Our experience in South Sudan

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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*

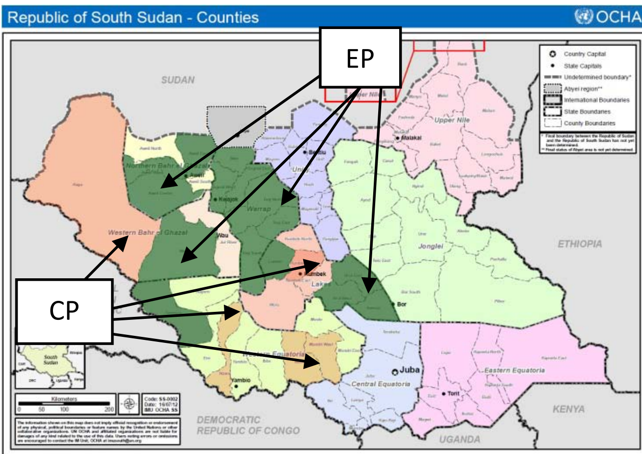
- The real burden of TB in South Sudan is unknown – No prevalence survey done. WHO estimates 257/100,000; case notification 79/100,000

- 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, out-patient 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

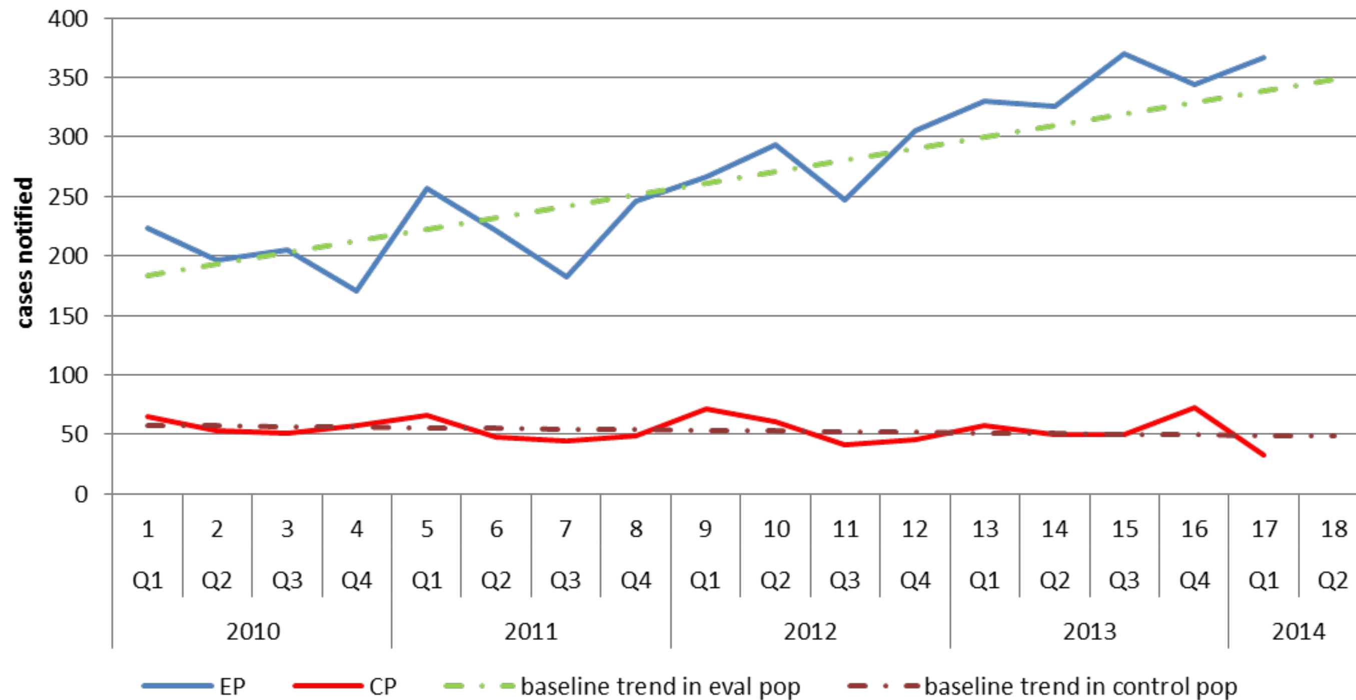
Results

Category	Baseline (2012)	Target		Achieved		Cost per additional case (US $ 561,896)	
	Total	Total	Additionality	Total	Additionality	Total	Additionality
All TB	1559	3818	2259 (145%)	2602	1043 (67%)	$216	$539
SS+/bac+	906	2546	1640 (181%)	1426	520 (57%)	$394	$1081

- 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.

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

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!!!

Persisting Challenges…

Lack of adequate infection control measures (Action: Promote community DOT)

Transport of TB drugs to different TBMU from Central Drug store (action taken: Cost share and good will with partners)

Inadequate mentorship and support supervision visits(Action: AAA hired experienced staff for key positions who then train other staff on TB management)

Flooding and poor infrastructure

Political /ethnic crisis

Delay in release of funds

Inadequate funds for implementation

Volunteerism in TB work – need for incentives to TB mobilizers

High cost of maintenance due to poor infrastructure

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

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- The CHD staff

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- Staff Turalei Hospital

- M&E Stop TB Partnership

- Suppliers and other collaborators

Thank you!

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