ART ADHERENCE CLUBS AND COMMUNITY MODELS OF CARE

Gilles Van Cutsem
Médecins Sans Frontières
ART roll-out: successes

- 7 million on ART; 2/3 in SSA
- Outcomes equivalent to rich settings
- Normalisation of life expectancy
- ART reduces transmission


Figure 2: Trend in the number of natural (N) and unnatural (U) deaths by broad age group, RMS 2000–2011
ART roll-out: constraints

- Access: 8 million in need of ART
- "Scaling up without messing up":
  - Retention in care: pre-ART and on ART
  - Adherence and treatment failure
- Human resources for health crisis
- <50% living with HIV know their status
- Stigma
ART eligibility: 5 policy scenarios

Estimated millions of people eligible for ART in LMIC in 2011

11 15 23 25 32

CD4 ≤ 200
Recommended Since 2003

CD4 ≤ 350
Recommended since 2010

CD4 ≤ 350 + TasP
Incremental approach 2012

CD4 ≤ 500
Ongoing systematic review of evidence (GRADE review)

All HIV+
“Test and treat”

ART regardless of CD4 count for:
- Serodiscordant couples
- Pregnant women
- Key populations (SW, IDU, MSM)

WHO, 2012
Retention in care

Retention rate for antiretroviral therapy at 12, 24 and 60 months in selected countries, 2012 country reports

- Malawi: 50% at 5 years
- Kenya: 40% at 5 years

UNAIDS 2012.
Challenges to Retention in Care in Resource Limited Settings

- Transportation costs (Yu BWHO 2007; Amuron BMCID)
- Opportunity costs (i.e. work and child care responsibilities)
  - (Geng JAIDS 2011, Krebs AIDS Care 2008)
- Stigma and disclosure
  - (Rosen & McGuire 2008; Dalal JAIDS 2009)
- Stock-outs
  - (Pasquet PLoS One 2010)
- Side effects
  - (McGuire TMIH 2008)
- Alternative medical beliefs / religion
  - (Yu BWHO 2007; Deribe TMIH 2008)
- Quality of services; feeling well; imprisoned; hunger
Community models of care: underlying principles

- Access & retention are improved by:
  - Decentralisation to the lowest level of care
  - Beyond NiMART: Task-shifting to PLWHA / peer educators / CHW

- Adherence is improved by:
  - Decreasing burden on patient (time, cost, pills)
  - Increasing user-friendliness of care
  - Peer support (Ware NC. PLoS Med 2009; Rueda. Cochrane 2006)

- Separation of drug-delivery and clinical care
Community-based self care: a new concept?

Task shifting: expanding the pool of human resources for health

Africans advocate antiretroviral strategy similar to DOTS

AIDS experts suggest community health workers should help in the delivery of antiretroviral drugs

“The community-based approach is the answer . . . We will never have enough professionals to look after our people”

Home-based ART

- HBC as effective as facility-based care
- Improved access to remote areas with poor infrastructure

MSF Community Models of Care pilots in Southern Africa

- Community distribution points
- Health Posts
- Adherence Clubs
- Community Adherence Groups
Key functions of community models

1. Drug supply
2. Clinical screening
3. Adherence support and defaulter tracing
4. Monitoring
5. Building social fabric: autonomy and social support
Preliminary steps at clinic level

- Decentralise ART initiation to every available health facility and avoid down referral model.
- Task shifting -> Nimart
- TDF FDC available and minimal lab monitoring schedule
- Space clinical appointments for stable patients (2, 3 monthly)
- Separate from pill refills needs from clinical care
Spacing clinical visits every 6 months for stable patients, Chiradzulu, Malawi

- Chiradzulu district: 26,330 patients on ART
- Stable adults (> 95% adherence, CD4 >300, >12 m. on ART
- Clinical visit 6-monthly; ART refill 3-monthly
- Retention in care at 12 months: 97%

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Recruited patients</td>
<td>2486</td>
</tr>
<tr>
<td>Female (%)</td>
<td>1715 (69)</td>
</tr>
<tr>
<td>Median time on ART prior to enrollment in months (IQR)</td>
<td>27.2 (17.2-44.2)</td>
</tr>
<tr>
<td>Median CD4 at SMA enrollment (IQR)</td>
<td>534 (420-692)</td>
</tr>
<tr>
<td>Median follow up (months) in SMA (IQR)</td>
<td>14.7 (8.3-18.7)</td>
</tr>
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McGuire et al MOPE 436, IAS Rome 2011
Community ART groups: Distribution of antiretroviral therapy through self-forming groups, in Tete Province, Mozambique

Groups of 6
- 15 years,
- 6 months on 1st line
- CD4 >200
- no stage 3 or 4

Separation of refill & care
- Monthly drug refill
- 6 monthly clinical review and CD4

3530 patients in 788 CAGS (= 50% of cohort)

97.6% retained at 12 months
Meeting point: clinic, health post or community pick up points?

- Thyolo, Malawi, Health Posts:
  - Tasks: HTC, staging, ARV refill, support
  - Staff: outreach nurse + local CHW (2 HSA’s) + expert patients (2PSA’s)

- Roma, Lesotho, Health Posts:
  - Similar task + PMTCT
  - Monthly outreach from clinic

- Eshowe, KZN, South Africa
  - No Health posts -> mobile meeting points
# Eligibility criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Malawi Thyolo</th>
<th>Malawi Chiradzulu</th>
<th>Mozambique</th>
<th>South Africa</th>
<th>DRC</th>
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</thead>
<tbody>
<tr>
<td>Voluntary participation</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Adults only</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Duration on ART: 6 months</td>
<td>6 m</td>
<td>12 m</td>
<td>6 m</td>
<td>18 m</td>
<td>12m</td>
</tr>
<tr>
<td>Eligibility CD4</td>
<td>Y (&gt;300)</td>
<td>Y (&gt;300)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Eligibility clinical criteria</td>
<td>--</td>
<td>No active OI</td>
<td>WHO Stage I/II</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Eligibility Adherence check</td>
<td>Yes</td>
<td>--</td>
<td>--</td>
<td>Yes</td>
<td>--</td>
</tr>
<tr>
<td>Not pregnant</td>
<td>--</td>
<td>Yes</td>
<td>Can be pregnant</td>
<td>--</td>
<td>Yes</td>
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</table>
## Management criteria and outcomes community ART groups

<table>
<thead>
<tr>
<th>Location</th>
<th>Model of community ART care</th>
<th>Start date</th>
<th>Nbr patients</th>
<th>ART provider</th>
<th>Frequency of ART dispensing</th>
<th>Frequency of clinic visits</th>
<th>Cumulative Retention*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozambique, Tete</td>
<td>Community ART groups</td>
<td>2008</td>
<td>4410 900 CAGS</td>
<td>Expert patient</td>
<td>1 monthly</td>
<td>6 monthly</td>
<td>97% after average FU time of 16 months</td>
</tr>
<tr>
<td>Malawi, Thyolo</td>
<td>Community health posts</td>
<td>2009</td>
<td>925</td>
<td>CHW (HSA)</td>
<td>3 monthly</td>
<td>3 monthly</td>
<td>98% at 15 months</td>
</tr>
<tr>
<td>Malawi, Chiradzulu</td>
<td>Community ART refills</td>
<td>2008</td>
<td>3343</td>
<td>CHW</td>
<td>3 monthly</td>
<td>6 monthly</td>
<td>97% at 1yr 93% at 2 years*</td>
</tr>
<tr>
<td>Malawi, Chiradzulu</td>
<td>Community ART refills</td>
<td>2008</td>
<td>4,000</td>
<td>CHW (HSA)</td>
<td>3 monthly</td>
<td>6 monthly</td>
<td>97% at 2 years</td>
</tr>
<tr>
<td>South Africa, Khayelitsha</td>
<td>Adherence clubs</td>
<td>2007</td>
<td>3000 110 clubs</td>
<td>CHW</td>
<td>2 monthly</td>
<td>6 monthly</td>
<td>97.5% at 1y 97.5% at 2 y</td>
</tr>
<tr>
<td>Kinshasa, DRC</td>
<td>Community ART points</td>
<td>2010</td>
<td>--</td>
<td>Expert patient</td>
<td>--</td>
<td>--</td>
<td>--</td>
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Adherence Clubs, Khayelitsha, South Africa
Towards patient/group self management

- Lay-counsellor managed
- Group self-management: treatment literacy, defaulter tracing
- From facility to community to home
- **Club participants were:**
  - 57% more likely to remain in care (HR: 0.43, 95% CI 0.21-0.91)
  - 67% less likely to experience virologic rebound (HR: 0.33, 95% CI 0.16-0.67)

Luque-Fernandez M. CROI 2012.
<table>
<thead>
<tr>
<th>Clinics with ART clubs</th>
<th>RIC</th>
<th>Club Target</th>
<th>No. of clubs</th>
<th>Club Enrolment End Aug 2012</th>
<th>Club RIC End Aug 2012</th>
<th>% of RIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>23220</td>
<td>5430</td>
<td>180</td>
<td>5195</td>
<td>4505</td>
<td>19%</td>
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</table>
From Pilot to implementation
Club roll out in Cape Metro

- Blue line: Total N. of patients enrolled in the Clubs
- Red line: Total N. of patients still in care in the

Axes:
- Y-axis: Number of patients
- X-axis: Months from Jan-11 to Jul-12
Simplified M&E and accountability

Tier-1 Tier-2 Tier-3

Paper registers Electronic register Networked EMR

Died/Lost/TFO

_______ Date

Adult Female

Adult Male

Child 0 < 1

Child 1 - < 5

Child 5 - < 15

Folder #

ID YY MM DD

Folder #

ID YY MM DD

Folder #

ID YY MM DD

Folder #

ID YY MM DD

Patient's Name, Surname

folder number and ID number

Screened for TB (Y/N)

On TB Rx at start of ART (Y/N)

Outcome

Cohort

Date started ART (Day)

Age & Gender

2 1
Which model is most adapted to main problems of adherence am facing in my specific environment?

- Clinic overload
- Distances and natural barriers (urban<> rural)
- Stigma and disclosure
- Social fabric
- HR constraints
- Regulatory issues (feasibility of task-shifting ?)
- Legal barriers
High level of pre-ART LTFU amongst adolescent in Zimbabwe and Khayelitsha

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Eligible</th>
<th>Initiated</th>
<th>%</th>
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<tr>
<td>Q2 2010</td>
<td>64</td>
<td>34</td>
<td>53.1</td>
</tr>
<tr>
<td>Q3 2010</td>
<td>67</td>
<td>34</td>
<td>50.7</td>
</tr>
<tr>
<td>Q4 2010</td>
<td>55</td>
<td>29</td>
<td>52.7</td>
</tr>
<tr>
<td>Q1 2011</td>
<td>65</td>
<td>38</td>
<td>58.5</td>
</tr>
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Pre-ART community groups improve pre-ART retention in care.

Baseline retention on pre-ART in SA (CD4 monitoring within 12 months) : 31-45% 2011 (Lessells et al, 2011)

<table>
<thead>
<tr>
<th>ART ineligible enrolled</th>
<th>1828</th>
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<tbody>
<tr>
<td>Recorded CD4/visit within 8m prior to end of study/starting ART</td>
<td>8m</td>
</tr>
<tr>
<td>Active in care %</td>
<td>61.9</td>
</tr>
<tr>
<td>Requested transfer out %</td>
<td>4</td>
</tr>
<tr>
<td>Deceased %</td>
<td>10.28</td>
</tr>
<tr>
<td>LTFU %</td>
<td>23.85</td>
</tr>
</tbody>
</table>

Boyles. 2011 PLoS ONE
Community models of care and the cascade

The “test-treat-retain” continuum of care

CREATE DEMAND FOR TESTING AND TREATMENT

TESTING

PRE-ART CARE AND SUPPORT

ART ELIGIBLE

ART

ADHERENCE AND VIRAL SUPPRESSION

Outreach Campaigns
Education
Mass media

PITC
Community-based Self-testing

Prevent OIs
Peer support

Once daily fixed dose

POC monitoring
Adherence support

Graph showing the continuum of care with stages from demand creation to adherence and viral suppression.
The Future?

Impact of community dynamic on ‘test, treat, retain’ cascade

HIV Testing in community

HIV + in community including pregnant woman

HIV +
- Eligible for ART
  - CD4 < 350
  - On TB TT
  - Pregnant (B+)
  - Sero discordant

ART B+

Long term adherence

CAG

Social dynamic from the testing
-> Pre-ART groups
-> Group dynamic from eligibility
-> Specific groups for B+ women
Discussion

Advantages

- **Patient perspective:**
  - Reduced burden on stable/adherent patients who only need refills
  - Promotes self-management, empowerment
  - Development of community networks -> social fabric and potential political activism

- **Health services perspective**
  - Reduced burden on health facilities
  - Likely more cost effective
  - Further share of responsibility via task shifting

Challenges

- **Patient perspective:**
  - Unfair balance of responsibility
  - Quality of medical monitoring
  - HIV trivialization
  - Disclosure <> stigma

- **Health services perspective**
  - Accountability
  - Excludes patients most at risk of LTFU
  - Stretches further the drug supply chain
  - Requires well functioning and simplified monitoring and supervision
Acknowledgements

- All PLHAs for their energy in setting up such ART groups/clubs
- DOH and MSF teams in DRC, Malawi, Mozambique & South Africa
- Eric Goemaere, Nathan Ford, Tom Decroo, Lynne Wilkinson, Helen Bygrave, Tom Ellman, Marc Biot

ART ADHERENCE CLUB TOOLKIT LAUNCH

Tuesday, 27 November | 12:30 to 13:00 | Room 2.40