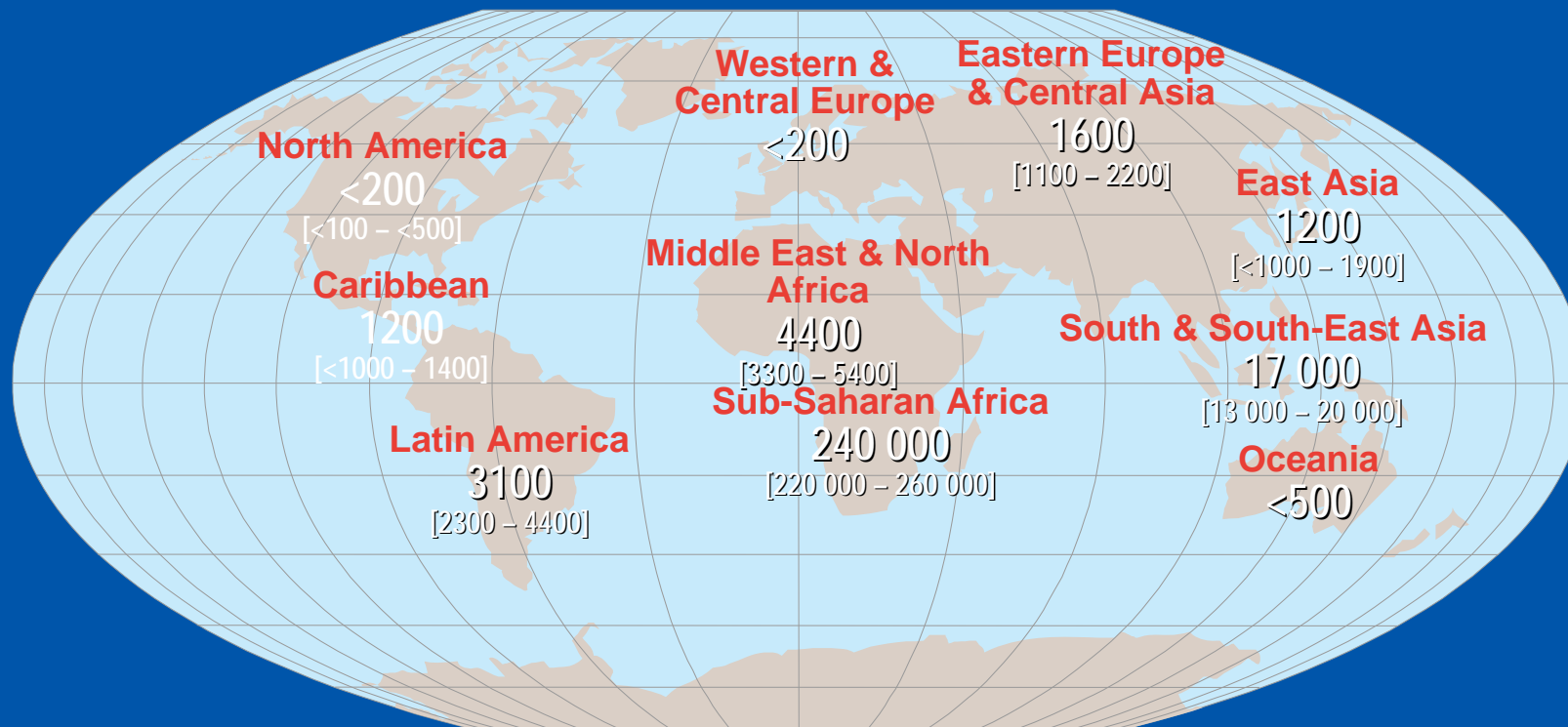
Total: 2.0 million (1.9 – 2.3 million)

Estimated number of children (<15 years) newly infected with HIV, 2007



Total: 370 000 (330 000 – 410 000)

Estimated deaths in children (<15 years) from AIDS, 2007



Total: 270 000 (250 000 – 290 000)

Regional HIV and AIDS statistics and features, 2007

	Adults & children living with HIV	Adults & children newly infected with HIV	Adult prevalence (15–49) [%]	Adult & child deaths due to AIDS
Sub-Saharan Africa	22.0 million [20.5 – 23.6 million]	1.9 million [1.6 – 2.1 million]	5.0% [4.6% – 5.4%]	1.5 million [1.3 – 1.7 million]
Middle East & North Africa	380 000 [280 000 – 510 000]	40 000 [20 000 – 66 000]	0.3% [0.2% – 0.4%]	27 000 [20 000 – 35 000]
South and South-East Asia	4.2 million [3.5 – 5.3 million]	330 000 [150 000 – 590 000]	0.3% [0.2% – 0.4%]	340 000 [230 000 – 450 000]
East Asia	740 000 [480 000 – 1.1 million]	52 000 [29 000 – 84 000]	0.1% [<0.1% – 0.2%]	40 000 [24 000 – 63 000]
Latin America	1.7 million [1.5 – 2.1 million]	140 000 [88 000 – 190 000]	0.5% [0.4% – 0.6%]	63 000 [49 000 – 98 000]
Caribbean	230 000 [210 000 – 270 000]	20 000 [16 000 – 25 000]	1.1% [1.0% – 1.2%]	14 000 [11 000 – 16 000]
Eastern Europe & Central Asia	1.5 million [1.1 – 1.9 million]	110 000 [67 000 – 180 000]	0.8% [0.6% – 1.1%]	58 000 [41 000 – 88 000]
Western & Central Europe	730 000 [580 000 – 1.0 million]	27 000 [14 000 – 49 000]	0.3% [0.2% – 0.4%]	8 000 [4 800 – 17 000]
North America	1.2 million [760 000 – 2.0 million]	54 000 [9 600 – 130 000]	0.6% [0.4% – 1.0%]	23 000 [9 100 – 55 000]
Oceania	74 000 [66 000 – 93 000]	13 000 [12 000 – 15 000]	0.4% [0.3% – 0.5%]	1 000 [<1 000 – 1 400]
TOTAL	33 million [30 – 36 million]	2.7 million [2.2 – 3.2 million]	0.8% [0.7% – 0.9%]	2.0 million [1.8 – 2.3 million]

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information.

Regional HIV and AIDS statistics, 2001 and 2007

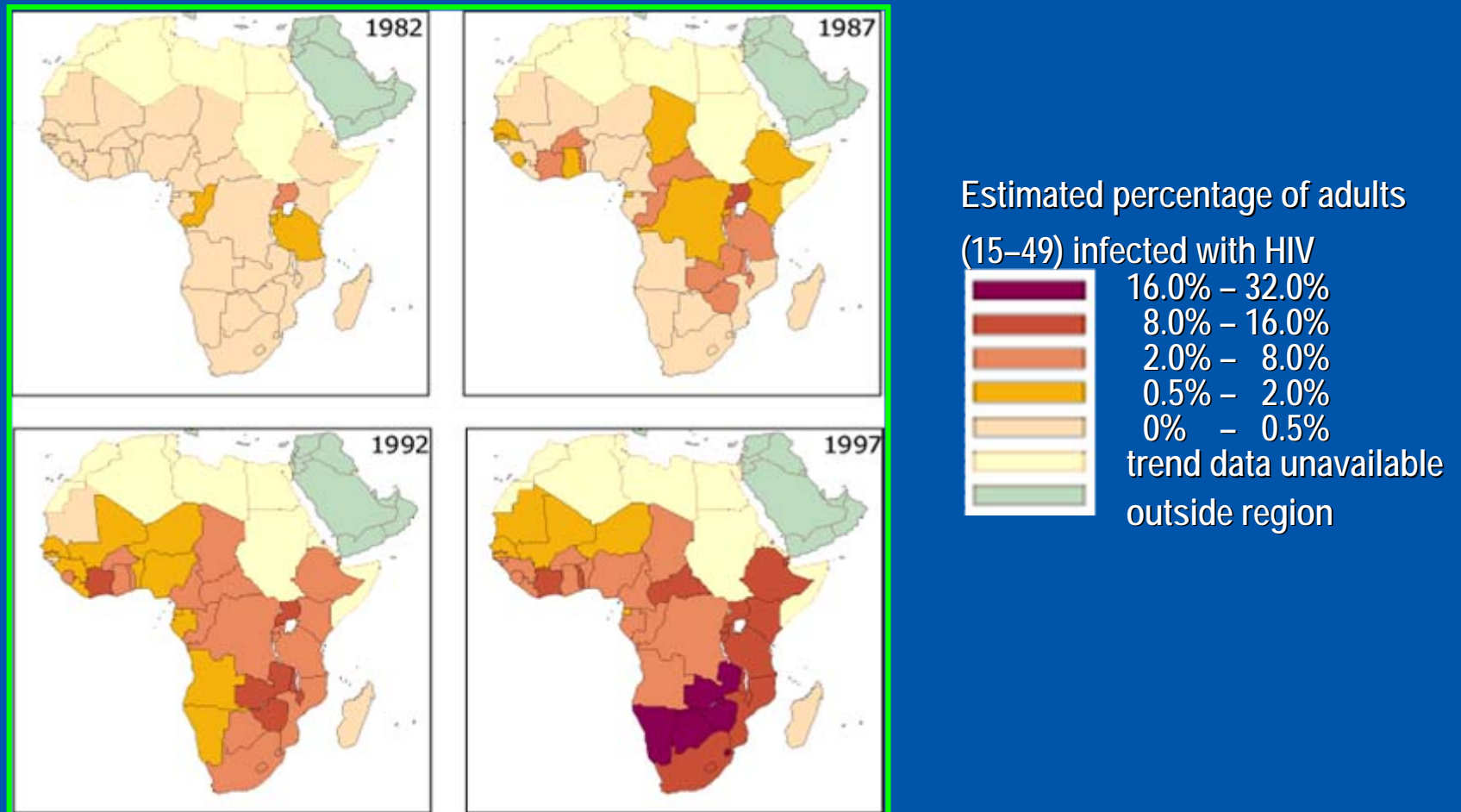
<i>(First of 2 parts)</i>	Adults & children living with HIV		Adults & children newly infected with HIV	
	2007	2001	2007	2001
Sub-Saharan Africa	22.5 million [20.9 – 24.3 million]	20.9 million [19.7 – 23.6 million]	1.7 million [1.4 – 2.4 million]	2.2 million [1.7 – 2.7 million]
Middle East & North Africa	380 000 [270 000 – 500 000]	300 000 [220 000 – 400 000]	35 000 [16 000 – 65 000]	41 000 [17 000 – 58 000]
South and South-East Asia	4.0 million [3.3 – 5.1 million]	3.5 million [2.9 – 4.5 million]	340 000 [180 000 – 740 000]	450 000 [150 000 – 800 000]
East Asia	800 000 [620 000 – 960 000]	420 000 [350 000 – 510 000]	92 000 [21 000 – 220 000]	77 000 [4900 – 130 000]
Latin America	1.6 million [1.4 – 1.9 million]	1.3 million [1.2 – 1.6 million]	100 000 [47 000 – 220 000]	130 000 [56 000 – 220 000]
Caribbean	230 000 [210 000 – 270 000]	190 000 [180 000 – 250 000]	17 000 [15 000 – 23 000]	20 000 [17 000 – 25 000]
Eastern Europe & Central Asia	1.6 million [1.2 – 2.1 million]	630 000 [490 000 – 1.1 million]	150 000 [70 000 – 290 000]	230 000 [98 000 – 340 000]
Western & Central Europe	760 000 [600 000 – 1.1 million]	620 000 [500 000 – 870 000]	31 000 [19 000 – 86 000]	32 000 [19 000 – 76 000]
North America	1.3 million [480 000 – 1.9 million]	1.1 million [390 000 – 1.6 million]	46 000 [38 000 – 68 000]	44 000 [40 000 – 63 000]
Oceania	75 000 [53 000 – 120 000]	26 000 [19 000 – 39 000]	14 000 [11 000 – 26 000]	3800 [3000 – 5600]
TOTAL	33.2 million [30.6 – 36.1 million]	29.0 million [26.9 – 32.4 million]	2.5 million [1.8 – 4.1 million]	3.2 million [2.1 – 4.4 million]

Regional HIV and AIDS statistics, 2001 and 2007

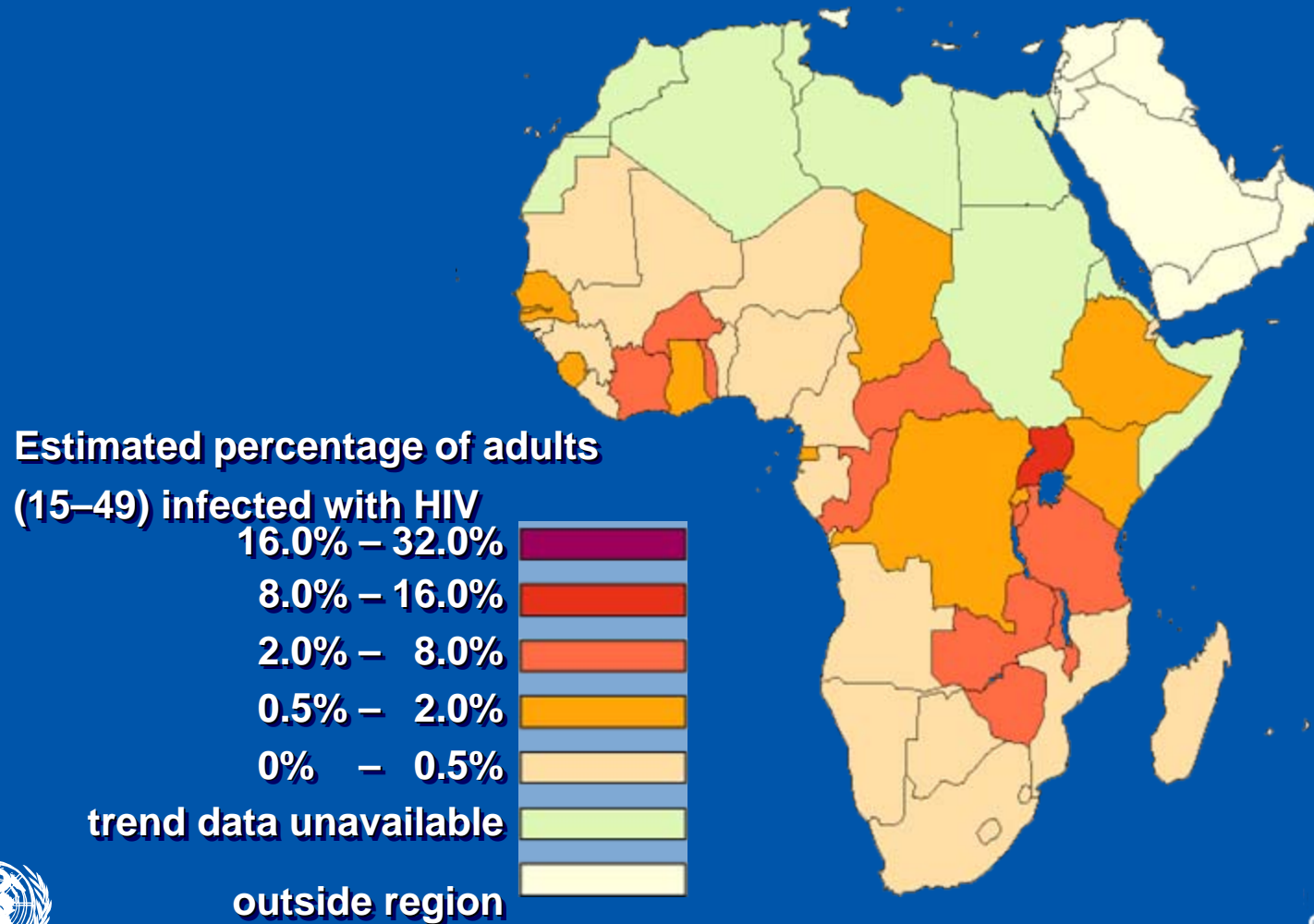
<i>(Last of 2 parts)</i>	Adult prevalence (%)		Adult & child deaths due to AIDS	
	2007	2001	2007	2001
Sub-Saharan Africa	5.0% [4.6% – 5.5%]	5.8% [5.5% – 6.6%]	1.6 million [1.5 – 2.0 million]	1.4 million [1.3 – 1.9 million]
Middle East & North Africa	0.3% [0.2% – 0.4%]	0.3% [0.2% – 0.4%]	25 000 [20 000 – 34 000]	22 000 [11 000 – 39 000]
South and South-East Asia	0.3% [0.2% – 0.4%]	0.3% [0.2% – 0.4%]	270 000 [230 000 – 380 000]	170 000 [120 000 – 220 000]
East Asia	0.1% [<0.2%]	<0.1% [<0.2%]	32 000 [28 000 – 49 000]	12 000 [8200 – 17 000]
Latin America	0.5% [0.4% – 0.6%]	0.4% [0.3% – 0.5%]	58 000 [49 000 – 91 000]	51 000 [44 000 – 100 000]
Caribbean	1.0% [0.9% – 1.2%]	1.0% [0.9% – 1.2%]	11 000 [9800 – 18 000]	14 000 [13 000 – 21 000]
Eastern Europe & Central Asia	0.9% [0.7% – 1.2%]	0.4% [0.3% – 0.6%]	55 000 [42 000 – 88 000]	8000 [5500 – 14 000]
Western & Central Europe	0.3% [0.2% – 0.4%]	0.2% [0.1% – 0.3%]	12 000 [<15 000]	10 000 [<15 000]
North America	0.6% [0.5% – 0.9%]	0.6% [0.4% – 0.8%]	21 000 [18 000 – 31 000]	21 000 [18 000 – 31 000]
Oceania	0.4% [0.3% – 0.7%]	0.2% [0.1% – 0.3%]	1200 [<500 – 2700]	<500 [1100]
TOTAL	0.8% [0.7% - 0.9%]	0.8% [0.7% - 0.9%]	2.1 million [1.9 – 2.4 million]	1.7 million [1.6 – 2.3 million]

The spread of HIV/AIDS in
Africa has been dramatic—

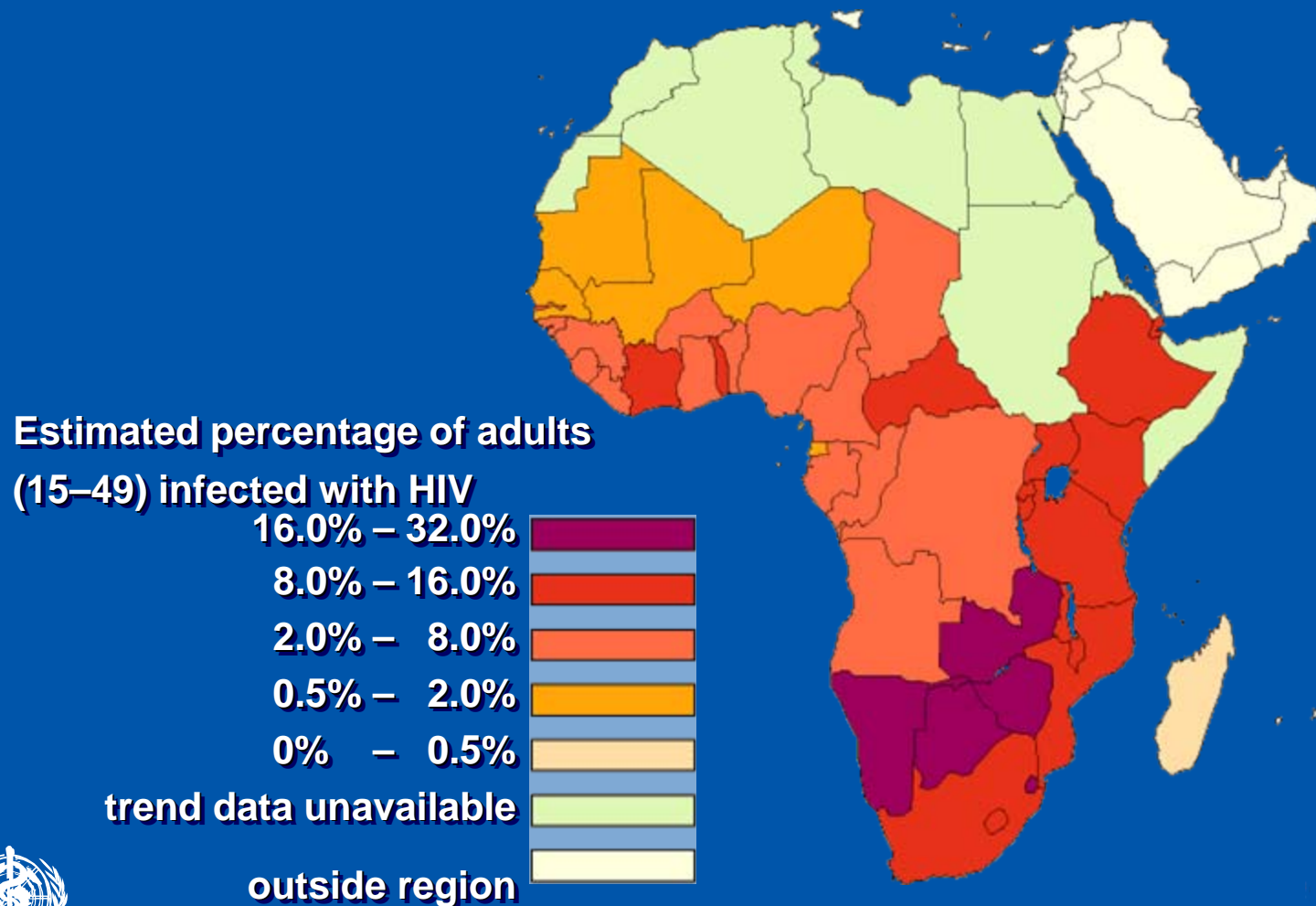
Spread of HIV over time in sub-Saharan Africa, 1982–1997



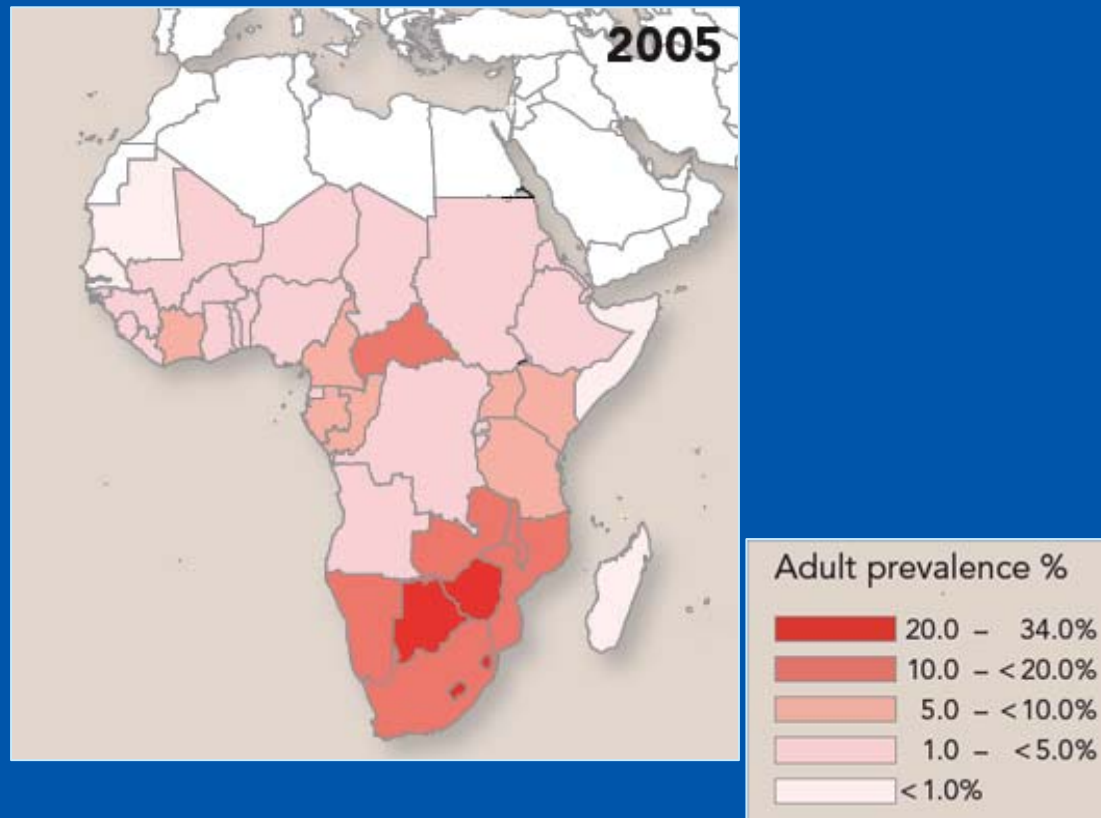
Spread of HIV in sub-Saharan Africa, 1987



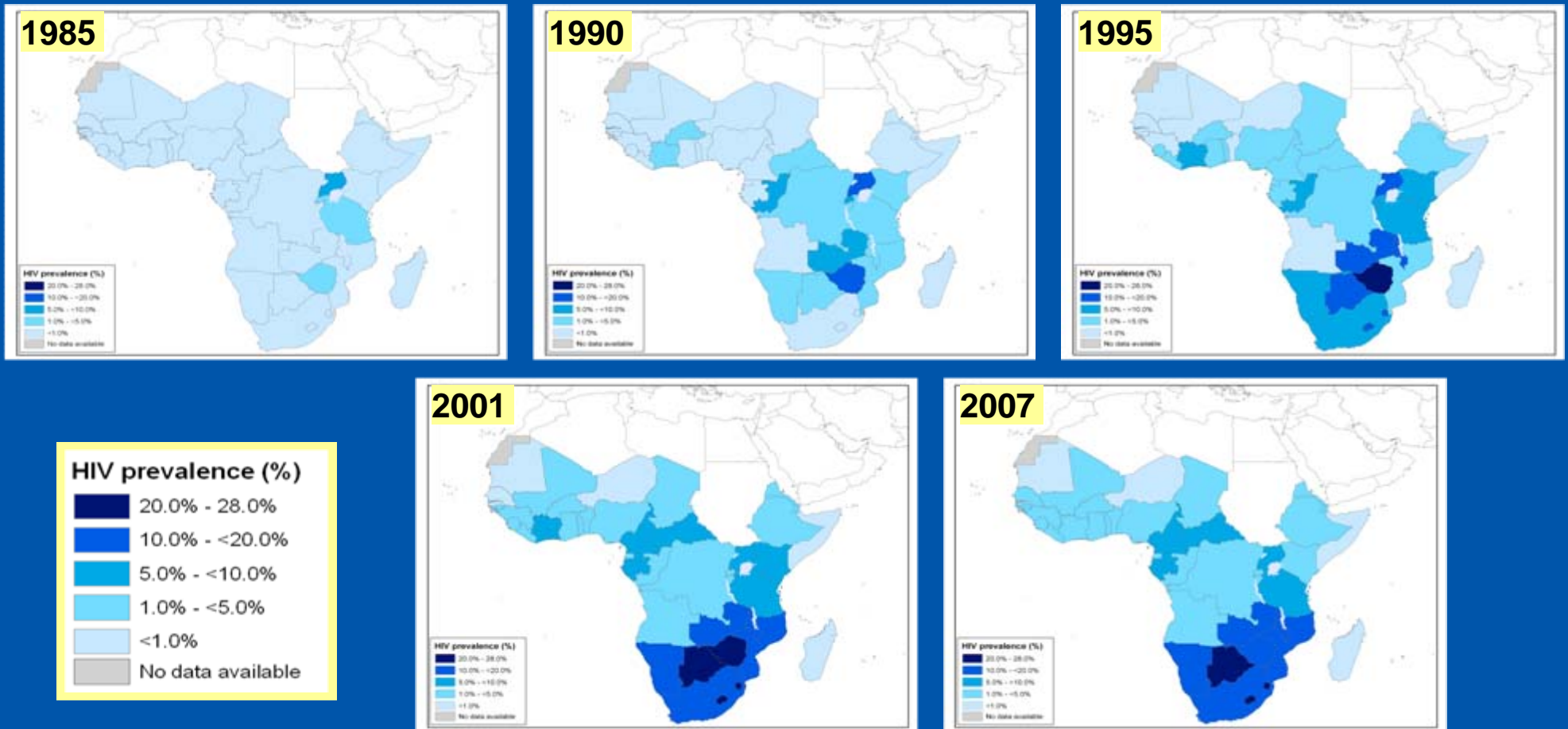
Spread of HIV in sub-Saharan Africa, 1997



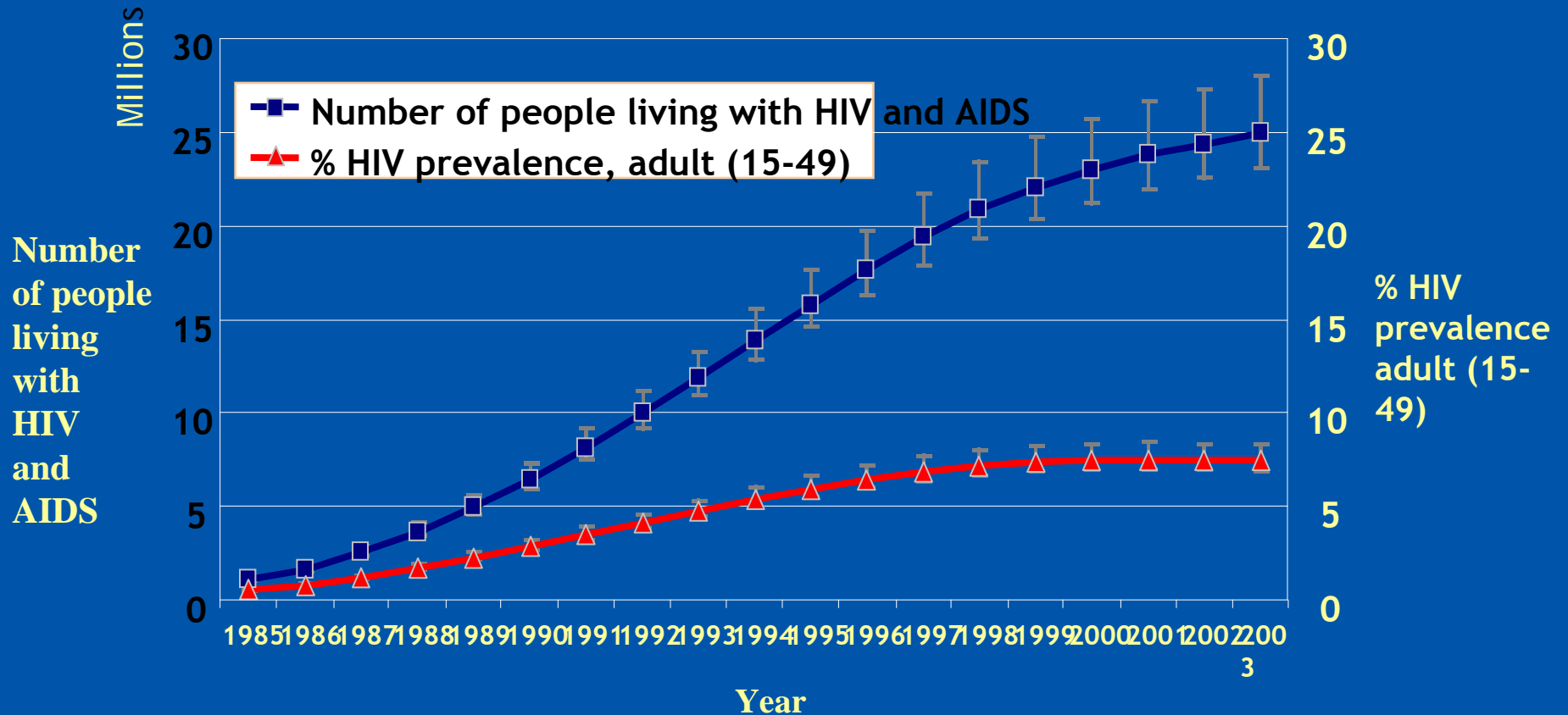
HIV prevalence (%) in adults in Africa, 2005



Spread of HIV in Africa



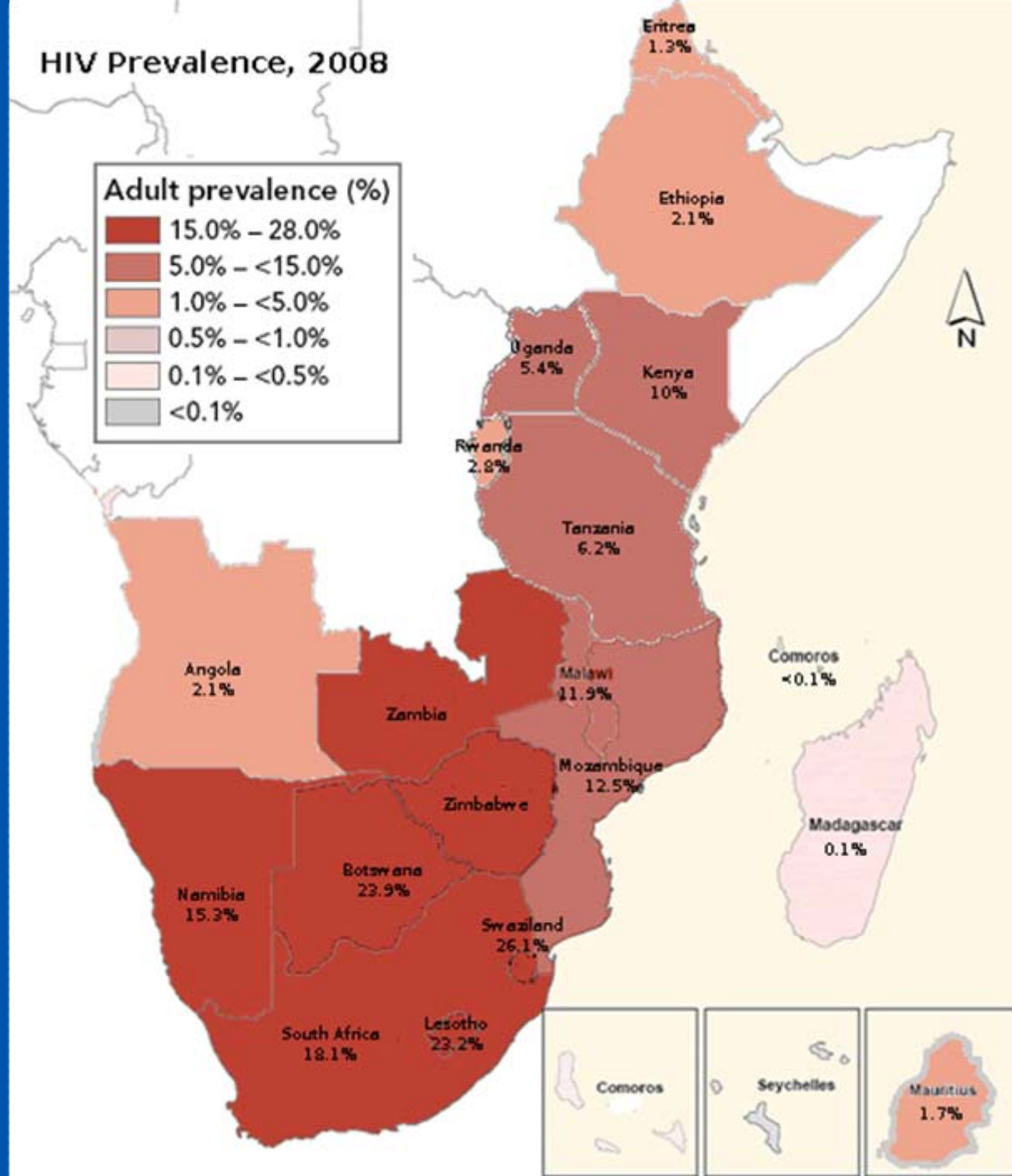
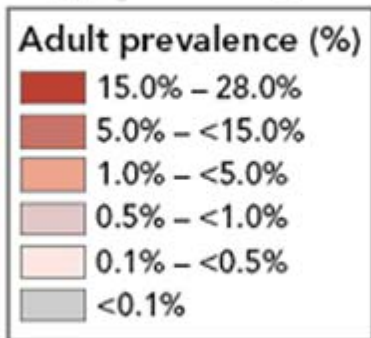
Epidemic in sub-Saharan Africa 1985–2003



Source: UNAIDS/WHO, 2004

2004 Report on the Global AIDS Epidemic (Fig 5)

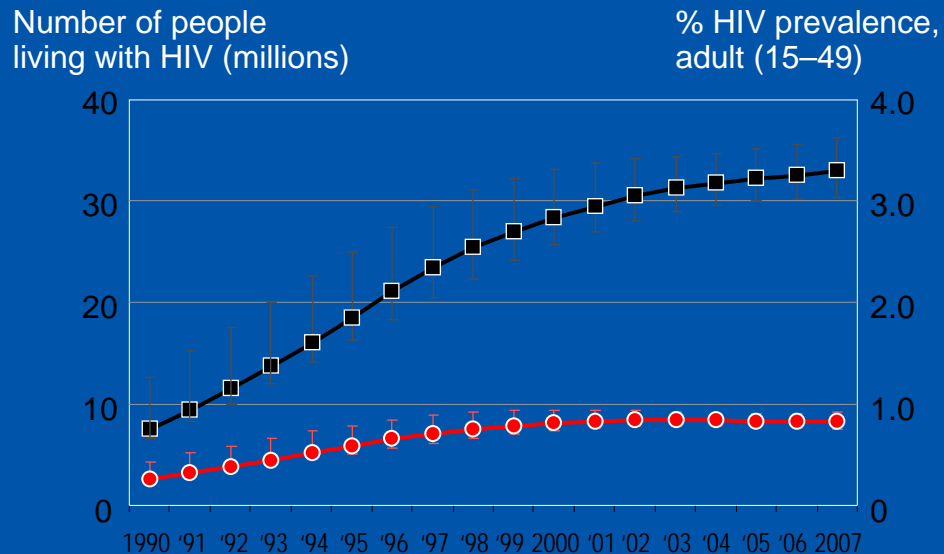
HIV Prevalence, 2008



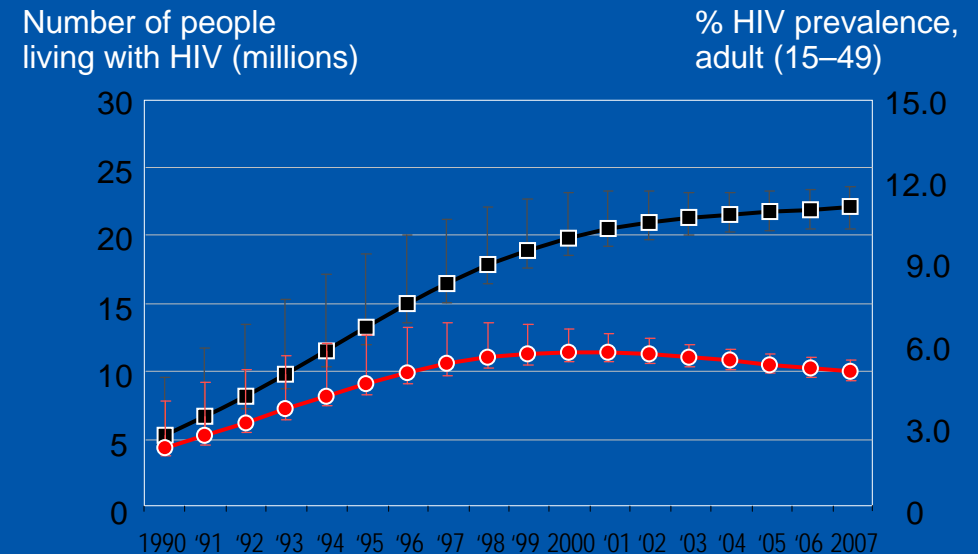
Estimated number of people living with HIV and adult HIV prevalence

Global HIV epidemic, 1990–2007; and, HIV epidemic in Sub-Saharan Africa, 1990–2007

Global HIV epidemic, 1990–2007



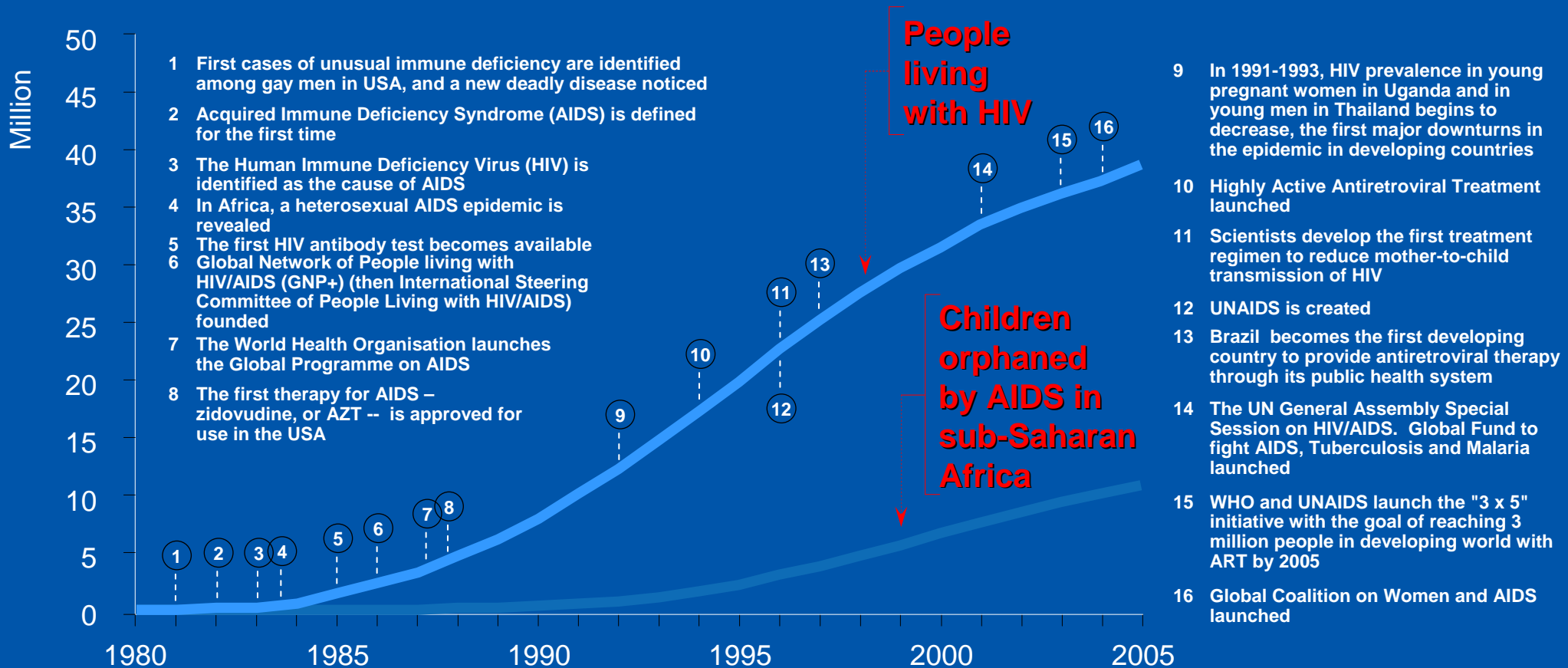
HIV epidemic in Sub-Saharan Africa, 1990–2007



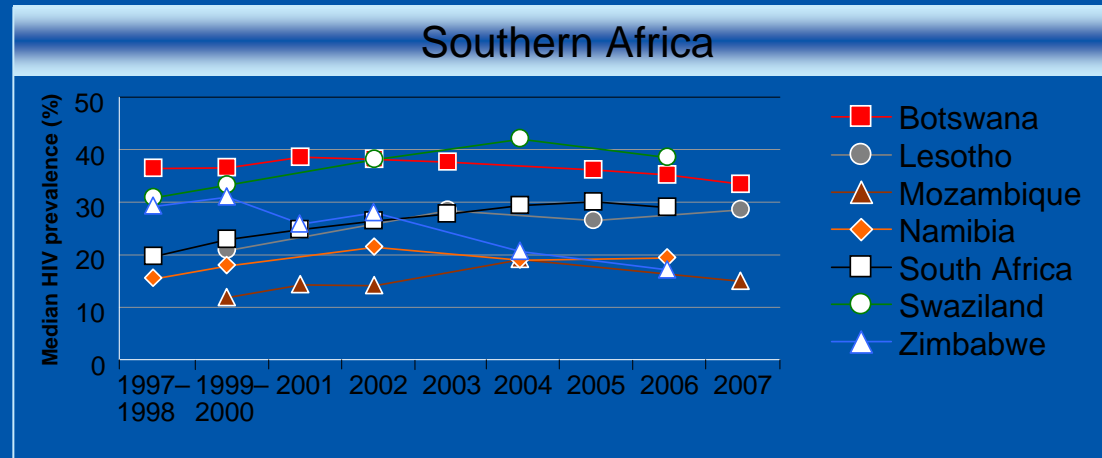
- Number of people living with HIV
- % HIV prevalence, adult (15–49)
- || These bars indicate the range around the estimate

NOTE: Even though the HIV prevalence stabilized in Sub-Saharan Africa, the actual number of people infected continues to grow because of ongoing new infections and increasing access to antiretroviral therapy.

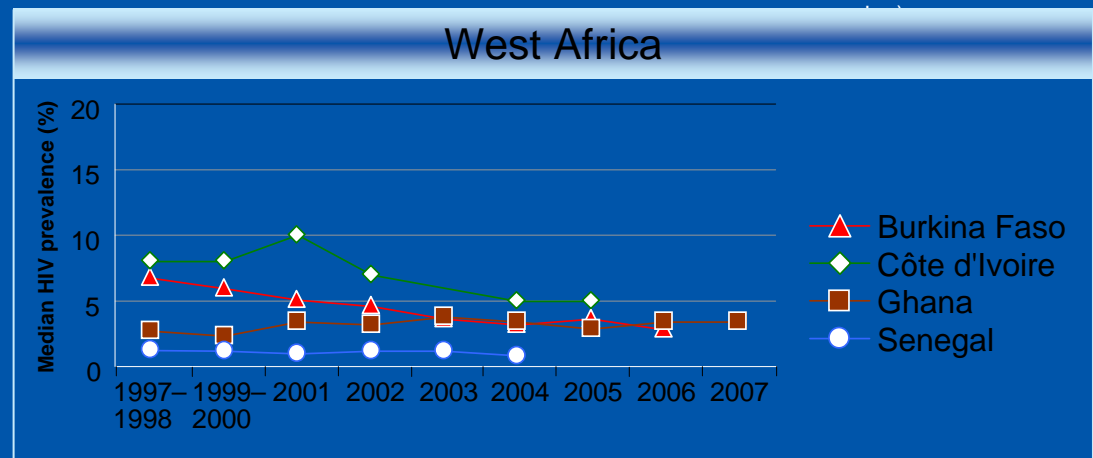
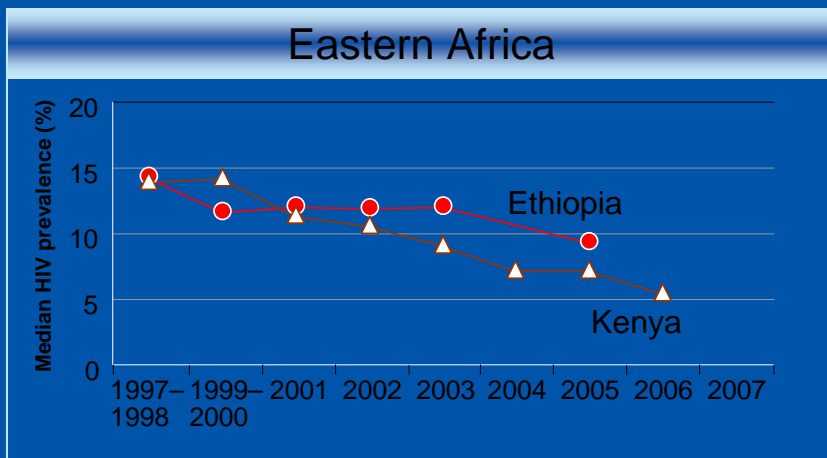
25 years of AIDS



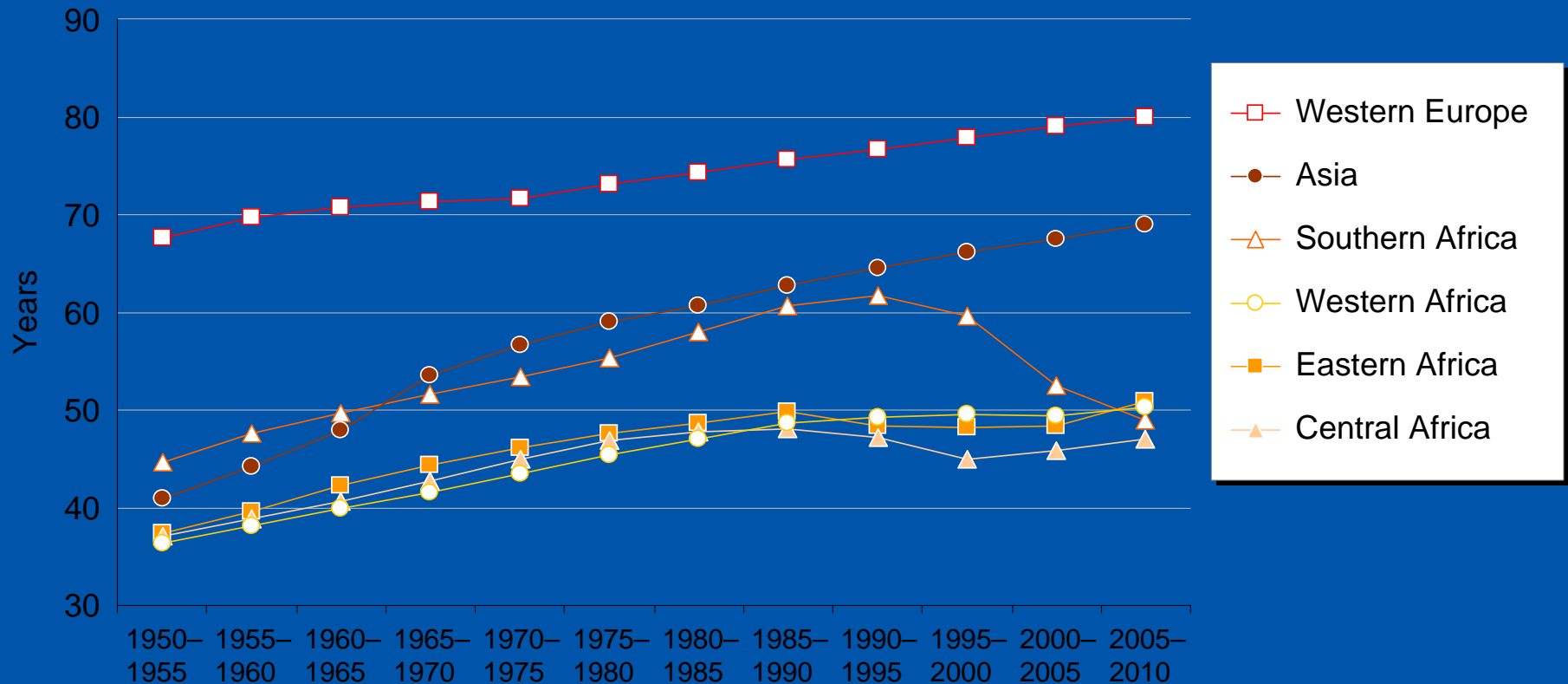
HIV prevalence (%) among pregnant women attending antenatal clinics in sub-Saharan Africa, 1997–2007



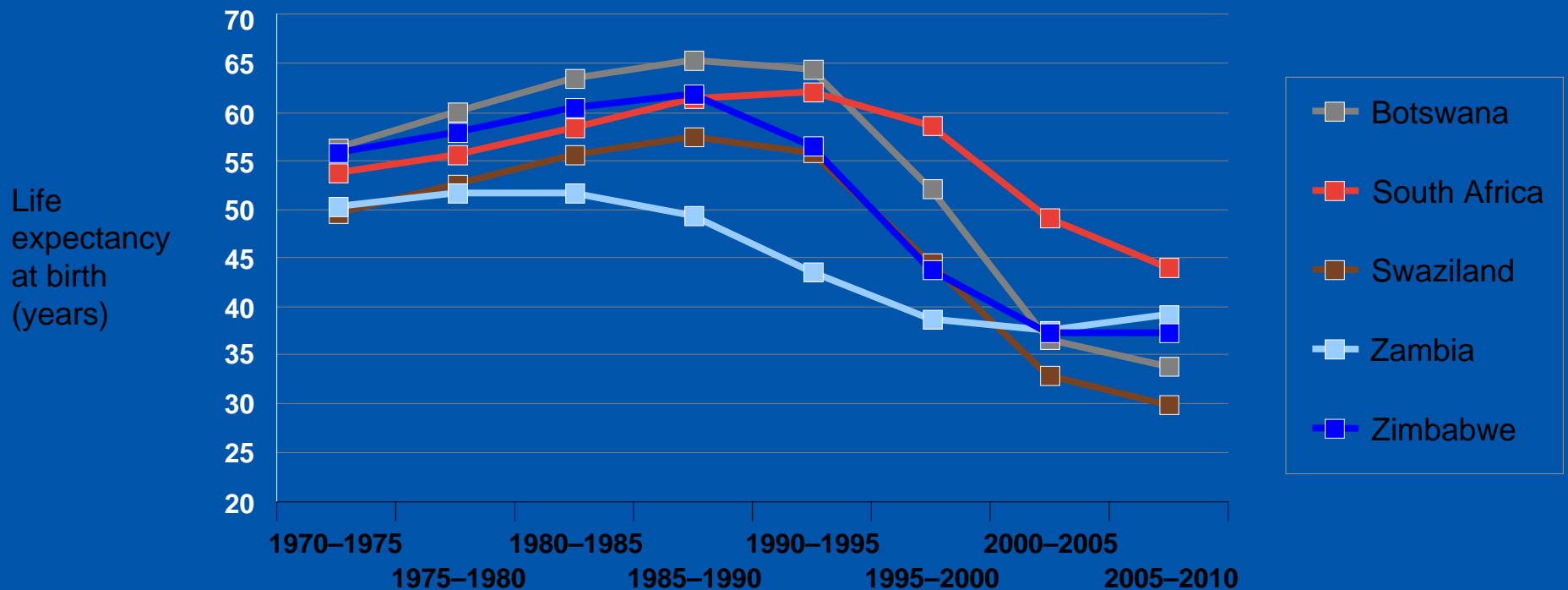
NOTE: Analysis restricted to consistent surveillance sites for all countries except South Africa (by province) and Swaziland (by



Life expectancy at birth, selected regions, 1950–1955 to 2005–2010

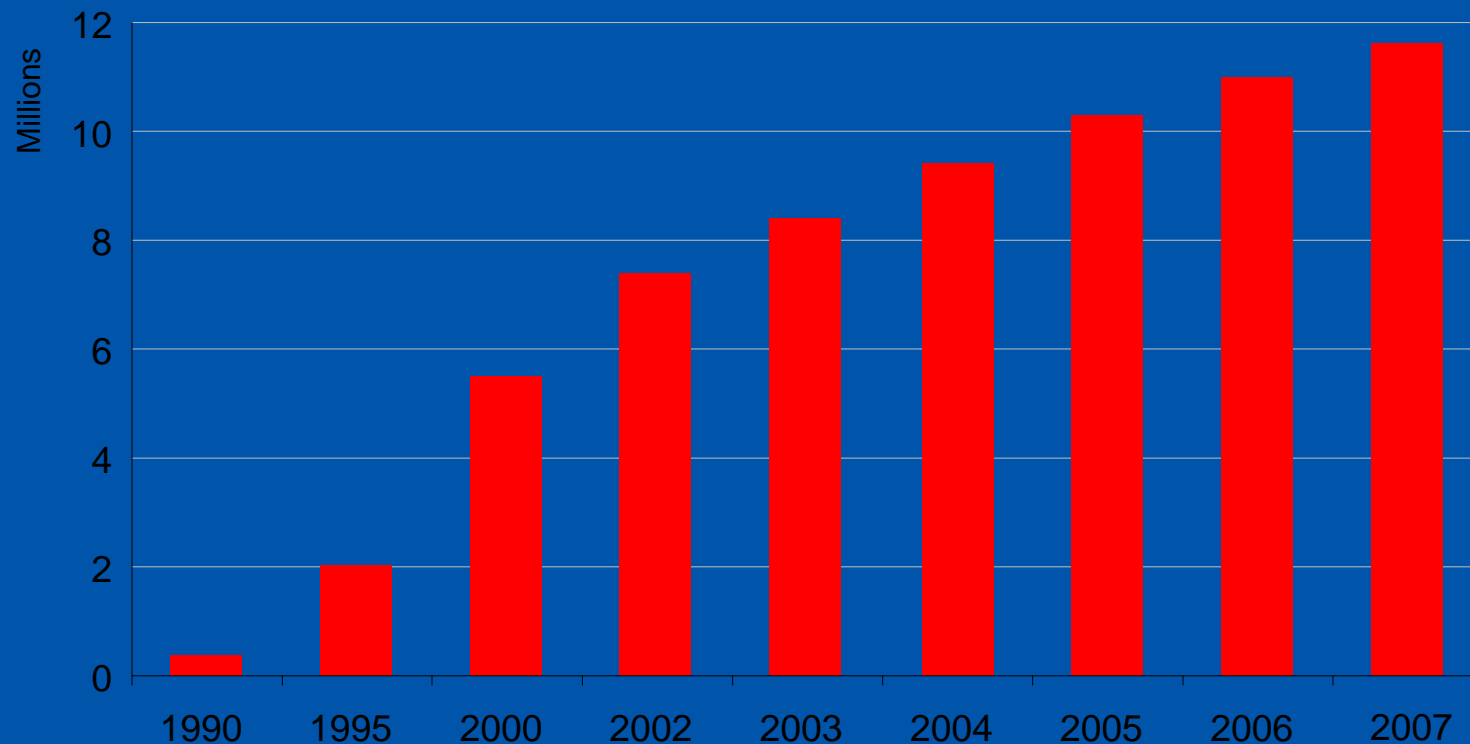


Impact of AIDS on life expectancy in five African countries, 1970–2010

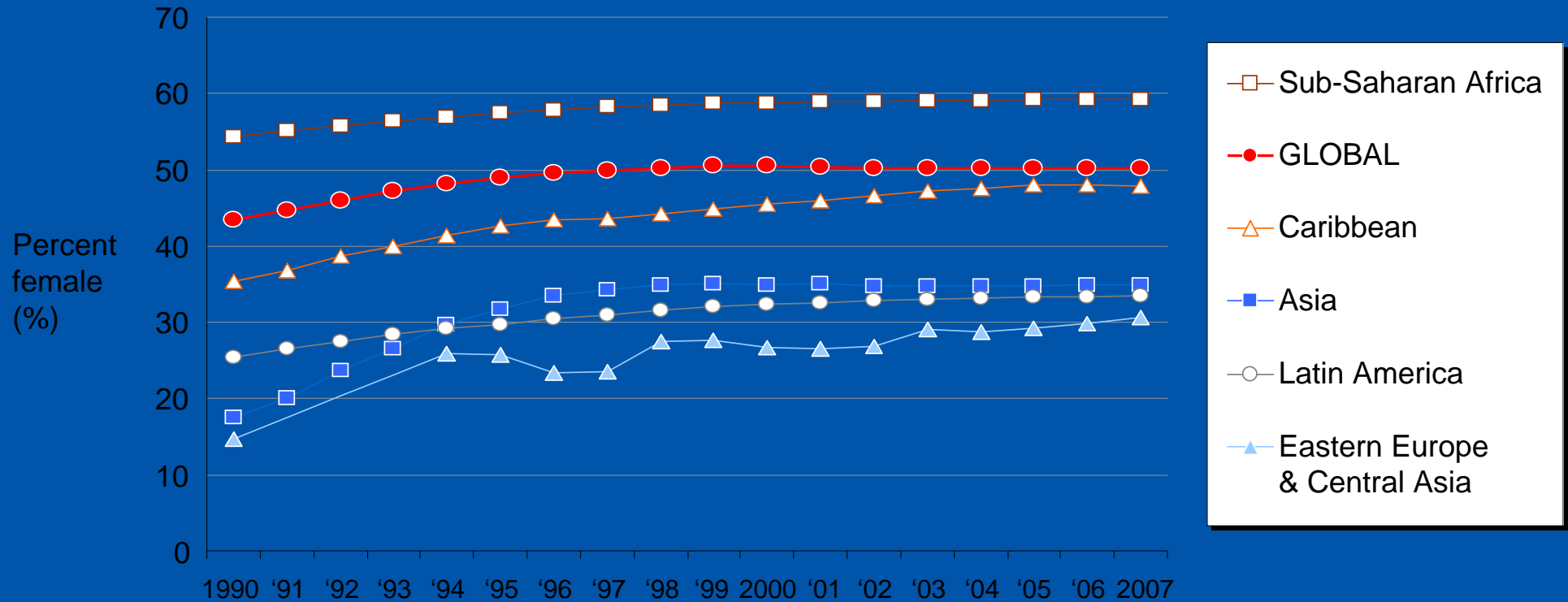


Source: United Nations Population Division (2004). World Population Prospects: The 2004 Revision, database.

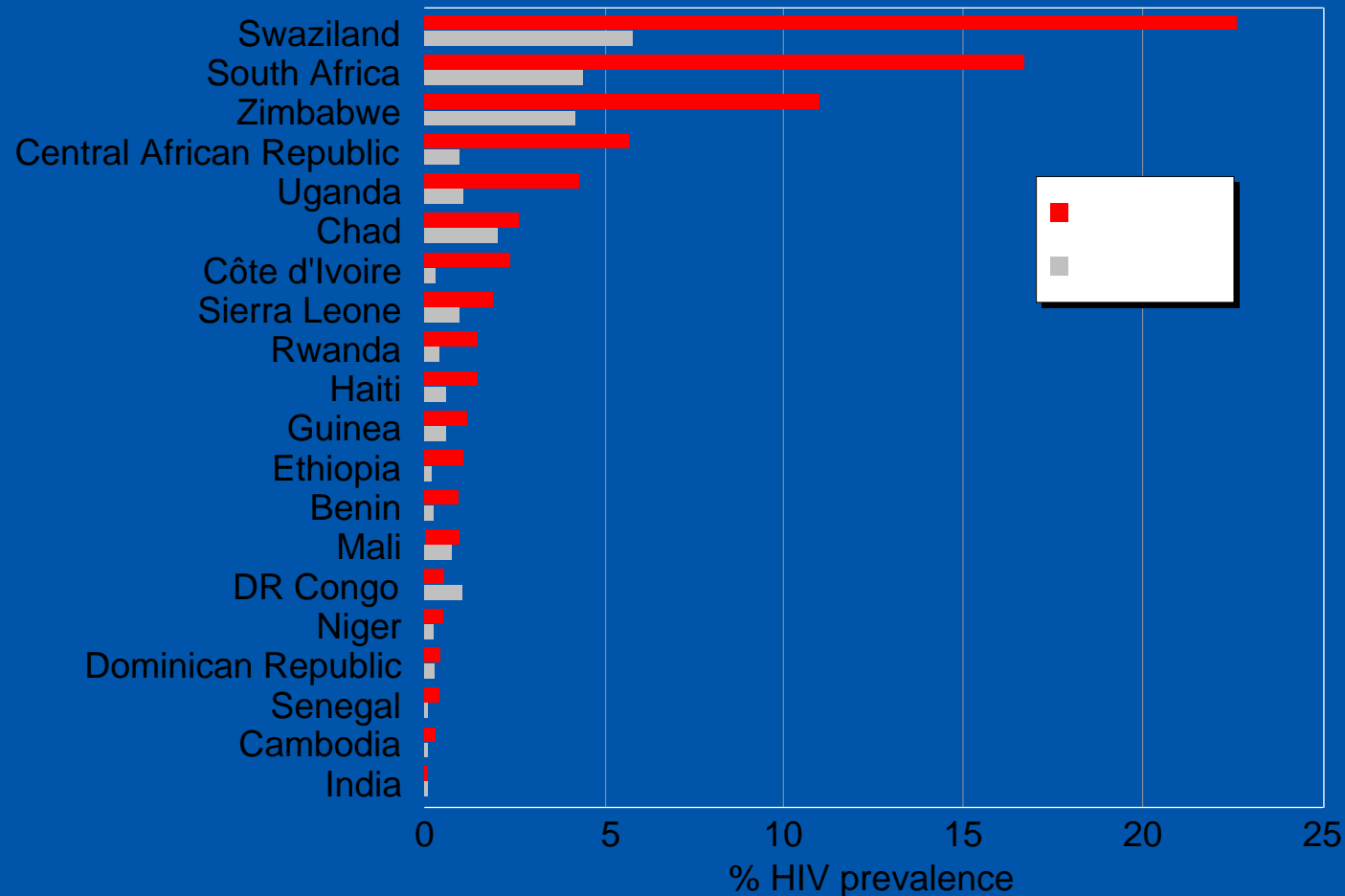
Estimated number of children under 18 orphaned by AIDS in sub-Saharan Africa (1990–2007)



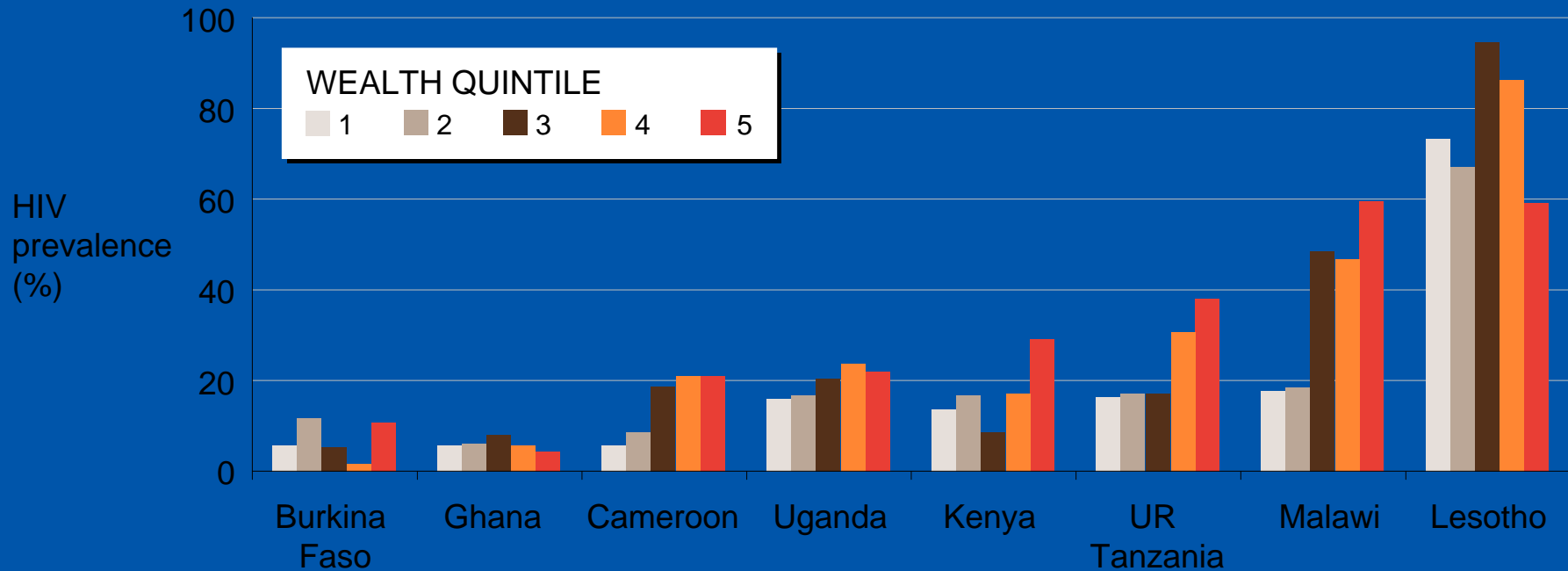
Percent of adults (15+) living with HIV who are female 1990–2007



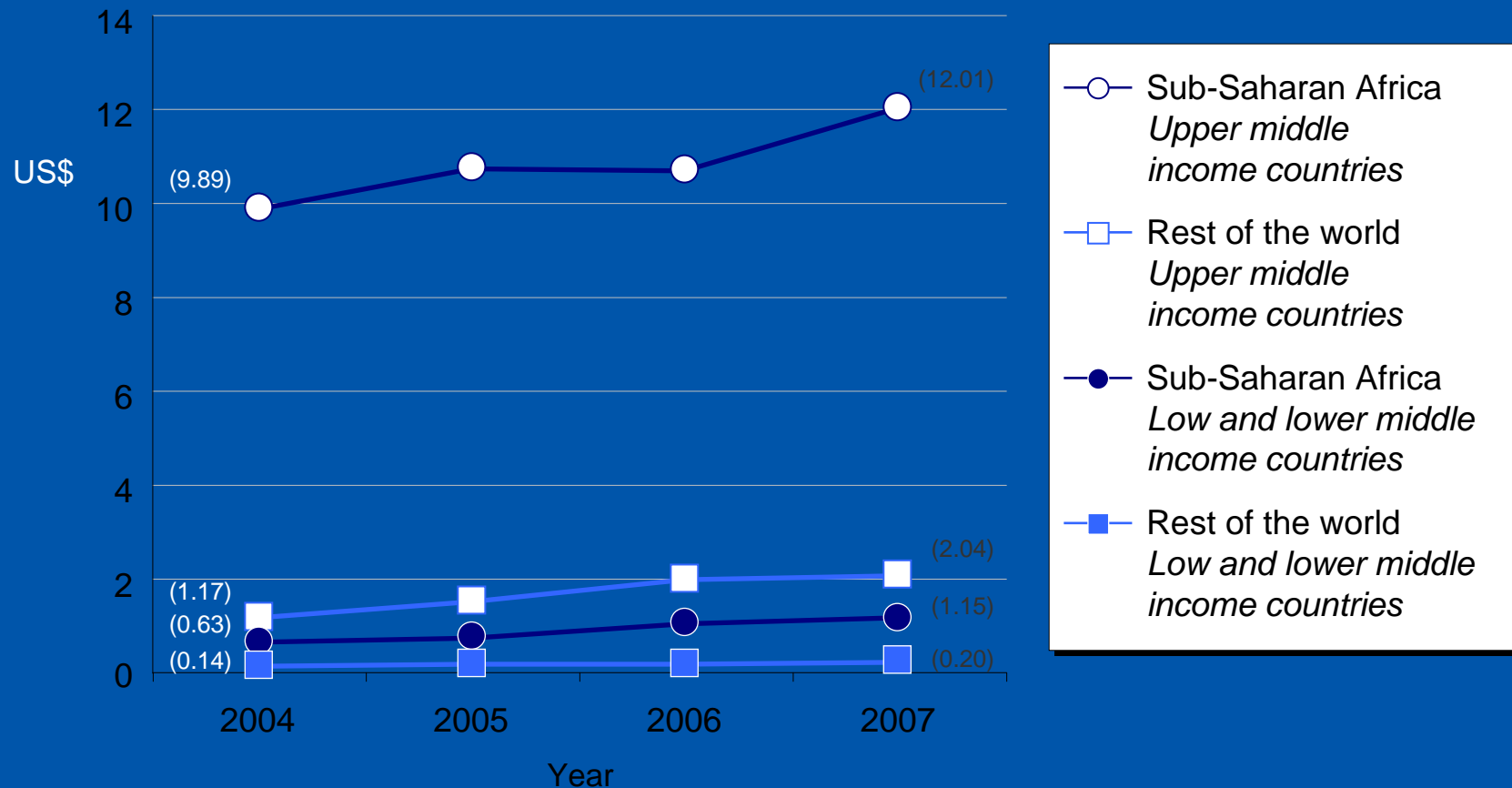
HIV prevalence (%) among 15–24 years old, by sex, selected countries, 2005–2007



HIV Prevalence by wealth status: men



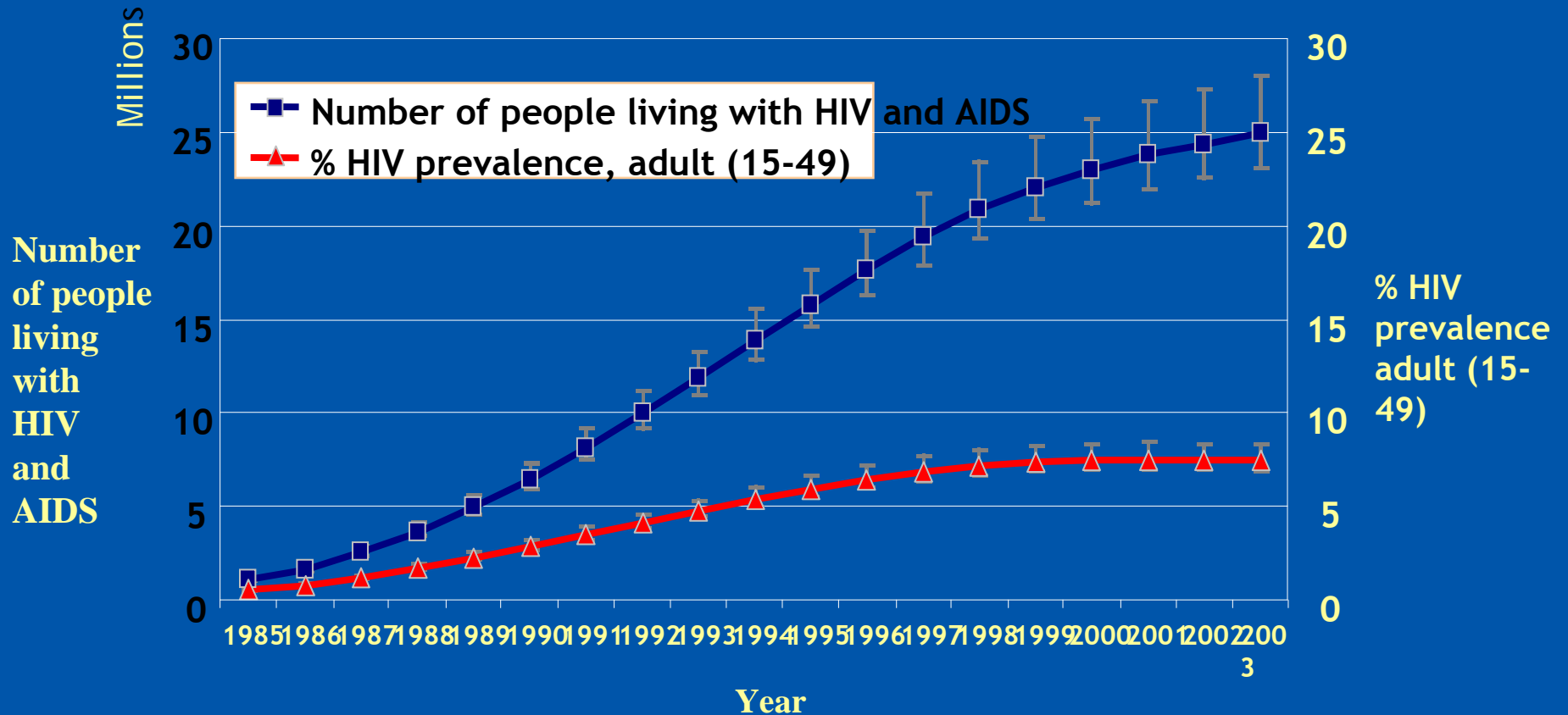
Per capita HIV expenditures from domestic public sources in low- and middle-income countries, 2004–2007



Differences in HIV among countries in Africa

- **HIV subtype(s)**
- **microbial flora and STD**
- **cultural-behavioral factors and transmission**
- **Opportunistic infection(s).**
- **Political and social approach to the epidemic**
- **Age and maturity of the epidemic**

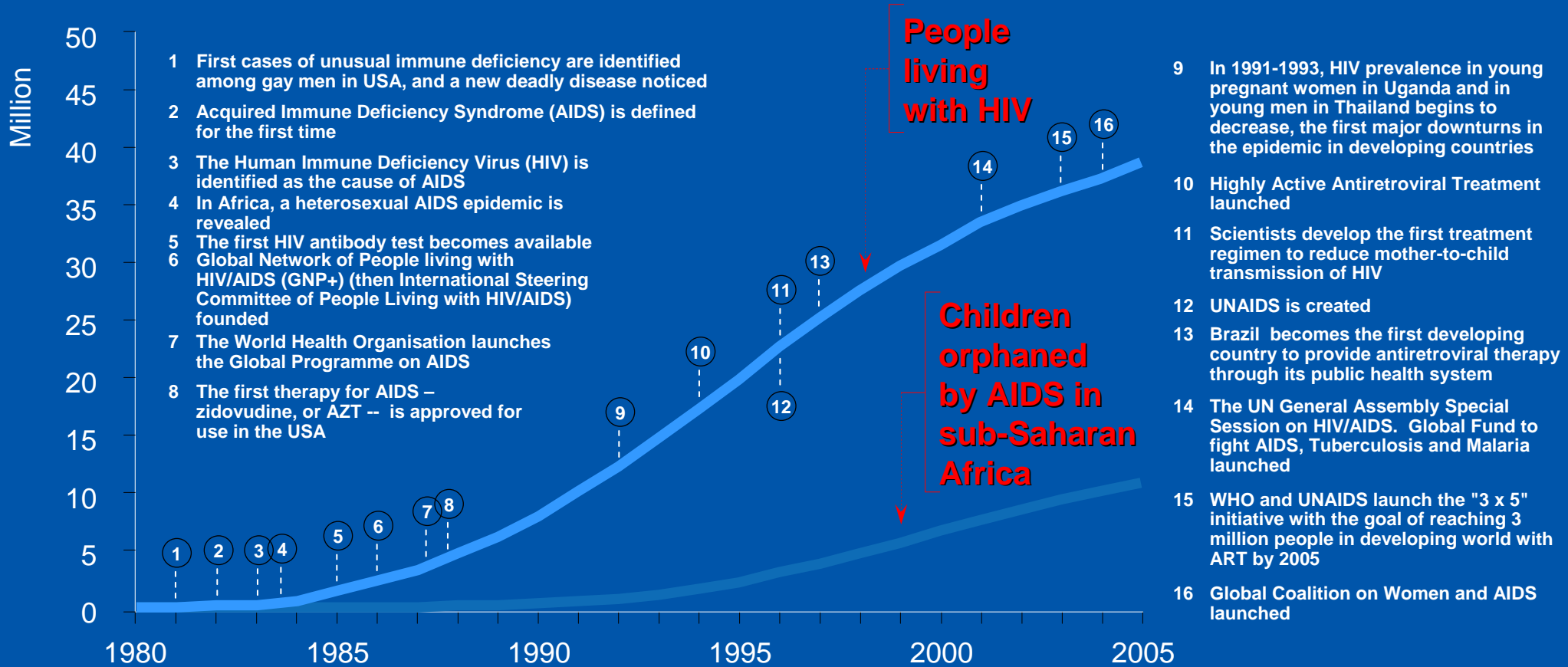
Epidemic in sub-Saharan Africa 1985–2003



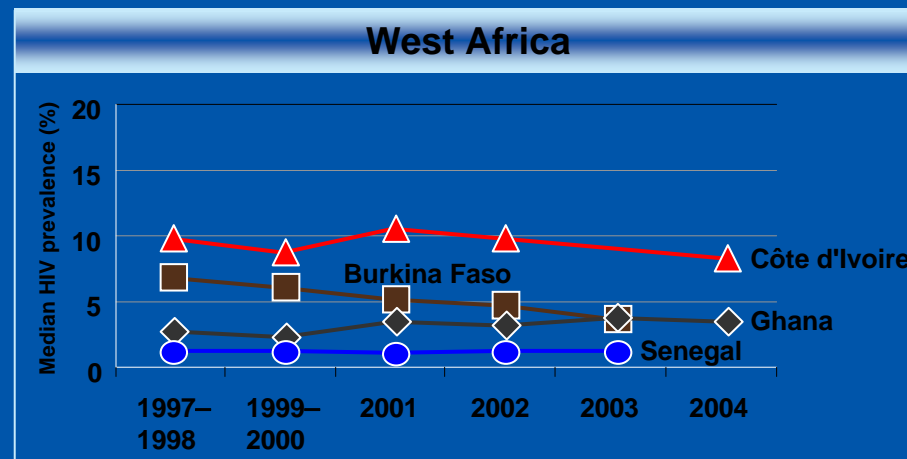
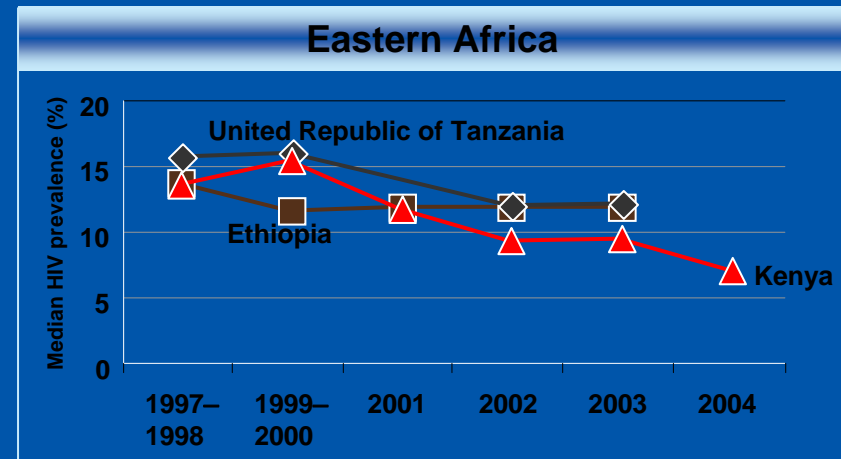
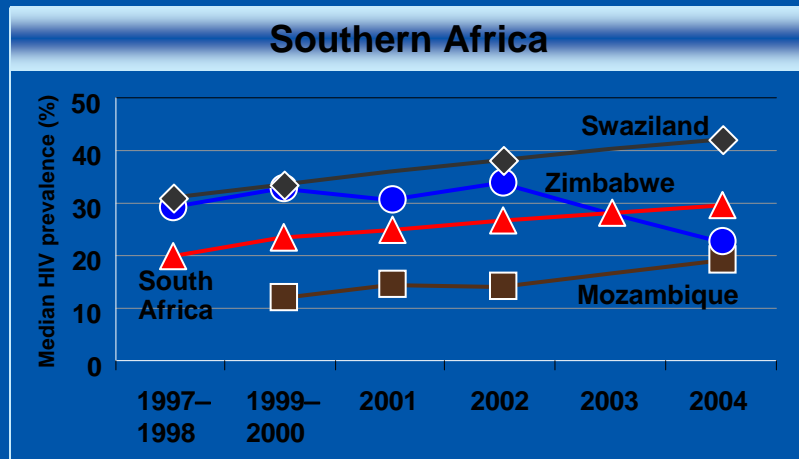
Source: UNAIDS/WHO, 2004

2004 Report on the Global AIDS Epidemic (Fig 5)

25 years of AIDS



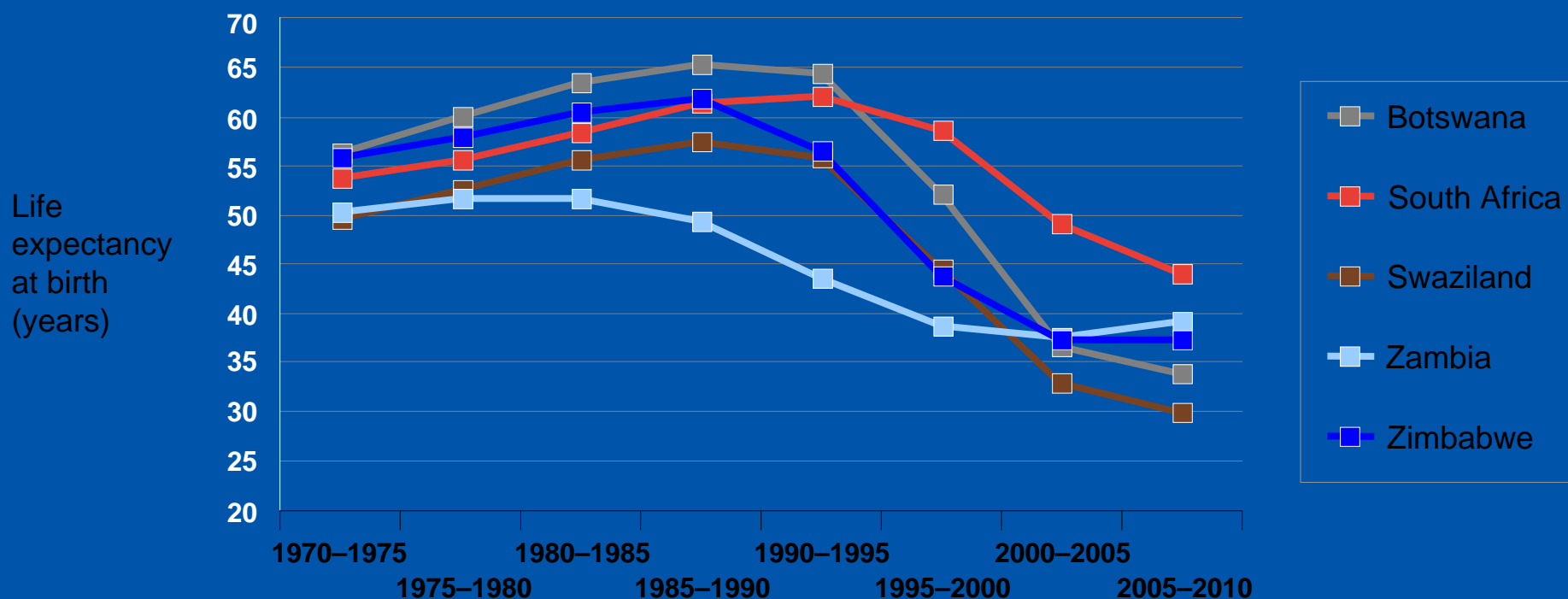
HIV prevalence (%) among pregnant women attending antenatal clinics in sub-Saharan Africa, 1997/98–2004



Note: Analysis restricted to consistent surveillance sites for all countries except South Africa (by province) and Swaziland (by region)

Sources: Ministry of Health (Mozambique); Department of Health (South Africa); Ministry of Health and Social Welfare (Swaziland); Ministry of Health and Child Welfare (Zimbabwe); Adapted from Asamoah-Odei, et al. HIV prevalence and trends in sub-Saharan Africa: no decline and large subregional differences. *Lancet*, 2004 (Ethiopia); Ministry of Health—National AIDS/STD Control Programme (Kenya); Ministry of Health (United Republic of Tanzania); Conseil national de lutte contre le sida et les IST (Burkina Faso); Centers for Disease Control and Prevention (CDC)—GAP—Côte d'Ivoire (Côte d'Ivoire); Ghana Health Service (Ghana); Conseil National de Lutte Contre le SIDA (Senegal).

Impact of AIDS on life expectancy in five African countries, 1970–2010



Source: United Nations Population Division (2004). World Population Prospects: The 2004 Revision, database.

Adult (aged 15–49 years) HIV prevalence (%) in countries in sub-Saharan Africa which have conducted population-based HIV surveys in recent years

	Median HIV prevalence (%) among women attending antenatal clinics 2003–2004*	Population-based survey prevalence (%) (year)	2003 HIV prevalence (%) reported in 2004 Report on the global epidemic	Adjusted 2003 HIV prevalence (%) in current report	2005 HIV prevalence (%) in current report	Trend in prevalence
Botswana	38.5	25.2 (2004)	38.0	24.0	24.1	Stable
Burkina Faso	2.5	1.8 (2003)	4.2	2.1	2.0	Decline in urban areas
Burundi	4.8	3.6 (2002)	6.0	3.3	3.3	Decline in capital city
Cameroon	7.3†	5.5 (2004)	7.0	5.5	5.4	Stable
Ethiopia	8.5	1.6 (2005)§	4.4	(1.0–3.5)	(0.9–3.5)	Decline in urban areas
Ghana	3.1	2.2 (2003)	3.1	2.3	2.3	Stable
Guinea	4.2	1.5 (2005)	2.8	1.6	1.5	Stable
Lesotho	28.4	23.5 (2004)	29.3	23.7	23.2	Stable
Rwanda	4.6	3.0 (2005)	5.1	3.8	3.1	Decline in urban areas
Senegal	1.9	0.7 (2005)	0.8	0.9	0.9	Stable
Sierra Leone	3.0	1.5 (2005)	-	1.6	1.6	Stable
South Africa	29.5	16.2 (2005)	20.9	18.6	18.8	Increasing
UR Tanzania	7.0	7.0 (2004)	9.0	6.6	6.5	Stable
Uganda	6.2‡	7.1 (2004–5)	4.1	6.8	6.7	Stable

* WHO Africa (2005). HIV/AIDS epidemiological surveillance report for the WHO African region, 2005 Update. Harare

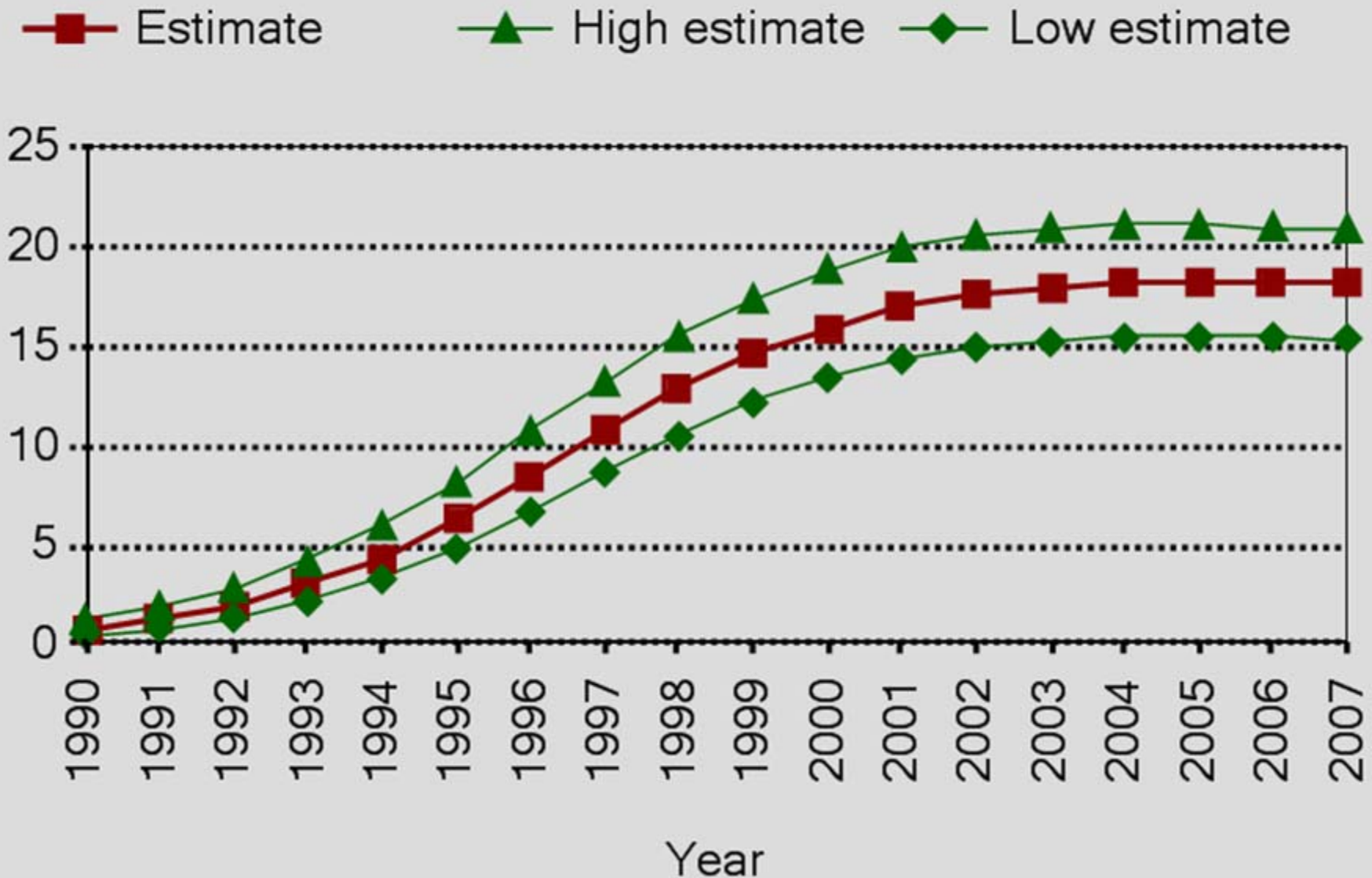
† Estimate based on country report for 2002 (2003). Ministry of Public Health Cameroon. National HIV sentinel surveillance report 2002.

‡ Estimate based on country report for 2002 (2003). Ministry of Health Uganda. STD/HIV/AIDS surveillance report. STD/AIDS control programme. Kampala

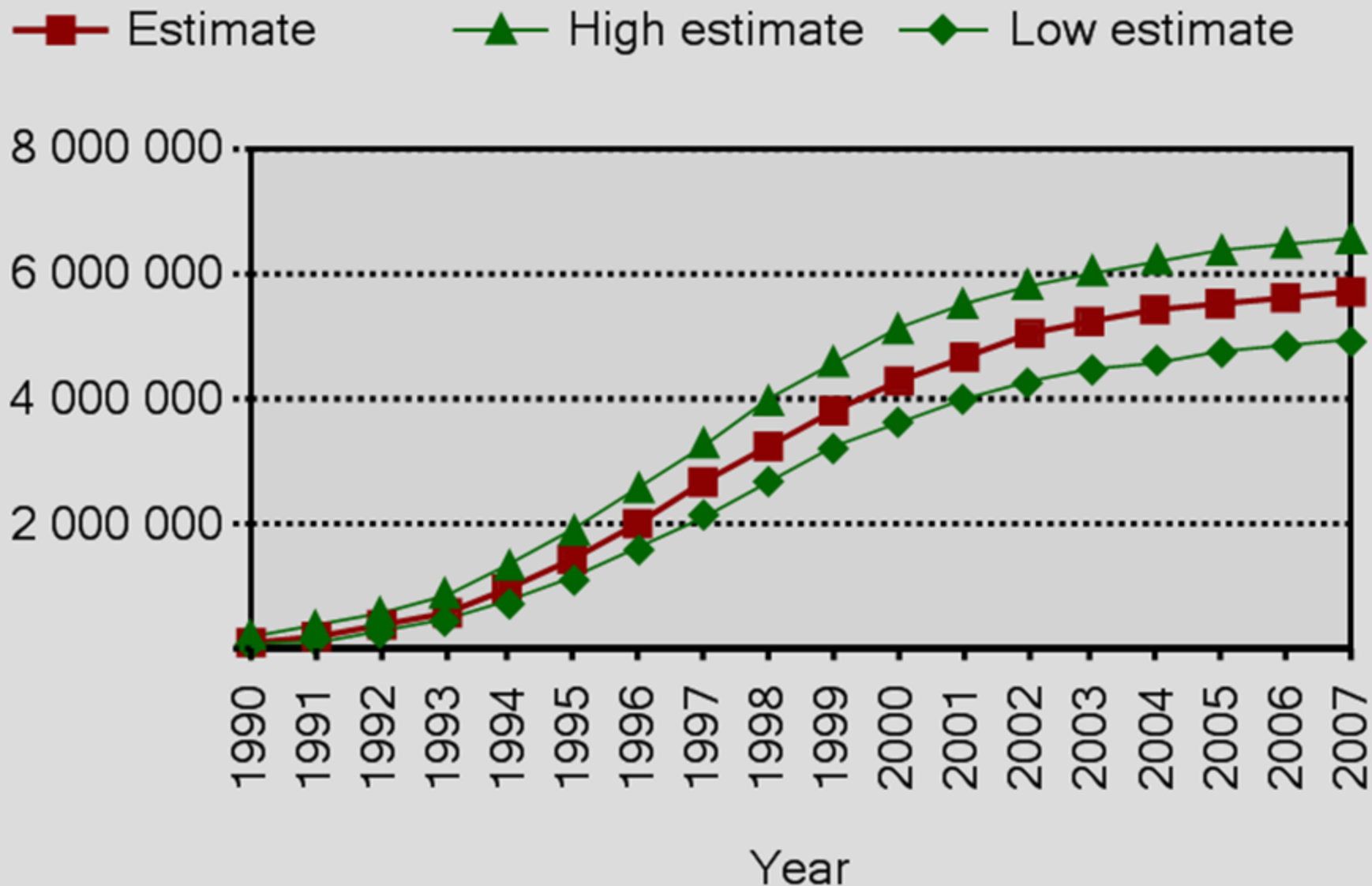
§ Preliminary result. Additional analysis is ongoing.

South Africa—

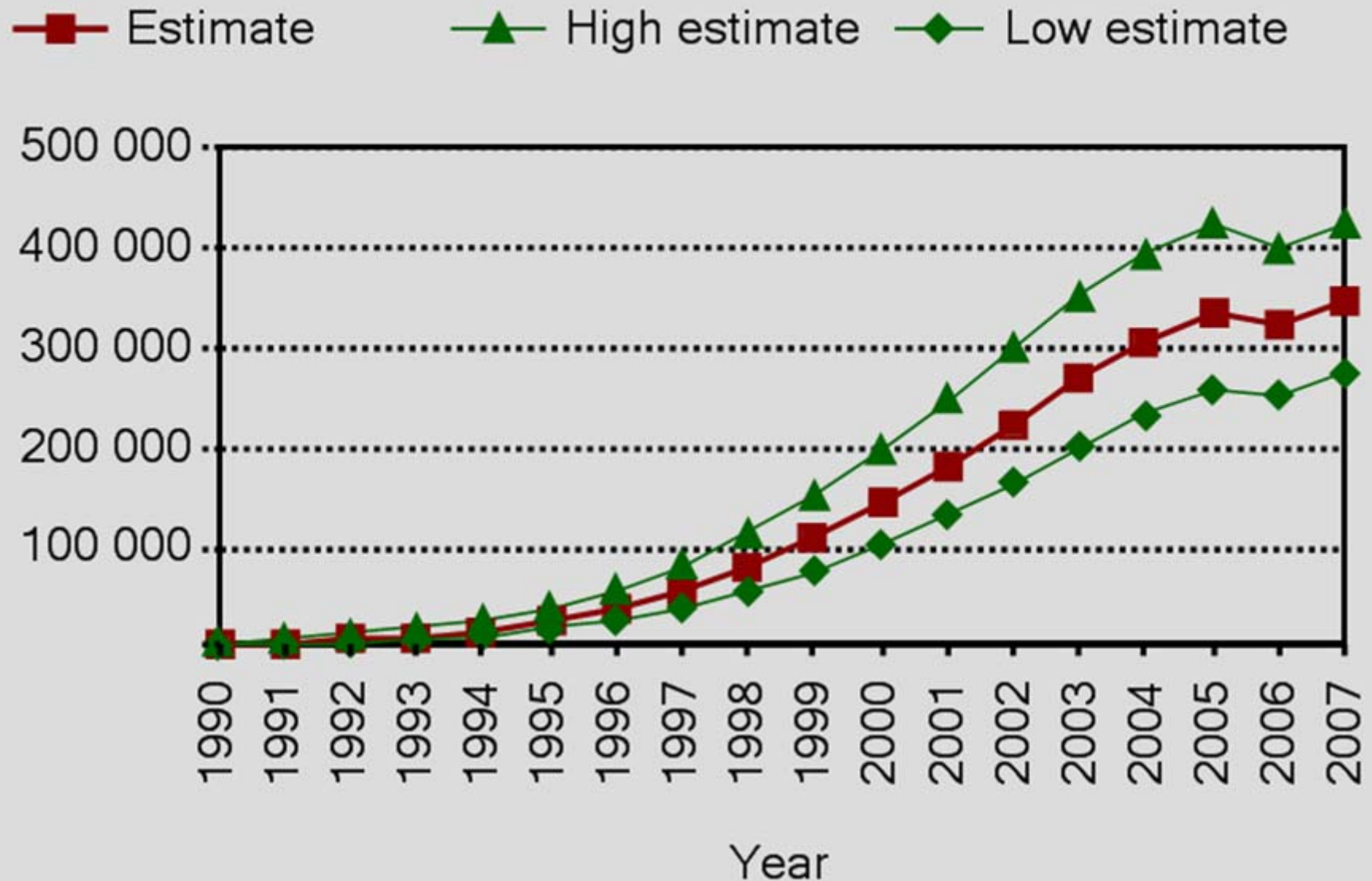
Estimated adult HIV (15-49) prevalence %



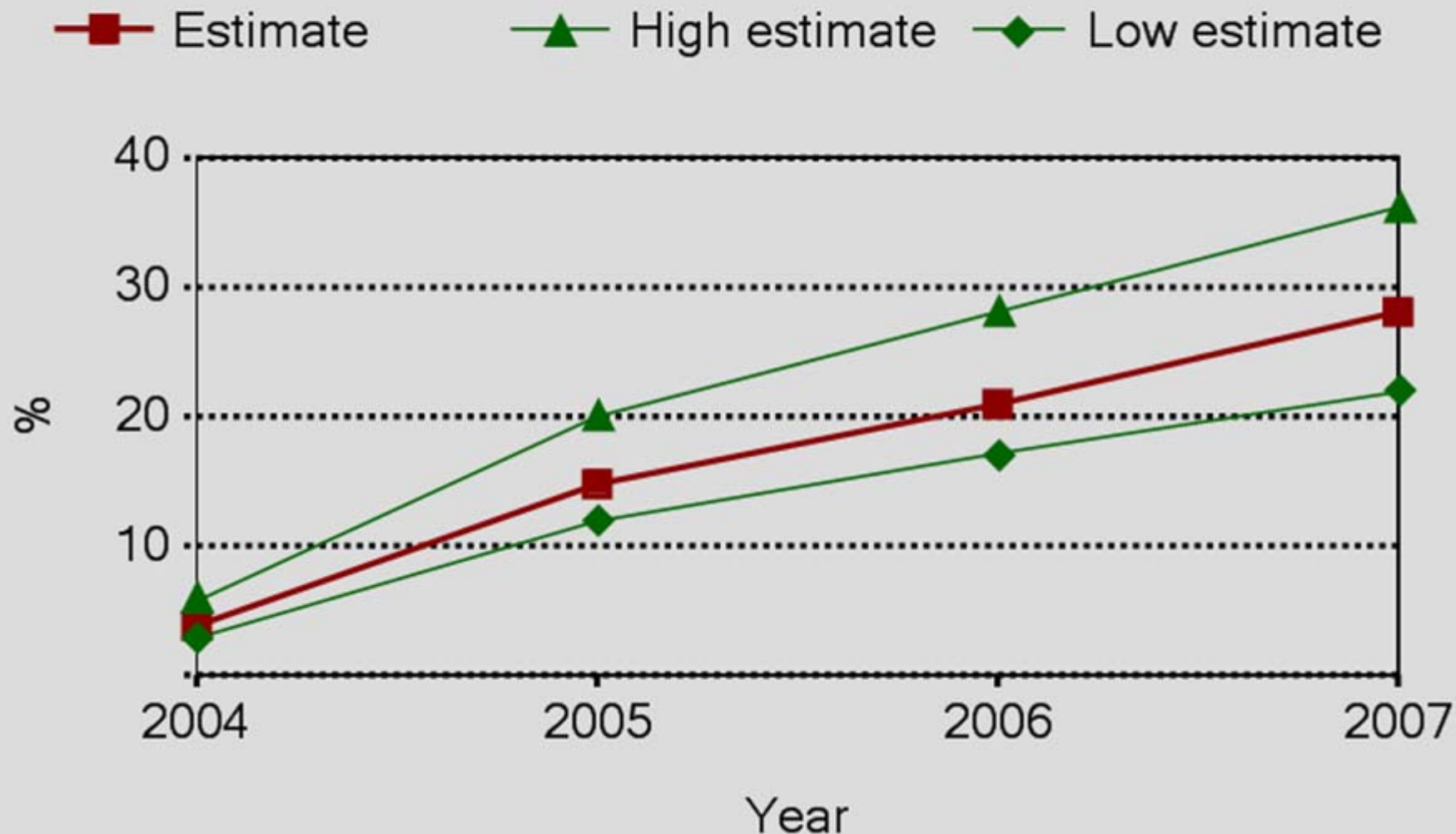
Number of people living with HIV



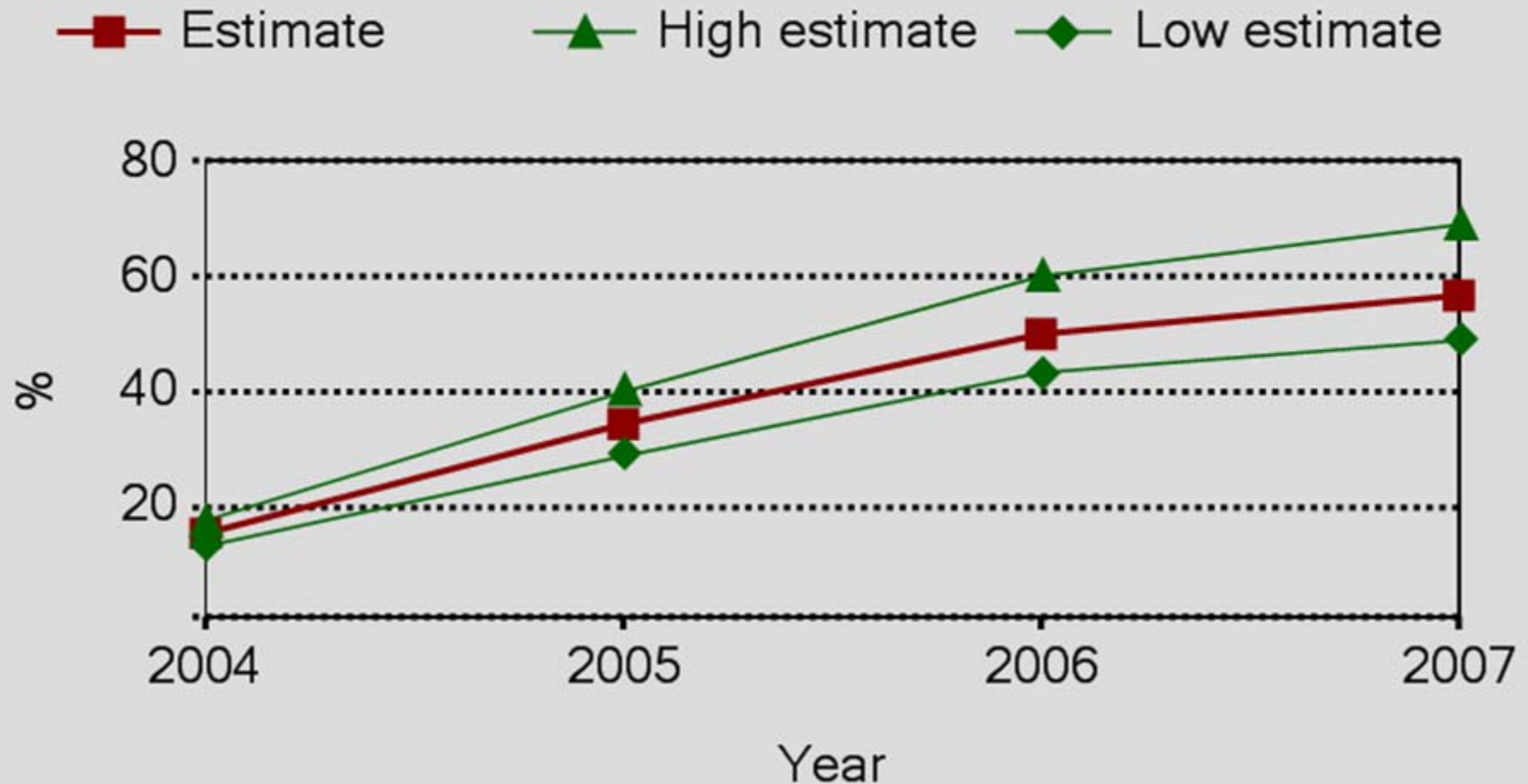
Annual number of AIDS deaths



Estimated antiretroviral therapy coverage (%)



Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission



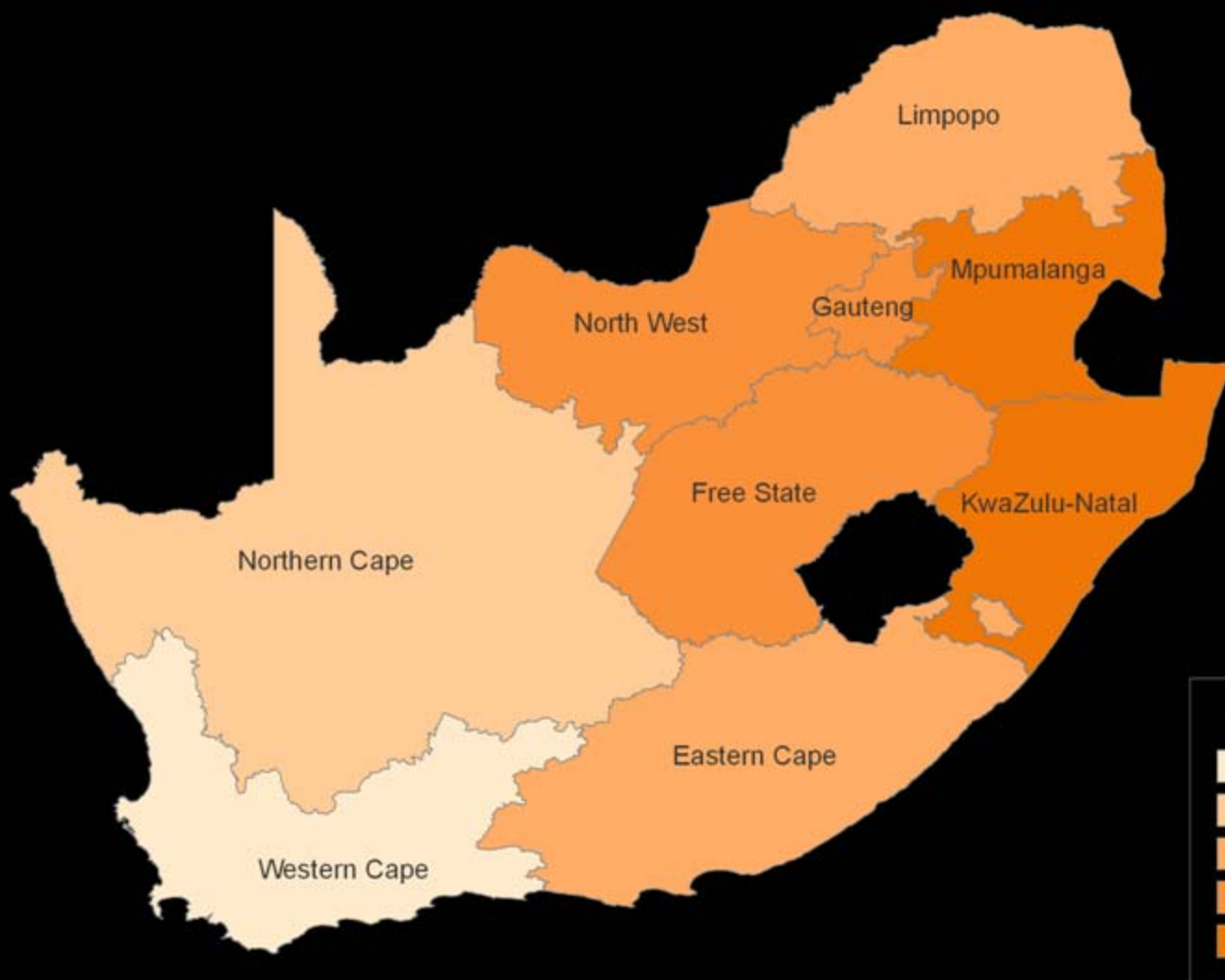
HIV prevalence among young people

South Africa 2007

	Male	Female
Prevalence among 14–24 year olds	4.0%	12.7%
Low estimate	1.7%	9.1%
High estimate	6.0%	17.0%

Source: UNAIDS/WHO, 2008

Age (age 15-49 years) Prevalence of Sexual Activity Practices
 Population-based survey, 2005



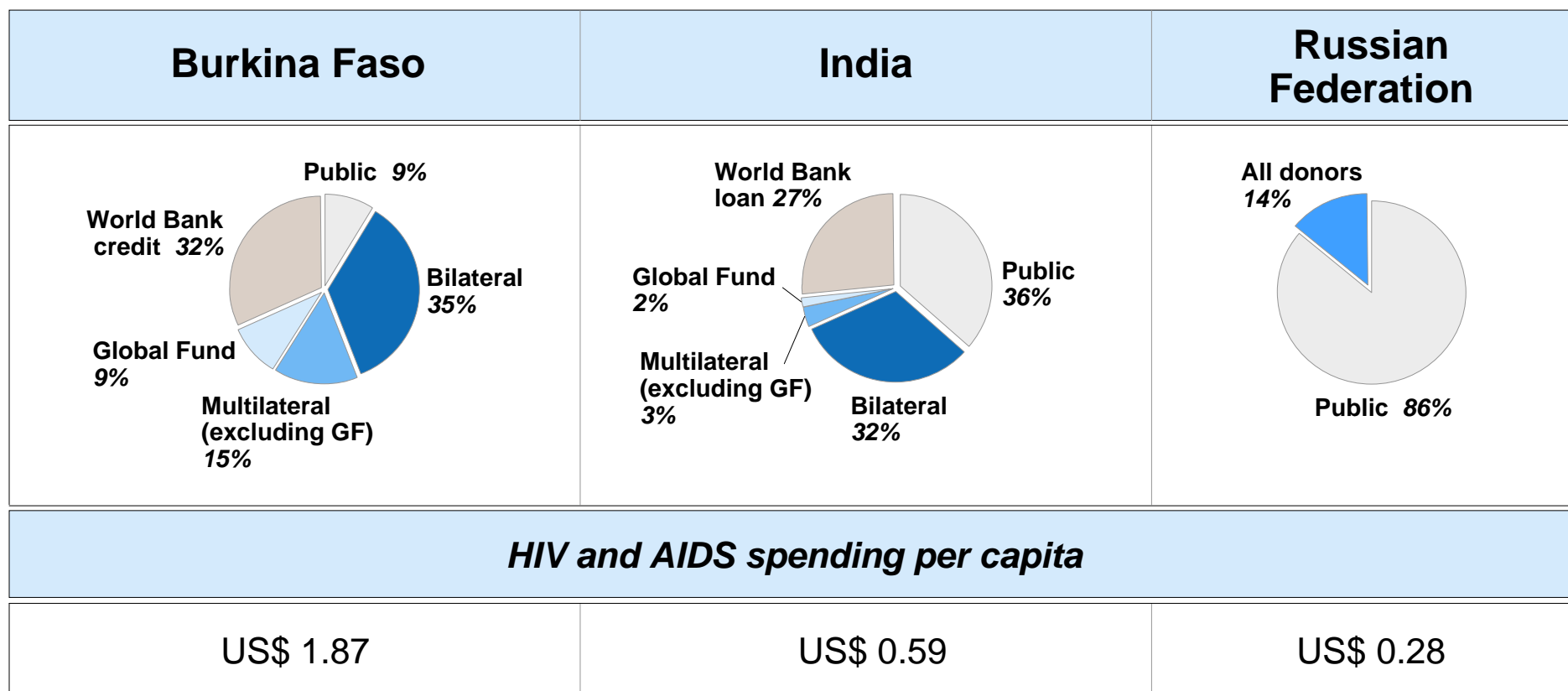
Prevalence of sexual activity practices by province, 2005. The map shows that the prevalence of sexual activity practices is highest in the Gauteng, Mpumalanga, and North West provinces, and lowest in the Northern Cape province. The prevalence of sexual activity practices is also higher in the Eastern Cape province compared to the Western Cape province.

Source: Statistics South Africa, 2005. The data is based on the 2005 National Demographic and Health Survey (NDHS) conducted by the National Institute for Demographic and Health Research (NIDHR) in partnership with the South African Medical Research Council (SAMRC).

World Health Organization
 The World Health Organization (WHO) is a specialized agency of the United Nations that is concerned with international public health. It is the directing and coordinating authority on international health, and its primary objective is the attainment by all peoples of the highest possible level of health.

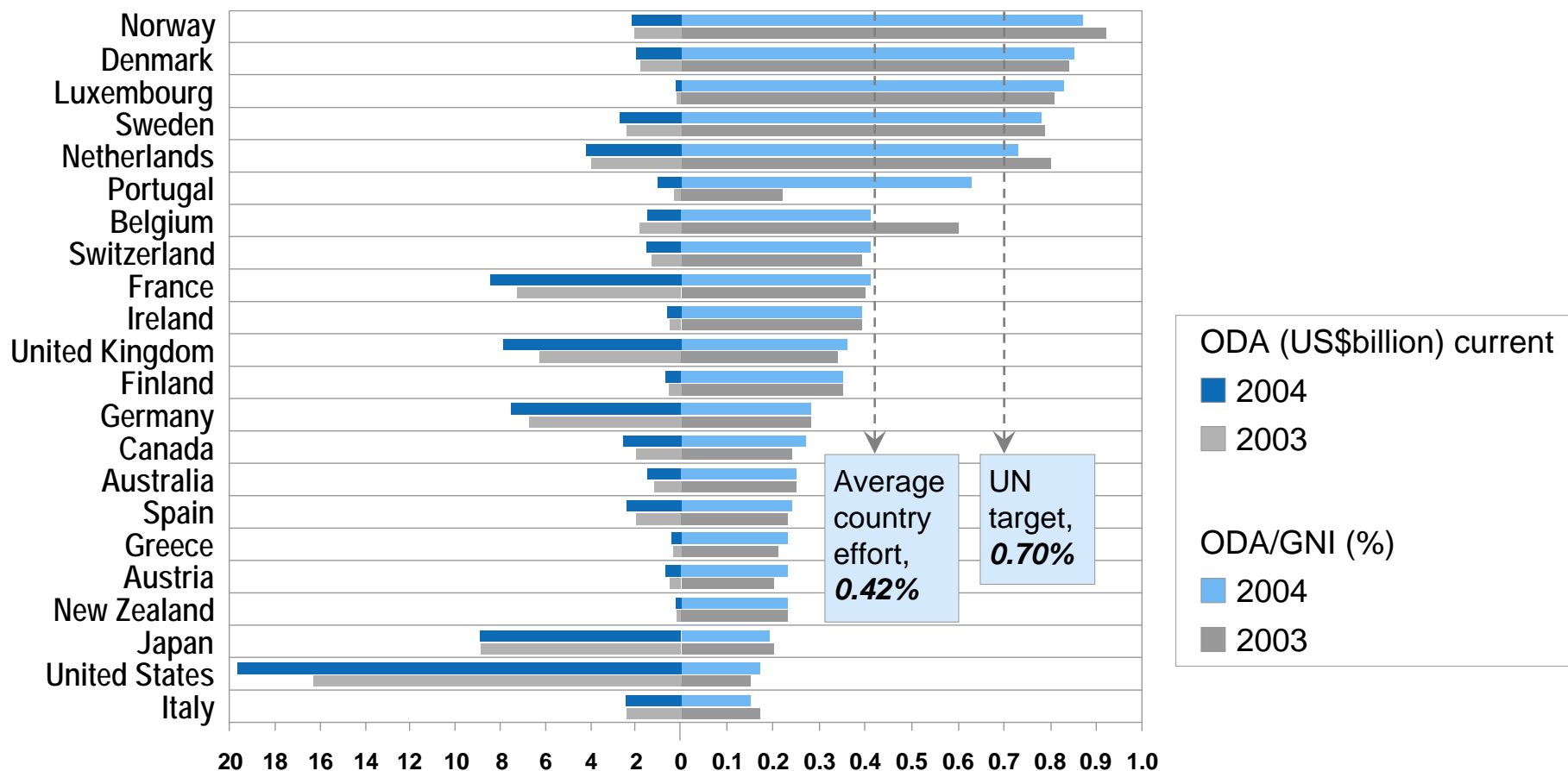
A quick look at the foreign aid
situation—

Sources of HIV spending in three countries, 2004



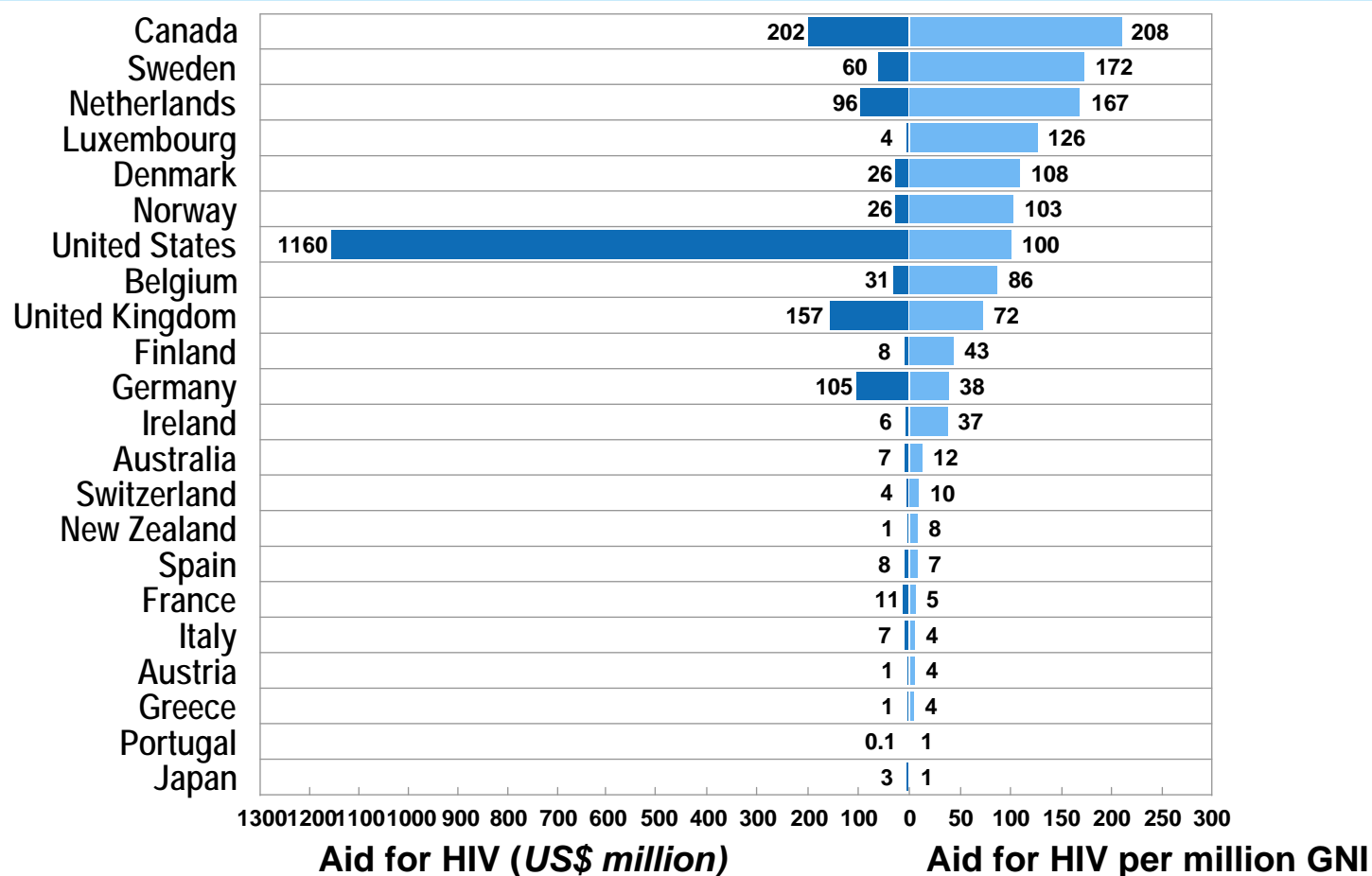
Source: UNAIDS, based on National AIDS Spending Assessments.

DAC member's Official Development Assistance in 2003 and 2004



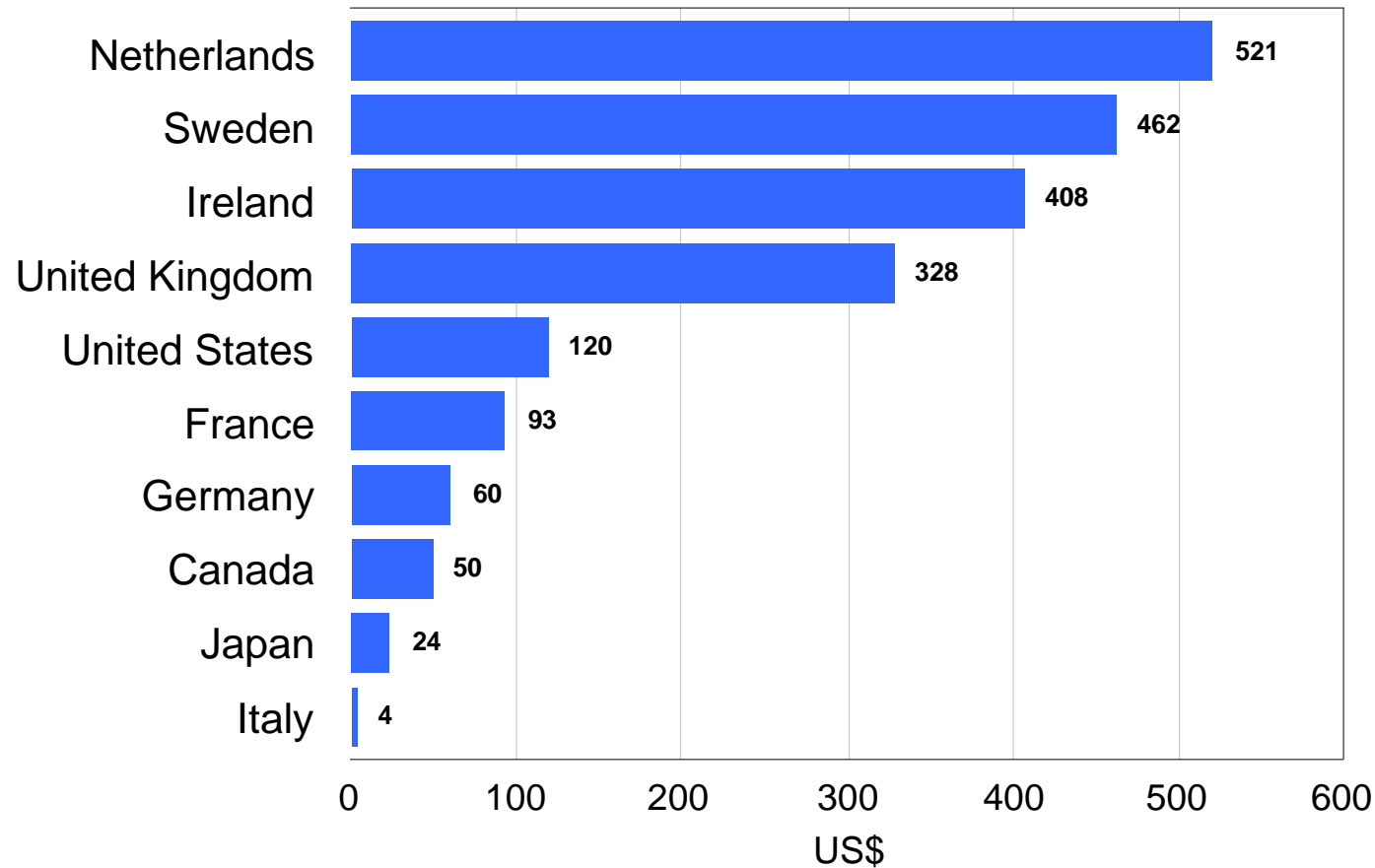
Source: Organisation for Economic Co-operation and Development (2005).

DAC members' Official Development Assistance committed to HIV in 2004



Source: UNAIDS, based on data from DAC members' reports to OECD.

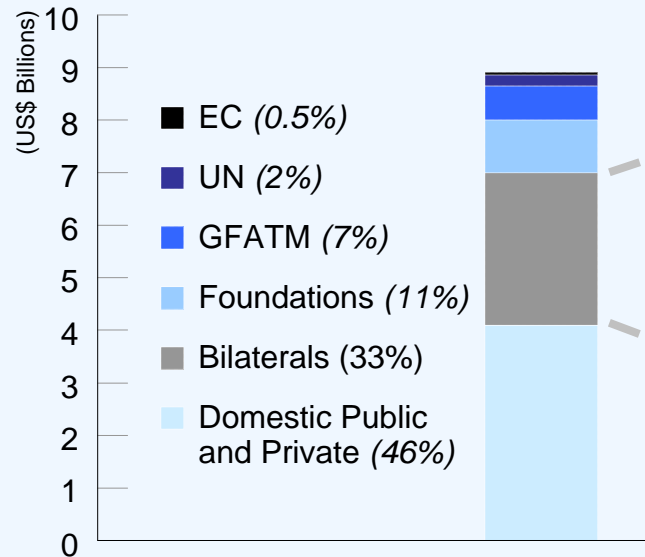
Disbursements for HIV per US\$ 1 Million GDP, 2006



Sources: UNAIDS and Kaiser Family Foundation analysis, June 2007; Global Fund to Fight AIDS, Tuberculosis and Malaria online data query May 2007; International Monetary Fund, World Economic Outlook Database, April 2007.

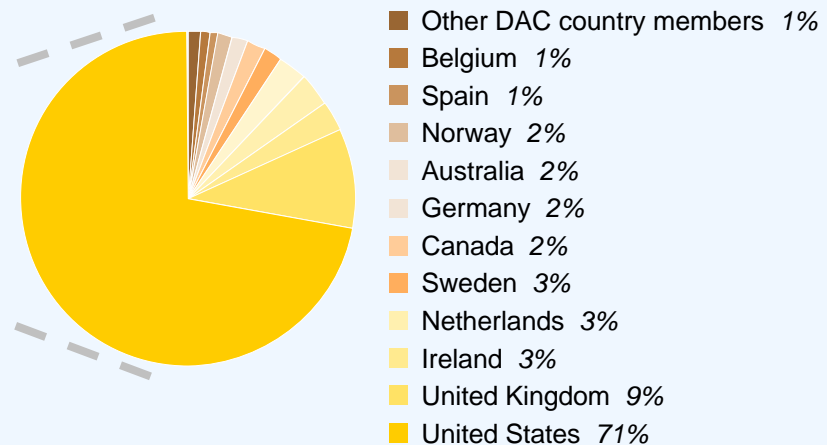
Resources available to HIV-related programmes by source and bilateral disbursements, 2006

Total Resource availability for HIV-related programmes in 2006 (US\$ Billions)



Total resources available: US\$8.9 Billion

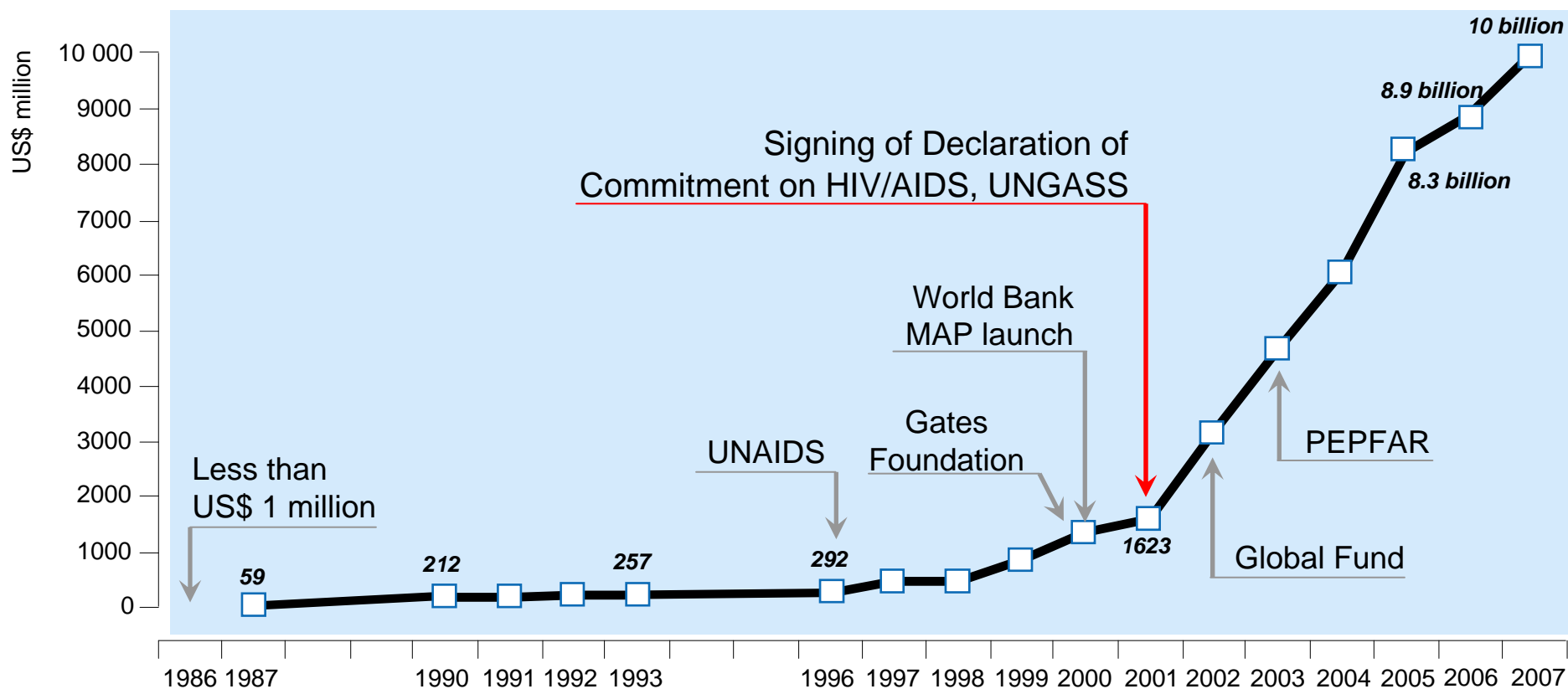
Bilateral disbursements to HIV-related programmes in 2006



Percentage out of the total bilateral disbursements
Total Bilateral disbursements 2006: US\$ 2.9 Billion

The organizational disbursements are different than commitments or obligations, as well as different from in-country expenditures

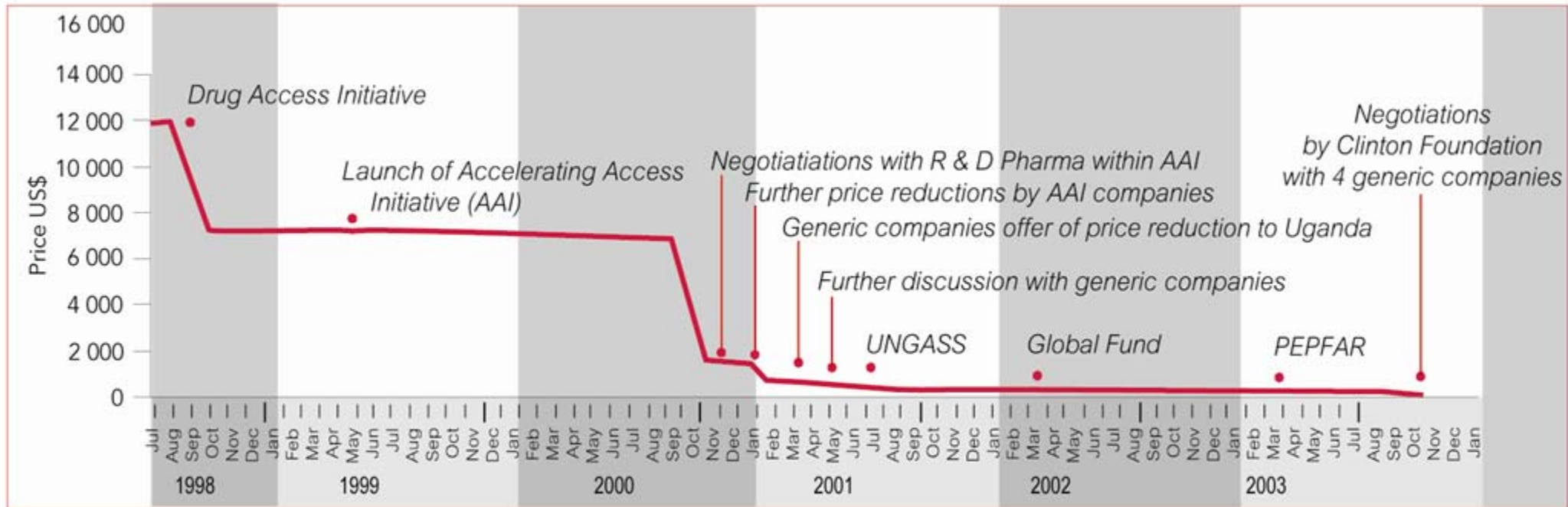
Total annual resources available for AIDS 1986–2007



Notes: [1] 1986-2000 figures are for international funds only; [2] Domestic funds are included from 2001 onwards

[i] 1996-2005 data: Extracted from 2006 Report on the Global AIDS Epidemic (UNAIDS, 2006); [ii] 1986-1993 data: Mann & Tarantola, 1996

Drug prices fall



Prices (US\$/year) of first-line antiretroviral regimen in Uganda: 1998-2003

HIV/AIDS can no longer be
considered primarily a medical
problem—

From Health Issue to Development Crisis

- **Destruction of social capital**
 - Knowledge base of society
 - Production sectors: agriculture, industry
- **Weakening of institutions**
 - Governance, civil service, judiciary, armed forces, education, health
 - Inhibition of private sector growth
- **Wider, deeper poverty**

Notwithstanding the image of
crisis, there have been some
successes—



Notwithstanding the image of crisis, there have been some successes—

- Uganda

- Sênégâl



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- ◊ public recognition of HIV/AIDS, public discussion



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- ◆ HIV/AIDS as a family or community, rather than individual, issue



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- ◊ registration of prostitutes → free regular medical care → reduction in STDs → reduced transmission of HIV/AIDS



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- ✧ public recognition of HIV/AIDS, public discussion
- ✧ HIV/AIDS as a family or community, rather than individual, issue

- Sénégal

- ✧ registration of prostitutes → free regular medical care → reduction in STDs → reduced transmission of HIV/AIDS

- For both Uganda and Sénégal

- ✧ type and strain of HIV

The skeptics—



Is there an AIDS crisis in Africa? A pandemic?



Is there an AIDS crisis in Africa? A pandemic?

- Skepticism about measurement, data, assumptions



Is there an AIDS crisis in Africa? A pandemic?

- Skepticism about measurement, data, assumptions
- Critics:
 - ◆ There is no AIDS



Is there an AIDS crisis in Africa? A pandemic?

- Skepticism about measurement, data, assumptions
- Critics:
 - ◆ There is no AIDS
 - ◆ HIV does not cause AIDS

The Ethics of Medical Experiments—



How to decide which treatment(s) to use?



How to decide which treatment(s) to use?

- Double-blind tests



How to decide which treatment(s) to use?

- Double-blind tests
 - ◇ On whom?



How to decide which treatment(s) to use?

- Double-blind tests
 - ◇ On whom?
 - ◇ Under what circumstances?



How to decide which treatment(s) to use?

- Double-blind tests
 - ◇ On whom?
 - ◇ Under what circumstances?
- Ethics of medical testing

Policy Challenges—



Policy Challenges

1. Government role



Policy Challenges

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2. Access to medical care, both preventive and curative,
including drugs



Policy Challenges

1. Government role
2. Access to medical care, both preventive and curative, including drugs
3. Data gathering: what? by whom? how? accessible to whom?



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HIV AND AIDS IN AFRICA

Public Policy Issues and Foreign Roles

Joel Samoff