KNCV benchmarking tool for TB in Children and adolescent policies, practice and planning

Background

Diagnosing TB in young children is complex and more challenging than in adolescents or adults. Children are often undiagnosed and therefore do not receive appropriate care. These reasons include challenges with specimen collection and bacteriological confirmation of TB, due to the paucibacillary nature of TB in this age group and the lack of highly sensitive point-of-care diagnostic tests. The burden of TB in children and adolescents is published each year in the WHO global TB report. However, this age group usually access primary health care (PHC) or child health services, where capacity to recognize presumptive TB and access to diagnostic services are limited. TB in children may present with nonspecific symptoms and often seen with other common illnesses such as HIV/AIDS, pneumonia and malnutrition. This should be considered in sick children, particularly in areas of high TB burden. Unlike children, adolescents are an important risk group for transmission due to infectiousness of disease and high social mobility. Treatment needs to take into account the specific needs of children, adolescents and their families.

Infant and young children with TB differ from adults in their response to the disease; they are at increased risk to develop serious forms of TB, especially TB meningitis and miliary TB; they also are at an increased risk of progressing from TB infection to active TB disease, and they should be a target group for TB preventive treatment. TB in adolescents usually presents with infectious TB disease, as typically seen in adults (e.g. with cavities on chest X-ray and bacteriologically confirmed disease). Therefore, TB prevention and care interventions need to address the specific vulnerabilities and needs of children, adolescent and their families.

This benchmarking tool is updated based on the 2022 WHO operational handbook on tuberculosis - Module 5: management of tuberculosis in children and adolescents and WHO consolidated guidelines on tuberculosis - Module 5: management of tuberculosis in children and adolescents.
**The benchmarking tool**

*Objective:* The benchmarking tool is a self-assessment tool, meant to serve as a basis for discussions, brainstorming, and strategic planning and as a tool for monitoring progress in implementation of policies on the management of TB in children and adolescents in line with most recent WHO guidance, within the framework of a national TB programme.

The tool provides insight in:

1. Political commitment, management and partner coordination for prevention and management of TB in children and adolescents, also including human resource development and data collection.

2. Technical approaches for the management of TB in children and adolescents, and their place in the national TB policy, like the appropriateness of the procedures used to identify TB in children, adolescents and the quality of the prevention and care.

3. The status of implementation of the national policies for the management of TB in children and adolescents and access to quality TB prevention and care.

4. The agreed actions to improve approaches or implementation of policies on the prevention and management of TB in children and adolescents.

The benchmarking tool assists TB programmes to self-assess and quantify the implementation of the WHO recommendations on the management of TB in children and adolescents TB. It consists of a short data collection section and standards with their associated benchmarks. The standards are general statements about the characteristics that define TB in children and adolescents in the programme that is aligned with the latest WHO policies.

For each standard the benchmarking team is requested to describe the situation and to define whether this criterion is met. If it is not or only partially met, the team should develop plans for future actions to improve the performance on this standard.

Ideally the benchmarking would be conducted in a meeting of stakeholders on prevention, management and care of TB in children and adolescents, under guidance of the national TB program.

Depending on the size of the group, a half day meeting may be sufficient for a first assessment and identification of next steps for the strengthening of Childhood TB care.
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Summary report

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<th>Country:</th>
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<tbody>
<tr>
<td>Location:</td>
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<td>Date:</td>
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<tr>
<td>Chair:</td>
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<tr>
<td>Reporter:</td>
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</table>

**Participants:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Post address or e-mail</th>
<th>Telephone number</th>
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</table>
## Part A: indicators for TB in children and adolescents

Before completing the benchmark tool, it is important to fill in the key figures for TB in children and adolescents in your country / province / districts

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Calculation</th>
<th>Source of Information</th>
<th>Age bands used in the WHO operational handbook on tuberculosis, Module 5: Management of tuberculosis in children and adolescents</th>
<th>Year</th>
<th>Year</th>
<th>Year</th>
<th>WHO Global TB report indicators for children and young adolescents</th>
<th>Year</th>
<th>Year</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>Age range used to define adolescents</td>
<td>Definition of adolescents</td>
<td>National definition</td>
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<td>WHO age band for global TB report (0-4; 5-14 or 0-14 years). However, WHO encourages countries to move to electronic surveillance systems that will make it possible to report by 5 year age groups (0-4; 5-9; 10-14; 15-19)</td>
<td></td>
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<tr>
<td><strong>Total number of notified TB patients in one year</strong></td>
<td>Reported total number of TB patients notified in the last year</td>
<td>National TB report</td>
<td>Age bands used in the WHO operational handbook on tuberculosis, Module 5: Management of tuberculosis in children and adolescents</td>
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<tr>
<td><strong>Total number of children and adolescents</strong></td>
<td>Total number of children and adolescents in the population belonging to each group</td>
<td>National demographic register</td>
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<td>Infants (&lt;1 year)</td>
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<td>0 - 4 years</td>
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<td>Young children (&lt; 5 years)</td>
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<td>Children (5 - 9 years)</td>
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<td>5 - 15 years</td>
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<td>Young adolescents (10 - 14 years)</td>
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<td>Older adolescents (15 - 19 years)</td>
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<td>or 0 - 14 years</td>
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<td>Children (0 - 9 years)</td>
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<td>Adolescents (10 - 19 years)</td>
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</tr>
<tr>
<td>Total number of children and adolescents with TB</td>
<td>Number of children and adolescents with TB belonging to each group</td>
<td>TB treatment register, relevant reports</td>
<td>Infants (&lt;1 year)</td>
<td>Young children (&lt; 5 years)</td>
<td>Children (5 - 9 years)</td>
<td>Young adolescents (10 - 14 years)</td>
<td>Older adolescents (15 - 19 years)</td>
<td>Children (0 - 9 years)</td>
<td>Older adolescents (10 - 19 years)</td>
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</table>

| Specify which children are eligible for BCG vaccination | Define at which age group (e.g. 0 - 12 months) are eligible for BCG vaccination | EPI, National TB guidelines | Age | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |

| BCG vaccination rate at the age of one year | Reported percentage of BCG vaccination in eligible children (at one year of age) | EPI, NTP reports | BCG vaccination rate | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |

| Number of children and adolescents with TB who have:  
- Bacteriologically confirmed pulmonary TB  
- Not bacteriologically confirmed | Number of children and adolescents belonging to each category | TB treatment register, relevant reports | Bacteriologically-positive pulmonary TB | Bacteriologically-negative pulmonary TB | Extra pulmonary TB | MDR/RR TB | Pre-XDR TB | XDR TB |
<table>
<thead>
<tr>
<th><strong>pulmonary TB</strong></th>
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<tbody>
<tr>
<td><strong>Extrapulmonary TB</strong></td>
</tr>
<tr>
<td><strong>DR TB</strong></td>
</tr>
<tr>
<td><strong>Treatment success rate for children and adolescents with TB on 4 months or 6 months DOTS-TB treatment regimens</strong></td>
</tr>
</tbody>
</table>

**Numerator:** number of children 3 months to 16 years who receive the 4-month regimen for non-severe TB

**Denominator:** number of children and adolescents diagnosed with TB

<table>
<thead>
<tr>
<th>TB treatment register, relevant reports</th>
<th>Infants (&lt;1 year)</th>
<th>Young children (&lt; 5 years)</th>
<th>Children (5 - 10 years)</th>
<th>Young adolescents (10 - 14 years)</th>
<th>Old adolescents (15 - 19 years)</th>
<th>0 - 19 years</th>
<th>0 - 4 years</th>
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| **Numerator:** number of children 3 months to 16 years who were cured or who completed TB treatment on 4-month treatment regimen within 1 year

**Denominator:** number of children and adolescents with TB who were

<table>
<thead>
<tr>
<th>TB treatment register, relevant reports</th>
<th>Infants (&lt;1 year)</th>
<th>Young children (&lt; 5 years)</th>
<th>Children (5 - 10 years)</th>
<th>young adolescents (10 - 14 years)</th>
<th>Old adolescents (15 - 19 years)</th>
<th>0 - 19 years</th>
<th>0 - 4 years</th>
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</tbody>
</table>

KNCV benchmarking tool for TB in Children and adolescents
Version September 2023
<table>
<thead>
<tr>
<th>Numerator: number of children and adolescents with TB who were cured or who completed TB treatment on 6-month treatment regimen within 1 year</th>
<th>TB treatment register, relevant reports</th>
<th>Denominator: number of children and adolescents with TB who were registered during the same period on 6-month treatment regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants (&lt;1 year)</td>
<td>0 - 4 years</td>
<td></td>
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<tr>
<td>Young children (&lt; 5 years)</td>
<td></td>
<td></td>
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<tr>
<td>Children (5 - 10 years)</td>
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<td></td>
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<tr>
<td>young adolescents (10 - 14 years)</td>
<td>5 - 15 years</td>
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<tr>
<td>Old adolescents (15 - 19 years)</td>
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<td>0 - 19 years</td>
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<td>0 - 14 years</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Numerator: number of children and adolescents with HR-TB who were cured or who completed TB treatment within 1 year</th>
<th>DR treatment register, relevant reports</th>
<th>Success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specify year of cohort</td>
<td></td>
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</tbody>
</table>
### Treatment Success Rate for Children and Adolescents with MDR TB

<table>
<thead>
<tr>
<th>Denominator: number of children and adolescents with MDR TB who started during the same period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator: number of children and adolescents with MDR TB who were cured or who completed TB treatment within 1 year</td>
</tr>
</tbody>
</table>

### Success Rate

Specify year of cohort

<table>
<thead>
<tr>
<th>Success rate</th>
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</table>

### Treatment Success Rate for Children and Adolescents with Pre-XDR TB

<table>
<thead>
<tr>
<th>Denominator: number of children and adolescents with Pre-XDR TB who started during the same period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator: number of children and adolescents with Pre-XDR TB who were cured or who completed TB treatment within 1 year</td>
</tr>
</tbody>
</table>

### Success Rate

Specify year of cohort

<table>
<thead>
<tr>
<th>Success rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>started during the same period</td>
</tr>
<tr>
<td>--------------------------------</td>
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<tr>
<td></td>
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</tbody>
</table>

### Completion rate for preventive treatment for the age groups

<table>
<thead>
<tr>
<th>Nominator: number of children and adolescents / Other close contacts who were prescribed preventive treatment in the last year</th>
<th>Denominator: number of children and adolescents eligible for preventive treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact investigation information system, HIV/AIDS information system, TPT register, relevant reports</td>
<td>Completion rate for TPT</td>
</tr>
<tr>
<td></td>
<td>Infants (&lt;1 year)</td>
</tr>
<tr>
<td></td>
<td>Young children (&lt; 5 years)</td>
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<tr>
<td></td>
<td>Children (5 - 10 years)</td>
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<tr>
<td></td>
<td>young adolescents (10 - 14 years)</td>
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<tr>
<td></td>
<td>Old adolescents (15 - 19 years)</td>
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<tr>
<td></td>
<td>Other close contacts</td>
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</tbody>
</table>

|                                                                                                               | 0 - 4 years                                                                      |
|                                                                                                               | 5 - 15 years                                                                    |
|                                                                                                               | or 0 - 14 years                                                                 |


**Proportion of children and adolescents who completed preventive therapy for the age groups**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Numerator: number of children and adolescents / other close contacts who completed preventive treatment in the most recent cohort that completed preventive treatment</th>
<th>Denominator: number of children and adolescents who were prescribed preventive treatment in the most recent cohort that completed preventive treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants (&lt;1 year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young children (&lt; 5 years)</td>
<td></td>
<td></td>
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<tr>
<td>Children (5 - 10 years)</td>
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<tr>
<td>Young adolescents (10 - 14 years)</td>
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<tr>
<td>Old adolescents (15 - 19 years)</td>
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<tr>
<td>Other close contacts</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Completion rate for TPT</th>
<th>0 - 4 years</th>
<th>5 - 15 years</th>
<th>or 0 - 14 years</th>
</tr>
</thead>
</table>

**Percentage of children and adolescents with TB with an HIV test result**

<table>
<thead>
<tr>
<th>Denominator: all children diagnosed with TB</th>
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</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td><strong>adolescents tested for HIV</strong></td>
<td>Numerator: the number of adolescents with TB with an HIV test result Denominator: all adolescents diagnosed with TB</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Number and percentage of HIV positive children and adolescents with TB</strong></th>
<th>Numerator: The number of children with TB and HIV co-infection Denominator: the number of children with TB with an HIV test result</th>
<th>Relevant reports</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Number and percentage of children and adolescents receiving ARV therapy</strong></th>
<th>Number of children with TB and HIV receiving ARV therapy Denominator:</th>
<th>Relevant reports</th>
<th>Number</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>with TB known to be HIV positive who receive ARV therapy</strong></td>
<td>the total number of children with TB and HIV</td>
<td>Number of adolescents with TB and HIV receiving ARV therapy</td>
<td>Denominator: the total number of adolescents with TB and HIV</td>
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<tr>
<td></td>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Number and percentage of children and adolescents common comorbidities (e.g. meningitis, malnutrition, pneumonia, chronic lung disease, HIV) evaluated for TB</strong></th>
<th>Number of children with common comorbidities (e.g. SAM, pneumonia, HIV) with TB infection</th>
<th>Denominator: the total number of children with common comorbidities (e.g. SAM, pneumonia, HIV) evaluated for TB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relevant reports</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Denominator: the total number of adolescents with common comorbidities (e.g. SAM, pneumonia, HIV) evaluated for TB</td>
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</tbody>
</table>
Part B: Standards and benchmarks for TB in children and adolescents

For each standard, please assess whether the system is able to satisfy the associated benchmark(s). Indicate 'Met', 'Partially met', “Not met” in the Conclusions column.

Indicate ‘Met’ for a standard if all associated benchmarks are satisfied. Indicate 'Partially Met' if not all but at least one benchmark is satisfied. Indicate ‘Not Met’ if none of the associated benchmarks is satisfied. Describe the current situation for each standard. If a standard is ‘Not Met’ or 'Partially Met', please describe actions or next steps agreed to improve the quality of this standard. It would be useful to also mention the partner leading this action and the timelines for completion.

### 1. Political commitment

<table>
<thead>
<tr>
<th>Standard</th>
<th>Benchmark(s)</th>
<th>Description of current situation</th>
<th>Benchmark 'met' or 'not met'</th>
<th>Standard is 'Met', 'Partially met' or 'Not met'</th>
<th>Agreed next steps</th>
<th>By who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 There is evidence of political commitment for prevention and care of TB in children and adolescents</td>
<td>Children and adolescents are included in the national strategic plan for TB prevention and care</td>
<td>The national strategic plan includes sections on TB infection prevention and care, systematic screening, monitoring &amp; evaluation, surveillance, operational research, diagnosis, treatment and technical assistance for children and adolescents</td>
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<tr>
<td></td>
<td>There is earmarked budget available for all components of TB prevention and care in children and adolescents</td>
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<tr>
<td></td>
<td>The budget for prevention and care of TB in children and adolescents is fully funded</td>
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</tbody>
</table>
### 2. Coordination and stakeholder engagement at national level on TB in children and adolescents

<table>
<thead>
<tr>
<th>Standard</th>
<th>Benchmark(s)</th>
<th>Description of current situation</th>
<th>Benchmark 'met' or 'not met'</th>
<th>Standard is 'Met', 'Partially met' or 'Not met'</th>
<th>Agreed next steps</th>
<th>By who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 There is an active national working group for prevention, management and care of TB in children and adolescents</td>
<td>There is a national working group for prevention, management and care of TB in children and adolescents</td>
<td>In this working group there is representation from all stakeholders, especially the HIV program, PHC, maternal and child-health services, nutrition services, and the national paediatric association or an equivalent body and relevant NGO’s, civil society organizations, community representatives, private sector and NTP</td>
<td></td>
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<tr>
<td></td>
<td>The working group has clear terms of reference</td>
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<tr>
<td></td>
<td>The working groups is functional, meets regularly and has action plans</td>
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<td></td>
<td>The TWG actively monitors and follows up on the implementation of the action plans</td>
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<tr>
<td></td>
<td>There is a NTP focal person for prevention, management and care of TB in children and adolescents</td>
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</table>
The focal person is familiar with the WHO recommended policies for prevention, management and care of TB in children and adolescents

### 3. Overall technical strategy for the management of TB in children and adolescents

<table>
<thead>
<tr>
<th>Standard</th>
<th>Benchmark(s)</th>
<th>Description of current situation</th>
<th>Benchmark 'met' or 'not met'</th>
<th>Standard is 'Met', 'Partially met' or 'Not met'</th>
<th>Agreed next steps</th>
<th>By who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 There is national guidance for management of TB in children and adolescents</td>
<td>National TB guidelines include specific guidance and standard operating procedures on prevention, diagnosis and treatment of TB in children and adolescents</td>
<td>Guidelines, standard operating procedures and strategy for the prevention and management of TB children and adolescents have been updated following the latest WHO consolidate guidelines/operational handbook</td>
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<tr>
<td>3.2 There is effective technical assistance for the management of TB in children and adolescents</td>
<td>Necessary technical assistance for the prevention and management of TB in children and adolescents is identified</td>
<td>Technical assistance missions are implemented and monitored</td>
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<td></td>
<td>Action plans are developed based on TA recommendations</td>
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</tbody>
</table>
### 3.3 The strategy on the management of TB in children and adolescents is fully implemented

The national strategy for the management of TB in children and adolescents is implemented nationwide

Guidelines and standard operating procedures are available at health facilities including the private sector

The management of TB in children and adolescents is integrated into the community health strategies

### 4. Engagement of all providers

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **4.1 National policies provide guidance for all providers of paediatric care who are involved in diagnosis,**

The national TB program clearly defines a role for Child health services / private health facilities for TB prevention and care of children and adolescents

Child health services including private health facilities are required to report on TB in children and adolescents to the NTP

Child health services including private health facilities follow national guidelines for prevention, diagnosis and treatment of TB in children and adolescents

Child health services including private health facilities are supported by NTP in training and supervision

There are interventions addressing TB in children and adolescents at primary, secondary and tertiary level of the public health system. |
<table>
<thead>
<tr>
<th>prevention and treatment of TB in children and adolescents</th>
<th>health system</th>
</tr>
</thead>
<tbody>
<tr>
<td>National guidance includes specific interventions for children and adolescents with TB or at risk of TB as part of routine healthcare service and mother and child care settings</td>
<td></td>
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</tbody>
</table>

**4.2 All providers of paediatric care are involved in diagnosis, prevention and treatment of TB in children and adolescents**

- Child health services including private health facilities are reporting on TB in children and adolescents to the NTP
- TB interventions for children and adolescents are offered as part of routine healthcare service (including IMCI and nutrition programs) and mother and child care settings
- Children and adolescents with common comorbidities (e.g. meningitis, malnutrition, pneumonia, chronic lung disease, HIV) are routinely evaluated for TB by healthcare facility (TB symptom screening).

**5. Primary prevention**

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<thead>
<tr>
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<th>When</th>
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<tbody>
<tr>
<td>There is a section in the national TB guidelines on BCG vaccination including CLHIIV</td>
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</table>
5.1 **All eligible children receive BCG vaccination**

Policy is in accordance with the latest WHO guidelines on the management of TB in children and adolescents, especially also regarding BCG for HIV infected children and adolescents

The vaccination rate is known and above 80% in eligible children

6. Contact investigation

<table>
<thead>
<tr>
<th>Standard</th>
<th>Benchmark(s)</th>
<th>Description of current situation</th>
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<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6.1 Investigation of children, adolescents and other close contacts of TB index patients is part of the national strategy</strong></td>
<td>There is a section in the national TB guidelines on TB contact investigation with an algorithm for screening (diagnostic evaluation) of children, adolescents and other close contacts for TB</td>
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<td></td>
<td>The national strategy on contact investigation is in accordance with the latest WHO guidelines for contact investigation and evaluation for TPT initiation</td>
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<td><strong>6.2</strong></td>
<td>TB contact investigation is routinely initiated regardless of where the index is diagnosed by adequate exchange of information between geographical areas</td>
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<tr>
<td>Investigation of children, adolescents and other close contacts of TB index patients is fully implemented and monitored</td>
<td>Active TB contact investigation is routinely performed at the primary healthcare level with active community participation using available contact investigation tools</td>
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<td></td>
<td>Children, adolescents and other close contacts with TB symptoms are referred for the relevant investigations</td>
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<tr>
<td></td>
<td>TB contact investigation is implemented throughout the country including the high risk groups</td>
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</table>

### 7. Preventive treatment

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>7.1 The national strategy provides for TB Preventive Treatment</td>
<td>The national strategy provides counselling for children, adolescents and close contacts eligible for TPT.</td>
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<td></td>
<td>The recording and reporting system allows follow up of TB infection and possible development of TB disease for all children, adolescents and close contacts eligible for TPT for a period of two years</td>
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<td></td>
<td>The national strategy for TPT includes the use of up to date child adjusted dosages, child-friendly paediatric formulations and shorter regimens (rifamycin based)</td>
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</tbody>
</table>
The secondary prevention strategy is in accordance with the latest WHO guidelines on the management of TB in children and adolescents, TB contact investigation and TPT.

<table>
<thead>
<tr>
<th>7.2 All eligible children and adolescents have access to TPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPT for eligible children, adolescents and close contacts is implemented throughout the country.</td>
</tr>
<tr>
<td>Nationale policy guidelines include a 2-year follow up of eligible children and adolescents not receiving TPT, especially those who had contact with M/XDR TB.</td>
</tr>
<tr>
<td>The initiation rate of TPT for eligible children and adolescents is &gt; 80%.</td>
</tr>
<tr>
<td>The TPT completion rate is known and &gt; 80%.</td>
</tr>
<tr>
<td>Child-friendly formulations for TPT are available and use.</td>
</tr>
<tr>
<td>Pre-treatment, treatment and post treatment counselling are included in the national guidelines/facility SOPs.</td>
</tr>
</tbody>
</table>

8. Diagnosis of TB in children and adolescents

<table>
<thead>
<tr>
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<th>When</th>
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</thead>
</table>

22
<table>
<thead>
<tr>
<th>8.1 Special approaches for diagnosis of TB/DR TB, TB/HIV and health emergencies (e.g. COVID-19, malnutrition) in children and adolescents are included in the national guidance on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic algorithm for TB/MDR-TB in children and adolescents TB/MDR TB is update and in accordance WHO recommendations</td>
</tr>
<tr>
<td>The diagnostic algorithm defines assessing eligibility for the 4-month regimen for non-severe TB in settings with: 1. access to CXR, 2. access to bacteriological testing, and 3. settings without access to CXR</td>
</tr>
<tr>
<td>The diagnostic algorithm for TB/DR-TB in children and adolescents includes SAM, HIV status and takes into consideration the presence or not of advanced HIV disease in CLHIV.</td>
</tr>
<tr>
<td>The diagnostic algorithm defines which children and adolescents are tested for TB/MDR-TB based on symptoms or high risk groups</td>
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<tr>
<td>The diagnostic algorithm gives guidance on how testing is performed for TB/DR-TB/HIV/SAM/COVID-19</td>
</tr>
<tr>
<td>The diagnostic algorithm defines the process for HIV counselling and testing for children and adolescents</td>
</tr>
<tr>
<td>Standard operating procedures (SOPs) and job aids on the management of children and adolescents TB/DR-TB, TB/HIV and SAM are in place</td>
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</tbody>
</table>
### TB

- The diagnostic algorithm is available and routinely used at all health care facilities in the country.
- The performance of diagnosis algorithm is periodically reviewed and evaluated.
- Standard operating procedures (SOPs) and job aids on the diagnosis of DR TB, TB/HIV/SAM and COVID-19 in children and adolescents are applied and used throughout the country.
- Diagnosis of TB in children and adolescents is accessible (close to where the children and adolescents live or transportation support is provided).
- Use of rapid diagnostic test as the initial diagnostic test in children and adolescents with signs and symptoms of pulmonary TB and TB meningitis.
- Easy to use/child-friendly diagnostic methods (e.g. stool method/less invasive samples for bacteriological testing) are accessible and included in the NSP.

### 8.2 Nutritional assessment and support for children and adolescents

- All children and adolescents with TB disease should receive an assessment of their nutritional status and appropriate support based on their nutritional status at diagnosis and throughout treatment.
- The nutritional status of children and adolescents with TB is assessed regularly during TB treatment.
## 9. Treatment of TB in children and adolescents

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>9.1 The national treatment guidelines for TB and MDR TB have appropriate and specific adjustments for children and adolescents</strong></td>
<td>There is a section in the national TB/DR-TB guidelines on treatment of TB in children and adolescents</td>
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<td></td>
<td>The treatment regimen for severe and non-severe drug susceptible TB is in line with the latest WHO recommendations</td>
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<td></td>
<td>The treatment regimen for DR TB is in line with the latest WHO recommendations</td>
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<td></td>
<td>The treatment guideline include a section on the management of common comorbidities (e.g. meningitis, malnutrition, pneumonia, chronic lung disease, HIV) are routinely evaluated for TB.</td>
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<td>The same recommendation is present in both the national HIV and TB guidelines of when to start and which ART regime to be used in children and adolescents with HIV/TB coinfection</td>
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</table>
Standard operating procedures (SOPs) and job aids on the treatment of TB, TBM and DR-TB in children and adolescents are in place including for CALHIV.

The treatment delivery method is determined by the treatment provider in consultation with the child and caretaker or with the adolescent:
1. Children and adolescents are not routinely hospitalized.
2. Administration of anti-TB medicines is supervised by the caretaker, nurse or person providing treatment support.

<table>
<thead>
<tr>
<th>9.2 Child friendly formulations are available</th>
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</thead>
<tbody>
<tr>
<td>Paediatric dosages in the national guideline are based on the latest WHO guidelines</td>
</tr>
<tr>
<td>National Formulary includes FLD and SLD child-friendly formulations</td>
</tr>
<tr>
<td>First-line TB medicines are available in new child-friendly formulations</td>
</tr>
<tr>
<td>Fixed dose combinations of first-line medicines are available for paediatric use in child-friendly formulations</td>
</tr>
<tr>
<td>Second-line TB medicines are available in child friendly formulations</td>
</tr>
<tr>
<td>Adequate ancillary drugs available for use in children (including pyridoxine)</td>
</tr>
</tbody>
</table>
### 9.3 The national treatment strategy on the management of TB in children and adolescents is applied countrywide

- The specific guidance for treatment of DS-TB in children and adolescents is applied throughout the country.
- The specific guidance for treatment of MDR/RR-TB in children and adolescents is applied throughout the country.
- Child friendly formulations of first- and second-line anti TB medicines are available in stock and routinely used.
- The aDSM system is applied for both children and adolescents with DS-TB and DR-TB.
- Standard operating procedures (SOPs) and job aids on the treatment of DS-TB, MDR/RR-TB, DS-TBM in children and adolescents, including for children and adolescents living with HIV, are applied.

### 10. Recording and reporting

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Data on TB in children and adolescents are available at all levels of the NTP</td>
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</tbody>
</table>
### 10.1 Data on TB in children and adolescents are available and used at the NTP

- Data include at least notification of TB in children, BCG vaccination rate, treatment success rate, number of children on TB preventive treatment, number of children detected through contact investigation, type of TB, new or previously treated, bacteriologically confirmed or negative, extrapulmonary TB, TBM and DR-TB

- Data include at least notification of TB in adolescents treatment success rate, number of adolescents on TB preventive treatment, number of adolescents detected through contact investigation, type of TB, new or previously treated, bacteriologically confirmed or negative, extrapulmonary TB, TBM and DR-TB

- Data are evaluated and used for planning

- All children and adolescents diagnosed and treated for TB are recorded and reported by NTP in recommended age bands

- The country introduced/or planning to introduce digital recording and reporting system including children and adolescent

### 11. Human resources for the management of TB in children and adolescents

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
11.1 There is a plan for human resource capacity building for prevention and care of TB in children and adolescents

All aspects of the management of TB in children and adolescents are included in the checklists for monitoring and supportive supervision for all health system levels and all cadres of staff.

Capacity building and training on the management of TB in children and adolescent is provided for the following groups:

- Health workers at secondary- and primary-level facilities that provide care for sick children and adolescents
- Health workers who are involved in the management of mothers, children and adolescents living with HIV
- Community health workers, volunteers and treatment support groups (who carry out contact tracing in the community)
- Health workers involved in the management of TB in adults in the community

The training curricula cover at least:

- Children and adolescent presumed to have TB disease
- Children and adolescent treated with TB in the community
- Children and adolescent who is around the person in the household with pulmonary TB
- Initiation of contact investigation for each index case
All the trainings done on the management of TB and DR-TB include the prevention and care for children and adolescents with TB or at risk of TB.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>12.1 The NTP and partners deploy specific initiatives to promote a person and family centred approach in prevention</td>
<td>Educational materials on TB in children and adolescents, TPT, awareness on benefits of TPT and importance of initiating TPT in healthy kids are available</td>
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<td></td>
<td>Activities are undertaken to reduce stigmatization and discrimination of children and adolescents with TB in the communities and at school</td>
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<td>Public/Private sector TB care for children and adolescents is free of charge across the cascade of care</td>
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<td>Diagnosis and treatment are accessible close to the homes</td>
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<tr>
<td></td>
<td>Children and adolescents are not unnecessarily hospitalized</td>
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</tbody>
</table>
National policies include guidance for children and adolescents to attend schools after 2 weeks of treatment or as soon as when no longer infectious, their clinical condition allows it and irrespective of method of diagnosed (sputum microscopy/GeneXpert/culture positive TB).

There are initiatives to support caretakers how to manage TB in children and adolescents.

National policy guidelines include activities to avoid catastrophic costs for children, adolescents and families affected by TB (e.g. Social protection, health insurance, treatment support).
**Evaluation:**
We hope you enjoyed the self-assessment of Policies and Practices in your country for TB in children and adolescents; we hope it helped identify new partners and concrete new steps to strengthen the care for children and adolescents with TB. We would appreciate your comments for further improvement of this self-assessment tool. Could you therefore please send your evaluation to mansa.mbenga@kncvnb.org? Thank you for your contribution.

Scores are required as well as comments, please. For every item place a ‘√’ in the (scoring) box that most closely represents how you feel about the tool. Also, where necessary, please comment briefly on each item about your reasons for giving this score, particularly if your answer is NO or ratings are 3, 2 or 1.

1. **Does the tool assist you to discuss achievements of TB prevention and care in children and adolescents in your country?**
   - Yes □ No □
   *Please comment briefly why you have given this answer*

2. **Does this tool provide a realistic overview of the management of TB in children and adolescents in your country/area?**
   - Yes □ No □
   *Please comment briefly why you have given this answer*

3. **How does this tool assist you to define next steps to improve the approach to TB in children and adolescents in your country?**
   - Clearly helps to define improvements
   | 6 □ 5 □ 4 □ 3 □ 2 □ 1 □ | Does not help to define improvements at all
   *Please comment briefly why you have given this rating*

4. **At which levels in the Health Care system do you think this benchmark tool could be used?**
   - National □
   - Regional □
   - District □
   - Health Care Facility □
   - Other *(Please specify)* □

5. **Should more quantitative questions be included?**
   - Yes □ No □
6. Which standards are not essential and can be deleted?

☐ 1: Political commitment
☐ 2: Coordination and stakeholder engagement at national level on TB in children and adolescents
☐ 3: Overall technical strategy for the management of TB in children and adolescents
☐ 4: Engagement of all providers
☐ 5: Primary prevention
☐ 6: Contact investigation
☐ 7: Preventive treatment
☐ 8: Diagnosis of TB in children and adolescents
☐ 9: Treatment of TB in children and adolescents
☐ 10: Recording and reporting
☐ 11: Human resources for the management of TB in children and adolescents
☐ 12: Enabling environment, people-centered care

Please comment briefly, if necessary:

7. Should a user’s guide be provided with this tool?

☐ Yes ☐ No

8. What other feedback would you like to provide on this tool?

*e.g. what kind of information is missing, or what kind of information is too detailed?*

Thank you very much!