

Health workforce for
tuberculosis treatment and support
in the
Republic of Moldova

Assessment report

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Acronyms

AFI	Act for Involvement
CSO	Civil Society Organization
DOT	Directly Observed Therapy
DS-TB	Drug Sensitive tuberculosis
DR-TB	Drug Resistant tuberculosis
GF	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human Immuno-Deficiency Virus
HRIS	Human Resource Information System
HWF	Health Workforce
IPP	Institute of Ptysiopulmonology
MDR-TB	Multi-Drug Resistant TB
M&E	Monitoring and Evaluation
MoH	Ministry of Health
NHIC	National Health Insurance Company
NGO	Non-Governmental Organization
NHIC	National Health Insurance Company
NTP	National TB Program
NSP	National Strategic Plan
PAS	Center for Health Policies and Studies
PHC	Primary Health Care
PLHIV	Person Living with HIV
TB	Tuberculosis
ToR	Terms of Reference
WHO	World Health Organization

Summary

In May 2017, assessment of health workforce (HWF) for tuberculosis (TB) prevention, diagnosis, treatment and support was conducted in the Republic of Moldova using the standard tools and terms of reference to assess HWF policies, operations, workload and working conditions. There was a focus on the country's capacity to deliver integrated people- centered care by inter-disciplinary teams for out-patients care. This report has focus on TB personnel at service delivery level like doctors, nurses, non-medical specialists working and community centers. It is covering health workforce (HWF) related areas like HWF planning, retention, work relations, workplace safety and security, career development, performance management, and information system, mainly for out-patient care, as in-patient care HWF analysis has been already done in 2016.

1. Introduction

Scope of work

Short Term Technical Assistance was provided to carry out the following tasks:

- Assess the current planning of the workforce involved in delivering TB treatment and care considering other non- medical services providers
- Develop a tasks' analysis for TB service delivery;
- Assess staffing norms of the TB personnel taking into account the recommendations for reorganization, optimization and distribution of TB inpatient beds, the epidemiological projections, changes in case management/care delivery models, protocols and all tasks in TB diagnosis and care, all registration, supervision responsibilities and training-related time spent by service delivery staff and all tasks related to advocacy, communication and social mobilization;
- Planning
- Make recommendations where specific tasks should be moved, from highly qualified medical health workforce to health workers with shorter training and fewer qualifications.
- To set-up minimum benchmarks and indicators for health workforce management and means to evaluate the HWF capacity.

Goals

There are three main goals for this report. The first goal is to assess the health workforce availability for TB service delivery. The second goal is to identify advantages and limitations of current system, and the third goal is to develop a set of recommendations to contribute to patient-centered model of care while shifting from in-patient to out-patient care. Findings and recommendations presented in this report will serve as a basis to improve health workforce for TB prevention, diagnosis, treatment and care in the Republic of Moldova. It will assist in guiding recruitment, retention, distribution and education policies.

Methods

The methods for this report incorporate the collection of both qualitative and quantitative data.

The qualitative data were gathered using the following methods (a) a desk review of available documents, published and gray literature; (b) data review with and information gathering from regulatory authorities, including the IPP and (c) informal interviews with health professionals and representatives from NGOs regarding, tasks and motivation including collaboration mechanisms with NTP.

Quantitative data were gathered via NTP Monitoring and Evaluation (M&E) department at IPP. To understand the context, ensure reality check and gather necessary information several visits were performed to selected healthcare facilities/units (IPP, NTP, Medical Territorial Association Botanica and NGOs in Chisinau city, one rayon hospital including out- patient specialized TB service and two rural Family Medicine Centers in Nisporeni rayon, MDR-TB hospital in Vorniceni village (Straseni rayon) and Community Center in Glodeni city).

Several standard tools were used to conduct this assessment of health workforce for TB in the Republic of Moldova. See attachment Annex 3 Assessment Tools.

2. Background

General

The Republic of Moldova is a landlocked country situated in south-eastern Europe. Approximately 53% of the population lives in rural areas. It is a multi-ethnic country with population, total 3 510 485 (July 2016 est.).¹ As of January 2014, the Republic of Moldova had 61 towns, 41 cities, 916 villages and 659 communities.² It is a lower middle income country according the World Bank.

Moldova is a lower middle income country according the World Bank. “Moldova's economy relies heavily on its agriculture sector, featuring fruits, vegetables, wine, and tobacco. Moldova also depends on annual remittances of about \$1.6 billion from the roughly one million Moldovans working in Europe, Russia, and other former Soviet Bloc countries.³ Net international migration rate in the Republic Moldova in 2005-2010 per 1,000 was -9.4 population, and in 2010–2015 was -5.9.⁴ Number of physicians in Republic of Moldova has decreased from 12780 in 2010 to 10060 in 2012⁵, with density of 2.859 per 1000 population.⁶ Number of other health workers has as well decreased for more than 50% (27519 in 2010 - 12111 in 2012).⁷

Epidemiology

According to the WHO, Republic of Moldova is among the European Region’s 18 high-priority countries for TB control and among the 27 high MDR-TB burden countries worldwide. According to 2014 WHO data, the global incidence of TB in the Republic of Moldova was almost 3 times the European Region average (110 vs 40 cases per 100 thousand). Furthermore, the WHO estimated incidence of TB in Moldova was 154 cases per 100 thousand in 2014 versus 100 cases per 100 thousand actually notified. Thus, there have been 2,907 new and relapse cases reported, which is 38% fewer cases than in 2011 (4,673, or 114 cases per 100 thousand) and 50% fewer cases than in 2005, when there were 5,742 new and relapse TB cases notified (or 134 cases per 100 thousand). Despite all actions taken for early detection of TB, including the use of new / rapid TB diagnostic tools, MDR-TB notification rate reached only 62% against the WHO target of 85%, implying the need to intensify TB detection interventions, including through health system strengthening for faster and comprehensive diagnostics. According to the WHO Global Tuberculosis 2014 report data, the estimated MDR-TB burden in the country was 24% (690 cases) among new cases and 62% (830 cases) among previously treated cases in 2014. Thus, it is estimated that about 1,500 MDR-TB cases shall be diagnosed in the Republic of Moldova each year, but only about 1,000 MDR-TB cases are actually notified. Early detection of TB, including the use of new / rapid TB diagnostic tools, MDR-TB notification rate reached only 62% against the WHO target of 85%, implying the need to intensify TB detection interventions.⁸

¹ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

² National Bureau of Statistics of the Republic of Moldova

³ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

⁴ Extended Migration Profile of the Republic of Moldova 2008–2013, p. xiii, assessed 20.09.2017 at https://publications.iom.int/system/files/emp_moldova_2008-2013_pdf

⁵ UNDP DATA, assessed 20.09.2017 at <http://data.un.org/Search.aspx?q=Moldova+datamart%5bWHO%5d>

⁶ UNDP DATA, assessed 20.09.2017 at http://data.un.org/Data.aspx?q=Moldova+datamart%5bWHO%5d&d=WHO&f=MEASURE_CODE%3aHRH_26%3bCOUNTRY_ISO_CODE%3aMDA

⁷ UNDP DATA, , assessed 20.09.2017 at http://data.un.org/Data.aspx?q=Moldova+datamart%5bWHO%5d&d=WHO&f=MEASURE_CODE%3aHRH_23%3bCOUNTRY_ISO_CODE%3aMDA

⁸ National Tuberculosis Control Program 2016-2020

The linkage between TB and other diseases is another major challenge in TB control, as the growing number of patients with co-morbidities (HIV-infection, diabetes mellitus) and behavioral disorders associated with drug or alcohol in-take makes it difficult to diagnose TB and initiate treatment. TB-HIV co-infection rate among new TB cases reached 7% in 2014 as compared to 5% in 2011.⁹

Treatment success rates are consistently low: in 2014, 79% patients were successfully treated, 3% had treatment failure, 11% died and 5.5% were lost to follow-up.¹⁰

Contact tracing is done in cooperation between National Public Health Center, TB units and primary health care (PHC) services. The adults are screened for active TB using chest x-ray. According to the 2015 TB guidelines, there are two groups of persons that need active TB screening. One group has to be screened yearly or at every hospitalization: contacts of TB patients, PLHIV, persons previously treated for TB, immunocompromised persons and psychiatric patients at each hospitalization. The other group needs symptom screening and if found symptomatic the chest x-ray is done and sputum collected for following tests. The diabetic patients belong to the second group. There is increasing cooperation between the TB services and diabetes care related services. The collaboration has been established and persons with diabetes mellitus (DM) are screened for TB. Meanwhile, TB patients are screened for DM in case of complaints or previous history of DM.¹¹

A significant challenge to TB control is the pervasive transmission of TB infection in TB hospitals, thus putting the patients, visitors and health staff at higher risk of getting TB.

The severity of TB epidemic in Moldova is determined by the multitude of socio-economic problems that the patients and their families are facing. The main needs of TB patients are related to getting healthcare, social and psychological support required to successfully complete therapy. The loss to follow-up rate varies between 7% for drug-susceptible TB and 20% for DR TB. This is due to insufficient patient-centered interventions to support them through the entire treatment period: shortage of funding to secure proper nutrition, purchase of additional drugs for the management of side-effects resulting from the use of TB drugs, no counseling and social support for the patients to successfully complete a treatment regimen etc.¹²

The National Tuberculosis Control Program 2016–2020, as well as the Global Fund grant, target risk groups for TB, and socially disadvantaged population groups. The NTP closely cooperates with NGOs and community centers to ensure full access of these population groups to TB and M/XDR-TB diagnosis and treatment.¹³

⁹ National Tuberculosis Control Program 2016-2020

¹⁰ Analysis of the epidemiological impact of tuberculosis in the Republic of Moldova, WHO Regional Office for Europe, 2017

¹¹ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

¹² National Tuberculosis Control Program 2016-2020

¹³ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

3. Findings

TB Policy regulation and program management

TB Policy Regulations

Recently, several documents have been approved by the Ministry of Health (MoH), including Roadmap on modernization of TB service (approved 14.04.2017) and the National Plan for the Introduction of New Anti-TB Drugs (approved 23.01.2017). The National Tuberculosis Control Program 2016–2020 by Government decision (approved 20.10.2016). Furthermore, the five-year plan for sustained funding of TB program activities (sustainability plan) has been prepared by the National TB Program (NTP) and submitted to the Global Fund to Fight AIDS, Tuberculosis and Malaria (GF). The National Tuberculosis Control Program 2016–2020, includes indicators for monitoring progress in the implementation of the plan.¹⁴ Government Decision No.33 of 11.01.2007 outlines short-term tasks for health workforce in TB control. The new NSP sets as a priority action the strengthening of health workforce capacity in TB control.¹⁵ From the second half of 2015, the country began the implementation of the current grant from the GF (2015- 2017) with two principal recipients: (1) the Public Institution “Coordination, Implementation and Monitoring Unit of the Health System Restructuring Project” (PI CIMU HSRP); and (2) the Center for Health Policies and Studies (PAS). Grant sub-recipients comprise the Institute of Phthysiopneumology (IPP), Act for Involvement (AFI) and the Soros Moldova Foundation (an umbrella organization for small grants for civil society partners).¹⁶

Central unit of the National Tuberculosis Program

The NTP as a de facto central unit is hosted by the IPP. Its functions are developing policies and technical guidelines for MoH approval, planning, coordination with partners, laboratory surveillance and quality control, anti-TB drugs supply management, staff training, monitoring and technical supervision. To fulfil these functions the unit works in collaboration with national and international partners. The NTP manager works through the central unit, which National Reference Laboratory, and the Monitoring and evaluation (M&E) Unit (overseeing recording and reporting).

All NTP staff are IPP employees and report to the IPP director. The IPP does not, however, have a specific budget line for its NTP- related functions under the contract with the National Health Insurance Company (NHIC). Consequently, it is only indirectly accountable to the MoH.¹⁷ The NTP has limited authority to implement TB control activities, as it does not have official status. This has been one of the main challenges over the years.¹⁸

Currently, the IPP is accountable for the Program that through its constituency is performing the coordination of planning, implementation and monitoring of Program activities. The NTP is collaborating with the penitentiary system (PS) under the MoJ, other ministries and the Partners, such as PAS Center, public Institution “Coordination, Implementation and Monitoring Unit of the Health System Restructuring Project” (UCIMP), Soros Foundation Moldova, AFI NGO, SMIT NGO, Balti and Speranta Terrei NGO, Balti, etc.¹⁹

¹⁴ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

¹⁵ Andrei Mecineanu PhD, Report on Human Resources for Tuberculosis Plan In Republic of Moldova, March 2016

¹⁶ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

¹⁷ Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

¹⁸ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

¹⁹ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

The National Tuberculosis Control Program 2016–2020

In order to strengthen the capacity of the health system to effectively control TB, the National Tuberculosis Control Program 2016–2020 objective 5: Health system strengthening for effective TB control and Sub objective 5.1: Capacity building for the people involved in TB control are planned the following actions:

1. Build the capacity of human resources engaged in TB control

- In-service (continuing) training for TB staff (indicator: proportion of TB staff getting at least 25 training credits each year (%))
- In-service training in TB control for other health staff (primary healthcare, public health, drug addiction specialists, infectious diseases specialists, forensic medicine experts etc. (indicator: proportion of health staff from other disciplines trained in TB control each year (%))
- Residency training for TB physicians (indicator: n/a)
- Train prison staff in TB control measures (indicator: n/a)
- Convene meetings at central and regional level with involvement of all TB stakeholders (indicator: n/a).

2. Provide logistical support to TB control facilities;

- Implement TB infection control measures;
- Update the TB control legal framework; and
- Build capacity for efficient Program management.

Estimated Costs of the National TB Control Program 2016-2020 to ensure health system strengthening for effective TB control (objective V) is planned in all funding streams except *3.1 local public administration funds*.²⁰

Stakeholders involved in TB service delivery

NTP is actively collaborating with stakeholders at (1) primary health care level- family medicine, non-governmental organizations (NGOs) and civil society organizations (CSOs); (2) secondary care level- specialized TB out-patient care services and community centers and (3) tertiary level- rayon hospitals. On-going dialog for improvement of TB services are in place with Ministries and local governments.

In 2012–2013, under the GF grant, ten community centers were established to improve patients' treatment and support and try to decrease the number of patients lost to follow-up. Personnel included phtysiopulmonologist as a coordinator , a psychologist, social workers, DOT assistant, an accountant and a driver, and some can also count on volunteers and they are examples of well-established inter-disciplinary teams to implement people- centered care. The community centers' functions are to perform non- clinical tasks like risk assessment, DOT provision, education, counseling of patients and families, facilitating solution for legal related issues, and advocacy and awareness raising activities in the general community.²¹

By September 2017 community centers will be extended in all rayons.²² The community centers are completely dependent on the GF grant. Nevertheless, there Road map (endorsed via the MoH order . No. 320 as of 28.04.2017) for performance standard development till 1st August, 2018. Communities centers provide services according to the regulation of activities (organization of DOT, counselling of patients, counselling of family members, evaluation of risk for non-adherence, assessment of needs for social support, collaboration with partners etc.), approved by the order of MS 465 from 02/06/2011 and report based on the standard form and indicators.²³ New National Tuberculosis Control Program 2016-2020 for 2016-2020, as well as GF grant, target risk groups for TB, and socially disadvantaged population groups. Therefore, NTP closely cooperates with seven non- governmental organizations (NGOs), in the Republic of Moldova and the Transnistria region,²⁴

²⁰ Estimated Costs of the National TB Control Program 2016-2020

²¹ Приказ Министерство Здравоохранения Республики Молдова, №_320, 28.04.2017 О Центре поддержки лечения пациентов с ТБ в амбулаторных условиях

²² Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

²³ Raport privind activitatea Centrului Comunitar

²⁴ Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

and majority are holders of small grants,²⁵, not covering the whole country. Nevertheless, they are important players in providing effective TB outreach interventions among hard-to-reach populations and the community at large, as they are involved in prevention, provision and treatment and support, as well advocacy activities. One of NGOs is active in prison sector. Only PAS and AFI have funds not related to the GF grant. One of the weaknesses of current collaborations with NGOs is the absence of a legal framework for their involvement in TB-related activities, terms of reference, standard tools and indicators reported to the NTP.²⁶

Organization of prevention, diagnosis, treatment and support

TB services have been organized in primary, secondary and tertiary levels. Identification and referral of individuals with presumptive TB is taking place at the primary care level both in rural and urban settings by family doctors and medical doctors specialists at secondary level according to the protocol on TB diagnosis and treatment. TB patients are mainly detected through passive case-finding, that is, investigation of individuals seeking health care for symptoms. Active case-finding is conducted among population groups at risk for TB (i.e. close contacts of TB patients, detainees and ex-detainees of the penitentiary system, people living with HIV (PLWHIV), homeless people and other population groups) as per current regulations. All close contacts of TB patients are subjected to active screening for TB.²⁷

“Clinical protocol on providing medical care and support to TB patients”²⁸ refers to the standard practice of confirmation of diagnosis of TB only by specialist- phtysiopulmonologist. Microscopic verification of sputum smear on acid-fast bacilli (AFB) is performed in on of 59 smear microscopy centres. GeneXpert MTB/RIF is for all new patients. If TB is confirmed, the patient is admitted to either a TB hospital or in-/ out-patient unit of TB dispensary to initiate treatment and assess needs of support. Once the TB is categorized, the treatment takes place at either a specialized hospital or out-patient units: (1) specialized units under IPP, Rayon Hospitals or (2) general units at Family Medicine Centers or (3) provided by NGOs or civil s ociety organizations (CSOs). The treatment of TB consists of two phases: intensive phase and a continuation phase. Duration of the intensive phase can vary from 2 to 6 months and the continuation phase can vary from 4 to18 month depending on the type of a disease. Each TB patient should be registered at the (city or rayon) phtysiopulmonologist for treatment monitoring follow-up. Ptysiopulmonologist is responsible not only of TB patients, but all other pulmonary patients who need specialized treatment and care.

Non- medical professionals at community centers are involved in provision DOT and non-clinical services, like psycho-social support, counseling and advocacy. NGOs are involved detection, screening, referral, support as well advocacy at all levels. AFI in collaboration with Primary Health Care (PHC) medicine is implementing a pilot project for video-DOT (V-DOT). The total number of patients to be enrolled is planned to be 400.²⁹

The law currently prohibits NGO workers from dispensing drugs to patients, in contrast to the international evidence on ensuring effective DOT by involving “lay workers”. Nevertheless, such a practice exists.

²⁵ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

²⁶ Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

²⁷ Analysis of the epidemiological impact of tuberculosis in the Republic of Moldova, WHO Regional Office for Europe, 2017

²⁸ Национальный клинический протокол „Туберкулез у детей”, НКП-55, 2015

²⁹ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

Health Workforce Planning and Implementation

Health Workforce development

In this report HWF development was not assessed as there were no consolidated data available. Nevertheless, in the HR report 2016 following data were presented: the planned 16 places (2012-2013) for phthysiopulmonology specialization demonstrate the human resources planning directed only to cover the current needs.³⁰

Health Workforce planning

HWF is defined as those providing TB services: medical doctors- generalists, medical doctors- specialists, mid-level health professionals, non- medical professionals and patients' supporters see in Figure 1 Health workforce and service delivery level . Vast numbers of workers with different training are found in the health sector and are more than health service providers themselves. These include professionals such as statisticians, computer programmers, accountants, managers and administrators, various types of support staff such as drivers, cleaners and craft and trade staff such as electricians, but they are not analyzed in this report. The registered employment at IPP is 84,1%.³¹

Currently, in The Republic of Moldova HWF planning is done based on so called "utilization- based approach" (based on the demographic profile).

Figure 1 Health workforce and service delivery level

Health workforce				
TB service delivery				
Clinical practice			Non-clinical practice	
<u>Medical doctors- specialists:</u> phtysiopulmonologists, TB specialists, other disease specialists etc.	<u>Medical doctors- generalists:</u> family doctors, general practitioners	<u>Mid-level health professionals:</u> nurses, laboratory staffs, etc.	<u>Non- medical professionals:</u> social workers, psychologists, nutritionists, etc.	<u>Patients' supporters:</u> community health workers, volunteers, treatment supporters, peers, family members, etc.

The distribution of HWF delivering TB services TB area is done in accordance with norms approved under MoH Decision No.100 of 10.03.2008. Personnel norms for in-patient healthcare in republican, municipal and rayon facilities-18-20 adult beds and 15-17 child beds per one phtysiopulmonologists; personnel norms in specialized out-patient healthcare in republican, municipal and rayon facilities- 0.3 FTE of phtysiopulmonologist per 10,000 adult population and 0.6 FTE per 10,000 children population. Distribution of phtysiopulmonologist is showed in Table 1 Number of phtysiopulmonologists 2014/2015³² Only in 13 rayons current calculation of 0.3 per 10 000 population is consistent, in other rayons it is above/ below stated threshold. Nevertheless, the total FTE level .6 per 10 000.across the country is two times higher as required as planned.

³⁰ Andrei Mecineanu PhD, Report on Human Resources for Tuberculosis Plan In Republic of Moldova, March 2016

³¹ Data retrieved during briefing session on 22 May, 2017 with Valentina Vilc and Sofia Alexandru

³² Andrei Mecineanu PhD, Report on Human Resources for Tuberculosis Plan In Republic of Moldova, March 2016

Table 1 Number of phtysiopulmonologists 2014/2015³³

	Phtysiopulmonologists			
	Absolute numbers		Per 10,000	
	2014	2015	2014	2015
Chisinau mun.	43	42	0,5	0,5
Balti mun.	15	15	1,0	1,0
Briceni	-	-	-	-
Donduseni	1	1	0,2	0,2
Drochia	3	3	0,3	0,3
Edinet	5	5	0,6	0,6
Falesti	2	2	0,2	0,2
Floresti	4	4	0,5	0,5
Glodeni	2	2	0,3	0,3
Ocnita	1	1	0,2	0,2
Riscani	2	2	0,3	0,3
Singerei	3	3	0,3	0,3
Soroca	3	3	0,3	0,3
Anenii Noi	2	2	0,2	0,2
Calarasi	2	2	0,3	0,3
Criuleni	3	3	0,4	0,4
Dubasari	-	-	-	-
Hincesti	3	2	0,2	0,2
Ialoveni	4	3	0,4	0,3
Nisporeni	1	1	0,2	0,2
Orhei	4	4	0,3	0,3
Rezina	1	1	0,2	0,2
Straseni	3	3	0,3	0,3
Soldanesti	1	1	0,2	0,2
Telenesti	1	1	0,1	0,1
Ungheni	5	7	0,4	0,6
Basarabeasca	1	1	0,3	0,3
Cahul	4	4	0,3	0,3
Cantemir	2	2	0,3	0,3
Causeni	1	2	0,1	0,2
Cimislia	2	2	0,3	0,3
Leova	2	2	0,4	0,4
Stefan-Vodă	3	3	0,4	0,4
Taraclia	1	-	0,2	-
Comrat	2	2	0,3	0,3

³³ Andrei Mecineanu PhD, Report on Human Resources for Tuberculosis Plan In Republic of Moldova, March 2016

Ceadir-Lunga	1	1	0,2	0,2
Vulcanesti	1	1	0,4	0,4
Total	201	204	0,6	0,6

Legend: color green- rayon's with FTEs according a law -0.3 per 10000

As NTP's main role is a policy makers, there is no generic annual recruitment and deployment plan for HWF for TB services. Each municipality and rayon is responsible for planning and recruitment of HWF including TB. The main indicators to analyze the distribution of HWF for TB services are: planned FTE, occupied FTE and physical occupancy rate.. Data on HWF in TB services across the country can be found in the Table 2 Health workforce indicators 2015-2016 (data collected and presented by IPP NTP M&E Unit) and shows that planned FTEs have decreased for 8,95 FTEs.

Table 2 Health workforce indicators 2015-2016

Rayon/ city	Planned FTE (doctor/ nurse)	Occupied FTE (doctor/ nurse)	Physical occupancy (doctor/ nurse)	TB notification	Actual # of TB patients	People with presumptive TB #	People with other pulmonary diseases #
2015	293,75	275,50	258	3537	2846	78123	130537
2016	284,75	259,758	249	3508	2737	78383	133463

Analysis of data presented shows that workload varies per rayon. For example data presented in 2016 shows that 1 FTE of phtysiopulmonologist is planned for treatment and monitoring of 43 patients in Ocnita rayon and 0.75 FTE for 12 patients (2.8 times less) in Vulcanesti rayon. Data presented in the Table 3 1 FTE and preliminary workload are selected where 1FTE of phtysiopulmonologists are planned. The differences among rayons in numbers of people with other respiratory diseases examined is even more noticeable as in Soldanesti rayon 1FTE had examined 4067 and in Vulcanesti rayon 0.75FTE only 28 (1FTE= 35) patients per year, which is (116 times less), such an example would suggest that somewhere there is data collection and reporting slipup.

Table 3 1 FTE and preliminary workload per rayon in 2016

Nr	Raion 2016	Basarabe asca	Ocnita	Soldanes ti	Taraclia	Vulcanes ti
		1	Planned FTE (doctor/ nurse/ total)	1.00	1.00	1.00
		1.00	2.00	1.00	2.00	1.00
		2.00	3.00	2.00	3.00	2.00
2	Occupied FTE (doctor/ nurse/total)	1.00	1.00	1.00	0.00	0.75
		1.00	2.00	1.00	2.00	0.75
		2.00	3.00	2.00	2.00	1.50
3	Physical person (doctor/ nurse/ total)	1.00	1.00	1.00	0.00	2.00
		1.00	2.00	1.00	2.00	

		2.00	3.00	2.00	2.00	2.00
4	TB notification	34.00	46.00	47.00	21.00	9.00
5	TB patients on treatment	34.00	43.00	33.00	25.00	12.00
6	Number of people with presumptive TB	48.00	3.00	50.00	317.00	9.00
7	Number of people with other respiratory diseases examined	602.00	2862.00	4067.00	2861.00	28.00

Legend: color green- planned FTE, color red- no FTE, color grey- highest/lowest load of patients

Based on this example (rayons selected: planned 1FTE of MD specialist) it can be concluded that workload is not distributed evenly and equality across the country and that The Republic of Moldova is experiencing imbalances in the numbers and types of HWF.³⁴ Reasons for such imbalance may differ per rayon and would require more detailed analysis of a roles and performance of involved stakeholders at different levels.

Recruitment and Deployment

Analysis of HWF at primary health care level who are responsible for prevention and detection of TB in addition to other duties were not analyzed as it was not part of the tasks.

In 2016 at IPP were hired five medical doctors- specialists, among them tree young professionals. Nine mid-level health professionals, among them one young professional, and 19 health management and support staff.³⁵ The average age is 54 years for pthysiopulmonologists and 48 years for family practitioners.³⁶

Retention

One FTE for staff involved in service delivery including ptysiopulmonologists is limited to 35 hours per week. Management and support staff 1FTE equivalent is 40 hours per week. Quite often, HWF at service delivery work for more than 1 FTE (1,5 FTE is a maximum load allowed by labor laws). In such a situations exposure to infection needs to be monitored to avoid HWF extra exposure to TB. HWF retention schemes, are in place and are implemented according to the law. For example current categories don't influence salary schemes, but additional remuneration is allocated based on the experience- up to 10 and 20 years, and occupational hazard (risk for infection and DR). In case of occurrence of occupational hazard social protection will take place in accordance of a law. Turnover rate at IPP is 12% for ptysiopulmonolgists, 17% for mid-level health professionals (nurses) and 8% for other staff- health management and support.³⁷ Similar data for the whole country at the moment of the visit was not available.

Work Environment and Conditions

This section uses the results of two focus group discussions with HWF from in-/ out- patients' departments (Cantemir, Cimislia, Leova, Anenii Noi, Floresti rayons and Chisinau city) to analyze current tasks and describe the work conditions and factors that impact the attitude and level of satisfaction.

In reality, the health care professionals often take on many tasks that are not included in their job description, such as responding to urgent request from local administration or other stakeholders to provide various data. Workload is high due to the situation that family doctors refer high number of patient with even minor pulmonary complains to the specialist (eg. the interviewed TB cabinet registered approx. 3000 referrals per

³⁴ National Observatory on Human Resources for Health. Human potential in health involved in the delivery of phtysiopneumological care. Ministry of Health. Chisinau, 2012. www.cnms.md

³⁵ Data retrieved during briefing session on 22 May, 2017 with Valentina Vilc and Sofia Alexandru

³⁶ National Tuberculosis Control Program 2016-2020.

³⁷ Data retrieved during briefing session on 22 May, 2017 with Valentina Vilc and Sofia Alexandru

year made by the family doctors, of which all of them constituted the pthysiopulmonologists consultation). Consultations on weekly basis performed at the rayon hospital are even not counted into the total workload assessment. Heads of the Units at the IPP (except DR-TB hospital) and all other mid- level managers all have 1FTE as a manger and 0,5 FTE as a medical doctor specialist³⁸ and are involved in the direct patients' management. In fact, their workload is reverse and there is hardly any time for management activities. Pthysiopulmonologists have high amount of paper work added to their workload. It is often taking longer than time for direct patient management. In order to make the use of SIME TB, many of the forms are filled out in double: paper based and electronically. There is a high patients' load (TB and other pulmonary diseases) for the pthysiopulmonologists, and at the same time they are overburdened with non-clinical tasks (see Figure 5 Task analysis at a secondary level) which can be performed by (if necessary) by specially trained nurse or even non- medical staff: medical documentation, forms, entering data in data base, counsel on HIV, implementation and monitoring of TB infection control measures, monitor DOT quality standards. An addition to SIME TB, it is planned to allow online patient presentation to the central or regional DR-TB consiliums and the review of patients' treatment progress online (electronic DR-TB consilium).³⁹

Work Relations

There are job descriptions available, but their update or consistency depends on the individual operation of human resource manager. For eg. job description for the Unit Heads at IPP don't reflect any of clinical task performed for TB patients clinical management.

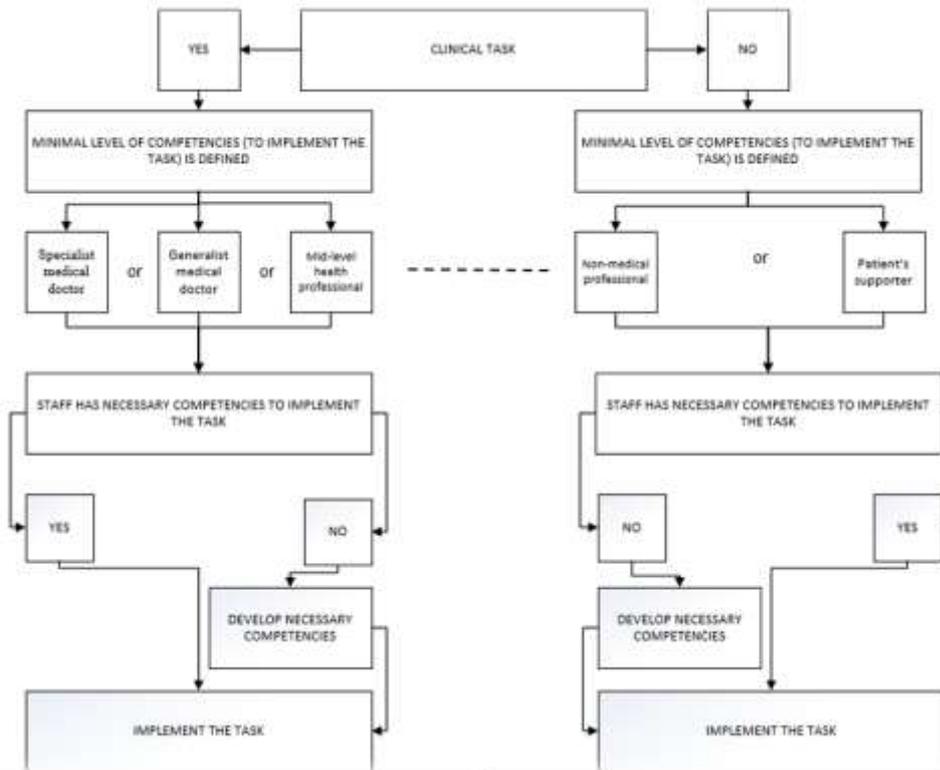
The importance of task shifting has not been fully understood and accepted. Doctors are very often involved in non-clinical tasks which can be performed by other staff.⁴⁰ Tasks of specialists providing services in out-patients setting have been analyzed during the focus groups discussions, using tool seen in the Figure 2 Basic principles of task analysis. First step was to define is tasks clinical or not, then define necessary competencies needed (knowledge, skills, attitudes and education level), after that it could be decide which staff can take a certain tasks over and do they have necessary competencies already or some capacity building activities would be necessary. Basic principles of the tasks shifting can be seen in the Figure 7, Annex 2. After those preparations a task can be implemented by staff member to which it has been shifted.

³⁸ According to the HRM information at IPP

³⁹ Green Light Committee for the WHO European Region mission for monitoring the implementation of the national tuberculosis response plan in the Republic of Moldova Right Bank of the River Dniester 13-17 February 2017, Kai Blöndal

⁴⁰ Национальный клинический протокол "Туберкулез у взрослых", Кишинэу, 2015

Figure 2 Basic principles of task analysis



Applying the tool Figure 2 Basic principles of task analysis task analysis was performed for the specialists providing out-patient services at secondary level. It was reported, that in some rayon's, certain experienced nurses were already undertaking non- clinical tasks currently assigned for doctors. Detailed task analysis with expected changes can be seen in Figure 6 Task analysis at a secondary level, Annex 1.

Workplace Safety and Security (occupational health policies)

The working environment at TB in-/ out-patient settings is not substantially different from many other medical facilities as often they are in the general hospital or Family Medicine Centers etc.

Work place safety instructions do exist; medical staff sign them and have a copy available for reference. At the IPP and rayon hospitals there are specialists to monitoring workplace safety including infection control measures in case of a violation of rights or if a workplace environmental hazard has occurred.

Job satisfaction

Employee satisfaction measurement system is currently not in place.

Carrier development

In-service training performed by stakeholders are acknowledged for Continuous Professional development (CPD). Specialists working at the primary level like family doctors– including those working in district family medicine centres and in village family doctors' offices as well people working in NGOs or CBOs – are trained to identify presumptive TB patients, to screen contacts and risk groups, as well other tasks under these services. Staffs at primary level are also trained to ensure directly observed treatment (DOT) and to trace patients lost to follow-up. CPD needs and frequency are defined: 250hrs for doctors and 150 for nurses are necessary amount within 5 years cycle. Maximum of 144hrs in one course are allowed.

Performance management

Supervision is defined and is used as a method for performance management. NTP is aware of difficulties in the field: legal as well technical. Rayon phtysiopulmonologists are closely collaborating with family doctors and supervise nurses.

Health workforce information

Presence and availability of relevant indicators on HWF are available at IPP, and per rayon and are collected on yearly basis.

4. Conclusions

In general, the results show that steps can be taken in each of the areas described in this report: improving planning of needs, staff management and retention. Improved HWF planning and management could lead to more effective allocation of human and financial resources.⁴¹

To ensure that there is an adequate number of competent HWF following steps should be taken: analyze workload according to the clinical protocol; shift tasks as/if necessary, update existing job descriptions with new tasks and responsibilities, provide training to newly- assigned staff if necessary, supervise and manage performance based on performance standards.

Planning the HWF in TB control is not only a technical process, but also a political one, as decisions on the number, types and distribution of health workers depend on the policy-driven targets and normative judgments. All information presented in this report is based on the current data status of Human Resource Information System (HRIS) in the Republic of Moldova. For more detailed information see Annex 2 Full description of recommendations.

⁴¹ Andrei Mecineanu PhD, Report on Human Resources for Tuberculosis Plan In Republic of Moldova, March 2016

5. Recommendations

In total ten recommendations are proposed for HWF planning and implementation. Summary of recommendations can be seen in the Figure 4 Main HWF related recommendations and full description of recommendations can be seen in the Annex 2- Full description of recommendations.

For implementation and monitoring of proposed recommendations RACI tool is proposed. RACI denotes Responsible, Accountable, Consulted and Informed, which are four parameters used in a matrix for decision making. RACI chart tool outlines the activities undertaken within an organization to that of the people or roles. Responsible: a person, who performs a task or work and he/she is responsible for the work. Accountable: a person in charge of the task or work. Consulted: a person, who gives feedback, contribute as and when required. Informed: a person in charge who needs to know the action or decision taken.

Ownership can be achieved only by NTP deciding which recommendations are feasible and which person is the best to perform and can be responsible, accountable, consulted, or needs to be informed. Due to a very high workload of staff and central unit realistic timelines can be set only during mutual discussions, to avoid planning for failure.

Figure 4 Main HWF related recommendations

#	Recommendation	R	A	C	I	Timeline
1	HWF development: pre-service training (n/a)					
2	HWF Planning: if possible, for medium-/ long term planning apply needs based approach to estimate FTEs using proposed HWF planning tool					
3	HWF retention: implement survey for phtysiopulmonologists and other staff working in TB to find out reasons and expand appreciations policies in the whole country					
4	Work Relations: perform tasks analysis at PHC level and shifting certain tasks from higher educated staff to those with less training or special training					
5	Workplace Safety and Security: revise and/ or develop all relevant policies including accidents at the workplace					
6	HWF Job satisfaction: introduce job satisfaction measurement (proposed tool see Annex 3: Employee satisfaction survey)					
7	Carrier development: encourage development of “soft” skills (management, computer literacy, communication etc.) within CPD framework					
8	Performance management: develop performance standards phtysiopulmonologists and other staff working in TB in line with national guidelines and standards; strengthen supervision (on-/ off line); introduce performance appraisal and peer evaluation					
9	HWF information system: in addition to the National Tuberculosis Control Program 2016-2020 introduce additional HWF basic indicators (see Figure 8 and 9) to be collected on yearly basis					
10	Other: 1. include TB process indicator for rayon hospital director performance evaluation as addition to MoH					

	Order Nr 1038 (23.12.2016), Annex 1-published 03.02.2017 v Monitorul Oficial Nr.30-39, Nr. 100 2. Perform analysis of imbalanced staff workload at rayon level					
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NTPm- NTP manager / NTP M&E- Monitoring and evaluation Unit/ LG- Local Government/ HRM- Human Resource Management Unit/ HoU- Heads of Units / RH- Rayon Hospital

Annexes

Annex 1: Tasks analysis at secondary level

Figure 5 Task analysis at a secondary level

Task	Clinical (yes/ no)	Proposed staff
Detection and diagnosis		
Collect patients' history	Yes	Phtysiopulmonologist
Perform physical examination	Yes	Phtysiopulmonologist
Perform diagnostic tests (sputum)	Yes	Mid-level health professional (lab. staff)
Perform Xray	Yes	Mid-level health professional (nurse)
Perform microbiological tests	Yes	Mid-level health professional (lab. staff)
Test on HIV	Yes	Mid-level health professional (lab. staff)
Counsel on HIV	No	Non-medical professional or Mid-level health professional psychologist or nurse)
Implement IC measures	No	Non-medical professional or Mid-level health professional (engineer or nurse)
Monitor IC measures	No	Non-medical professional or Mid-level health professional (engineer or nurse)
Fill in medical documentation	Yes	Mid-level health professional (nurse)

Task	Clinical (yes/ no)	Proposed staff
Treatment and support		
Decide on the treatment model	Yes	Phtysiopulmonologist
Decide on the treatment regimen	yes	Phtysiopulmonologist
Provide treatment follow up)	yes	Phtysiopulmonologist
Provide treatment (DOT)	no	Non-medical professional or Patients' supporter or Mid-level health professional (psychologist/ social worker or NGO or nurse)
DOT quality standards monitoring	yes	Mid-level health professional (nurse)
Clinical monitoring	yes	Phtysiopulmonologist
Detect side effects	yes	Non-medical professional or Patients' supporter or Mid-level health professional (psychologist or social worker or DOT provider or nurse)
Treat side effects	yes	Phtysiopulmonologist
	no	Non-medical professional or Mid-level health professional (engineer or engineer)
Counsel on HIV	no	Non-medical professional or Mid-level health professional psychologist or nurse)

Task	Clinical (yes/ no)	Proposed staff
Other		
Fill in medical documentation	yes	Mid- level health professional (nurse)
Coordinate with PHC services	no	Non- medical professional (social worker, DOT assistant)

Provide patient education	no	Non- medical professional or Patients' supporter or Mid-level health professional (psychologist/ social worker or NGO or nurse)
Provide patient counselling	no	Non- medical professional or Patients' supporter or Mid- level health professional (psychologist/ social worker or NGO or nurse)
Provide social support	no	Non- medical professional or Patients' supporter or Mid- level health professional (psychologist/ social worker or NGO or nurse)
Provide psychological counseling	no	Non- medical professional (psychologist)

Annex 2: Full description of recommendations

Based on the NTP review 2013 recommendations and assumption that The National TB Program will expand, their mandate for technical capacity and authority to update national policies including HWF⁴² will be acknowledged and recognized, as well capacity of the central unit will be built⁴³ it is advised to implement following recommendations to ensure consistent HWF coordination and service delivery across the country.

HWF development: pre-service training.

There is no recommendation in this area as analysis was not performed. Future steps can be taken to revise pre-service curricula for medical doctors and mid-level health professionals to make sure that curricula is competency based according to the TB care model and respective job descriptions.

HWF Planning ⁴⁴

Despite existing methodologies the availability of tools to estimate human resource requirements in health remains limited.⁴⁵ In the HR report delivered in 2016 it is advised to have: 2 FTE phthisipulmonologists per 100 TB notifications;⁴⁶ 5 FTE Nurses per 100 TB notifications and 5 FTE outreach workers per 100 TB notifications.⁴⁷

To make sure that these are estimation reflect actual workload simple tool has been developed (see separate Excel Workbook "**HWF PLANNING TOOL**") to allow responsible staff to get a quick approximate overview of staffing implications when new service need to be accommodated based on increased patient/provider encounters. This tool is considered as a customized methodology for medium and longer– term of planning and management HR in TB control.

This tool has the objective to calculate health workforce (HWF) requirement to diagnose and treat TB patients as well other pulmonology disease patients. Full time equivalent (FTE) for MD specialists (TB doctors) and mid-level health professionals (e.g. nurses and laboratory staff) and other staff is calculated for different groups of TB patients and other pulmonary disease patients. The tool allows to calculate FTEs needed for one patient and for expected number of patients.

The tool is developed based on the assumption that time for each service is defined and can be achieved. It sets specific process and outcome targets according to national guidelines and adapts targets to health workforce requirements.

The tool is built on the service target approach and seeks to identify time requirements to achieve set targets and goals. 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 simple spreadsheets allow the user to manipulate staffing scenarios and obtain an approximate picture of 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).

⁴² Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

⁴³ National Tuberculosis Control Program 2016-2020

⁴⁴ HR plan the Republic for Moldova. <http://lex.justice.md/viewdoc.php?action=view&view=doc&id=364384&lang=2>

⁴⁵ Andrei Mecineanu PhD, Report on Human Resources for Tuberculosis Plan In Republic of Moldova, March 2016

⁴⁶ In the framework of this report TB notification is used as number of new and relapse TB cases notified in a given year. The term "notification" means that TB is diagnosed in a patient and is reported within the national surveillance system, and then on to WHO.

⁴⁷ In the framework of this report TB notification is used as number of new and relapse TB cases notified in a given year. The term "notification" means that TB is diagnosed in a patient and is reported within the national surveillance system, and then on to WHO.

Calculations are based on the time required to perform tasks involved during a patient/health service provider.

In addition, worksheets covers the time when staff is not available (as per annual leave, public holidays, capacity development activities etc. and other foreseen absences). It also requires data on latest cohort (duration of stay in the hospital, lost to follow up, died etc.).

Once all these data have been ascertained, the planning worksheet will calculate the staffing needs- how many staff working full time would be needed, according to the planned number of patients. The approach allows to modify planning worksheet according the variables and it calculates the total number full time equivalent (FTE). This tool allows to calculate FTEs needed for one patient and for expected number of patients. The assessment needs to be done in close collaboration with health service providers Preliminary data are entered in the Excel Workbook **“HWF PLANNING TOOL”** (see separate document).

Table 4 Planning of FTEs per number of patients expected

	Mid- level professional: laboratory technician	MD specialist (TB doctor)	Mid- level health professional : nurse	Mid- level health professional: other
Number of people with presumptive TB expected to be tested in 1 year	1000	1000	1000	0
Number of DS- TB patients expected to be treated in 1 year	100	100	100	0
Number of DR- TB patients on the 9 months regimen expected to be treated in 1 year	0	0	0	0
Number of DR- TB patients on an individualized regimen expected to be treated in 1 year	100	100	100	0
Number of other pulmonary patients in 1 year	0	1000	1000	0

Information from national clinical guidelines and protocols were inserted in **the Excel Workbook “HWF PLANNING TOOL”** (see separate document) to calculate workload and needs of. The **“HWF PLANNING TOOL”** it calculated that 5 FTEs- laboratory technicians , 3FTEs-physiopulmonologists and 8FTEs- nurses are required, if it is expected to have 1000 people with presumptive TB, 100 DS-TB, 100 DR-TB and 1000 pulmonary patients per year see **Table 5 FTEs necessary per planned number of patients.**

Table 5 FTEs necessary per planned number of patients

Position	FTE needed
Mid- level professional: laboratory technician	4.9335
MD specialist (TB doctor)	3.0529
Mid- level health professional: nurse	8.0335

It must be stated that the **“HWF PLANNING TOOL”** gives quick approximate estimations. The figures, however accurate, would need more detailed data for clarifications and any decisions.

It is advised that NTP M&E Unit recalculate all data based on the latest country cohort information at district level, as local data as lost to follow-up, died may differ and influence calculations. It is also important to mention, that as soon as there will be patients on shorter regimens, or clinical guidelines on tests or frequency of encounters will be change, it will be necessary to re-enter data and re-do calculations for FTEs needed.

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 district level, it will give data for national level identify gaps in availability of staff and to start discussions with stakeholders on necessary changes.

Once FTEs needed to deliver quality TB services will be estimated NTP manger in collaboration with Head of Rayon Hospitals should address this issue with local governments and advocate for necessary minimum of FTEs according to the workload as per number of patients/providers encounters and in-direct time needed for patients' management.

HWF retention

To be able to reduce staff turnover rate it is necessary to perform survey on staff retention. Based on the survey data and existing policy and experience at IPP, retention policy should be developed and implemented country wide to address issues like appreciation, recognition, communication etc.

HWF relations

Full task analysis for all cadres (PHC and HIV program staff) delivering out-patient services should be done to be able to shift certain tasks to certain staff see.

Clear Terms of Reference (ToRs) for all parties involved are necessary to avoid duplication of work and to be able to provide the same services and apply the same tools (eg. screening, contact investigation).

Once ToRs will be developed and tasks shifted it may be necessary to adjust a legal framework, to allow and regulate the delivery of TB services in the network of involved stakeholders, including NGOs and private providers.⁴⁸ Possible solutions to ensure shifting of tasks include: reassignment of staff from other wards within a hospital, assign non- clinical tasks to non-clinical professionals or patients' supporters including NGOs and CBOs; involve primary health care providers.

Task shifting involves the rational redistribution of tasks among health workforce and teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health and apply cost effective financing.⁴⁹ The evidence supports a broad categorization of task shifting practices. Basic principles of tasks shifting are: (1) the extension of the scope of practice of mid-level health professionals (nurses) in order to enable them to assume some tasks previously undertaken by more senior cadres (e.g. phytisiopulmonologists), (2) the extension of the scope of practice of patients' supporters (NGOs), in order to enable them to assume some tasks previously undertaken by nurses and phytisiopulmonologists see **Figure 7 Basic principles of task shifting**, (3) patients trained in self-management, assume some tasks related to their own care that would previously have been undertaken by nurses. Likeliness of existing competencies of different cadres can be see **Figure 6 Type of health workforce and their expertise for service provision (adapted)**. Task shifting can also be extended to other cadres that do not traditionally have a clinical function, for example pharmacists, laboratory technicians, administrators and records managers. The cadre that assumes the new task, not the cadre that is relieved of the task, is the defining factor for task shifting types.⁵⁰ In situation when non- clinical tasks are shifted eg. from doctors to nurses it will be more costs effective for the program and service delivery, even by increasing number of nurses, as it will require less training and lower salary scale.

⁴⁸ Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

⁴⁹ World Health Organization Global Recommendations and Guidelines. Task shifting: Treat, Train, Retain- HIV/AIDS, Definitions, <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>

⁵⁰ World Health Organization Global Recommendations and Guidelines. Task shifting: Treat, Train, Retain- HIV/AIDS, Definitions, <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>

Figure 6 Type of health workforce and their expertise for service provision (adapted)⁵¹

Type of HWF Type of services	Prevention (promotion and protection)	Detection and diagnosis	Treatment	Support
MD Specialist: eg. phtysiopulmonologist	+	+++	+++	+
MD Generalist: eg. family doctor	++	++	+	+
Mid-level health professional: eg. nurse	+++	+++	++	++
Non- medical professional: eg. psychologists, social workers	++	+	+	+++
Patents' supporter: eg. representatives of NGOs, former TB patients, family members, community	++	+	+	+++

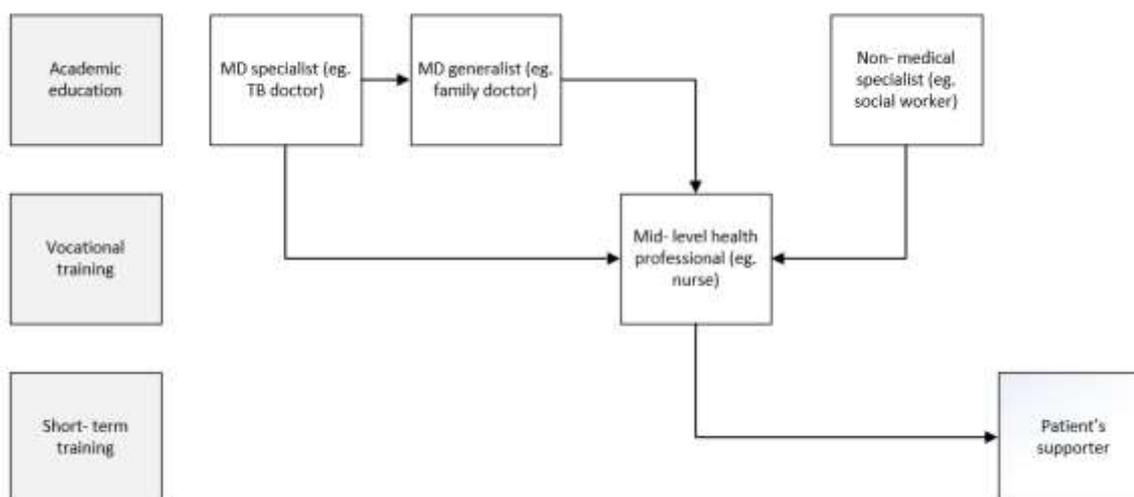
Rated by Likert Scale: + Not likely ++Somewhat likely +++ Very likely

Only in situation when non-clinical staff is not available to perform non-clinical task, it should be performed by staff with clinical education. Moving the delivery of TB services from in-patient to out-patient care includes, where appropriate, redistributing select tasks from specialist and generalist medical doctors to mid-level health professionals and, in turn, from mid-level professionals to non-medical professionals, patients and patients' supporters.⁵²

⁵¹ Kenya Health Sector strategic plan 2005-2010.

⁵² Lee CY, Chi MJ, Yang SL, Lo HY, Cheng SH. Using financial incentives to improve the care of tuberculosis patients. Am J Manag Care. 2015; 21(1): e35-42.

Figure 7 Basic principles of task shifting



Re-evaluate algorithm for standard screening, provision of psychosocial support etc. (e.g description of psychosocial support is provided⁵³ during the 11 sessions. There is no description in which situation should be provided minimum number of consultations: eg. when initiate treatment, when change treatment regimen, when change of phase; when change of model of care, 1x 3 month during continuation phase and/or upon request). Such a decision is country specific and depends on the groups of the patients.

Non- medical professionals and patients' supporters, when appropriately educated, should be allowed to undertake simple procedures (symptom screening, sputum collection, DOT provision, education, collaboration with families)⁵⁴ and all involved stakeholders should use⁵⁵ the same standard reporting forms and indicators to the NTP M&E Unit.

FTEs and workload for Heads of the Units, especially in in-patients departments, should be revised to make sure, that they salary is calculated based on the clinical and managerial tasks and time allocated.

To improve work environment and climate as well reduce risk for burn out at the workplace, it is advised to provide psychological support for HWF when necessary.

All job description for all staff working at IPP and community centers should be updates based on the performed tasks analysis. For Head of the Units at IPP clinical tasks should be added as they are involved in the direct clinical management of patients. Participation in the electronic expert meeting could also be reflected. Minimum performance standards should be defined for each service delivered and assess during supervision visits.

Reduce administrative and reporting burden of medical staff. This would require 1) conducting an inventory of all hard copy forma and reports developed and 2) determine the optimal number of documents and reports which need to be filled in and reported my medical doctors and other staff.

Redefine the goal and objectives for the home visits (initial and follow up) as well revise competencies needed to perform necessary tasks⁵⁶ to be able to assigned staff properly qualified (eg. mid-level health professionals

⁵³ Algoritmul asistenței psihologice pacientului cu tuberculoză

⁵⁴ Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

⁵⁵ Reporting form: Raport privind activitatea Centrului Comunitar

⁵⁶ Национальный клинический протокол "Туберкулез у детей", Кишинэу 2015 Приложение 6. Объем, частотность и исполнители противоэпидемических мер в очагах ТБ

or non-medical professional) to relieve burden of medical doctors, as during such visits hardly any medical tasks which requires academic educations is performed..

Consider the expansion of the community center staff Terms of Reference to be able to provide analogues services to all patients' with similar behavioral and socioeconomic needs (HIV, alcohol and other substance dependency) and consider the absorption of the community center staff and their services delivered within family medicine centers (communication nurses).⁵⁷

Workplace Safety and Security

update/ develop policies and/ or Standard Operating Procedures (SoPs) necessary for workplace safety: accidents at the workplace, dealing with aggressive patients, force major etc.

HWF job satisfaction

Introduce job satisfaction measurement. Tool "Employee satisfaction survey" see annex, can be applied to collect and analyses data. A system of psychological support for health care workers in the TB area to prevent a 'burnout' syndrome would be considered. This will require developing guidelines regarding psychological support for HWF (involving psychologists from Community Centers) and consider new tasks of non-medical professionals in their job descriptions.

Carrier development/ Continuous Professional Development (CPD)

The capacity building strategy for staff with a new or re-assigned tasks should outline how the competency development will be organized, where it will start, who is responsible etc. Capacity building should be seen as a individuals' competency development and within CPD framework. Following NTP action plan objective 5. Health system strengthening for effective TB control⁵⁸ in-service training on TB should be performed for other health staff (primary healthcare, public health, drug addiction specialists, infectious diseases specialists, forensic medicine experts etc.) and within current CPD framework. Staff working in TB service delivery as well management should develop their competencies in other infectious diseases eg. HIV and HFW management (all mid-level managers), counseling (according to task analysis), time management, and supervision etc.

Performance management

After trainings it is essential to conduct supervisory visits to, observe and assess performance of new tasks and consistency with guidelines implementation eg, follow- up tests and visits, content of visits, communication skills.

Performance appraisals once a year for all staff should be way forward to improve motivation, work environment and personal development. Self-assessment tool for performance management can be developed and implemented to standardize the process. HRM units should take pro-active role in all activities in regards of HWF.

HWF information⁵⁹

Attributing changes in disease incidence there are four main aspects of health service HWF activity for which management indicators may be developed: inputs, processes, outputs and outcomes. Each of them addresses a question in human resource (HR) management. Proposed minimum data set for HWF Registry can be found in the WHO document.⁶⁰ Proposed HWF indicators (core) can be seen in a Figure 8 HWF Indicators- 1

⁵⁷ Review of the National Tuberculosis Programme in the Republic of Moldova, 4–15 February 2013, WHO Regional Office for Europe, 2013

⁵⁸ National Tuberculosis Plan 2016-2020, Action Plan, Annex 2

⁵⁹ HWF plan the Republic of Moldova. <http://lex.justice.md/viewdoc.php?action=view&view=doc&id=364384&lang=2>

⁶⁰ HRH Information System. Minimum data Set for HWF Registry. WHO. 2015

(Adapted) and Figure 9 HWF indicators- 2. Once NTP will agree with MOH and decided on minimum set of indicators they should be collected not only at the national level, but also each rayon level. If currently there is no staff to be assigned to perform such a tasks, then it is proposed to collect and analyze those indicators collected by NTP M&E Unit.

It is also important to analyze more detailed analysis of a roles and performance of involved stakeholders different levels, to find out the reason for imbalance workload at different rayons.

Figure 8 HWF Indicators- 1 (Adapted) ⁶¹

HEALTH WORKFORCE	ASPECT	INDICATOR	HEALTH WORKFORCE TYPE
AVAILABILITY			
	INPUT	Relative proportion of staff types, skills	<ul style="list-style-type: none"> • specialist medical doctors • generalist medical doctors • mid-level health professionals • non- medical specialists • patients' supporters
		Proportion of posts filled per the HR plan	<ul style="list-style-type: none"> • specialist medical doctors • generalist medical doctors • mid-level health professionals • non- medical specialists
QUALITY			
	PROCESS	Staff turnover rates	<ul style="list-style-type: none"> • specialist medical doctors • generalist medical doctors • mid-level health professionals • non- medical specialists
	OUTPUTS	The total number of patients treated compared to available staff	<ul style="list-style-type: none"> • specialist medical doctors • generalist medical doctors • mid-level health professionals • non- medical specialists • health service management staff (statisticians, computer programmers, accountants, managers and administrators, various types of support staff such as drivers, cleaners and craft and trade staff such as electricians).
	OUTCOMES	<i>Proposed: the total number of patients cured compared to available staff? (to be discussed)</i>	

⁶¹ Part I. Concepts of Performance Indicators. WHO. http://www.who.int/hrh/tools/part1_concepts.pdf

Figure 9 HWF indicators- 2

Indicator	Description	Value
1.	Pre-service curricula updated based on all new developments and international guidelines <ul style="list-style-type: none"> - MD specialists (*specify) - MD generalists - Mid-level health professionals (*specify) 	yes/no (year)
2.	Number of professors in TB/ pulmonology ¹	#
3.	Number of PHD students/ graduates in TB/ pulmonology	#
4.	Average number of TB patients consulted (per day) by ¹ <ul style="list-style-type: none"> - MD specialists (*specify) - MD generalists (*specify) - Medical paraprofessionals (*specify) 	#
5.	Average number of TB patients' home visits per week by ¹ <ul style="list-style-type: none"> - MD specialists (*specify) - MD generalists (*specify) - Medical paraprofessionals (*specify) 	#
6.	Working hours per week ¹ <ul style="list-style-type: none"> - MD specialists (*specify) - MD generalists (*specify) - Medical paraprofessionals (*specify) 	hrs
7.	Number of TB related guidelines and strategies developed with input of PHC staff. ¹	out of x
8.	Performance management system: <ul style="list-style-type: none"> - Number of staff with performance reviews. 	out of x (per facility)
9.	Performance management system: <ul style="list-style-type: none"> - Number of supervision visits actual/ planned. 	% (per district/ oblast)
10.	Quality of services and users' satisfaction have been measured. ¹	yes/no (year), facility
11.	Health workforce information and monitoring system developed and operational. ⁴	yes/no
12.	Number and percentage of trained managers who provide management expertise for effective operations. ⁴	out of x (optional)

Other

To improve quality of TB service delivery TB process indicator should be added to the list of performance evaluation indicators for the Director of the Rayon Hospital.
MoH Order Nr 1038 (23.12.2016).⁶²

Note: All previous recommendation delivered to the NTP during technical assistance visits and program reviews should be continued to implement for continuous service quality improvement.

⁶² ПОСТАНОВЛЕНИЕ Nr. 1016 от 01.09.2016 об утверждении Положения о назначении на конкурсной основе руководителей публичных медико-санитарных учреждений и Типового договора менеджмента учреждения. Опубликован : 09.09.2016 в Monitorul Oficial Nr. 293-305 статья № : 1101 <http://lex.justice.md/viewdoc.php?action=view&view=doc&id=366550&lang=2>

General Assessment

Health workforce for service delivery

ASSESSMENT	FINDINGS
Health Workforce Planning and Implementation⁶³	
Legal framework	
HWF planning⁶⁴ <ul style="list-style-type: none"> • The needs- based approach (future requirements based on health priorities) • The utilization- based approach (based on the demographic profile) • The effective demand based approach (epidemiological principles of the needs-based approach) Recruitment and Deployment <ul style="list-style-type: none"> • Annual recruitment and deployment plan • Annual turnover analysis⁶⁵ Retention <ul style="list-style-type: none"> • Retention scheme 	
Work Environment and Conditions⁶⁶	
<ul style="list-style-type: none"> • Employee Relations • Job descriptions are up-dated and available⁶⁷ (tasks shifted “from who to who”) • Workplace Safety and Security (occupational health policies) • Infection Control • Others • Force Major • Job satisfaction • Employee satisfaction measurement system⁶⁸ • Social protection Carrier development <ul style="list-style-type: none"> • In-service training 	

⁶³ Human Resource Management Assessment Approach. January 2013. USAID. Capacity Plus, <https://www.capacityplus.org/files/resources/hrm-assessment-approach.pdf>

⁶⁴ Policies and Plans for Human Resources for Health. Guidelines for Countries in the WHO African Region, p. 20-21 WHO, Brazzaville 2006

⁶⁵ Needs for HRP. <http://www.hr.wale.com/general-hr/human-resources-planning/>

⁶⁶ Human Resource Management Assessment Approach. January 2013. USAID. Capacity Plus. <https://www.capacityplus.org/files/resources/hrm-assessment-approach.pdf>

⁶⁷ Task analysis. The basis for development of training in management of tuberculosis. WHO 2005.

⁶⁸ Health systems in action. An e-handbook for leaders and managers. Chapter 6, p. 15. USAID. MSH. 2010.

http://www.msh.org/sites/msh.org/files/ehandbook_2014_final_29aug14.pdf

<ul style="list-style-type: none"> • Continuous Professional Development (CPD)_hrs 	
Human Resources information system⁶⁹	
HRIS <ul style="list-style-type: none"> • Presence and availability of relevant indicators on HWF availability and quality are developed and monitored 	
Performance management⁷⁰	
Setting performance expectations <ul style="list-style-type: none"> • Quality is assessed based⁷¹ on the standards (eg. International standards for TB Care (ISTBC)⁷² • Feedback (in-/formal) is in place • Supportive supervision is planned and implemented 	
EXTRA	
ASSESSMENT	NEXT STEPS
Education	
Pre-service training for MDs: <ul style="list-style-type: none"> • TB doctor • Pulmonologist • Other (specify) 	
Management staff	
Managers are sufficiently trained^{73;74} <ul style="list-style-type: none"> • Planning • Leadership • Other Management tasks are part-time (as side job along with clinical tasks) <ul style="list-style-type: none"> • Yes • No 	
Professional associations, unions and registration bodies⁷⁵	
Professional associations, unions and registration bodies	

⁶⁹ Human Resource Management Assessment Approach. January 2013, p. 38-39. USAID. Capacity Plus.

<https://www.capacityplus.org/files/resources/hrm-assessment-approach.pdf>

⁷⁰ Human Resource Management Assessment Approach. January 2013, p. 44. USAID. Capacity Plus. <https://www.capacityplus.org/files/resources/hrm-assessment-approach.pdf>

⁷¹ Billingsley McQuade K. et.al. A quality assessment tool for tuberculosis control activities in resource limited settings.

https://profiles.uonbi.ac.ke/loisea_site/files/tuberculosis_paper.pdf

⁷² ITC. <http://www.who.int/tb/publications/2006/istc/en/>

⁷³ Scaling up, Saving lives. Task Force for scaling up education and Training for Health Workers, Global Health Workforce Alliance, p.43. WHO, GHWA.2008

⁷⁴ Leadership development. MSH. <http://www.imgforhealth.org/activities/leadership-development>

⁷⁵ Kolehmainen-Aitken R, Decentralization and Human Resources: Implications and Impact.Round table. MSH.

http://www.who.int/hrh/en/HRDJ_2_1_01.pdf

<ul style="list-style-type: none"> • Involved in decentralized management structures • Reluctant to approve innovations- tasks shifting, curricula etc. 	
Performance improvement	
<p>Competency -based performance improvement⁷⁶</p> <ul style="list-style-type: none"> • Patient satisfaction surveys or feedback boxes • Annual self- evaluation (strength and weakness) • Peer review • Learning plans • Clinical audit • Mentoring/ Coaching 	
<ul style="list-style-type: none"> • Other 	

⁷⁶ Strengthening a competent health workforce for provision of coordinated/ integrated health service. Working document. WHO EURO. http://www.euro.who.int/__data/assets/pdf_file/0010/288253/HWF-Competencies-Paper-160915-final.pdf?ua=1

Planning Template

Planning template⁷⁷

Key Question		
Aim		
Areas of investigation		
Questions for more in depth inquiry		
Information and data source		
Indicators and milestones	Progress milestones	Output/ outcome indicator

⁷⁷ Human Resource Management Assessment Approach. January 2013, p. 45. USAID. Capacity Plus

Employee satisfaction survey

Dear Staff Member,

The director and HRM department are interested in better understanding your level of satisfaction with different aspects of the organization. Your feedback and comments on this questionnaire will help us make improvements in our HRM policies and practices. We appreciate your taking a few minutes to respond to these 10 questions.

Your responses will be kept confidential. Please return completed questionnaires to _____ by _____.

Thank you.

Instructions: For each of the statements below, please circle the number that best represents your opinion.
Scale = 1–5 (Disagree Strongly = 1; Completely Agree = 5)

Question

1. My salary is fair compared to that of other staff with the same level of responsibility. 1 2 3 4 5
2. My benefits are fair compared to those of other staff at my level. 1 2 3 4 5
3. My job description is accurate and up-to-date. 1 2 3 4 5
4. My supervisor and I have agreed on the priorities of my job. 1 2 3 4 5
5. I get clear feedback from my supervisor about how well I am performing in my job. 1 2 3 4 5
6. My annual performance appraisal is based on the priorities in my work plan. 1 2 3 4 5
7. My supervisor seeks my input when he or she is faced with a challenge or problem. 1 2 3 4 5
8. The organization acknowledges and values my work. 1 2 3 4 5
9. The organization provides me with the essential coaching and training to do my job. 1 2 3 4 5
10. The organization works to provide me with opportunities for career growth. 1 2 3 4 5

Employee satisfaction survey⁷⁸

⁷⁸ Health systems in action. An e-handbook for leaders and managers. Chapter 6, p. 16. USAID. MSH. 2010.
http://www.msh.org/sites/msh.org/files/ehandbook_2014_final_29aug14.pdf