Universal Access
Challenges in Africa

ASAP Regional Training on Strategic and Operational Planning in HIV and AIDS, 5-16 November, Durban, South Africa

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Director, UNAIDS RST for Eastern and Southern Africa
Overview

- Epidemic update
- Digging deeper (Stef)
- Promises
- Gaps
- Challenges
HIV prevalence in adults, 2005

38.6 million people [33.4–46.0 million] living with HIV, 2005
# Lives touched by AIDS, global estimates, 2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2006</th>
</tr>
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<tbody>
<tr>
<td>People living with HIV</td>
<td>36.2 million</td>
<td>39.5 million</td>
</tr>
<tr>
<td></td>
<td>[31.44 to 39.55]</td>
<td>[34.1 to 47.1]</td>
</tr>
<tr>
<td>New HIV infections</td>
<td>3.9 million</td>
<td>4.3 million</td>
</tr>
<tr>
<td></td>
<td>[3.3 to 5.8]</td>
<td>[4.3 to 6.6]</td>
</tr>
<tr>
<td>Deaths due to AIDS</td>
<td>2.6 million</td>
<td>2.9 million</td>
</tr>
<tr>
<td></td>
<td>[2.2 to 3.1]</td>
<td>[2.5 to 3.3]</td>
</tr>
</tbody>
</table>
HIV prevalence in adults in sub-Saharan Africa, 1990–2005
Heterogeneity of epidemics
HIV prevalence in 3 cities

Manzini, Swaziland
Kampala, Uganda
Dakar, Senegal
Estimated number of adults and children living with HIV by region, 1986-2005

Making a difference in Africa makes a global difference

Source: WHO/UNAIDS, 2006
In sub-Saharan Africa, national surveys have lead to improved understanding and estimates

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>38.5</td>
<td>25.2 (2004)</td>
<td>38.0</td>
<td>24.0</td>
<td>24.1</td>
<td>Stable</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>2.5</td>
<td>1.8 (2003)</td>
<td>4.2</td>
<td>2.1</td>
<td>2.0</td>
<td>Decline in urban areas</td>
</tr>
<tr>
<td>Burundi</td>
<td>4.8</td>
<td>3.6 (2002)</td>
<td>6.0</td>
<td>3.3</td>
<td>3.3</td>
<td>Decline in capital city</td>
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<tr>
<td>Cameroon</td>
<td>7.3†</td>
<td>5.5 (2004)</td>
<td>7.0</td>
<td>5.5</td>
<td>5.4</td>
<td>Stable</td>
</tr>
<tr>
<td>Chad</td>
<td>4.6</td>
<td>3.3 (2005)‡</td>
<td>4.9</td>
<td>3.4</td>
<td>3.5</td>
<td>Stable</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>8.5</td>
<td>1.6 (2005)§</td>
<td>4.4</td>
<td>(1.0–3.5)</td>
<td>(0.9–3.5)</td>
<td>Decline in urban areas</td>
</tr>
<tr>
<td>Ghana</td>
<td>3.1</td>
<td>2.2 (2003)</td>
<td>3.1</td>
<td>2.3</td>
<td>2.3</td>
<td>Stable</td>
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<tr>
<td>Guinea</td>
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<td>1.5 (2005)</td>
<td>2.8</td>
<td>1.6</td>
<td>1.5</td>
<td>Stable</td>
</tr>
<tr>
<td>Lesotho</td>
<td>28.4</td>
<td>23.5 (2004)</td>
<td>29.3</td>
<td>23.7</td>
<td>23.2</td>
<td>Stable</td>
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<td>Rwanda</td>
<td>4.6</td>
<td>3.0 (2005)‡</td>
<td>5.1</td>
<td>3.8</td>
<td>3.1</td>
<td>Decline in urban areas</td>
</tr>
<tr>
<td>Senegal</td>
<td>1.9</td>
<td>0.7 (2005)‡</td>
<td>0.8</td>
<td>0.9</td>
<td>0.9</td>
<td>Stable</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>3.0</td>
<td>1.5 (2005)‡</td>
<td>-</td>
<td>1.6</td>
<td>1.6</td>
<td>Stable</td>
</tr>
<tr>
<td>South Africa</td>
<td>29.5</td>
<td>16.2 (2005)</td>
<td>20.9</td>
<td>18.6</td>
<td>18.8</td>
<td>Increasing</td>
</tr>
<tr>
<td>UR Tanzania</td>
<td>7.0</td>
<td>7.0 (2004)‡</td>
<td>9.0</td>
<td>6.6</td>
<td>6.5</td>
<td>Stable</td>
</tr>
<tr>
<td>Uganda</td>
<td>6.2‡</td>
<td>7.1 (2004–5)†</td>
<td>4.1</td>
<td>6.8</td>
<td>6.7</td>
<td>Stable</td>
</tr>
</tbody>
</table>


Source: 2006 Report on the global AIDS epidemic, UNAIDS
Estimated number of annual new infections and AIDS-related deaths among adults (15+) in relation to the stabilizing trend of estimated prevalence rate among adults (15–49), Lesotho, 1990–2005

Stocktake summary

- **Epidemic is slowing**, but infections continue to rise in southern Africa.

- **Treatment access is expanding but not rapidly enough**: need more attention to HR and health systems strengthening, community preparedness, treatment literacy, food security & nutrition, stigma.

- **Prevention efforts remain inadequate**: limited reach and effect of behaviour and social change efforts, slow PMTCT uptake.

- **OVC crisis is deepening, outpacing responses**: few countries have comprehensive strategies in place, coverage remains low.

- **Response is uneven** country-by-country, and within countries: i.e. prevention/treatment/mitigation balances.

- **Need to develop longer term, more strategic response.**
HETEROGENEITY OF HIV IN AFRICA

Sources: UNAIDS 2004 estimates used unless
HETEROGENEITY OF HIV:

- Why is HIV so diverse?
LIFETIME SEXUAL PARTNERS VARY LITTLE GLOBALLY

Uganda

United States

Thailand
(men only)
How does HIV infectiousness vary over disease stages?

Sexual partnerships
- serial – one after another
- concurrent – overlapping
HIV TRANSMISSION RISKS

Half of all transmission
Wawer et al, 2005

CONCURRENT PARTNERSHIPS GLOBALLY

Percentage of 15-49 year olds reporting > 1 regular partner in last year

Sources: Cassell et al, 2005

Sources: Halperin et al, 2005

Singapore, Sri Lanka, Thailand, Philippines, Kenya, Tanzania, Zambia, Cote D'Ivoire, Lesotho

Graph showing the percentage of 15-49 year olds reporting > 1 regular partner in last year for various countries, with data sources cited.
### SMALL DIFFERENCES IN NUMBERS OF PARTNERS CAN CREATE A TRANSMISSION CORE

<table>
<thead>
<tr>
<th>Average Number of Partners</th>
<th>1.68</th>
<th>1.74</th>
<th>1.80</th>
<th>1.86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest components</td>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
<tr>
<td>In largest component:</td>
<td>2%</td>
<td>10%</td>
<td>41%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Source: Martina Morris, Univ. of Washington, used with permission from a presentation given at a meeting on concurrent sexual partnerships and sexually transmitted infections at Princeton University, 6 May 2006.
A fifth of population in exclusive dyadic relationships

Two-thirds linked by single chain of infections over last 3 years

Networks not linked by sex workers or “high frequency transmitters”

Linked by decentralized, complex, robust chains of sexual relationships
South Africa: HIV prevalence in 15 to 19 year-olds by age of sex partner

- **Sex partner five or more years older**
- **Sex partner less than five years older**

### Males
- HIV prevalence: 19
- Sex partner five or more years older: 19
- Sex partner less than five years older: 3

### Females
- HIV prevalence: 29.5
- Sex partner five or more years older: 29.5
- Sex partner less than five years older: 17.2

Rakai, Uganda: HIV incidence and sexual coercion in women under the age of 25 years

- Coercive first sex: 2
- Coercion, but after first sex: 1.6
- Never coerced: 1.1

Source: Ron Gray, personal communication
## Circumcision trials

<table>
<thead>
<tr>
<th>Location</th>
<th>n</th>
<th>Date</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>3,274</td>
<td>7/2005</td>
<td>60% ↓</td>
</tr>
<tr>
<td>Kenya</td>
<td>2,784</td>
<td>2/2007</td>
<td>53% ↓</td>
</tr>
<tr>
<td>Uganda</td>
<td>4,996</td>
<td>2/2007</td>
<td>51% ↓</td>
</tr>
</tbody>
</table>


DIVERSITY OF HIV IN ASIA IN 2005

Sources: UNAIDS, 2004

Low male circumcision

High male circumcision

0.1 (Even lower outside Papua)

2.6

Bangladesh
Pakistan
Philippines
Indonesia
China
Vietnam
PNG
India
Burma
Thailand
Cambodia

0
0
0.1
0.1
0.1
0.1
0.3
0.6
0.9
1.2
1.5
2.6
DIVERSITY OF HIV IN AFRICA IN 2005

Benin
Guinea
Gambia
Ghana
Sierra Leone
Liberia
Gabon
Nigeria
Cameroon
Congo (Braz)
Kenya
Rwanda
Mozambique
Malawi
Swaziland
Zambia
Namibia
Botswana
Zimbabwe

High male circumcision

Low male circumcision

D. Halperin. R. Bailey. Lancet 1999,
HETEROGENEITY OF HIV: THE LETHAL COCKTAIL (1-1)

- Concurrent sexual partnerships
- Limited male circumcision
- Early coercive sex
- Large age differentials between sexual partners
- High rates of other sexually transmitted diseases

- HETEROGENEOUS PATTERNS OF DETERMINANTS, TRANSMISSION, & PREVALENCE REQUIRE EQUALLY HETEROGENEOUS RESPONSES FROM NATIONAL PROGRAMS
The Lethal Response?

- PEPFAR – Largest health support program in history
- “E” = Emergency
- 25 years into this epidemic we are still approaching it with an “emergency” response
- If we approached other long-term development problems as “emergencies” we would not build schools, plant coffee trees or conserve the environment
The Lethal Response?

• As with any planning to address problems and/or investments with long time horizons one must consider the net present value of the full stream of future costs and benefits
  – Investing in knowledge:
    • Prevention technology
    • Evaluation to learn which interventions work best under what circumstances
    • Investing in intellectual property rights
  – Investing in infrastructure
  – Investing in human resources:
    • Educating enough for the long-term, not just training the too few we have today
Many thanks to David Wilson and David Stanton from whose presentations I swiped the majority of these slides.
Promises – their bottom line

• Prevent new infections

• Keep HIV+ people alive & healthy and not transmitting the virus further

• Reduce or eliminate the negative impacts of AIDS
Promises - UNGASS

Impact Promises – 2010

• 25% reduction in HIV infection among young men and women (15-24 years).

• 50% reduction in percentage of infants born to HIV infected mothers who are infected.

• Increased percent of adults and children with HIV still alive 12 months after initiating ART.
Promises - MDG’s 2015

Goal 6: Combat AIDS, malaria and other diseases

Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS.

18. HIV prevalence among pregnant women aged 15-24 years (UNAIDS-WHO-UNICEF)

19. Condom use rate of the contraceptive prevalence rate (UN Population Division) c*

19a. Condom use at last high-risk sex (UNICEF-WHO)

19b. Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (UNICEF-WHO)

19c. Contraceptive prevalence rate (UN Population Division)

20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years (UNICEF-UNAIDS-WHO)
Promises - Universal Access in Africa

Brazzaville Commitment on Scaling Up Towards Universal Access to HIV and AIDS prevention, treatment, care and support in Africa by 2010.

Brazzaville, Republic of Congo
8 March 2006

1. We, the participants in the Continental Consultation on scaling up towards Universal Access in Africa convened by the African Union with support from WHO, UNAIDS, EGA and DFID and under the patronage of the United Nations and the African Union, have:

(a) Acknowledged that the world has made considerable progress in addressing the HIV epidemic in many countries, with a significant reduction in new infections and an increase in the number of people receiving treatment.

(b) Recognized the importance of scaling up access to HIV prevention, treatment, care and support in Africa by 2010.

(c) Endorsed the goal of the United Nations Millennium Development Goals of reducing by 2015 the number of people living with HIV and AIDS by 2010.

(d) Recognized the need for increased funding and resources to achieve the goal of universal access by 2010.

(e) Endorsed the principle of universal access, as set out in the Declaration of Commitment on HIV/AIDS, as a cornerstone of the response to the epidemic.

(f) Identified obstacles to achieving universal access and the need for increased mobilization of additional resources.

(g) Called on all stakeholders to support the scaling up efforts and to ensure the provision of adequate funding and resources.

(h) Committed ourselves to working together to achieve universal access to HIV prevention, treatment, care and support in Africa by 2010.

2. We call on all stakeholders to support the scaling up efforts and to ensure the provision of adequate funding and resources.

Target based on current capacity and resources

Ambitious target based on addressing obstacles and mobilizing additional resources
The Universal Access Gap in Sub-Saharan Africa, 2006

ART PMTCT Prev Services VCT OVC

- Met
- Unmet

Projected trends using current scale-up

- Adults on ART 2.8 million
- VCT clients 7.8 million
- Pregnant women offered PMTCT 4.5 million
- Orphans supported 1 million

Universal Access by 2010

- Adults on ART 5 million
- VCT clients 15 million
- Pregnant women offered PMTCT 9 million
- Orphans supported 9 million
On track? Target setting

Figure 4

National Universal Access Targets: coverage target in 2010 as set by countries.
(Mean and Range)

<table>
<thead>
<tr>
<th></th>
<th>ART (88)</th>
<th>OVC (39)</th>
<th>PMTCT (58)</th>
<th>CSW (35)</th>
<th>MSM (32)</th>
<th>IDU (32)</th>
</tr>
</thead>
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<tr>
<td>Coverage</td>
<td></td>
<td></td>
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</tbody>
</table>
On track? Treatment Access

Fig. 2. Estimated antiretroviral therapy coverage of at least 28% in low- and middle-income countries, December 2006

28% is the overall ART coverage for low- and middle-income countries. Only countries with an estimated ART need of at least 1000 are included in this graph.

The bar indicates the uncertainty range around the estimate.
On track? Treatment Access

Fig. 1. Fifteen low- and middle-income countries with the highest estimated number of people receiving antiretroviral therapy, and corresponding estimated antiretroviral therapy coverage, December 2006.
On track? PMTCT

Fig. 11. Ten low- and middle-income countries with the highest estimated numbers of HIV-infected pregnant women and corresponding percentages of HIV-infected pregnant women who received ARVs for PMTCT, 2005
On track? - PMTCT
PMTCT baseline and targets for 2008 and 2010

The bar chart displays the PMTCT baseline and targets for 2008 and 2010 for various countries. Each bar represents the percentage of the target achieved, with the red portion indicating the baseline and the blue portion indicating the progress made by 2010. The chart highlights the progress made by countries towards meeting their PMTCT targets.
Table 3. Percentages of all men, all women, HIV-positive men and HIV-positive women (aged 15–49 years) in selected countries of sub-Saharan Africa who were ever tested for HIV and received the results, 2003-2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Date of survey</th>
<th>% of all women who knew their status&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% of HIV-positive women who knew their status&lt;sup&gt;b&lt;/sup&gt;</th>
<th>% of all men who knew their status&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% of HIV-positive men who knew their status&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
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<tbody>
<tr>
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<td>2005</td>
<td>10.3</td>
<td></td>
<td>17.4</td>
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<td>Cameroon</td>
<td>2004</td>
<td>9.7</td>
<td>25.1</td>
<td>13.9</td>
<td>23.6</td>
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<td>Ethiopia</td>
<td>2005</td>
<td>3.8</td>
<td></td>
<td>4.9</td>
<td></td>
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<tr>
<td>Ghana</td>
<td>2003</td>
<td>7.4</td>
<td>12.4</td>
<td>7.5</td>
<td>8.2</td>
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<td>Kenya</td>
<td>2003</td>
<td>13.1</td>
<td>18.2</td>
<td>14.3</td>
<td>22.8</td>
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<td>Lesotho</td>
<td>2004</td>
<td>12.0</td>
<td>16.8</td>
<td>9.1</td>
<td>16.2</td>
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<td>Malawi</td>
<td>2004</td>
<td>12.9</td>
<td>15.0</td>
<td>15.1</td>
<td>20.0</td>
</tr>
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<td>Mozambique</td>
<td>2003</td>
<td>3.7</td>
<td></td>
<td>3.6</td>
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<td>Nigeria</td>
<td>2003</td>
<td>6.4</td>
<td></td>
<td>13.6</td>
<td></td>
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<tr>
<td>Republic of the Congo</td>
<td>2005</td>
<td>9.5</td>
<td></td>
<td>10.6</td>
<td></td>
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<tr>
<td>United Republic of Tanzania</td>
<td>2004</td>
<td>12.1</td>
<td></td>
<td>12.3</td>
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<tr>
<td>Uganda</td>
<td>2004</td>
<td>12.7</td>
<td>23.5</td>
<td>10.8</td>
<td>15.0</td>
</tr>
</tbody>
</table>
On track? Prevention (global)

Percentage of Individuals at Risk with Access to HIV Prevention

- 8% Harm reduction for injection drug users
- 9% Condom access
- 9% Behavior change programs for men who have sex with men
- 10–12% Adults with access to HIV testing in Africa
- 11% Prevention of mother-to-child transmission
- <20% Behavior change programs for commercial sex workers

On track? Prevention
Getting targets in place – selected prevention targets

- East Southern Africa
- West Central Africa
- Middle East and North Africa
- Asia and Pacific
- Eastern Europe and Central Asia
- Latin America
- Caribbean

- PMTCT coverage
- Condoms distributed
- Coverage VCT
On track? – Prevention

% of countries with targets for interventions targeting youth

- Knowledge young people
- Behaviour young people
Figure 2

On track? Resources

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

On track? Resources

Funding gap between resource needs and resource availability
2005-2007

- Funding gap = $6 Bn in 2006
- Funding gap = $8.1 Bn in 2007

Needs
Availability

US $ Billion

2005
2006
2007
Reminder – human cost of the UA gap

Projected trends using current scale-up
Universal Access by 2010

Adults on ART
VCT clients
Pregnant women offered PMTCT
Orphans supported


US$M

0 3,000 6,000 9,000 12,000 15,000 18,000

- Adults on ART 5 million
- VCT clients 15 million
- Pregnant women offered PMTCT 9 million
- Orphans supported 9 million

- Adults on ART 2.8 million
- VCT clients 7.8 million
- Pregnant women offered PMTCT 4.5 million
- Orphans supported 1 million
Challenges

1. **Deliver on Universal Access promises**
   - Revise strategic plans to reflect Universal Access commitments – define targets, strategies, resources, etc.
   - Develop annual workplans - results oriented and costed, responding to implementation challenges.
   - Review progress annually and adjust.
   - Senior leadership oversight & stewardship.

2. **Intensify prevention efforts**
   - Know epidemic - surveillance, research, monitor impact coverage and cost.
   - Calibrate targets & strategies to epidemic drivers.
   - Rigorous application of “3 ones”: plan, authority, M&E.
   - Check resource adequacy, track expenditures.
   - Check institutional architecture.
   - Leadership – consistent messaging, address sensitive issues.
Challenges

3. **Develop sustainable financing strategies**
   - Mainstream UA within key policy, plan & budget instruments.
   - Budget reform to meet Abuja commitment.
   - Negotiate longer term donor funding commitments
   - Explore cost containment options – procurement, tariffs, trade & regulatory arrangements.
   - Strengthen resource tracking (NASA)

4. **Prioritise system strengthening & capacity development:**
   - HR resources.
   - Health infrastructure and systems.
   - Civil society and NGO (esp PLHA and NASO) capacity.
Challenges

5. **Intensify alignment and harmonisation efforts (national and international players).**
   - Harmonisation of national authorities (NAC, CCM, etc)
   - Clarify institutional architecture accountability for national responses: i.e prevention.
   - Strengthen partnership management mechanisms: Joint Annual Reviews, thematic & partner coordination fora.
   - Apply OECD/DAC & CHAT (Country Assessment and Harmonisation Tool) to keep pressure on.