WHO Survey on ARV Use
2011

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Update 1 December 2011
Survey 2011

- 67 reporting countries
- 5.73 millions patients on ART
- Use of ARVs by December 2010
- Results presented separately between 45 LMI countries * and 22 Latin America & Caribbean countries** to account for the difference in pattern of use

* 22 Sub-Saharan Africa, 8 East, South & South East Asia, 3 Europe & Central Asia, 8 North Africa & Middle East and 4 Western Pacific reporting countries with 5.36 M patients on ART

**22 reporting Latin America & Caribbean countries with 376 000 patients on ART

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Most countries recommend initiating antiretroviral therapy for everyone with CD4 counts of or below 350 cells per mm$^3$

Out of 102 reporting countries:
- 95 recommend initiating ART at CD4 $\leq$ 350 for all patients
- 5 recommend initiating ART at CD4 $\leq$ 350 for pregnant women only
- Only 2 countries recommend initiating ART at CD4 $\leq$ 200 or 250
Most countries recommend shifting away from stavudine to tenofovir or zidovudine-based regimens

Out of 82 reporting countries:
• 41 countries recommend shifting to tenofovir-based regimen,
• 27 countries to zidovudine-based regimen and
• 11 to both tenofovir- or zidovudine-based regimen
• Only 3 countries did not change their national guidelines: Cambodia, Cuba and Suriname
Most countries recommend Option A or option B for treating pregnant women and preventing HIV infection in infants.

Out of 90 reporting countries:
- 63 recommend option B
- 22 recommend option A
- 4 recommend a mix of options A and B
- Only 1 recommend option B+ (Malawi)
Main first-line regimens used in adults in LMI countries (except America region)

- 97.1% adults on 1st line
- 38.5% used AZT and 19.3% TDF
- 59.9% used NVP and 39.7% EFV

Total compliance with WHO GL is 99.9%, with a compliance rate of 57.5% to preferred regimen and 42.4% to alternative regimens
Main second-line regimens used in adults in LMI countries (except America region)

- 2.9% adults on 2nd line
- 49.2% used TDF and 46.3% AZT
- 94.9% used LPV/r

Total compliance with WHO GL is 95.7%, with a compliance rate of 57.4% to preferred regimen and 38.3% to alternative regimens
Main first-line regimens used in children in LMI countries (except America region)

- 96.8% children on 1st line
- 56.5% used d4T, 29.0% AZT and 14.7% ABC
- Uptake of LPV/r: 12.2% (mostly in South Africa)

Total compliance with WHO GL is 99.9%, with a compliance rate of 42.8% to preferred regimen and 57.1% to alternative regimens
Main second-line regimens used in children in LMI countries (except America region)

- 3.2% children on 2nd line
- 49.9% used ABC, 40% AZT
- 87.5% used LPV/r

Total compliance with WHO GL is 88.3%, with a compliance rate of 43.3% to preferred regimen and 45.0% to alternative regimens.
Main first-line regimens used in adults in America region

- 69.6% adults on 1st line
- 76.3% used AZT and 11.8% TDF
- 16.0% used NVP and 54.3% EFV

Total compliance with WHO GL is 96.9%, with a compliance rate of 63.9% to preferred regimen and 33.0% to alternative regimens
Main second-line regimens used in adults in America region

- 26.8% adults on 2nd line
- 60.5% used TDF and 14.4% AZT
- 32.8% used LPV/r and 17.8% ATV/r

Total compliance with WHO GL is 57.6%, with a compliance rate of 45.9% to preferred regimen and 11.6% to alternative regimens.
Main first-line regimens used in children in America region

- 68.9% children on 1st line
- 86.9% used AZT
- Uptake of LPV/r: 34.8%

Total compliance with WHO GL is 84.8%, with a compliance rate of 81.7% to preferred regimen and 3.1% to alternative regimens.
Second-line regimens used in children in America region

- 26.7% children on 2nd line
- 22.6% used AZT, 22.3% TDF and 15.0% ABC
- 65.2% used LPV/r

Total compliance with WHO GL is 84.3%, with a compliance rate of 58.0% to preferred regimen and 26.3% to alternative regimens.
Global evolution of d4T, AZT and TDF use in 1st line therapy* (2005-2010)

In the sub-group of 15 countries:
- use of stavudine decreased from 66.8% in 2006 to 42.6% in 2010
- use of zidovudine increased from 29.5% to 41.8%
- and tenofovir increased concomitantly from less than 0.1% to 15.0%

*15 countries: Burkina Faso, Burundi, Cambodia, Cameroon, Ethiopia, India, Kenya, Lesotho, Namibia, Nigeria, Swaziland, the United Republic of Tanzania, Uganda, Zambia and Zimbabwe

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Country responses show that substantial progress has been made in phasing out the use of stavudine. However, this process has been uneven:

- d4T has already been almost completely replaced in a few countries, or complete d4T replacement expected to take place within one or two years
- roll-out of new first-line regimens is still ongoing or has only recently started in others, and will take between 3 to 5 years
Stavudine (d4T) phase out: current status in selected African countries

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<tbody>
<tr>
<td>South Africa</td>
<td>TDF</td>
<td>82%</td>
<td>40%</td>
<td>51%</td>
<td>Feb 2010</td>
<td>NA</td>
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<tr>
<td>Mozambique</td>
<td>AZT</td>
<td>78%</td>
<td>7%</td>
<td>91%</td>
<td>March 2010</td>
<td>2011</td>
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<tr>
<td>Tanzania</td>
<td>TDF</td>
<td>72%</td>
<td>63%</td>
<td>13%</td>
<td>Jan 2011</td>
<td>2015</td>
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<tr>
<td>Uganda</td>
<td>TDF</td>
<td>18%</td>
<td>2%</td>
<td>89%</td>
<td>2009</td>
<td>2010</td>
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<tr>
<td>Kenya</td>
<td>TDF</td>
<td>68%</td>
<td>54%</td>
<td>21%</td>
<td>Feb 2010</td>
<td>2013-2015</td>
</tr>
<tr>
<td>Cameroon</td>
<td>TDF</td>
<td>63%</td>
<td>57%</td>
<td>10%</td>
<td>Jun 2010</td>
<td>2015</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>TDF</td>
<td>63%</td>
<td>59%</td>
<td>6%</td>
<td>2009</td>
<td>2014</td>
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Implementation of phase-out plans proceeded more swiftly where:
- national treatment guidelines were quickly revised to reflect updated WHO guidance,
- service delivery providers were adequately trained,
- phase-out strategies were clearly defined and
- where active financial partner support was secured.
## Stavudine (d4T) phase out: current status in selected Asian countries

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<tr>
<td>China</td>
<td>AZT</td>
<td>48%</td>
<td>43%</td>
<td>↓ 10%</td>
<td>2011</td>
<td>under discussion</td>
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<tr>
<td>India</td>
<td>TDF</td>
<td>46%</td>
<td>47%</td>
<td>↑ 1%</td>
<td>under discussion</td>
<td>under discussion</td>
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<tr>
<td>PNG</td>
<td>AZT or TDF</td>
<td>62%</td>
<td>58%</td>
<td>↓ 7%</td>
<td>2011</td>
<td>2013-2014</td>
</tr>
<tr>
<td>Vietnam</td>
<td>TDF</td>
<td>81%</td>
<td>65%</td>
<td>↓ 20%</td>
<td>2011</td>
<td>2012-2013</td>
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