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**WORKSHOP ON HIV/AIDS AND ADULT MORTALITY
IN DEVELOPING COUNTRIES**

Population Division
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**A HISTORY OF THE HIV/AIDS EPIDEMIC WITH
EMPHASIS ON AFRICA ***

UNAIDS and WHO **

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1 History of the HIV/AIDS epidemic with emphasis on Africa

In 1981, a new syndrome, the acquired immune deficiency syndrome (AIDS), was first recognized among homosexual men in the United States. By 1983, the etiological agent, the human immunodeficiency virus (HIV), had been identified. By the mid-1980's, it became clear that the virus had spread, largely unnoticed, throughout most of the world.

The HIV/AIDS pandemic consists of many separate epidemics. Each epidemic has its own distinct origin, in terms of geography and specific populations affected, and involve different types and frequencies of risk behaviors and practices, for example, unprotected sex with multiple partners or sharing drug injection equipment.

Countries can be divided into three states: generalized, concentrated and low.

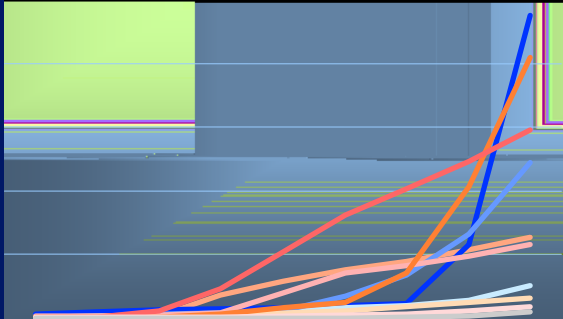
Low

Principle: Although HIV infection may have existed for many years, it has never spread to significant levels in any sub-population. Recorded infection is largely confined to individuals with higher risk behaviour: e.g. sex workers, drug injectors, men having sex with other men. This epidemic state suggests that networks of risk are rather diffuse (with low levels of partner exchange or sharing of drug injecting equipment), or that the virus has been introduced only very recently.

Numerica

France, Germany and the United Kingdom, it is through men who have sex with men. By the early 1990's, the United States reported that among adults, 57 percent of AIDS cases were infected through male-to-male sex

Data on newly diagnosed HIV infections are now being used to track the HIV epidemic in Europe and provide more relevant information on the current HIV situation since the widespread use of highly active antiretroviral treatment (HAART) in 1996. The number of AIDS 95 633.9608 Tm(rs522csu 0 0 10.0



Thailand, which has experienced what is probably the best-documented epidemic in the developing world, began showing evidence of a fall in new infections, especially among sex workers and their clients. But Thailand is still one of the only three countries, including Cambodia and Myanmar with HIV prevalence among 15-49 year olds over 1%.

Lesotho, Swaziland have selected clinics located in a city/large town as well as nearby smaller health facilities in the same district to constitute a "sentinel site". South Africa uses probability proportional to size sampling to select sentinel sites with each public health facility in the province acting as a sampling unit with about 400 sites participating in each round of survey. Each site enrolls a minimum of 40 pregnant women.

Quality of Surveillance Systems

The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance has developed coding schemes to represent four dimensions related to the quality of surveillance systems:

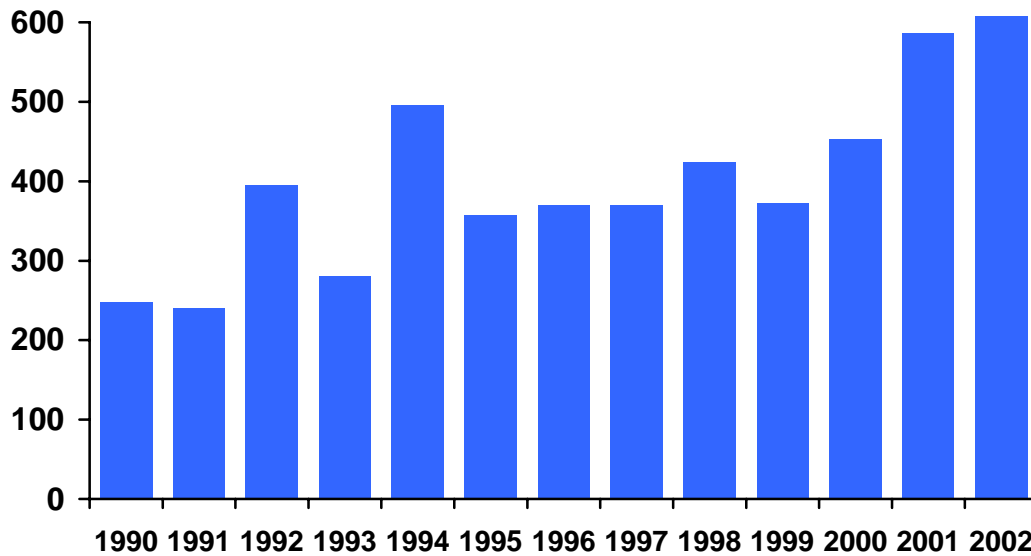


WHO African Region

1,650 Kilometers

Several countries increased the number of antenatal clinics in the surveillance system to obtain better coverage of rural population, where almost two-thirds of the population in the region lives. Until recently, most clinics were located in urban and semi-urban areas. The number of clinics participating in the surveillance in 2001 and 2002 was considerably higher than during the nineties (Figure 2).

Figure 2 Number of sentinel antenatal clinics reporting HIV prevalence, WHO African Region, 1990-2002



Most countries with limited surveillance in recent years experienced political instability, such as Congo, th

Table 1. HIV surveillance activity in the WHO African Region, by country, from 2000

	Total population (thousands)	Urban population (%)	ANC coverage (%)	Year of last ANC round (from 2000)	No. of ANC sites	Year of last national HIV survey	HIV data available on young people
Southern Africa	118,484	42					
Angola	13,184	35	n.a.	2002	10	—	N
Botswana	1,770	49	97	2002	22	—	Y
Lesotho	1,800	29	88	2003	6	—	Y
Malawi	11,871	15	90	2001	19	—	Y

	Total population (thousands)	Urban population (%)	ANC coverage (%)	Year of last ANC round (from 2000)	No. of ANC sites	Year of last national HIV survey	HIV data available on young people
Sierra Leone	4,764	37	86	—	—	2001	N
Togo	4,801	34	82	2000	2	—	N
Indian Ocean	18,953	31					
Comoros	747	34	74	—	—	—	N
Madagascar	16,916	30	73	—	—	—	N
Mauritius	1,210	42	n.a.	—	—	—	N
Seychelles	80	65	n.a.	—	—	—	N
AFRO	672,235	36					

ANC, antenatal clinic; AFRO, WHO African Region.

n.a., data not available; —, no survey carried out; Y, yes; N, no.

Source: Population data from United Nations Population Division, 2002; ANC coverage from UNICEF, 2002, and DHS surveys.

In Recent years many countries in the region have made progress in establishing second generation surveillance systems. Such systems not only include HIV surveillance tailored to the type of epidemic, but also make efforts to measure levels and trends in other sexually transmitted infections (STIs) and in sexual risk behaviours.

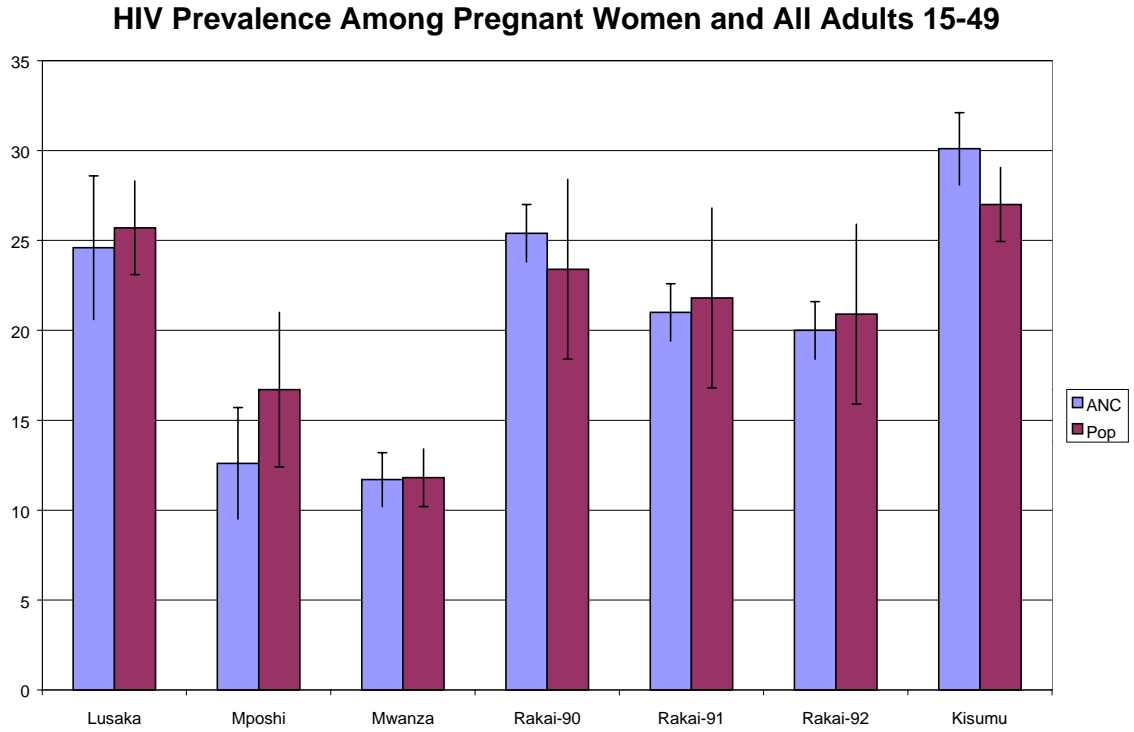
3 Estimating HIV Prevalence over time in Countries with Generalized Epidemics

In countries with generalized epidemics, the procedures use HIV prevalence in pregnant women to approximate prevalence in all adults, male and female, between the ages 15-49. Estimates of HIV prevalence among pregnant women and in community surveys among all men and women aged 15-49 are available from a number of sites.

Prevalence in pregnant women is a good proxy measure of adult prevalence. Prevalence data from pregnant women are sorted into two geographic categories: major urban areas and outside major urban areas. Epidemic curves are then fit to these data sets using the UNAIDS Estimation and Projection Package (EPP).

The fitted curves give yearly HIV point prevalence estimates for urban and non-urban areas. The actual prevalence used for the non-urban areas is adjusted as many countries' surveillance systems do not cover rural areas well. It is assumed that HIV prevalence is lower in rural areas and therefore if a country's system does not reflect the population in those areas the non-urban prevalence produced by EPP is adjusted downwards by 20% to reflect this bias.

Figure 3



Adjusted HIV prevalence in pregnant women in urban and rural areas is applied to the population (15-49) in urban and non-urban areas to produce estimates of the number of adults living with HIV/AIDS in the two areas. When combined this gives the estimate of adults living with HIV/AIDS in the country.