Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive

DR. Nicholas Muraguri
OGW, MD, MPH, MBA, PhD (c)
Director,
Global Plan Secretariat

www.zero-hiv.org
The Creation of the Global Plan

- Global Plan launched at UN High Level Meeting on AIDS in July 2011 as part of Political Declaration on AIDS
- Global Task Team co-chaired by Michel Sidibé and Ambassador Eric Goosby
- Membership of 40 countries, 30 civil society and private sector organizations, and 15 international and regional bodies/organizations
There are 22 priority countries for the Global Plan

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These countries accounted for 89% of all HIV-positive pregnant women in low- and middle-income countries in 2011.
The gap in treatment and prophylaxis coverage is uneven among low- and middle-income countries.

The share of each low- and middle-income country in the total shortfall in providing antiretroviral medication to HIV-positive pregnant women to prevent new HIV infections among children.

Source: UNAIDS 2012
Reduce the number of new HIV infections among children by 90% from a baseline of 2009.
A four-pronged approach is required to prevent new HIV infections among children and keep mothers alive

1. Prevent HIV among women of reproductive age
2. Prevent unintended pregnancies among women living with HIV
3. Prevent HIV transmission through antiretroviral treatment during pregnancy and breastfeeding
4. Treatment, care and support for mothers living with HIV, their children, partners and families
Progress Toward Global Plan Targets

Source: Towards Universal Access, 2011; Global Report, UNAIDS, 2011
Number of new child infections, 21 priority countries

Source: UNAIDS Estimates 2012
New HIV infections among children, 2009–2011

<table>
<thead>
<tr>
<th>Rapid decline</th>
<th>Moderate decline</th>
<th>Slow or no decline</th>
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<tbody>
<tr>
<td>Will reach the target if the 2009–2011 decline of more than 30% continues through 2015.</td>
<td>Can reach the target if the decline in 2009–2011 of 20–30% is accelerated.</td>
<td>In danger of not reaching the target, with a decline in 2009–2011 of less than 20%.</td>
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<table>
<thead>
<tr>
<th>Country</th>
<th>Rapid decline</th>
<th>Moderate decline</th>
<th>Slow or no decline</th>
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<tbody>
<tr>
<td>Ethiopia</td>
<td>31%</td>
<td>22%</td>
<td>0%</td>
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<tr>
<td>Ghana</td>
<td>31%</td>
<td>30%</td>
<td>4%</td>
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<tr>
<td>Kenya</td>
<td>43%</td>
<td>24%</td>
<td>Democratic Republic of the Congo</td>
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<tr>
<td>Namibia</td>
<td>60%</td>
<td>20%</td>
<td>5%</td>
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<tr>
<td>South Africa</td>
<td>49%</td>
<td>21%</td>
<td>Mozambique</td>
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<tr>
<td>Swaziland</td>
<td>39%</td>
<td>26%</td>
<td>Nigeria</td>
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<tr>
<td>Zambia</td>
<td>55%</td>
<td>24%</td>
<td>United Republic of Tanzania</td>
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<td>Zimbabwe</td>
<td>45%</td>
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<td>India</td>
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Note: The baseline year for the Global Plan is 2009. Some countries had already made important progress in reducing the number of new HIV infections among children in the years before 2009, notably Botswana which by 2009 already had 92% coverage of antiretroviral regimens among pregnant women and a transmission rate of 5% (see table pp122–123). In countries with high coverage, further declines are much harder to achieve.

Source: UNAIDS Estimates 2012
New child HIV infections =

- Reducing new infections among reproductive age women (prong 1)
- Eliminating unmet need for family planning (prong 2)

\( \text{Number of HIV+} \times \text{Mother to child transmission rate} \)

Reducing the transmission rate (prong 3)
- Increasing coverage of PMTCT services
- Improving effectiveness of regimens
Slight decline in new HIV infections among women 15-49, 21 priority countries

Source: UNAIDS Estimates 2012
Prong 1: Kenya - Primary Prevention

Adult HIV Incidence

Baseline

Prong 1

50% reduction
Reduction in unmet need for family planning is slow, countries with available data.

Source: Demographic and Health Surveys 2000-2011
… As a result the number of women in need of PMTCT services remains flat.

Source: UNAIDS Estimates 2012
New child HIV infections = 

\[
\text{Number of HIV+ pregnant women} \times \text{Mother to child transmission rate}
\]

- Reducing new infections among reproductive age women (prong 1)
- Eliminating unmet need for family planning (prong 2)

Reducing the transmission rate (prong 3)
- Increasing coverage of PMTCT services
- Improving effectiveness of regimens
New child HIV infections and PMTCT coverage, 21 priority countries

Source: UNAIDS Estimates 2012
# PMTCT coverage, 21 priority countries

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<tr>
<th>High coverage</th>
<th>Medium coverage</th>
<th>Low coverage</th>
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<td>33-65%</td>
<td>&lt;33%</td>
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<td>Zambia</td>
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Source: UNAIDS Estimates 2012
Prophylaxis coverage: the other half of the picture

Number of women/infant pairs receiving prophylaxis, 2011, 21 priority countries

Source: UNAIDS Estimates 2012
As a result … MTCT transmission rates are still high

Source: UNAIDS Estimates 2012
Looking to the (near) Future: B+
Evidence Needs for WHO 2013 Guidelines
Evidence and Lessons for Other Countries

- Acceptability to women
- Adherence and retention
- Linkages with ART
- Implementability
- Impact --
  - Mother’s health
  - Vertical transmission
  - Prevention of sexual transmission
Expanding and Simplifying Treatment for Pregnant Women Living with HIV: Managing the Transition to Option B and B+
# Comparison: EFV vs NVP

<table>
<thead>
<tr>
<th></th>
<th>Efavirenz</th>
<th>Nevirapine</th>
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<tbody>
<tr>
<td><strong>Safety and tolerability</strong></td>
<td>- CNS side-effects, usually resolve after 2–4 weeks &lt;br&gt; - Ongoing concern but low evidence for teratogenicity (neural tube defects) during early pregnancy</td>
<td>- Severe rash and hepatotoxicity, particularly in women with CD4 counts (&gt;250) cells/mm(^3) &lt;br&gt; - Stevens–Johnson syndrome &lt;br&gt; - Not recommended in pregnant women with CD4 counts (&gt;350) cells/mm(^3)</td>
</tr>
<tr>
<td><strong>Drug interactions</strong></td>
<td>No significant interactions</td>
<td>NVP concentrations are reduced in the presence of rifampicin</td>
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<tr>
<td><strong>Convenience</strong></td>
<td>Available as a once-daily, fixed-dose combination (with TDF and 3TC or FTC)</td>
<td>Twice-daily regimen (with AZT or TDF) &lt;br&gt; Requires lead-in dosing (i.e. use of half-dose in the first two weeks of treatment)</td>
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<tr>
<td><strong>Efficacy</strong></td>
<td>- Comparable efficacy in early clinical trials &lt;br&gt; - More recent data suggest greater efficacy for EFV in TDF-containing regimens</td>
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<tr>
<td><strong>Drug resistance (robustness)</strong></td>
<td>Higher risk of NNRTI resistance mutations with NVP</td>
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<td><strong>Cost (generic, annual, per patient)</strong></td>
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<td>Single drug</td>
<td>- $52 &lt;br&gt; - $180 (TDF/3TC/EFV once-daily fixed-dose combination)</td>
<td>- $31 &lt;br&gt; - $131 (AZT/3TC/NVP, twice-daily fixed-dose combination)</td>
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<tr>
<td>Combination FDC</td>
<td>$180 (TDF/3TC/EFV once-daily fixed-dose combination)</td>
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*Source: World Health Organization*
Key Issues and Concerns

• Service delivery in MNCH settings and supply chain
  – All MNCH/PMTCT sites now become ART sites
  – Task-shifting for nurse-initiation of ART

• Adherence and retention
  – Successful completion of regimen through BF
  – Linkage and continuation in ART programmes

• Pharmacovigilance
  – Safety, especially with EFV, but also TDF
  – Tolerability

• Drug resistance

• Funding, support, sustainability
## Current ARV Regimen for PMTCT

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<tr>
<th>Option A</th>
<th>Option B</th>
<th>Option B+</th>
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<tbody>
<tr>
<td></td>
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<td>High level</td>
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<td>Discussions</td>
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<td>MOH approved</td>
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<td>DRC*</td>
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* Piloting Option B+ in some regions or districts
Kenya - New Child Infections in 2015

Scenario (% reduction from 2009)

- eMTCT (82%)
- Prong3 All (70%)
- Prong3 BF18 (25%)
- Prong3 Regimen (45%)
- Prong3 Coverage (27%)
- Prong2 (37%)
- Prong1 (27%)
- Baseline (0%)
Prong 4: Care and treatment for the family
Early Infant diagnosis is still unacceptably low: 35% in 21 countries

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<td>Ireland</td>
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Source: Global AIDS Progress Reporting 2012
Maternal survival is important for child growth and development.
Increasing ART results in substantial declines in pregnancy-related deaths

Percent change in pregnancy-related deaths to women living with HIV between 2005 and 2010

TOGETHER WE WILL END AIDS
Actions needed to reach zero

• Strengthen efforts to reduce unmet need for family planning
  • Limited data on unmet need among women living with HIV

• Increase coverage of prophylaxis during breastfeeding

• Ensure eligible children receive ART
  • Increasing early infant diagnosis from 35% to higher levels will improve ART uptake
Thank you