Finding TB Actively through Screening and prompt initiation of Treatment (FAST):

Our experience in South Sudan

45th Lung Health Conference, Barcelona
September 29, 2014
Introduction & Background

- South Sudan is emerging from the long drawn out war with the Sudan since 1983, the effects of which are still lingering on.
  - Estimated population 10.8m (WHO Global Health Observatory - 2012)
  - The world’s youngest nation, became Independent on July 9, 2011
  - 51% of the population live below the poverty line - estimated as 72.9 South Sudanese pounds per month (about $22); Source: 5th Population and Housing Census 2008

- The real burden of TB in South Sudan is unknown - No prevalence survey done. WHO estimates 257/100,000; case notification 79/100,000

- TB is top priority: TB treatment in South Sudan started in 1990 by few NGOs - church based, international or indigenous with international donor support

- Arkangelo Ali Association (AAA) International is an indigenous South Sudanese NGO founded in November 2006 – upgraded to international status since 2012
Why TB Reach - FAST?

- TB control strategies worldwide are mainly passive - thought to be economically viable but cannot address South Sudan situation of poor infrastructure and poverty
- Limited and inequitably distributed TB diagnostic and treatment facilities
  - Long distances by patients to seek diagnosis - inter-facility distances of 50-100kms
  - Ill-equipped laboratories - No electricity, inadequate microscopes, inadequate trained staff
- Cultural practices in South Sudan that affected prompt seeking of diagnosis and adherence to treatment - Dealing with nomadic lifestyles
- Inadequate human resources - skills and numbers
  - Infrequent trainings/updates on current diagnostic procedures
  - Low for laboratory diagnosis and DOT
- Low community awareness on TB and availability of care - most still believed TB is a curse and marriage not acceptable in a family with TB leading to stigma e.g. Dinka
- Lack of training and reference materials for general health staff and community health workers
AAA Implementation profile

Partners - Comitato Collaborazione Medica (CCM) and the South Sudan NTP - Finding TB Actively through Screening and prompt initiation of Treatment (FAST)

Coverage – 15 labs, 15 TBMUs, 15 counties in 5 States (Western Bahr el Ghazal, Northern Bahr el Ghazal, Warrap, Lakes, Western Equatoria)

Estimated Population of EP 2013 - 2,061,847 at growth rate of 3% annually from 2008 census
Implementing **FAST** in S. Sudan (1)

- Political commitment – NTLP, SMoH, CHD meetings and sensitization
- Development of Operational guidelines and training materials
  - CHWs
  - Community-linked radio and mass media guide
  - TB Reach Operational guidelines
  - Recording and reporting tools - Community TB, TB screening among PLHIVs, paediatrics, congregate settings and general community
- Project expansion
  - Identification of PHCCs/Us for integration
  - Identifying HIV care settings for TB HIV integration
  - 1 additional TBMU Turalei and 20 satellite laboratories
- Trainings
  - Health workers on community TB and TB screening
  - Laboratory staff on ZN staining and EQA
Approach to implementation (2)

- Sensitizations done for buy-in to:
  - Health staff
  - CHWs
  - TB mobilizers
  - Community opinion leaders
  - Local journalists
  - Prisons and Army senior staff

- Enablers provided to reach the “unreached”
  - Transport – vehicle (1), motorcycles, bicycles (68)
  - DSA to TB mobilizers and NTP/CHD/SMoH for tracing

- Multifaceted supportive supervision, coaching and mentorship – NTP, AAA program, M&E, and public health specialist
Interventions that increased awareness

Community TB education through:
Mass media to increase awareness and create demand (radio spots, presenter analysis, live talk shows) – local FM radio stations in English, Arabic and local languages

Community theatres – magnet theatres, puppeteering, drama and miking

Community opinion leaders – administrators’ security/public meetings

IEC materials

Health education in the wards, outpatient departments and during DOT

Posters in public offices and passages

World TB Day commemoration
Active case search that increased case finding

Door-to-door contact investigations by TB mobilizers for symptom screening

Mobile outreaches – general community, returnees camps, IDPs, cattle camps, fisher folk camps – microscopy done

Contact invitations for nearby households

Integration of TB and HIV services – screening of TB among PLHIVs

Outreaches in congregate settings – prisons, army barracks

Integration of TB services in general health care - PHCC
General Results

- 94% of diagnosed TB initiated on treatment within 48hrs. Others transferred to nearby TBMU
- No treatment interruptions: Drugs/supplies availed by NTP for adherence to standardized, algorithms, protocols
- Loss to follow up reduced from 4% to 2% - Prompt retrieval of persons lost to follow up by TB mobilizers and TB club/ambassadors monthly feedback meetings - bicycles for transport
- QA/QI - collaboration with AMREF health Africa in Kenya for AFB microscopy quality assurance through slides sampling and rechecking; MDR TB surveillance - 95-100% concordance even with low cadre lab staff
- M&E - quarterly reports in NTP standardized format and guidelines
  - treatment success rate of >90%, a 4% increase.
  - timeliness and accuracy improved through e-reporting
## Results

TB Yield through screening: 0.7% (range: 0.1-3.3%) for all TB cases and 0.4% (range 0.1-2%) for SS+/Bac+; being predictably highest (3.3%) among chronic coughers either attending OPD or admitted in hospital with respiratory ailments.

<table>
<thead>
<tr>
<th>Category</th>
<th>Baseline (2012)</th>
<th>Target</th>
<th>Achieved</th>
<th>Cost per additional case (US $ 561,896)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Total</td>
<td>Additionality</td>
<td>Total</td>
</tr>
<tr>
<td>All TB</td>
<td>1559</td>
<td>3818</td>
<td>2259 (145%)</td>
<td>2602</td>
</tr>
<tr>
<td>SS+/bac+</td>
<td>906</td>
<td>2546</td>
<td>1640 (181%)</td>
<td>1426</td>
</tr>
</tbody>
</table>
### Results/Outcomes

- **Increased case finding**
  - **Contact investigation (TB Screening of contacts) (SS+ contacts)**
  - **Contact investigation (Contacts of children on treatment)**
  - **Active screening of chronic coughers from OPDs, IPDs**
  - **Integration of HIV and TB**
  - **Outreach - Settlements with IDPs and/or returnees**
  - **Outreach - Prisons / congregate settings**
  - **Outreach - Nomadic / Semi-nomadic populations**

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<tr>
<td><strong>Annual Target</strong></td>
<td>6,342</td>
<td>658</td>
<td>31,200</td>
<td>34,500</td>
<td>137,222</td>
<td>1,300</td>
<td>6,000</td>
<td>217,222</td>
</tr>
<tr>
<td><strong>Number of people screened</strong></td>
<td>3,317 (52%)</td>
<td>739 (112%)</td>
<td>75,407 (241%)</td>
<td>4,674 (14%)</td>
<td>4,845 (3.5%)</td>
<td>2,785 (214%)</td>
<td>7,935 (132%)</td>
<td>99,702 (46%)</td>
</tr>
<tr>
<td><strong>Number of people identified with TB symptoms</strong></td>
<td>370 (6%)</td>
<td>154 (23%)</td>
<td>12,755 (41%)</td>
<td>206 (0.6%)</td>
<td>1,770 (1.3%)</td>
<td>384 (30%)</td>
<td>2,222 (37%)</td>
<td>17,861 (8%)</td>
</tr>
<tr>
<td><strong>Number of people identified with TB symptoms examined for TB</strong></td>
<td>310 (5%)</td>
<td>81 (12%)</td>
<td>7,829 (25%)</td>
<td>196 (0.5%)</td>
<td>1,538 (1%)</td>
<td>334 (26%)</td>
<td>1,677 (28%)</td>
<td>11,965 (6%)</td>
</tr>
<tr>
<td><strong>Number confirmed SS+/B+ TB cases</strong></td>
<td>36 (0.6%)</td>
<td>7 (1%)</td>
<td>580 (2%)</td>
<td>27 (0.1%)</td>
<td>87 (0.1%)</td>
<td>18 (1.4%)</td>
<td>55 (1%)</td>
<td>810 (0.4%)</td>
</tr>
<tr>
<td><strong>Number of confirmed SS+/B+ TB cases put on treatment</strong></td>
<td>35 (97%)</td>
<td>6 (86%)</td>
<td>562 (97%)</td>
<td>26 (96%)</td>
<td>83 (96%)</td>
<td>18 (100%)</td>
<td>54 (98%)</td>
<td>784 (97%)</td>
</tr>
<tr>
<td><strong>Number diagnosed all forms TB cases</strong></td>
<td>91 (1.5%)</td>
<td>10 (1.6%)</td>
<td>1,022 (3.3%)</td>
<td>96 (0.3%)</td>
<td>156 (0.1%)</td>
<td>27 (2%)</td>
<td>112 (2%)</td>
<td>1,514 (0.7%)</td>
</tr>
<tr>
<td><strong>Number of diagnosed all forms TB cases put on treatment</strong></td>
<td>76 (84%)</td>
<td>9 (90%)</td>
<td>972 (95%)</td>
<td>95 (99%)</td>
<td>152 (98%)</td>
<td>27 (100%)</td>
<td>95 (85%)</td>
<td>1,426 (94%)</td>
</tr>
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</table>
Results/Outcomes: Increased case finding
Opportunities for further interventions

- Having a range of partners involved in health care such as NGOs, private sector, civil society, CBOs and FBOs. Action: strengthening PPM

- Community readiness to support interventions
- Existing military medical corps in key barracks across the country (Action: establish TB DOT centres in military barracks and prisons)

- There are many PHCCs in the country that have no TB services (Action: Expansion of TB care and control services can be promoted through the integration of services in all functioning existing PHCCs)

- HIV prevalence is still as low as 2.6% (up to 30% in border counties e.g. Tambura) Action: TBHIV collaboration strengthening
TB clinic in Aweil prison

Bridge washed off!!!
Conclusions

- Active case finding provides a paradigm shift of upward trend as opposed to passive case finding.
- Engaging community and TB patients promotes adherence with minimal treatment interruptions.
- Massive, sustained and persistent TB education and innovative approaches increases demand for services and low cadre indigenous human resource coupled with consistent facilitative on-job training and mentoring and coaching is necessary support in resource constrained and hostile conflict settings.
- The cost of diagnosing 1 TB case through active case search is high - US $1081 for all cases and US $539 for SS+/bac+ - but is somewhat necessary in a poor infrastructure that has high operational costs.
Recommendations

- The funding for TB active case finding in conflict areas based on realistic budgets commensurate with poor infrastructure and high operational costs.
- The prisons and army officials require more sensitization to allow access and to expand screening, initiate DOT and diagnostic centres in all congregate settings.
- DOT expansion through expanded TBMUs coverage in South Sudan - upgrade of the satellite laboratories to TBMUs to increase access and promote adherence.
- Increased funding for similar intervention in other States
Acknowledgement

- All AAA staff South Sudan
- All AAA staff Nairobi office
- The Public Health Specialist - AAA

- NTP staff South Sudan - Dr Joseph Lasu, Dr Joseph Lou
- NTP Staff South Sudan - State TB coordinators
- The CHD staff

- Staff CCM - South Sudan field office
- Staff Turalei Hospital

- M&E Stop TB Partnership

- Suppliers and other collaborators
Thank you!

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