Analysis of the HIV Epidemic in the Highest Burden Countries

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State of the Epidemic

Remembering how far we have come, celebrating success & being guided by the data
Changes in the HIV/AIDS Epidemic Globally and in Sub-Saharan Africa 2002-2012

Changes in the HIV/AIDS Epidemic Globally and in Sub-Saharan Africa 2002-2012

Declines in Modeled Incidence from 2002-2012 in PEPFAR Countries

Incidence Declines

Ethiopia, Senegal, Ghana, Mali, Sierra Leone, Namibia, Botswana, Nigeria, Malawi, Zambia, Sub-Saharan Africa, Rwanda, Cote d'Ivoire, Zimbabwe, Mozambique, United Republic of Tanzania, Cameroon, South Africa, Swaziland, Kenya, Lesotho, Angola, Burundi, Uganda.
Country Comparisons
Southern Africa: High Prevalence HIV-1 C Epidemics
Malawi
Estimated Annual New HIV Infections & AIDS Deaths

Mozambique
Estimated Annual New HIV Infections & AIDS Deaths

Country Comparisons

East Africa: Moderate Prevalence HIV-1 A,C,D subtypes and Unique Recombinants
Kenya
Estimated Annual New HIV Infections & AIDS Deaths

Uganda
Estimated Annual New HIV Infections & AIDS Deaths

Epidemiologic Impact of Services

Comparing service scale-up in West & West Central, Eastern, & Southern Africa with HIV incidence
Coverage of PMTCT 2012

South Sudan: 13
DRC: 13
Nigeria: 17
Angola: 17
Ethiopia: 41
Burundi: 41
Kenya: 53
Lesotho: 58
Malawi: 60
Cameroon: 64
CI: 68
Uganda: 72
Tanzania: 77
Zimbabwe: 82
Swaziland: 83
RSA: 83
Mozambique: 86
Botswana: 86
Rwanda: 87
Namibia: 94
Zambia: 95
Ghana: 95
Haiti: 95
Implementing for Impact – Programmatic and Epidemiologic
Botswana

HIV Epidemic Data
Declining New Infections & Mortality
Botswana
Estimated Annual New HIV Infections & AIDS Deaths

Botswana

Total HIV prevalence by year

2004: 29.4%
2008: 25.0%
2013: 22.5%
Kenya

HIV Epidemic Data
Declining New Infections and Decreasing Mortality
Kenya

Estimated Annual New HIV Infections & AIDS Deaths

KAIS 2012 Preliminary Report
Key Findings
HIV prevalence among females and males aged 15-64 years, KAIS 2007 and 2012

HIV prevalence among persons aged 15-64 years by residence, KAIS 2007 and 2012
HIV prevalence by age category, KAIS 2007 and 2012

*18 months to 14 year age category not included in KAIS 2007.
HIV Prevalence among persons aged 15-64 years by region, KAIS 2007 and 2012

<table>
<thead>
<tr>
<th>Region</th>
<th>KAIS 2007</th>
<th>KAIS 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Coast</td>
<td>4.3</td>
<td>8.1</td>
</tr>
<tr>
<td>Eastern</td>
<td>3.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Nairobi</td>
<td>4.9</td>
<td>8.8</td>
</tr>
<tr>
<td>Nyanza</td>
<td></td>
<td>14.9</td>
</tr>
<tr>
<td>North Eastern*</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Rift Valley</td>
<td>3.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Western</td>
<td>4.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Total</td>
<td>5.6</td>
<td>7.2</td>
</tr>
</tbody>
</table>

* North Eastern region not surveyed in KAIS 2012.

Percent
HIV testing among persons aged 15-64 years by sex, KAIS 2007 and 2012
HIV prevalence among men aged 15-64 years by male circumcision status, KAIS 2007 and 2012

<table>
<thead>
<tr>
<th></th>
<th>Circumcised</th>
<th>Uncircumcised</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAIS 2007</td>
<td>3.9</td>
<td>13.2</td>
</tr>
<tr>
<td>KAIS 2012</td>
<td>3.1</td>
<td>16.9</td>
</tr>
</tbody>
</table>
Male circumcision among men aged 15-64 years by region, KAIS 2007 and 2012

*North Eastern region not surveyed in KAIS 2012.
Viral suppression* among HIV-infected persons aged 15-64 years on ART, KAIS 2012

Achieved viral suppression 78%

Did not achieve viral suppression 22%

*Viral suppression is defined as HIV RNA concentration <1,000 copies/mL. Of the not suppressed 42% were less than 10K, an additional 24% 10K-50K and 34% were over 50K
Viral Load Profile of Patients on ART

- <1000 copies: 80%
- 1000-10,000: 10%
- 10,000-50,000: 5%
- >50,000: 5%
"This suggests that ART has reduced incidence by almost half in 2012 and that about half of the estimated incidence decline since 2004 has been due to the scale up of ART programs." Stover et al
Kenya
Number of new HIV infections with and without the ART program

![Graph showing the number of new HIV infections in Kenya with and without the ART program from 2000 to 2012. The graph indicates a significant decrease in infections with ART compared to those without.](image-url)
Progress is not equal and disease burden must be addressed.
High Burden Countries HIV/AIDS
People Living with HIV/AIDS 2012

- South Africa: 20%
- Nigeria: 11%
- India: 7%
- Kenya: 6%
- Uganda: 5%
- Mozambique: 5%
- Zimbabwe: 5%
- USA: 5%
- United Republic of Tanzania: 5%
- China: 3%
- Indonesia: 2%
- Ethiopia: 3%
- Democratic Republic of the Congo: 2%
- Thailand: 1%
- Cote d'Ivoire: 2%
- Botswana: 1%
- Lesotho: 1%
- Malawi: 4%
- Zambia: 4%
- Malawi: 4%
- South Africa: 20%
- Angola: 1%
- Ghana: 1%
- Namibia: 1%
- Botswana: 1%
- Swaziland: 1%
- Burma: 1%
- Chad: 1%

PLWHA 2012
High Burden Countries HIV/AIDS
New Pediatric Infections 2012

- Nigeria: 26%
- South Africa: 9%
- Uganda: 7%
- United Republic of Tanzania: 6%
- Mozambique: 6%
- India: 6%
- Zambia: 4%
- Zimbabwe: 4%
- Democratic Republic of the Congo: 5%
- Malawi: 5%
- Kenya: 6%
- Ethiopia: 4%
- Cameroon: 3%
- Angola: 2%
- Chad: 2%
- Lesotho: 2%
- Cote d'Ivoire: 2%
- Botswana: 0%
- Namibia: 0%
- Ghana: 0%
- Burundi: 1%
- Swaziland: 1%
- Lesotho: 2%
- Chad: 2%
- Cote d'Ivoire: 2%
- Botswana: 0%
- Namibia: 0%
- Ghana: 0%
- Burundi: 1%
- Swaziland: 1%
- Lesotho: 2%
- Chad: 2%
- Cote d'Ivoire: 2%
Summary

- Comprehensive package of prevention package appropriate for the risk groups, country, epidemic
  - Must be country specific
- Provide depth and breadth of messages to ensure all clients can make informed decisions – continuous dialogue – complete dialogue
  - Lessons learned from
    - VMMC
    - MAT
    - B+
    - ART initiation – importance of VL and long term potential of inflammation in areas of other endemic infectious diseases
- Barriers to access – fluid and maybe community specific
- Dialogue with MoF, MoH, CBOs, NGOs and individuals – again complete dialogue
  - Clarity in epidemic
  - Words matter and “hot spot” can be very stigmatizing