

# TB Regional Project on Strengthening Health Systems for Effective TB and DR-TB Control (TB REP)

## *Health Workforce Baseline Assessment Tool:*

### *Overview of a methodology to baseline existing staff and determine future staff requirements in TB programmes*

## Description

### Acknowledgements

This tool has been developed by Ieva Leimane (European Respiratory Society, Switzerland) and Nick Blok (KNCV Tuberculosis Foundation, The Netherlands) within The Global Fund to Fight AIDS, Tuberculosis and Malaria (GF) TB Regional Project on Strengthening Health Systems for Effective TB and DR-TB Control (TB REP).

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## Rational

National TB programmes are struggling to ensure health workers requirements are met at service delivery level to meet increased incidence and prevalence of a disease and to design new model of TB services delivery. A simple tool has been developed to get overview of baseline staffing needs to be able to determine the health workers requirements at service delivery level.

## Purpose

The purpose of the “Health Workforce Baseline Assessment Tool: Overview of Baseline staff establishment and requirement in National TB Programmes” (the Tool) is to identify what is available in terms of health workers at service delivery level and baseline against current requirements to deliver quality services as part of National TB programmes. The objective of the tool is to get a quick baseline overview of staffing implications based on TB epidemiological data as well other pulmonology disease patients’ numbers and visits.

The Tool is scalable for use at unit and organizational level allowing users to calculate FTE requirement by patient numbers.

Full time equivalent (FTE) for Medical Doctors (MD) specialists (TB doctors/ pulmonologists) and mid-level health professionals<sup>1</sup> (e.g. nurses and laboratory staff) and other staff is calculated for different groups of TB patients and other pulmonary disease patients.

A separate health workforce planning tool<sup>2</sup> providing guidance to planners on stock and flow planning techniques will be made available to support countries in developing sustainable human resources for health (HRH) planning strategies to ensure longer term workforce security

## Key features of the tool

This Tool is developed based on and adjusted service target approach<sup>3</sup> and seeks to identify time requirements to achieve set targets and goals and the assumption that time employed for each service activity is deliverable. It sets specific process and outcome targets according to national guidelines and adapts targets to health workforce requirements.

The simple spreadsheets allow the user to baseline the staff needed in various categories (medical doctors- specialists, mid-level health professionals (nurses, laboratory technicians, etc.), others eg. non-medical specialists (social workers and psychologists). Calculations are based on the time required to perform tasks involved during a patient presentation to the service delivery unit.

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<sup>1</sup> Nurses, fieldshers, doctors’ assistants, laboratory staff, laboratory technicians, radiologists and so on defined in „ A people-centered model of TB care: a blueprint for eastern European and central Asian countries, first edition”. Copenhagen: WHO Regional Office for Europe; 2017 (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-response-to-tuberculosis/publications/a-people-centred-model-of-tb-care-2017>, accessed 5 June 2018).

<sup>2</sup> The World Health Organization Regional Office for Europe is developing planning guidance. It is anticipated that this will be available in 2019.

<sup>3</sup> The reasons to adjust service target approach was due to the specific objectives of the programs which require certain interventions and activities. The data required are not very complex, and the involvement of the actual health service providers in estimating the time requirements makes an approach a participatory.

The baseline assessment of existing staff includes an assessment of unused time when staff are not available (as per annual leave, public holidays, capacity development activities etc. and other foreseen absences). It requires data on latest patient cohort (duration of stay in the hospital, lost to follow up, died etc.).

Once all these data have been ascertained, the assessment will calculate the future staffing requirement- how many staff FTE are required at a service delivery level, according to the planned number of patients and model of care. The approach allows scenarios to be developed in line with user variables.

This Tool allows staff requirements to be baselined in close collaboration with health service providers.

It is designed with TB workforces in mind, but the principals can be applied to baselining the requirement of any workforce requirement<sup>4</sup> and it allows countries to ensure that baseline requirements are understood and HWF supply gaps or overprovision to be understood. This is essential for sustainable workforce planning mechanisms to be put in place.

The data required for use in a TB context by different TB patients' and other pulmonary disease patients' groups:

1. People with presumptive TB.
2. Drugs susceptible TB (DS- TB) patients.
3. Drug resistant TB (DR- TB) patients on the shorter regimen.
4. Drug resistant TB (DR- TB) patients on an individualized regimen.
5. Other pulmonary disease patients.

Fields that are marked in orange should be completed by the user. The data which should be entered in the workbook are explained in this user's manual. All fields in grey are automatically calculated and does not require entry of data. The interpretation of these calculations is also explained in this user's manual.

## Recommendation how to use the tool

Unless there is an accurate and properly maintained data source covering relevant staff at national level, it is advised that the tool is used at district level, as epidemiological data can differ and can be higher or lower as national average, therefore necessary FTEs for service delivery will not be the same. Once it is applied at a unit and /or district level, it will give data that can be aggregated to a national level to identify gaps in availability of staff and to start discussions with stakeholders on planning<sup>5</sup> necessary changes.

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<sup>4</sup> The concepts outlined in this tool and in the workforce planning booklet can be applied at health workforce requirements.

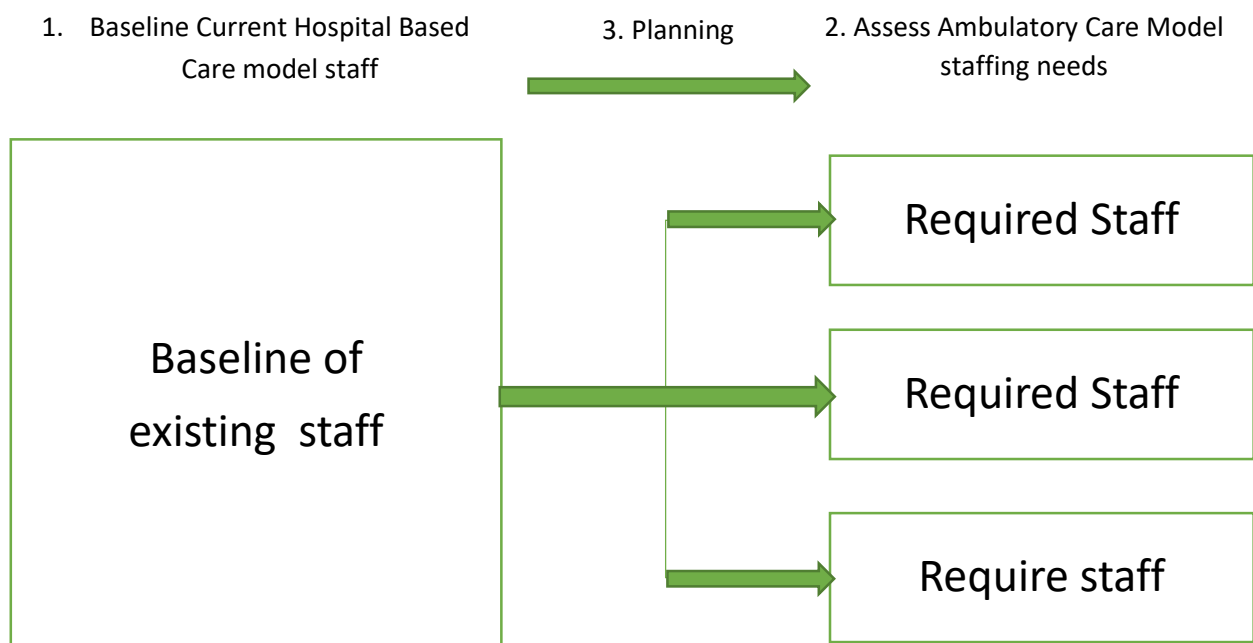
<sup>5</sup> The World Health Organization Regional Office for Europe is developing planning guidance. It is anticipated that this will be available in 2019.

## Sustainable workforce planning

Current tool is helpful on an organizational level for baselining workforce needs and availability at a unit or geographic based operational level. However, it is not a HRH planning tool for national TB services or health systems.

For HRH planning to be truly effective policy makers need to understand the system needs for HRH.

Firstly, this means that planners need to be able to assess the current baseline need, the establishment (by skill level and type), drains on the system (leavers) and the inputs (joiners). There also has to be an understanding of the impact of new services, changed delivery models and other impacts. This tool allows an assessment of the baseline need and the required establishment for proposed service delivery model for TB services.



*Figure 1 Baselining current staff, assessing requirement and planning deliver the requirement.*

But true sustainability can only be developed by understanding and planning for a future establishment and therefore planners need to be able to use this understanding of the current workforce and match it with the demands for workers (types, skills, location) which is based on a prediction of future requirements. The time horizons featured normally take into account the longest training lead-times (so in most cases this is doctors who can take up to 13 years to train –including undergraduate studies).

Successful HRH planning must consider the environment (Political, Economic, Social, Technological (including Information Technology, advances in drugs etc.), Environmental, Legal, Service Changes) that may operate over the planning time horizon (so if planning nursing numbers at least 5 years and doctors will take longer), the numbers expected to join, leave and the service environment.

These factors are often difficult to predict and therefore can include anticipated policy intent or elicited opinions from experts which are factored into planner's estimations by using a set of scenarios that describe the "environment of the future". The longer term the plan the wider the range of predictions for future needs but planners can make several assumptions that enable a credible planning decision to be made.

This plan is not then cast in stone and must be reviewed annually, and adjustments made to the planned education outputs where possible or other adjustments to compensate.

Therefore, the "Health Workforce Baseline Assessment Tool: An overview of baseline staff establishment and requirements in National TB Programmes" will and must be accompanied by a health workforce planning tool which will provide guidance to planners on stock and flow planning techniques and allow workforce planners to develop increasingly complex and sustainable plans which will allow countries to ensure cost effective mechanisms for developing workforce sustainability.<sup>6</sup>

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<sup>6</sup> In this case sustainability means the workforce with the right skills, training and capability available in the right place and at the right time to ensure sustainable health service delivery in line with Health 2020.

## Reference to selected tools and policies

1. Dreesch N et al. Health Policy Plan. 2005; 20:267-276
2. Framework for planning the development of human resources for scaling up the Programmatic Management of Drug-resistant Tuberculosis, WHO, 2016, unpublished
3. Health services delivery: a concept note, WHO 2015  
[http://www.euro.who.int/\\_data/assets/pdf\\_file/0020/291611/Health-Services-Delivery-A-concept-note-301015.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0020/291611/Health-Services-Delivery-A-concept-note-301015.pdf?ua=1)
4. Human Resources for Health: workforce 2030, May 2016,  
<http://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf?sequence=1>
5. Minimum Data Set for Health Workforce Registry, 2015. Human Resources for Health Information System [http://www.who.int/hrh/statistics/minimun\\_data\\_set.pdf?ua=1](http://www.who.int/hrh/statistics/minimun_data_set.pdf?ua=1)
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<http://www.who.int/workforcealliance/knowledge/toolkit/25.pdf>
7. The Workload Indicators of Staffing Need (WISN) method is a human resource management tool, WHO 2010 [http://www.who.int/hrh/resources/wisn\\_user\\_manual/en/](http://www.who.int/hrh/resources/wisn_user_manual/en/)
8. Van Greuningen et al. “The accuracy of general practitioner workforce Projections” Human Resources for Health 2013, 11:31 <http://www.human-resources-health.com/content/11/1/31>
9. WHO country assessment tool on the uses and sources for human resources for health (hrh) data, WHO 2012  
[http://apps.who.int/iris/bitstream/handle/10665/77947/9789241504287\\_eng.pdf?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/77947/9789241504287_eng.pdf?sequence=1)
10. Working for health and growth. Investing in the health workforce  
<http://apps.who.int/iris/bitstream/10665/250047/1/9789241511308-eng.pdf?ua=1>

## Vocabulary

Exit	Those that involve a movement away from the health sector (intersectoral mobility) including unemployment/loss of job leave for further education and training; maternity or family care leave, sickness or other emergency leave; retirement; work-limiting chronic disability; death or to another country (international out-migration) <i>Monitoring and evaluation of human resources for health: challenges and opportunities, WHO 2009</i>
Full-time equivalent (FTE)	Total hours worked divided by average annual hours worked in full-time jobs. Depending on data availability on working hours, FTE level may also be calculated in the following way: a worker with a FTE contract should be counted as 1 FTE. Concerning workers who do not have a full-time employment contract, full-time equivalent should be measured by the number of hours of work mentioned in each contract divided by the normal number of hours worked in full-time jobs. <i>OECD/Eurostat/WHO Joint Questionnaire (non-monetary health care statistics): Data categories on health workforce, <a href="http://www.healthworkforce.eu/wp-content/uploads/2015/10/2-OECD.pdf">http://www.healthworkforce.eu/wp-content/uploads/2015/10/2-OECD.pdf</a></i>
Health workforce	All people engaged in actions whose primary intent is to enhance health <i>Handbook on monitoring and evaluation of human resources for health. Geneva: World Health Organization; 2009, <a href="http://www.who.int/hrh/resources/handbook/en/">http://www.who.int/hrh/resources/handbook/en/</a>, accessed 5 May 2017</i>
Health workforce planning	Strategies that address the adequacy of the supply and distribution of the health workforce according to policy objectives and the consequential demand for health labour <i>Malgieri A, Michelutti P, Van Hoegaerden M, editors. Handbook on health workforce planning methodologies across EU countries. Bratislava: Ministry of Health of the Slovak Republic; 2015, <a href="http://healthworkforce.eu/work-package-5/">http://healthworkforce.eu/work-package-5/</a>, accessed 5 May 2017</i>  Ensuring the right number and type of health human resources are available to deliver the right services to the right people at the right time (10). <i>Birch S, Kephart G, Murphy GT, O'Brien-Pallas L, Alder R, MacKenzie A. Health human resources planning and the production of health: development of an extended analytical framework for needs-based health human resources planning. J Public Health Manag Pract. 15(6 Suppl): S56–61.</i>
Immigration	Immigrants from other countries, new employees (former students etc)
In-migration	Trained health workers from other countries <i>Monitoring and evaluation of human resources for health: challenges and opportunities, WHO 2009, <a href="http://www.euro.who.int/_data/assets/pdf_file/0011/200009/Handbook-on-monitoring-and-evaluation-of-human-resources-Eng.pdf">http://www.euro.who.int/_data/assets/pdf_file/0011/200009/Handbook-on-monitoring-and-evaluation-of-human-resources-Eng.pdf</a></i>
Joiners	Those returning to practice (e.g. returning from study / maternity or being reengaged after other absence),
Leavers	Those leaving the health system (either to retire, to work elsewhere or for more temporary reasons e.g. maternity, study etc)
Outflow	Permanent or temporary outflow due to death, retirement, morbidity, unemployment, other
Supply of health workers	Pool of qualified health workers willing to work in the health care sector. <i>Global strategy on human resources for health: Workforce 2030 <a href="http://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf?sequence=1">http://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf?sequence=1</a></i>
Transition	All labour movements that occur within the national health sector. This includes geographical movements within country (areas/ regions), professional movements (public/ private, occupation) within health sector, full time/ part time etc. <i>Monitoring and evaluation of human resources for health: challenges and opportunities, WHO 2009, <a href="http://www.euro.who.int/_data/assets/pdf_file/0011/200009/Handbook-on-monitoring-and-evaluation-of-human-resources-Eng.pdf">http://www.euro.who.int/_data/assets/pdf_file/0011/200009/Handbook-on-monitoring-and-evaluation-of-human-resources-Eng.pdf</a></i>
Workload	Total time required to perform a certain task <i>Dieleman, M. Rationalizing human resource planning for TB control in Tanzania: tuberculosis workload study report. (KIT, MMRC, NIMR, NTBLP, KNCV, 2010</i>

