Médecins Sans Frontières Experience in Treatment as Prevention
Southern African HIV Clinicians Society Conference, September 2014
MSF role in Treatment as Prevention

• General: demonstrating feasibility/acceptability
• Test, link, treat, retain, with undetectable viral load
• Pilot new interventions & models in high coverage settings:
• Recent evaluations through population surveys
Treatment as Prevention Projects

- **Chiradzulu (Malawi)**
  - MSF/MOH HIV program
  - MSF support for 13 years

- **Kwazulu-Natal BTC (South Africa)**
  - MOH HIV program
  - MSF gradual support since 2011

- **Shiselweni (Swaziland)**
  - MOH with MSF support since 2008
  - Test & Treat planned for Nhlangano

- **Ndhiwa (Kenya)**
  - MOH/Other NGO HIV program
  - No MSF presence yet

Recent HIV Impact in Population Survey (incidence, prevalence, coverage)
Chiradzulu

• Southern region of Malawi

• Population: 288,546 (2008 census)

• Health services:
  - 1 District Hospital
  - 2 Private Clinics
  - 10 Health Centers
Chiradzulu

- 1997: MSF opens programme
- 2001: First patients on ART
- 2003: Decentralisation to 10 health centres
- 2004: Task-shifting to nurses and counsellors (NiMART)
- 2008: 6-monthly clinic visits for stable patients
- 2012: Circumcision project
- 2013: 27,000 on ART
KZN - Mbongolwane and Eshowe

- Population: 115,000
- Rural, urban & farms
- 2 hospitals & 10 PHC clinics

Objectives:
- Reduce HIV/TB incidence and associated mortality & morbidity
- Demonstrate successful strategies for testing, treatment and prevention of HIV and TB.
KZN - Aim: Bend the Curves

- **Test**: Community Testing: Mobile, Fixed Sites, Door to Door (CHW), PITC,
- **Link**: Decentralization, TB/HIV integration, NiMART Mentoring Support
- **Treat**: Early ART: <500, PMTCT B+ since July 2014.
- **Retain**: Community *Mixed* Model of care: Adherence Clubs, Community Adherence Groups
- **Adhere**: Community Testing: Mobile, Fixed Sites, Door to Door (CHW), PITC,
Increase in HTC with community testing

- Fixed sites
- Door to door
- Mobile testing
- Health facilities
Community & School Testing to Reach Youth

Community tests in 2013

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 19</td>
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<td>20 to 29</td>
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<td>30 to 39</td>
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<td>40 to 49</td>
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<tr>
<td>50 to 59</td>
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<tr>
<td>≥60</td>
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</tbody>
</table>
Increase in annual ART initiations

- Aug 2011:
  - CD4 350
  - Decentralization
  - Nimart

- April 2013 PMTCT B

2011 MSF support

2 564
Improve virological monitoring and outcomes

Viral loads done

Viral load results

- LDL (<400)
- 400 to 1000
- 1000 to 10000
- 10000 to 100000
- >100000

- 90.0%
- 75.0%
- 60.0%
- 45.0%
- 30.0%
- 15.0%
- 0.0%
99% of HIV+ pregnant women initiated on ART
6 week PCR+: 2.9% in 2012 to 2.2% in 2013
Increased HIV testing at 18 months
Retention on ART at 6 month was 87% in patients with CD4 <350 vs. 63% with CD4 >350 (p<0.001).
68% retained in care at 6 months had a viral load recorded;
89% of these were <400 copies/ml.
HIV incidence and cascade of care: findings from three population-based studies
Methods

Study

Procedures

- Interview head of household
- Interview eligible individuals
- HIV rapid test (finger prick)
- Blood collection (phlebotomy)
- Interview HIV positive
- Laboratory tests

- Household questionnaire
- Individual questionnaire
- HIV test
- Positive
  - Questionnaire HIV care & ART
    - CD4 count
    - Viral load
    - ARV testing (SA)
    - Incidence testing
- Discordant
  - ELISA HIV test
- Negative
  - Acute infection testing (NAAT)
Results

9,802 HH visited → 21,798 indiv. eligible → 18,999 (87.2%) included
- Kenya: 6077/6833 (88.9%)
- South Africa: 5649/6688 (84.5%)
- Malawi: 7273/8277 (87.9%).

Table: Participants’ socio-demographic characteristics

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Women, n (%)</td>
<td>11550</td>
<td>60.8</td>
</tr>
<tr>
<td>Age, median years (IQR)</td>
<td>28</td>
<td>20-40</td>
</tr>
<tr>
<td>Married, n (%)</td>
<td>9983</td>
<td>52.6</td>
</tr>
<tr>
<td>Primary education, n (%)</td>
<td>12092</td>
<td>63.7</td>
</tr>
<tr>
<td>Student/unemployed, n (%)</td>
<td>7571</td>
<td>39.8</td>
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# HIV incidence

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<td>/100 PY</td>
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<tr>
<td>Women</td>
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PY: persons-year

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<td>13.2 (12.0-14.4)</td>
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HIV prevalence - Women

% of total population

Age

- Kenya
- South Africa
- Malawi
HIV prevalence - Women

Kenya

South Africa

Malawi

35.7%
HIV prevalence - Women

Kenya
South Africa
Malawi

56.0%
HIV prevalence - Women

% of total population

Age


Kenya
South Africa
Malawi

34.9 %
## ART coverage

<table>
<thead>
<tr>
<th>Current National Guidelines</th>
<th>Kenya HIV+=1457</th>
<th>South Africa HIV+=1493</th>
<th>Malawi HIV+=1190</th>
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<tbody>
<tr>
<td>Eligible, n (%)</td>
<td>826 (60.0)</td>
<td>988 (69.4)</td>
<td>952 (80.0)</td>
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<td>ART coverage, n (%)</td>
<td>582 (68.7)</td>
<td>741 (75.0)</td>
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<td><strong>Current National Guidelines</strong></td>
<td>CD4&lt;350 PMTCT A</td>
<td>CD4&lt;350 PMTCT B</td>
<td>CD4&lt;350 PMTCT B+</td>
</tr>
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<td><strong>2013 WHO Guidelines</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible, n (%)</td>
<td>1127 (81.0)</td>
<td>1152 (80.9)</td>
<td>1041 (87.5)</td>
</tr>
<tr>
<td>ART coverage, n (%)</td>
<td>582 (50.5)</td>
<td>741 (64.3)</td>
<td>766 (73.5)</td>
</tr>
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</table>
KZN ART coverage

Overall: 75.0% (95%CI: 72.0-77.8)
- Women: 78.5% (95%CI: 75.8-81.0)
- Men: 63.9% (95%CI: 56.7-70.5)

Women age 20-24: 42%

Number of ART eligible CD4 <350; PMTCT B

- No ART
- ART
Who was already aware of their HIV infection?

Awareness: 75.2% (95%CI: 72.9-77.4) - **Women**: 77.7% (95%CI: 75.1-80.1)  
**Women & men 20-24 y**: 43.1% & 83.3% were unaware of their HIV infection. - **Men**: 67.3% (95%CI: 62.0-72.1)

The bar chart below shows the number of HIV-positive individuals by age group and gender, with bars divided into awareness (blue) and not aware (red). The chart indicates a disparity in awareness levels between women and men across different age groups.
Cascade of care

<table>
<thead>
<tr>
<th>Stage</th>
<th>Malawi</th>
<th>South Africa</th>
<th>Kenya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed</td>
<td>77.7%</td>
<td>74.8%</td>
<td>61.8%</td>
</tr>
<tr>
<td>Linked to Care</td>
<td>75.0%</td>
<td>65.4%</td>
<td>57.4%</td>
</tr>
<tr>
<td>Retained in care</td>
<td>73.4%</td>
<td>61.1%</td>
<td>56.2%</td>
</tr>
<tr>
<td>On ART</td>
<td>64.7%</td>
<td>57.1%</td>
<td>42.2%</td>
</tr>
<tr>
<td>VL&lt;1000</td>
<td>61.9%</td>
<td>49.3%</td>
<td>39.5%</td>
</tr>
</tbody>
</table>
**Tipping point**

« **Tipping Point** » : When ART initiations go over new infections

<table>
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<tr>
<td><strong>N=76,880</strong></td>
<td>N=61,179</td>
<td>N=139,484</td>
<td></td>
</tr>
<tr>
<td>New infections¹</td>
<td>641</td>
<td>320</td>
<td>225</td>
</tr>
<tr>
<td>ART initiations¹</td>
<td>1,338</td>
<td>894</td>
<td>921</td>
</tr>
<tr>
<td><strong>Tipping point ratio</strong></td>
<td>2.1</td>
<td>2.8</td>
<td>4.1</td>
</tr>
</tbody>
</table>

1. During the 6 months prior to survey date
Getting ahead of the wave…
Conclusions

- We are already treating our way out of the epidemic.
- Scale up without messing up
- Key to develop specific interventions across the cascade:
  - Test, link, treat low coverage groups, especially youth
  - Simplify (FDC, minimal lab, 6-monthly or annual visits…)
  - Community-based & patient centred interventions
  - Adherence support
  - Quality & M&E improvement
- Huge need for community mobilisation will not be met without investing in civil society.
SAVE TAC, SAVE LIVES

SOUTH AFRICA NEEDS TAC NOW MORE THAN EVER!

Donate TODAY!

www.tacgivengain.org
Acknowledgements

Ndhiwa, Chiradzulu, Kwazulu-Natal & Shiselweni communities, patients and health care teams (DoH & MSF).

Kenya/Malawi survey team
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May Atieno
Patrick Ochoro
Field teams

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Beatrice Kirubi
Ali Ouattara

MSF Malawi
C. Masiku
J. Price

MSF South Africa
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Amir Shroufi
Ruggero Guilliani
Mathew Reid
Emilie Venables
Emilie Wang

MSF SAMU South Africa
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Carole Metcalf

MSF Paris
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Annette Heinzelman
Leon Salumu
Pierre Mendiharat

NICD Johannesburg
Adrian Puren

MoH Kenya
Irene Mukui
Ojwang Lusi

MoH Malawi
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Benson Chilima

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