The United Republic of Tanzania

The 1\textsuperscript{st} National TB Prevalence Survey 2011/12

Multi-country Global workshop on TB prevalence surveys and TB surveillance
Accra - Ghana
29th April 2013

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Background

<table>
<thead>
<tr>
<th>Indicator (2012)</th>
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<tbody>
<tr>
<td>Population size</td>
<td>44,928,900</td>
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<tr>
<td>GNI per capita</td>
<td>540 ($US)</td>
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<table>
<thead>
<tr>
<th>Estimated TB Burden (2011)</th>
<th>Number</th>
<th>Rate or %</th>
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<tbody>
<tr>
<td>Incident cases (all forms)</td>
<td>78,000</td>
<td>169 per 100,000</td>
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<tr>
<td>Mortality</td>
<td>6,400</td>
<td>14 per 100,000</td>
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<tr>
<td>TB cases with HIV</td>
<td>30,000</td>
<td>38%</td>
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<tr>
<td>Case notifications</td>
<td>61,838</td>
<td>139 per 100,000</td>
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<tr>
<td>Treatment success</td>
<td></td>
<td>88 %</td>
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Sampling design

- National wide population based cross sectional study
- Sample size: 55,800
- Number of clusters: 62
- Cluster sampling - stratification of districts: urban, semi-urban, rural and Zanzibar
Distribution of Clusters

- **Regions 23**
  - Mainland 21
  - Zanzibar 2

- **Districts 54**
  - Urban 9
  - Semi-urban 14
  - Zanzibar 2
  - Rural 37
Selection criteria and health seeking behaviour

- **Inclusion criteria**
  - Adults only, 15 years and above
  - Permanent residents
  - Stayed 14 days and over

- **Screening positive, criteria for sputum submission**
  - Any symptoms
  - Abnormal CXR image
  - Any symptom + Abnormal CXR

- **Health seeking behaviour**
  - Health seeking behaviour was assessed
Questions on Health seeking behaviour

- Do you (have) & Did you seek treatment for any of these symptoms?
- What were the reasons for not seeking treatment or advise?
- How many weeks after the start of symptoms did you seek treatment or advice for the first time
- What was the first place to seek treatment or advice for your symptoms
- At the first health service you went for your complaint, was the following done
- How would you normally go to this health service & How long will this take you?
- Were you ever diagnosed with tuberculosis?
Laboratory methods

● Smear:
  – Direct - Field
  – Two spots specimens – field at screening site
  – LED fluorescence
  – Direct & Concentrated - CTRL
  – Morning specimen at CTRL

● Culture media:
  – Löwenstein–Jensen (LJ) medium

● Other:
  – One lab used; Central TB Reference Laboratory in Dar
  – GeneXpert MTB/RIF not used
  – Drug sensitivity testing of positive samples
  – HIV testing of participants done to all survey TB suspects (screened +ve)
Main Challenges
Main challenges of survey implementation

- **Non-invitees and children wanted to be screened**
  - Explanations by local leaders
  - Pre-survey visits

- **Myths around screening exercise**
  - Freemasons
  - Blood mongers
  - Affecting reproduction capacity – x-ray

- **Follow up of absentees in the field (invitees;M/samples)-Mop up**
  - Volunteers
  - Village leaders
  - TB coordinators

- **Tracing of those turned Sm+/C+ at CTRL**
  - Effort to maintain output at CTRL
  - Info sent to DTLC
  - Controls – Sm+/C+ MTB
Main challenges of survey implementation...

- **Extra burden of lab work, decrease the quality of the tasks at CTRL**
  - Quality maintained
  - 4 lab technologist from CTRL to the field
  - 15 – 25 sputum specimens per day – field/ctrl

- **Procurement issues**
  - X-ray procured long before
    - UPS/batteries defective
    - Cabin electrical wiring system repair
  - Trucks and generators
    - After long pause – to prepare for proper functioning
    - Bureaucratic tendering process
  - Metal carrying boxes incompatible with Falcon tubes
    - Used hard paper boxes and wrappers
Main challenges of survey implementation...

- **Procurement issues** …
  - Contracts by MoHSW & NIMR took long
    - NIMR to implement survey
    - Radiation Inspectorate agency (TAEC)
    - TA by KNCV
    - X-ray equipment and generators repair and maintenance (Phillips-Mokasi)
    - Major vehicle/trucks repair
    - Courier
  - Prints (forms & t-shirts)
Main challenges of survey implementation...

- **Logistical problems encountered**
  - Change of HIV test algorithm
    - Test kits availability
  - Frequent breakdown of the X-Ray machines and truck cabin’ electric shots in the field
  - No backup of x-ray machines and generators
  - Frequent breakdown of trucks and survey cars
  - Space – data, storage
  - Field staff exhaustion - given some resting days after every 3-5 clusters
  - Staff drop out (data clerks, census, lab, x-ray, etc)
  - Delay of disbursement of GF money
    - Fund expired by 31st October
**Main challenges of survey implementation...**

- **Data management problems encountered**
  - Back logs at
    - data base,
    - laboratory and
    - radiology
  - Lack of electricity backup at the data room
  - Delayed data cleaning and analysis
    - Drop out of data clerks
    - At end of field operations - contract ended – clerks left
    - Conventional DST
Major lessons and implications to the NTP

**Survey is do-able**

- No need to wait until everything is in place
- Build on and learn fast (flexibility) as you go
- Need a lot determination and energy; “need to be proactive”
- Most of community found ready but need appropriately be informed and guided
- Pre-survey activities a must but one visit in most cases is enough
- Team work spirit and collaborative effort essential – field teams, central unit team/steering committee, implementing institution, leaders, partners (consultancy, WHO), lab, x-ray, data, radiation authority, maintenance firm, supply chain
Next steps

- Complete analysis, produce final results and a preliminary report - 4\textsuperscript{th} week April
- TC discuss results with consultant – 1\textsuperscript{st} week May
- Steering committee endorse preliminary report – 2\textsuperscript{nd} week May
- Present key findings to Ministry (MoHSW) management – 3\textsuperscript{rd} week May
- National dissemination workshop – 1\textsuperscript{st} week July?
- Final report and publication – mid-end of July
- 44\textsuperscript{th} UNION world conference – Oct/Nov
Acknowledgements