TB contacts tracing and investigations procedures in Rwanda.

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The Hague October 24, 2018
OUTLINE

• Introduction

• Organization of TB in Rwanda

• Procedures of contact tracing and investigation

• Achievements

• Conclusion
Introduction: WHO estimate for Rwanda 2017

<table>
<thead>
<tr>
<th>Estimates of TB burden*, 2017</th>
<th>Number (thousands)</th>
<th>Rate (per 100,000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality (excludes HIV+TB)</td>
<td>0.6 (0.39–0.87)</td>
<td>4.9 (3.2–7.1)</td>
</tr>
<tr>
<td>Mortality (HIV+TB only)</td>
<td>0.32 (0.22–0.42)</td>
<td>2.6 (1.8–3.5)</td>
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<tr>
<td>Incidence (includes HIV+TB)</td>
<td>7 (5.4–8.8)</td>
<td>57 (44–72)</td>
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<tr>
<td>Incidence (HIV+TB only)</td>
<td>1.5 (0.98–2.2)</td>
<td>12 (8–18)</td>
</tr>
<tr>
<td>Incidence (MDR/RR-TB)**</td>
<td>0.15 (0.078–0.2)</td>
<td>1.2 (0.64–1.9)</td>
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</tbody>
</table>
Introduction

- TB contact screening among adult and children was initiated in 2008
- In 2008, Under the leadership of MoH, NTP in collaboration pediatric association developed a TB diagnostic algorithm specific to children
- In 2009 Chapter of TB in children was introduced in the national TB guideline
- In 2014, NSP recommended to make conduct investigation before treatment and end of treatment
- TB childhood guideline was developed in 2014 and updated in December 2017
- In 2015, TB investigation among children under 5 years was integrated in IMCI register
Introduction: Strategies to improve childhood TB detection and management

• Ensure early detection of TB childhood
• Capacity building aimed at building knowledge, skills and confidence of health workers to screen and diagnose TB in children
• Implementation of pediatric mentorship program to DH with support of the Rwanda pediatric association (RPA)
• Improve collaboration with maternal child community health division in order to strengthen TB diagnostic
Rwanda’s Health System

Administrative structure

- Provinces (5)
  - District (30)
    - Sector (416)
      - Cell (2148)
        - Village (14,837)

Health care delivery system

- Tertiary hospitals
- District hospitals
- Health centers
- Health posts
- Community Health Workers

No. of public facilities / CHWs

- National (~12 m): 7
- District (~255,000): 35
- Sector (~23,000): 494
- Cell (~250): 380
- Village: 45,011

Av. Catchment area pop

- National (~12 m)
- District (~255,000)
- Sector (~23,000)
- Cell (~250)
- Village

Type of service offered

- National (~12 m): Specialized hospitals serving the entire country, Medical training
- District (~255,000): Provide government defined “Complementary package of activities” (CPA) (C-section, treatment of complicated cases…)
- Sector (~23,000): Provide care to patients referred by the primary health centers, Carry out planning activities for the health district and supervise district health personnel
- Cell (~250): Provide government defined “minimum package of activities at the peripheral level” (MPA), This includes complete and integrated services such as curative, preventive, promotional, and rehabilitation services, Supervise health posts and CHWs operating in their catchment area
- Village: Services provided are similar, albeit reduced from, that by Health Centers. Established in areas which are far from health centers, Services include curative out-patient care, certain diagnostic tests, child immunization, growth monitoring for children under five years, antenatal consultation, family planning, and health education

Community-based:

- Prevention, screening and treatment of malnutrition
- Integrated Management of Child Illness (CB-IMCI)
- Provision of family planning
- Maternal Newborn Health (C-MNH)
- DOT HIV, TB and other chronic illnesses
- Behavior change and communication

80% of burden of disease addressed at this level
Organization of TB control in Rwanda: At the community level

**TASK of CHW**

1. IEC in the community
2. Identify people with cough and signs suggestive of TB and recommend them to attend the HC
3. Give counseling to the family members of a TB patient about the importance of contact examination and preventive treatment for children < 5 years.
4. Administrate DOT in the community.
5. Trace irregular patients and defaulters
6. Assist monthly meetings to the HC
Organization of TB control in Rwanda: At sector

• CT have responsibility:
  ✓ To identify client with TB symptoms
  ✓ To collect sputum from presumptive TB cases and prepare slides
  ✓ To send to CDT laboratory for staining and microscopy examination.
  ✓ To provide treatment to TB patients based on laboratory results received from CDT.

• CDT health center in additional to the above CT tasks:
  ✓ To stain and perform microscopy examination
  ✓ Reporting entity for TB notification and treatment outcome
Organization of TB control in Rwanda: At District level

• CDT health center in additional to the above CT tasks:
  ✓ CDT hospital have a same responsibility as CDT HC
  ✓ To Coordinate TB activities in the district
  ✓ To ensure supervision and mentorship of TB activities at HC
  ✓ To ensure quality of TB case management and surveillance data
  ✓ To perform laboratory quality control at HC.
  ✓ To build capacity of staff on TB management
Procedures of contact tracing investigation: Implementation steps

- Development of a policy and strategies for contact tracing.
- The patient treatment card was revised to include contact tracing.
- Training of trainer per each district on the policy and strategies
- Regular training of healthcare providers (HCP) on the policy and strategies
- Conduct contact tracing at the begin and end of TB treatment index case
- Record all contact cascade in the register of contact tracing
- Validation of data during quarterly evaluation meeting
Procedures of contact tracing investigation: How to do contact tracing

• Establish list of names of all contacts living with the index case by the HCP before treatment initiation of the index case.

• Conduct Home visits for TB symptom screening. If a contact absent during the home visit, CHW nearest to the index case will explain to the family member the importance of screening.

• Symptomatic children are referred or examined to the TB clinic for full physical examination and diagnostic testing according to the national algorithm to confirm or exclude TB.
Procedures of contact tracing investigation: How to do contact tracing (Cont’d)

• For all children under 5 years without TB symptom or those with symptom but active TB excluded by investigation are enrolled on IPT initiation.
• At initiation of IPT a supply of isoniazid (INH) for two weeks is provided to the mother after which follow up is done monthly.
• Provide counseling about TB infection measures and early screening in case of any symptom related to TB for all contact above 5 years screened negative for to TB.
Contact tracing algorithm

TB Contacts

Any TB Symptom (screening TB+)

ZN or LED and Xpert test

SS+, MTB+RIF-

Anti-TB Treatment First line

SS-, MTB+RIF-

Culture

Anti-TB Treatment 2nd line

TB Suggestive

SS+, MTB+RIF+

Anti-TB Treatment 2nd line

SS-, MTB+RIF+

With persistence of clinical signs, CXR, FNA, Ultrasound

None TB Suggestive

Screening TB-

> 5 years BCC

< 5 years INH
## Achievement: Data collected for contact tracing

<table>
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<tr>
<th>Screening and diagnosis</th>
<th>Indicator</th>
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<tr>
<td></td>
<td>Number of child contacts of TB cases index and their age</td>
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<tr>
<td></td>
<td>Contact screened of TB cases index and their age</td>
</tr>
<tr>
<td></td>
<td>TB cases diagnosed among Contact screened of TB cases index and their age</td>
</tr>
</tbody>
</table>

| IPT                     | Number of children under five who initiated on IPT                                                                                       |
|                         | Number of children initiated on IPT who complete a full course of therapy                                                                  |
Overall, IPT coverage increased over the years and IPT completion rate is above 95%
Overall, the number of TB case increased over the years but the gap still there for children not diagnosed.
Overall, proportion of children under 15 years increased last year but the target by 2020 is to reach 8% of total TB cases.
Conclusion

• Rwanda made a good progress on contact tracing and investigation

• CHW play a big role in sensitization and reference of contact in health facilities