The Road to 90-90-90 (95-95-95): Progress in HIV prevention and treatment scale-up in sub-Saharan Africa

Presented by
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Outline

1. State of the epidemic
2. Progress in HIV prevention
3. Progress in treatment and 90-90-90
4. Pediatric HIV
5. Financing the response
6. Some reflections
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Number of people living with HIV, 2017

- East & Southern Africa: 19,600,000
- West & Central Africa: 6,100,000
- Asia & Pacific: 5,200,000
- W & Central Europe & N. America: 2,200,000
- Latin America: 1,800,000
- E. Europe & Central Asia: 1,400,000
- Caribbean: 310,000
- Middle East & North Africa: 220,000

36.9m people living with HIV in 2017
1.8m people acquired HIV in 2017
- 1.6m adults 15yrs+
- 180,000 children <15 yrs
ESA has more than 2x number of new infections as WCA
Number of AIDS-related deaths globally, 2017

940,000 people died from AIDS-related causes in 2017
- 830,000 adults 15+yrs and
- 110,000 children <15yrs

ESA has 1.5 times more deaths than WCA
Epidemic transition measures: Number of new infections

Source: UNAIDS 2018 estimates.

**East & Southern Africa**
30% decline

**West & Central Africa**
8% decline
Epidemic transition measures: AIDS-related deaths

Source: UNAIDS 2018 estimates.

- **East & Southern Africa**: 42% decline
- **West & Central Africa**: 24% decline
Putting the last mile first: Key populations important in all epidemic settings

Distribution of new HIV infections, by population group, global and by region, 2017

GLOBAL

- **47%**
  - Sex workers: 3%
  - People who inject drugs: 9%
  - Gay men and other men who have sex with men: 18%
  - Clients of sex workers and other sexual partners of key populations: 19%
  - Rest of population: 53%

Eastern and southern Africa

- **17%**
  - Sex workers: 2%
  - People who inject drugs: 1%
  - Gay men and other men who have sex with men: 6%
  - Clients of sex workers and other sexual partners of key populations: 83%
  - Rest of population: 19%

West and central Africa

- **40%**
  - Sex workers: 2%
  - People who inject drugs: 10%
  - Gay men and other men who have sex with men: 12%
  - Clients of sex workers and other sexual partners of key populations: 24%
  - Rest of population: 16%

Western and central Europe and North America

- **90%**
  - Sex workers: 10%
  - People who inject drugs: 2%
  - Gay men and other men who have sex with men: 7%
  - Clients of sex workers and other sexual partners of key populations: 7%
  - Rest of population: 57%

* Data are only available from Asia and the Pacific, Caribbean and Latin America. With rare exceptions, reported data are from transwomen who sell sex, but size estimates are increasingly all transgender women.
† Individuals in this category did not report any HIV-related risk behaviour.
Source: UNAIDS special analysis, 2018.
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<table>
<thead>
<tr>
<th>Country</th>
<th>Number of New HIV Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>270,000</td>
</tr>
<tr>
<td>Mozambique</td>
<td>130,000</td>
</tr>
<tr>
<td>Tanzania</td>
<td>65,000</td>
</tr>
<tr>
<td>Kenya</td>
<td>53,000</td>
</tr>
<tr>
<td>Uganda</td>
<td>50,000</td>
</tr>
<tr>
<td>Zambia</td>
<td>48,000</td>
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<tr>
<td>Zimbabwe</td>
<td>41,000</td>
</tr>
<tr>
<td>Malawi</td>
<td>39,000</td>
</tr>
<tr>
<td>Angola</td>
<td>27,000</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>16,000</td>
</tr>
<tr>
<td>Lesotho</td>
<td>15,000</td>
</tr>
<tr>
<td>South Sudan</td>
<td>14,000</td>
</tr>
<tr>
<td>Botswana</td>
<td>14,000</td>
</tr>
<tr>
<td>Rwanda</td>
<td>7,400</td>
</tr>
<tr>
<td>Namibia</td>
<td>7,400</td>
</tr>
<tr>
<td>Swaziland</td>
<td>7,000</td>
</tr>
<tr>
<td>Madagascar</td>
<td>5,300</td>
</tr>
<tr>
<td>Eritrea</td>
<td>580</td>
</tr>
</tbody>
</table>
Number of new HIV infections, 2017, WCA

- Côte d'Ivoire: 30,000
- Cameroon: 28,000
- Ghana: 19,000
- DRC: 15,000
- Congo: 7,900
- CAR: 7,700
- Chad: 5,800
- Togo: 4,900
- Burkina Faso: 4,300
- Equatorial Guinea: 4,100
- Benin: 4,000
- Sierra Leone: 3,200
- Burundi: 3,100
- Liberia: 2,300
- Guinea-Bissau: 2,300
- Niger: 1,700
- Senegal: 1,600
- Gambia: 1,400
- Mauritania: 270

Excludes Nigeria
Nigeria National HIV/AIDS Indicator and Impact Survey

- Nigeria National HIV/AIDS Indicator and Impact Survey (NAIIS) conducted July to December 2018

- Coordinated by FMOH, National Agency for the Control of AIDS; expanded data is providing better understanding of epidemic

- National HIV prevalence is ~1.4% among adults aged 15–49 years; previous estimates were 2.8%.

- ~1.9 m people living with HIV; data for new infections not yet available

- 1 million people were on treatment in 2018
The Global HIV Prevention Coalition

• Launched October 2017

• Objective is to operationalize prevention targets of the 2016 UN Political Declaration on Ending AIDS

  • 75% reduction in new infections between 2010 and 2020, to <500,000

  • Ending AIDS by 2030
The Global HIV Prevention Coalition

Composition

Co-chairs: UNAIDS and UNFPA

Members:
- Ministers from the 25 highest burden countries
- UNAIDS Cosponsors
- Global Fund
- PEPFAR
- Africa Union
- Bill and Melinda Gates Foundation
- Frontline AIDS and civil society
- Others

https://hivpreventioncoalition.unaids.org/
To achieve a 75% reduction in new HIV infections by 2020, countries should have recorded a 53% decline in 2017.
New HIV infections among adults (15+ years), globally, 2010–2017 and 2020 target – not on track

Was the mathematical model for setting fast-track targets wrong?

What the model suggested was not implemented:

<table>
<thead>
<tr>
<th>Fast-track model</th>
<th>Implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% KPs covered</td>
<td>20-50% covered</td>
</tr>
<tr>
<td>&gt;6bn condoms (SSA)</td>
<td>&lt;3bn condoms (SSA)</td>
</tr>
<tr>
<td>3 million PrEP</td>
<td>&lt;100k in LMICs</td>
</tr>
<tr>
<td>Double $$ (6.5 bn)</td>
<td>Declining int’l $$</td>
</tr>
</tbody>
</table>

* The 2020 target is fewer than 500 000 new infections, equivalent to a 75% reduction since 2010.
A MANAGEMENT APPROACH
- Keep the key things moving
- Intervene on what slows us down

10-point Plan

1. Conduct a strategic assessment of key prevention needs and identify policy and program barriers to progress.

2. Develop or revise national targets and road maps for HIV prevention 2020.

3. Strengthen national prevention leadership and make institutional changes to enhance HIV prevention oversight and management.

4. Introduce the necessary policy and legal changes to create an enabling environment for prevention programs.

5. Develop guidance, formulate intervention packages and identify service delivery platforms, and update operational plans.


7. Establish or strengthen social contracting mechanisms for civil society implementers and expand community-based programs.

8. Assess available resources for prevention and develop a strategy to close financing gap.

9. Establish or strengthen HIV prevention program monitoring systems.

10. Strengthen accountability for prevention, including all stakeholders.
Management of the prevention ecosystem: Ensure that objectives are achieved throughout the results chain.
Considerations for condom distribution target setting

Condom distribution per man (15-64): Need, targets & actual distribution

- Insufficient condom distribution
Major condom use gap for both men (<60%=20) and women (<60%=45) in most countries and across regions

Prominent discrepancy between men and women (20-40% lower in most countries)

Condom Use Gap: % used condom at last higher risk sex
(with a non-marital, non-cohabiting partner) (n=48 countries)


West and Central Africa
- East and Southern Africa
- Latin-America
- Eastern Europe and Central-Asia

- Major condom use gap for both men (<60%=20) and women (<60%=45) in most countries and across regions
- Prominent discrepancy between men and women (20-40% lower in most countries)
VMMC performance has rebounded...

Annual number of voluntary medical male circumcisions, 14 priority countries, 2008–2017

*South Sudan was added in 2016–17 as a priority country for VMMC and has not yet started to report data.

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90-90-90 Strategy

- Conceptualized to emphasize viral suppression among people living with HIV
- Targets are for 2020
- 2 methods: a) 90-90-90 Cascade and b) Testing and Treatment Cascade

- 90% of people living with HIV know they have it
- 90% of people living with HIV are on treatment
- 90% of people on treatment are virally suppressed
Progress Towards 90-90-90 Cascade, 2017

- First 90: % all PLHIV who know they have it
  - Global: 75
  - ESA: 81
  - WCA: 48

- 2nd 90: % PLHIV who are aware they have HIV and are on treatment
  - Global: 79
  - ESA: 81
  - WCA: 83

- 3rd 90: % PLHIV on treatment who are virally suppressed
  - Global: 81
  - ESA: 79
  - WCA: 73

Source: UNAIDS special analysis, 2019;
### Progress Towards Testing and Treatment Cascade, 2017

<table>
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<th>Category</th>
<th>Global</th>
<th>ESA</th>
<th>WCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>% all PLHIV who know they have it</td>
<td>75</td>
<td>81</td>
<td>48</td>
</tr>
<tr>
<td>% all PLHIV who are on treatment</td>
<td>59</td>
<td>66</td>
<td>40</td>
</tr>
<tr>
<td>% of all PLHIV who are virally suppressed</td>
<td>47</td>
<td>52</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: UNAIDS special analysis, 2019;
Special focus on WCA

Challenges
- Insufficient domestic funding
- Weak health systems
- User fees for health care
- Humanitarian situations
- High levels of stigma and discrimination

Commitment to the acceleration plan
Layering: Supporting adolescents to adhere to treatment

Predicted probabilities of full retention in care among adolescents (aged 10–19 years) by access to protective health service factors, Eastern Cape, South Africa, 2014–2015

Note: Adhering to antiretroviral therapy was defined as both no missed clinic visits over the past year and 90% adherence over the past week. Individuals in this category did not report any HIV-related risk behaviour.

† Adhering to antiretroviral therapy was defined as both no missed clinic visits over the past year and 90% adherence over the past week.

Source: Cluver LD, Pantelic M, Toska E, Orkin M et al. STACKing the odds for adolescent survival: health service factors associated with full retention in care and adherence amongst adolescents living with HIV in South Africa (in press).
Percentage of people living with HIV with incident tuberculosis who received treatment for both tuberculosis and HIV, ESA and WCA, 2000–2017

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Additional progress needed to hit 2020 target

*New HIV infections among children (aged 0–14 years), global, 2000–2017 and 2020 target*

1 These World Health Organization estimates include 399 000 adverse birth outcomes in 2012 and 368 000 adverse birth outcomes in 2016.

2 Previous estimates of mother-to-child transmission rates did not capture

Source: UNAIDS 2018 estimates.
Timely Pediatric HIV Diagnosis: Missing half the kids

Figure 11. Nearly half of HIV-exposed infants are not tested
Percentage of children born to women living with HIV who were tested for HIV within eight weeks of birth, 23 focus countries, 2017

50%
Far short of the target for children on treatment

Number of children (aged 0–14 years) accessing antiretroviral therapy, global 2000–2017 and 2018 target

Percent coverage of people receiving treatment, adults vs children

- Adults 15+: 22, 27, 31, 36, 41, 45, 49, 52
- Children 0-14: 0, 20, 40, 60, 80


Graph shows an increasing trend in coverage for both adults and children over the years.
Viral suppression among children <15 years

Children less likely to be virally suppressed than adults

Figure 3. Lower viral suppression among children
Percentage of people living with HIV with suppressed viral loads, children and adults, 11 countries, 2015–2017


* Estimates for children (aged 0–14 years) are based on a small number of unweighted cases (<30) and should be interpreted with caution.
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One-year rise in donor funding unlikely to continue

Annual percentage change in HIV resource availability from all sources (public and private), low- and middle-income countries, 2000–2017

Source: UNAIDS resource availability and needs estimates, 2018.
A modest increase in financial resources

HIV resource availability in low- and middle-income countries (in constant 2016 US dollars), by source of funding, 2000–2017 and 2020 target

Source: UNAIDS resource availability and needs estimates, 2018.
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Developments in HIV programming that affect prevention and treatment

Diagnosis:
- Recency testing
- Self testing
- Index testing and assisted partner notification
- Social network testing
- Point of care EID including birth testing

Prevention:
- The Global HIV Prevention Coalition
- PrEP expansion

Treatment:
- TLD/DTG roll out
- U=U
- Drug resistance
Some reflections

• **Instilling political courage**, not merely political commitment

• **Putting the last mile first** – we will not succeed if we do not include the marginalized

• As we make progress, more emphasis will need to be on **loss to follow up**, to optimize retention and adherence

• Is HIV a disease model that can be replicated for other diseases? E.g. community empowerment, political leadership, people-centered systems for health, bold targets (90-90-90), innovative financing, data-driven implementation

• Leveraging the **regional economic communities** (e.g. SADC, EAC, ECOWAS) and nonhealthy actors (e.g. driver license services)
Reaching men in their safe spaces: Uganda Boxing Federation
Acknowledgements

- Government partners
- PLHIV
- UNAIDS
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- PEPFAR
- CSOs
- Activists

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