HIV und AIDS- was gibt es Neues für die Arbeit vor Ort?

Dr. med. Ralf Weigel
Liverpool School of Tropical Medicine
ralf.weigel@lstmed.ac.uk
Objectives

To update knowledge on

• Epidemiological trends
• Biomedical interventions for HIV services
• Programmatic approaches
Changes in AIDS response

<table>
<thead>
<tr>
<th></th>
<th>Early 2000</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies</td>
<td>Rapid scale up of ART</td>
<td>End AIDS</td>
</tr>
<tr>
<td></td>
<td>„3by5“</td>
<td>„90-90-90“</td>
</tr>
<tr>
<td>ART Eligibility</td>
<td>CD4 &lt;200/μl</td>
<td>Treat all</td>
</tr>
<tr>
<td>Service delivery</td>
<td>Emergency response</td>
<td>Differentiated care</td>
</tr>
<tr>
<td>Funding annually (USD)</td>
<td>&lt;5 Billion</td>
<td>Nearly 20 Bill</td>
</tr>
<tr>
<td>ART Coverage</td>
<td>&lt;3%</td>
<td>~46%</td>
</tr>
</tbody>
</table>
Decline in HIV incidence and mortality over time

Source: UNAIDS/WHO estimates.
## Global summary of the AIDS epidemic

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>[Range]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of people living with HIV in 2015</td>
<td>36.7 million</td>
<td>[34.0 million – 39.8 million]</td>
</tr>
<tr>
<td>Adults</td>
<td>31.8 million</td>
<td>[30.1 million – 33.7 million]</td>
</tr>
<tr>
<td>Women</td>
<td>16.0 million</td>
<td>[15.2 million – 16.9 million]</td>
</tr>
<tr>
<td>Children (&lt;15 years)</td>
<td>3.2 million</td>
<td>[2.9 million – 3.5 million]</td>
</tr>
<tr>
<td>People newly infected with HIV in 2015</td>
<td>2.1 million</td>
<td>[1.9 million – 2.4 million]</td>
</tr>
<tr>
<td>Adults</td>
<td>1.9 million</td>
<td>[1.7 million – 2.1 million]</td>
</tr>
<tr>
<td>Children (&lt;15 years)</td>
<td>240 000</td>
<td>[210 000 – 280 000]</td>
</tr>
<tr>
<td>AIDS deaths in 2015</td>
<td>1.1 million</td>
<td>[940 000 – 1.3 million]</td>
</tr>
<tr>
<td>Adults</td>
<td>1.0 million</td>
<td>[1.2 million – 1.5 million]</td>
</tr>
<tr>
<td>Children (&lt;15 years)</td>
<td>190 000</td>
<td>[170 000 – 220 000]</td>
</tr>
</tbody>
</table>

Source: UNAIDS/WHO estimates.
The treatment target by 2020

- 90% diagnosed
- 90% on treatment
- 90% virally suppressed

Improvements are needed at each stage of the cascade of HIV testing and treatment services, 2015

WHO has developed four core sets of guidelines to support Fast-Track action in countries.
Evidence and decision making

- Trial results
- Cohort studies
- Systematic reviews

→ Quality of evidence

- Programme data
- Experts
  - Benefits and risks
  - Costs
  - Acceptability
  - Equity
  - Feasibility

→ Strength of recommendation
• Service delivery

• Clinical
  o HIV diagnosis
  o ARVs for HIV prevention
  o Antiretroviral therapy (ART)
  o Co-infections and co-morbidities

• Monitoring & Evaluation
What’s new in service delivery?

Key concepts

• (Leaking) Continuum of care:
  • Prevent ➔ Test ➔ Enrol ➔ Start ART ➔ Retain in chronic care

• Differentiated care
  • Services according to different needs
    • Well
    • Advanced: Stable, unstable
  • Intensity, location, frequency and cadre differ
  • Live cycle approach to HIV

• Quality and integrated care
What’s new in prevention?

• Treatment as prevention (TasP)
  • PMTCT (Option B+)
• Pre-exposure prophylaxis (PrEP)
  • Oral TDF/FTC (Truvada™)
  • Vaginal gel (TDF)
• Voluntary medical male circumcision (VMMC)
• Condoms (male and female)
• HIV testing services (HTS)
What’s new in HIV diagnosis?

• Five Cs: consent, confidentiality, counselling, correct result, connection

• Service delivery models:
  • Facility based HTS
    • Voluntary counselling and testing (VCT)
    • Provider initiated testing and counselling (PITC)
      • ANC, TB, OPDs and wards, VMMC, STI
  • Community based HTS
    • Mobile/outreach
    • Home based/ door to door
    • National HTS/multi disease campaigns
    • Workplace/educational establishments
  • Test for triage
  • HIV self testing (HIVST)
    • Supervised/ unsupervised

• Role of Lay providers
What’s new in infant diagnosis?

• Nucleic acid testing (NAT) at birth
• Active tracking for those NAT –ve at birth for 6 week re-testing and CTX prophylaxis
• Rapid diagnostic (Ab) test at 9 months
• Point of care (PoC) NAT
What’s new in ART?

- Universal ART for all PLHIV regardless of CD4 count
- Convenient, compatible, use across populations

<table>
<thead>
<tr>
<th>1st line ART in adults</th>
<th>ARV regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred</td>
<td>TDF + XTC + EFV&lt;sub&gt;600&lt;/sub&gt;</td>
</tr>
<tr>
<td>Alternative</td>
<td>AZT + 3TC + EFV&lt;sub&gt;600&lt;/sub&gt;</td>
</tr>
<tr>
<td></td>
<td>AZT + 3TC + NVP</td>
</tr>
<tr>
<td></td>
<td>TDF + XTC + NVP</td>
</tr>
<tr>
<td></td>
<td>TDF + XTC + DTG new</td>
</tr>
<tr>
<td></td>
<td>TDF + XTC + EFV&lt;sub&gt;400&lt;/sub&gt; new</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd line ART in adults</th>
<th>ARV regime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred</td>
<td>2 NRTI + ATV/r or LPV/r</td>
</tr>
<tr>
<td>Alternative</td>
<td>2 NRTI + DRV/r new</td>
</tr>
<tr>
<td></td>
<td>LPV/r + RAL new</td>
</tr>
</tbody>
</table>
What’s new in monitoring?

- Viral load (VL) for treatment
- Failure definitions
- Drug resistance
- Role of CD4 counts

Fig: Viral load testing strategy
Summary

• Momentum for „ending AIDS“
• Set of balanced WHO recommendations give direction
• Guidelines provide a toolbox of interventions for service provision and planning
• Some novel approaches are:
  • Differentiated services across a continuum of care
  • PreP, TasP, HIVST
  • Universal ART
  • VL for monitoring
Resources

Main:
• 2016 consolidates WHO guidelines on the use of ARVs for treatment and prevention of HIV
• Consolidated guidelines on HIV testing services, July 2015
• HIV book 2015/16

Other
• I-TECH clinical education modules
• ICAAP grand rounds email list
• MSF clinical guidelines
• HIV- weekly
• HIV treatment bulletin
Useful websites

• WHO HIV/AIDS website
• UNAIDS
• UNICEF HIV/AIDS in children and youth
• CDC HIV/AIDS
• WHO HIV Africa office
• BHIVA
• CHIVA