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TUBERCULOSIS FOUNDATION
To eliminate TB

KNCV Benchmarking Tool for Childhood TB Policies, Practices and Planning

Although awareness is growing, childhood TB has been ignored for far too long. There is an urgent need for feasible and implementable policies to guide clinical practice, engaging a broader range of stakeholders, especially those who are involved in child care and child survival initiatives in both the public and private sectors.

This self-assessment tool offers countries guidance for an initial assessment of their childhood TB strategy. It serves as a basis for discussions among all stakeholders, strategic and action planning and monitoring progress in the realization of bold policies towards elimination of TB in children.

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Acknowledgements

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The main participants of the working group that developed this tool are:

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- Gunta Dravniece – Senior consultant at KNCV
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The tool was validated with support from Dr. Tue from the National TB program of Vietnam

The childhood TB benchmarking tool is a living document which will be updated periodically based the latest guidelines and feedback received. The tool can be customized according to the specific needs of a country. KNCV would appreciate if changes in the tool as well as results that have been accomplished with use of the tool are shared. If you want to share results or for questions regarding use of the tool, please contact Nick Blok – nick.blok@kncvtbc.org

Countries with experience in using the tool:

Vietnam, Ethiopia, Bangladesh, Indonesia, Ukraine, Kyrgyzstan, Malawi and the Netherlands.

Download the Tool

The benchmarking tool is available in MS word and excel. The excel file has additional features including a summary of all benchmarks and graphs of the most important indicators on childhood TB. The Word file is more print friendly.

https://www.kncvtbc.org/en/kb/kncv-benchmarking-tool-for-childhood-tb-policies-practice-and-planning/

Cover photo: M. Bushue

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Background

Diagnosing TB in children is more difficult than in adults and treatment for children needs to take into account the specific needs of children and their families.

Children with TB differ from adults in their response to the disease; they are at increased risk to develop to serious forms of TB, especially TB meningitis and miliary TB; they also are at an increased risk of progressing from primary TB infection to active TB, and are therefore a target group for preventive treatment.

Therefore TB control interventions need to address the specific vulnerabilities and needs of children and their families.

WHO has developed guidance for countries how to address childhood TB; countries are in the process of aligning their policies with these guidelines.

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 the realization of childhood TB policies towards alignment with WHO guidelines, in the framework of a TB program.

The tool provides insight in:

- Political commitment, management and partner coordination for childhood TB, also including human resource development and data collection
- Technical approaches for childhood TB and the place of childhood TB in the national TB policy, like the appropriateness of the procedures used to identify TB in children and the quality of the case-management of children with TB
- The status of implementation of the national childhood TB policies and access to Childhood TB care
- The agreed actions to improve approaches or implementation of childhood TB.

This benchmarking tool is based on the WHO *'Framework for conducting reviews of tuberculosis programmes – Assessing activities to address childhood TB'* and the Second Edition of the WHO Guidance for national Tuberculosis programmes on the management of tuberculosis in children (2014). From these documents a benchmarking tool was created.

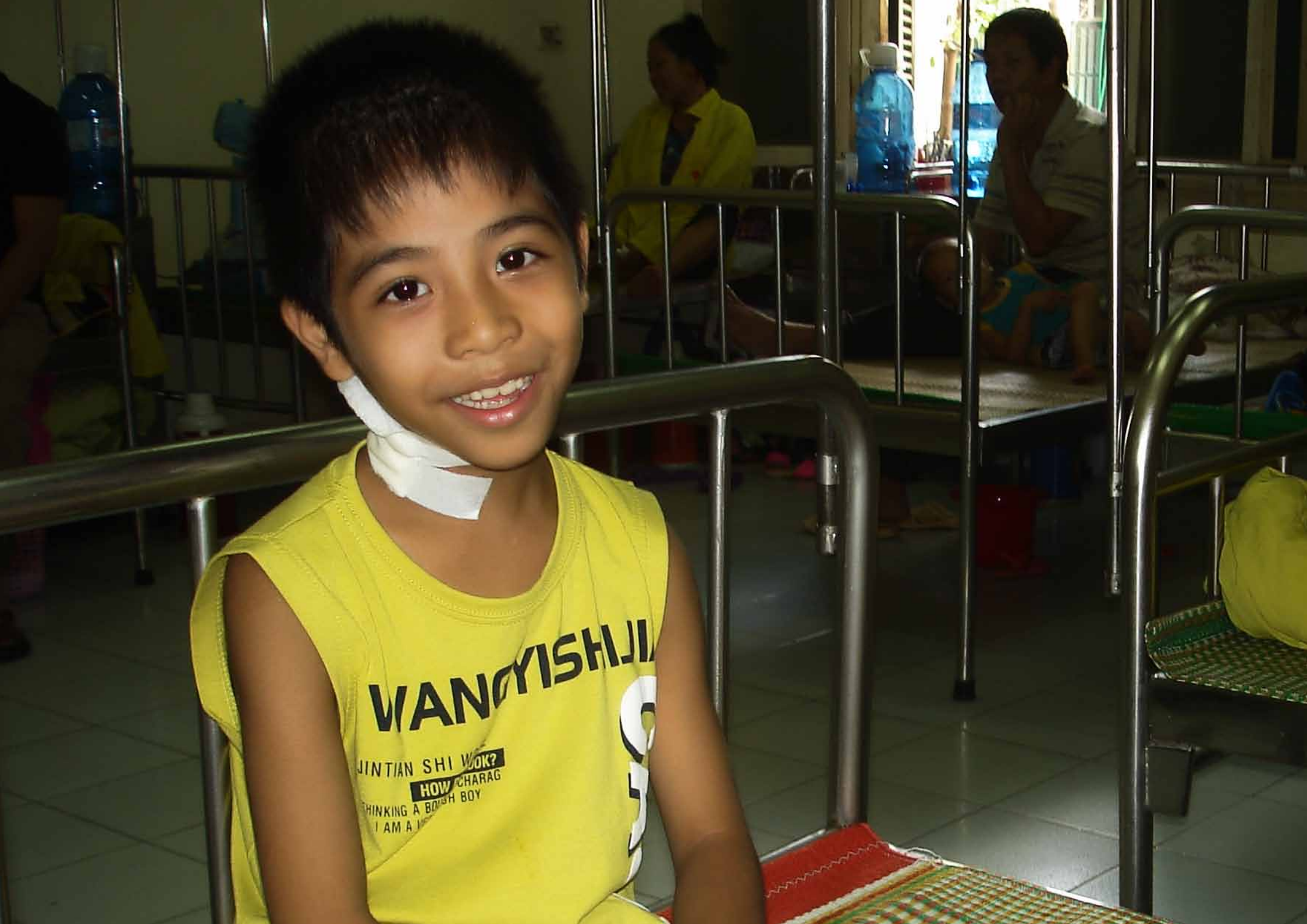
The benchmarking tool assists TB programs to self-assess and quantify the implementation of the WHO childhood TB. Part A consists of a short epidemiological assessment of childhood TB including the most important indicators. Part B are 12 standards with their associated benchmarks. The standards are general statements about the characteristics that define a childhood TB program 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 of Childhood TB, under guidance of the national TB program. Beside the NTP, stakeholders could include paediatricians, PHC and maternal and child-health services, the HIV program and NGO's working in the field of child care.

In case only a limited group of stakeholders is known to the NTP a start could be made with the ones known.

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.



Part A: Indicators for Childhood TB

Before completing the benchmark tool, it is important to fill in the key figures of childhood TB in your country/province/districts.

Indicator	Calculation	Source of info	Results	
Age range to define adolescent	Definition of adolescents	National definition		
Total number of notified TB patients in one year	Reported total number of TB patients notified in the last year	National TB report		
Total number of children aged • 0-4 years • 5-14 years • 0-14 years Adolescents: ….. - ….. yrs (national definition)	Total number of children in the population belonging to each group	National demographic register	0-4 years	
			5-14 years	
			0-14 years	
			…. - …. years	
Number of children with TB aged • 0-4 years • 5-14 years • 0-14 years Adolescents: ….. - ….. yrs	Number of children with TB belonging to each group	TB treatment register, relevant reports	0-4 years	
			5-14 years	
			0-14 years	
			…. - …. years	
Specify which children are eligible for BCG vaccination	Define at which age children are eligible for BCG vaccination (and re-vaccination)	National TB guideline		
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		
Number of children with TB who have • Bacteriologically confirmed pulmonary TB • Not bacteriologically confirmed pulmonary TB • Extra-pulmonary TB • MDR-TB	Number of children belonging to each category	TB treatment register, relevant reports	Bacteriologically-positive pulmonary TB	
			Bacteriologically-negative pulmonary TB	
			Extra-pulmonary TB	
			MDR-TB	
Treatment success rate for childhood TB (Cat I/III) treatment)	**Numerator:** Number of children with TB who were cured or who completed Cat I/III TB treatment within a specified period of time. **Denominator:** Number of children with TB who were registered during the same period on CatI/III	TB treatment register, relevant reports	0-4 years	
			5-14 years	
			0-14 years	
			…. - …. years	

Indicator	Calculation	Source of info	Results	
Treatment success rate for childhood MDR-TB	**Numerator:** Number of children with TB who were cured or who completed TB treatment within a specified period of time **Denominator:** Number of children with TB who started during the same period	MDR treatment register, relevant reports	Success rate (specify the year of the cohort _____)	
Acceptance rate for preventive therapy for the age groups: • 0-4 years • 5-14 years • 0-14 years Adolescents: ….. - ….. yrs	**Nominator:** Number of children who were prescribed preventive therapy in the last year **Denominator:** Number of children eligible for preventive therapy	Contact investigation information system, HIV/AIDS information system, IPT register, relevant reports	0-4 years	
			5-14 years	
			0-14 years	
			…. - …. years	
Proportion of children who completed preventive therapy for the age groups • 0-4 years • 5-14 years • 0-14 years Adolescents: ….. - ….. yrs	**Numerator:** Number of children who completed preventive therapy in the most recent cohort that finalized preventive therapy **Denominator:** Number of children who were prescribed preventive therapy in the most recent cohort that finalized preventive therapy	Contact investigation information system, IPT register, relevant reports	0-4 years	
			5-14 years	
			0-14 years	
			…. - …. years	
Percentage of children tested for HIV	**Numerator:** Number of children with TB with an HIV test result **Denominator:** All children diagnosed with TB			
Number and percentage of HIV positive children with TB	**Numerator:** Number of children with TB known to be HIV positive **Denominator:** Number of children with TB with an HIV test result			
Number and percentage of children with TB known to be HIV positive who receive ARV therapy	**Numerator:** Number of HIV positive children with TB receiving ARV therapy **Denominator:** The total number of children with TB known to be HIV positive			

Part B: Standards and Benchmarks for Childhood TB

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.

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
1. Political commitment				
1.1 There is evidence of political commitment for childhood TB	• Childhood TB is included in the national strategic plan to prevent and control TB • The national strategic plan includes sections on prevention, monitoring&evaluation, surveillance, operational research, diagnosis, treatment and technical assistance for childhood TB • There is earmarked budget available for all components of childhood TB • The budget for childhood TB is fully funded		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
2. Childhood TB coordination and stakeholder engagement at national level				
2.1 There is an active national working group on childhood TB	• There is a national childhood TB working group • In this working group there is representation from all stakeholders, especially the HIV program, PHC and maternal and child-health services and the national paediatric association or an equivalent body and relevant NGO's and NTP • The working group has clear terms of reference • The working groups has planned meetings and action plans • The TWG actively monitors and follows up on the implementation of the action plans • There is a NTP focal person for childhood TB • The focal person for childhood TB is familiar with the WHO recommended policies for management of childhood TB		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
3. Overall technical strategy on childhood TB				
3.1 There is national guidance for childhood TB	• National TB guidelines include specific guidance and standard operating procures on childhood TB • Guidelines, standard operating procedures and strategy for childhood TB have been updated following the latest WHO childhood TB guidelines		☐ Met ☐ Partially met ☐ Not met	
3.2 There is effective technical assistance for childhood TB	• Necessary technical assistance for childhood TB is identified • Technical assistance missions are implemented • Actions plans are developed based on TA recommendations		☐ Met ☐ Partially met ☐ Not met	
3.3 The childhood TB strategy is fully implemented	• The national strategy on childhood TB is implemented throughout the country • Guidelines and standard operating procedures are available at health clinics		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
4. Engagement of all providers				
4.1 National policies provide guidance for all providers of paediatric care are involved in diagnosis, prevention and treatment of childhood TB	• The national program clearly defines a role for private providers / private health facilities in the childhood TB care • Private health facilities are required to report children with TB to the NTP • There are interventions addressing childhood TB on primary, secondary and tertiary level of the public health system • National guidance includes specific interventions for childhood TB as part of routine childhood healthcare in general and mother and child care settings		☐ Met ☐ Partially met ☐ Not met	
4.2 All providers of paediatric care are involved in diagnosis, prevention and treatment of childhood TB	• Private health facilities are reporting children with TB to the NTP • Interventions for childhood TB are offered as part of routine childhood healthcare in general and mother and child care settings		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
5. Primary prevention				
5.1 All eligible children receive BCG vaccination	• There is a section in the national TB guidelines on BCG vaccination • Policy is in accordance with the latest WHO guidelines on childhood TB, especially also regarding BCG for HIV infected children • The vaccination rate is known and above 80% in eligible children		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
6. Contact investigation				
6.1 Investigation of childhood contacts of infectious TB patients is part of the national strategy	• There is a section in the national TB guidelines on childhood TB contact investigation with an algorithm for screening of childhood contacts for TB • The national strategy on contact investigation is in accordance with the latest WHO guidelines on childhood TB		☐ Met ☐ Partially met ☐ Not met	
6.2 Investigation of child contacts of infectious TB patients is fully implemented	• Childhood TB contact investigation is routinely initiated regardless of where the index is diagnosed by adequate exchange of information between geographical areas • Childhood TB contact investigation is routinely performed by the primary care level • Children with relevant symptoms are referred for the relevant examinations • Childhood contact investigation is implemented throughout the country		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
7. Preventive treatment				
7.1 The national strategy provides for preventive treatment of eligible children	• The national strategy provides counselling for eligible children for preventive therapy • The recording and reporting system allows follow up of preventive treatment and possible development of active TB for all children eligible for preventive therapy for a period of two years • The national strategy includes the use of up to date child adjusted dosages and paediatric formulations • The secondary prevention strategy is in accordance with the latest WHO guidelines on childhood TB		☐ Met ☐ Partially met ☐ Not met	
7.2 All eligible children have access to preventive treatment	• Preventive treatment for eligible children is implemented throughout the country • All children eligible for preventive therapy but not receiving preventive therapy are followed-up for 2 years, especially contacts of MDR TB patients • The acceptance rate of preventive treatment for eligible children is > 80% • The adherence rate is known and > 80% • Paediatric formulations are available and used		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
8. Childhood TB diagnosis				
8.1 Special approaches for diagnosis of TB in children are included in the national guidance on TB	• There is a diagnostic algorithm for childhood TB • The diagnostic algorithm defines which children are tested for TB (symptoms, risk groups) and MDR TB • The diagnostic algorithm gives guidance on how testing is performed • The diagnostic algorithm also identifies children eligible for HIV counselling • The diagnostic algorithm is in accordance with the latest WHO guidelines on childhood TB		☐ Met ☐ Partially met ☐ Not met	
8.2 Special diagnostic approaches for TB in children are applied	• The diagnostic algorithm for childhood TB is used throughout the country • Eligible children are tested for MDR TB • The diagnostic algorithm is available and routinely used at the health facility • Diagnosis of childhood TB is accessible close to the patients home		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
9. Treatment of TB in children				
9.1 The national treatment guidelines for TB and MDR TB have appropriate and specific adjustments for children	• There is a section in the national TB guidelines on treatment of childhood TB • The treatment regimen for drug susceptible TB is in line with the latest WHO recommendations • The treatment regimen for MDR TB is in line with the latest WHO recommendations • The treatment delivery method is determined by the treatment provider in consultation with the child and caretaker: 1. Children are not routinely hospitalized 2. Administration of anti-TB drugs is supervised by the caretaker, nurse or DOT assistant		☐ Met ☐ Partially met ☐ Not met	
9.2 Child friendly formulations are available	• Paediatric dosages in the national guideline are based on the latest WHO guidelines • First line TB medication is available in paediatric formulations • Fixed dose combinations of FL drugs are available for paediatric use		☐ Met ☐ Partially met ☐ Not met	
9.3 The national treatment strategy of children is universally accessible for children	• Paediatric dosages in the national guideline are based on the latest WHO guidelines • First line TB medication is available in paediatric formulations • Fixed dose combinations of FL drugs are available for paediatric use		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
10. Recording and reporting				
10.1 Data on childhood TB are available and used at the NTP	• Childhood TB date are available at all levels of the NTP • Data include at least notification of TB in children vaccination rate, treatment success rate, number of children on preventive therapy, number of children detected through contact investigation, type of TB: new previously treated, bacteriologically confirmed or negative, extrapulmonary TB, MDR TB • Data are evaluated and used for planning • All children diagnosed and treated for TB are recorded and reported by NTP in one of two age bands (0-4 and 5-14 years)		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
11. Human resources for childhood TB				
11.1 There is a plan for human resource capacity building for childhood TB	All aspects of childhood TB 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 childhood TB is provided for the following groups: • Health workers at secondary- and primary-level facilities that provide care for sick children • Health workers who are involved in the management of mothers and children 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 adult TB cases in the community The training curricula cover at least: • The child presumed to have TB disease • The child treated for TB in the community • The child who is a close contact of a TB case • Initiation of contact investigation for each infectious TB patient		☐ Met ☐ Partially met ☐ Not met	

STANDARD	BENCHMARK(S)	DESCRIPTION OF CURRENT SITUATION	CONCLUSION	AGREED NEXT STEPS (by whom and when)
12. Enabling environment, patient centred care				
12.1 The NTP and partners deploy specific initiatives to promote a patient and family centred approach in childhood TB care	• Educational materials on TB in children are available • Activities are undertaken to reduce stigmatization and discrimination in the communities and at school • Public sector TB care for children is free of charge • Diagnosis and treatment are accessible close to patients' home • Children are not routinely hospitalized • Children sputum and/or culture negative are allowed to attend school • There are initiatives to support caretakers how to manage children with TB		☐ Met ☐ Partially met ☐ Not met	

References

WHO | Framework for conducting reviews of tuberculosis programmes. WHO http://www.who.int/tb/publications/framework-tb-programme-reviews/en/

WHO Global TB Programme, Stop TB Partnership (World Health Organization), Childhood TB Subgroup & World Health Organization. Guidance for national tuberculosis programmes on the management of tuberculosis in children. (2014). http://www.ncbi.nlm.nih.gov/books/NBK214448/

World Health Organization, W. H., UNICEF & others. Roadmap for childhood tuberculosis: towards zero deaths. (2013). http://apps.who.int/iris/handle/10665/89506

Self-Assessment of Childhood TB Policies and Practice Participants List

Country:			
Location:			
Date:			
Chair:			
Reporter:			
Participants			
Name	Organisation	Post address or e-mail	Telephone number

Evaluation

We hope you enjoyed the self-assessment of Childhood TB Policies and Practices in your country; we hope it helped identify new partners and concrete new steps to strengthen the care for children with TB.

We would appreciate your comments for further improvement of this self-assessment tool. Please send your completed evaluation to: ieva.leimane@kncvtbc.org

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 in childhood TB control in your country?

☐ Yes ☐ No

Please comment briefly why you have given this answer

2. Does this tool provide a realistic overview of the childhood TB management 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 childhood TB 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 answer

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?

☐	B1	Political commitment
☐	B2	Childhood TB coordination and stakeholder engagement at national level
☐	B3	Overall technical strategy on childhood TB
☐	B4	Engagement of all providers
☐	B5	Primary prevention
☐	B6	Contact investigation
☐	B7	Preventive treatment policy and practice
☐	B8	Childhood TB diagnosis
☐	B9	Treatment of TB in children
☐	B10	Recording and reporting
☐	B11	Human resources for childhood TB
☐	B12	Enabling environment, patient 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 for your input.

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To eliminate TB

KNCV Tuberculosis Foundation 2016

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