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Guidance on Matching Funds: Tuberculosis – Finding the Missing People with TB

1. Background

TB is the leading cause of death by infectious disease, killing 1.8 million people in 2015. Each year, more than 4.2 million people suffering from TB remain missing – beyond the reach of detection and unable to access life-saving treatment. The missing people with TB remain a major global health challenge and an important reason for the slow decline in TB incidence.

Identification of individuals with tuberculosis and prompt treatment to render them non-infectious is crucial to saving millions of lives and rapidly reducing the global TB incidence. The missing people include men, women and children with different forms of TB, including drug resistant TB. These same missing people tend to concentrate in underserved communities and among key populations.

To end the TB epidemic, the World Health Organisation (WHO) developed the End TB Strategy that has set ambitious milestones, and the Stop TB Partnership's Global Plan to end TB 2016-2020 calls for a paradigm shift to achieve these milestones. Global targets for TB now include a 95% reduction in TB deaths and less than 10 TB cases per 100,000 population by 2035. In addition, 'Target 3.3' of the Sustainable Development Goal 3 (SDG 3) calls for ending the epidemic of tuberculosis (AIDS and malaria) by 2030.

Such targets will not be met without scaled up comprehensive strategies to prevent, diagnose and treat people with TB. The Global Plan's 90-(90)-90 targets requires countries to scale up the coverage of TB care to reach, diagnose and treat at least 90% of all people requiring treatment for drug sensitive, drug resistant and preventive treatment.

Providing a comprehensive package of care in collaboration with affected communities in high burden countries will ensure rapid progress is made in the fight against TB, by bringing innovative approaches to scale and covering programmatic gaps to catalyse impact.

TB remains one of the best 'value for money' interventions in global development. For every dollar spent on TB there is a resulting economic benefit of US\$43.¹ The return on investment for the standard investment scenario in the Global Plan to Stop TB would be US\$27 for each dollar invested, and rises to US\$85 return on investment in the accelerated investment scenario.

Urgent action is required to address the amplification effect of TB and multidrug resistant TB (MDR-TB) transmission. Due to the amplification of missed cases over the years, the longer the delay in finding the missed cases, the longer it will take to reach global targets. Matching funds will be critical in reducing the trend of missing cases both now and in the future.

2. Principles and rationale

Matching funds was recommended by the Global Fund Board in order to incentivize use of country allocations for strategic priorities in line with the Global Fund and partner disease strategies.

¹ "The Economics of Optimism." The Economist. The Economist Newspaper, 24 Jan. 2015. Web. 22 July 2016.

The matching funds strategic priority for TB was developed through extensive consultations involving key partners including WHO, Stop TB, USAID and other stakeholders. Based on WHO report 2016, 13 countries, have 70% of all the people with TB and MDR-TB who are missed by the current systems. The table below shows the countries, the number of missing cases, the proportion of missing cases in each country and the global share of missing cases for both drug susceptible (DS) and MDR-TB.

Table 1: Countries with missing TB cases

No.	Country	DS-TB			MDR-TB		
		Missing cases	% missing cases	Global share of missing cases %	Missing MDR cases	% missing	Global share of missing cases%
1	Bangladesh	152,562	43	3.5	8,746	90	1.9
2	DRC	129,492	52	3	9,500	95	2.1
3	India	1,099,565	41	25.6	101,000	78	22.4*
4	Indonesia	689,271	68	16	29,865	93	6.6
5	Myanmar	56,300	30	1.3	11,210	80	2.5
6	Nigeria	495,416	85	11.5	27,789	96	6.2
7	Pakistan	178,191	37	4.1	22,941	88	5
8	Philippines	37,456	15	0.9	13,212	78	2.9
9	South Africa	159,397	37	3.7	387	2	0.1
10	Tanzania	101,820	63	2.4	2,422	93	0.5
11	Ukraine	5,695	26	0.1	12,600	57	2.8
12	Kenya	25,482	24	0.6	1,632	82	0.4
13	Mozambique	92,441	62	2.1	6,654	91	1.5
		3,223,088		75%	247,958		55%

* Catalytic Funding not allocated to India

The main objective of TB matching funds is to find missing cases of both drug susceptible and MDR-TB patients using new and innovative interventions, approaches and ideas that do not continue the business as usual approaches. In countries where these approaches exist, matching funds could be positioned to scale-up and/or expand these innovative interventions. The following principles will inform the decision for award of matching funds:

- **Funding is earmarked** to support innovative strategies/approaches to find and treat missing TB and MDR-TB patients.
- **Funding matched to submission of ambitious plan and targets** to detect and treat **additional numbers** of TB and MDR-TB patients. Targets should be supported by clear plans and strategies to achieve them.
- **An increase in the allocation amount** designated for TB and MDR-TB case finding and diagnosis compared to the budget levels in Global Fund grants from the 2014-2016 allocation period. At a minimum, this designated allocation amount should equal (or be more than) the matching funds amount request.
- **A corresponding increase in programmatic targets for people diagnosed and started on TB and/or MDR-TB treatment and coverage** anticipated through both the increased use of country allocations and use of matching funds.

- **Foster collaboration** with other partner's initiatives focusing on improving case detection and finding missing cases such as TB REACH, ENGAGE-TB and US Government support

3. Interventions and activities

To reach the missing people with TB, matching funds will be focused on supporting and incentivizing implementation of a comprehensive package of services and innovative approaches and tools to make an impact on a country's overall TB burden. Such package will vary according to the setting and outcome of assessment and analysis of missing cases, but will have the basic principles of searching, diagnosing and treating all forms of TB in adults and children, and preventing the development of TB, including MDR-TB. Reaching the missing patients with TB and DR-TB will also require using more sensitive screening and diagnostic tools, prioritization of key and vulnerable populations and intensification and scale up of engagement of communities and care providers. Illustrative interventions and activities to be supported through matching funds and allocations are listed below which can be adapted or expanded depending on the setting:

Intensified TB screening and diagnosis at health facilities: People visiting or already at health facilities are not systematically and routinely screened for TB and this is a missed opportunity to diagnose and treat TB. Screening for TB should be conducted at different departments/units of health facilities, including among attendants of out-patient departments, specialized clinics such as diabetic, mental health, maternal and child health clinics and patients admitted to in-patient wards. All health workers and not only those who work in TB units need to be sensitized and involved. In addition, every effort should be made to ensure everyone with TB who presents at a health facility is diagnosed, recorded and started on treatment. Effective screening and early diagnosis of TB and DR-TB require use of more sensitive screening and more specific diagnostic tools such as X-rays and Xpert MTB/RIF respectively and availability of a robust referral (specimen or patient) mechanism.

Systematic screening of high-risk groups: To reach the missed people with TB, systematic screening needs to be implemented in selected risk groups, such as household, neighbourhood and workplace contacts of people with TB (particularly children and the elderly), people living with HIV and workers exposed to silica dust, prisoners, migrants and people living in urban slums and areas of high TB prevalence. Case finding efforts should employ the most sensitive and specific screening and diagnostic algorithms and should be tailored to the local context and key populations at high risk of TB who are underserved and marginalized. This will require special models for screening, treatment and care delivery. Routine tracing and evaluation of child contacts of active TB cases allow early detection of TB among children, as well as the identification of children who may benefit from TB preventive therapy. Innovative approaches to improve diagnostic capacities in children including appropriate methods for sample collection from young children, and use of X-rays and molecular tests are needed to detect TB early among children. Children with TB should receive the new child-friendly paediatric formulations that improve uptake and outcome.

Optimal utilization of the Xpert MTB/RIF and X-ray: The use of Xpert MTB/RIF tests needs to be scaled up by changing policy to allow Xpert testing of all people with symptoms of TB. Use of the Xpert MTB/RIF assay as an upfront and initial TB diagnostic test will improve the number of people diagnosed with bacteriologically-positive drug-susceptible TB, as well as drug-resistant TB. Specimen transportation systems and mHealth also need to be strengthened to improve diagnosis as well as communication of results. WHO has recently

released a guideline on the use of chest X-ray to enhance the identification of people who need to be tested for TB. This includes the use of digital X-rays technology and portable platforms.

Universal drug-susceptibility testing, DR-TB diagnosis and treatment: Only about a quarter of the estimated MDR-TB cases are detected and notified each year. Treatment coverage of drug-resistant TB is also extremely low with only 1 in 4 put on treatment and only 50% of those starting treatment having a successful outcome. Drug susceptibility testing (DST) needs to be scaled up for both retreatment and new patients, to reach universal coverage levels and treatment needs to be scaled up to ensure that all diagnosed patients are treated. Countries need to scale up the shorter treatment regimen along with the accompanying new molecular test and the use of new anti-DR-TB drugs. Countries should implement active drug safety monitoring and management systems (aDSM) for DR-TB treatment. Patient-centred treatment approach should be scaled up with provision of supportive care packages to ensure high quality of care for those with DR-TB and to improve access and treatment outcomes.

Programs and approaches to address access barriers, including community-based and integrated services: There is a need to scale-up programs to support integrated community and family-based approaches to TB and MDR-TB care, as well as to remove access barriers, reduce delays in diagnosis and improve management of TB in men, women, children and adolescents and the elderly. This includes scale-up of innovative approaches in service delivery, with particular consideration of proven in-country experiences (e.g., demonstrated through TB REACH supported interventions and through the ENGAGE-TB Approach). Improving access to people, particularly the underserved and vulnerable, will require extension of service delivery points beyond the traditional health facilities. Depending on the setting, this approach will require effective use of community systems, community-based health workers and mobile clinic approaches. Key population groups that are underserved or face specific barriers need to be prioritized. Barriers may also include gender, stigma and legal issues that need to be assessed and addressed.

Intensified TB Screening among people living with HIV and enhanced collaboration between TB and HIV Programs: A significant reduction of TB incidence and elimination of HIV-associated TB deaths can be achieved by adopting and scaling up policies that ensure integrated, patient-centered delivery of effective prevention, early detection, and prompt treatment. Specifically efforts should be focused on improving screening of people living with HIV for TB during each visit, including using Xpert MTB/RIF. HIV programmes should also screen people living with HIV for TB using Xpert in ART/pre-ART centres. People living with HIV who are co-infected with TB should be started on TB treatment and those who are not co-infected should receive preventive therapy. This requires intensifying collaboration between TB and HIV programs and providing compressive and integrated services for patients with HIV and TB.

Engaging Private Sector providers in TB diagnosis, treatment and prevention and M&E: Engagement of private care providers in TB diagnosis, treatment and prevention and M&E is critical. In some countries, the majority of TB/DR-TB patients consult or access private care providers for their TB-related symptoms due to different reasons. Innovative models of care in the private sector aimed at improving quality, affordability and notifications have demonstrated good results. In India, for example, this has resulted in notification of hundreds of thousands of missing people with TB. Innovative approaches are required to engage and collaborate with private TB care providers, such as those supported by TB REACH and other

partners. Mandatory notification of all TB patients diagnosed and treated by all providers should also be explored and integrated into the fight against TB.

Management of co-morbidities: Co-morbidities and health risks associated with TB are important and require integrated patient management. This include under-nutrition, diabetes, alcohol or drug abuse, smoking, silicosis, chronic obstructive pulmonary disease (COPD) and other non-communicable diseases, including mental health problems. Efforts should focus on screening and diagnosis of TB among these groups and providing treatment and care.

4. Approach to Matching Funds

It is important that a clear approach to find missing TB cases is developed as part of the grant application process and during implementation. Matching funds should be viewed as an opportunity to include or scale-up innovative interventions and activities that would incentivize the use of country allocation and other resources towards increasing case detection for both drug susceptible and MDR-TB and finding the missing cases. Therefore, matching funds will have direct and indirect effects; directly supporting/funding implementation and scale up of prioritized interventions (examples listed in section 3 above) and indirectly incentivizing programmes through the allocation funding. The approach will vary according to the setting but some of the issues to consider are highlighted below:

Assessment and analysis of missing TB cases: It is important to conduct an analysis of where the missing cases are located, including assessing which population groups are contributing to the overall burden of missing TB cases. It is important to identify the main barriers for assessing TB services and develop appropriate interventions to address the barriers. Various tools and approaches can be adopted for assessment. Interventions should be tailored to the information gained through these assessments and analyses.

Local and international best practices on reaching missing TB cases: In most countries, local experiences and best practices exist on how to overcome barriers to finding missing TB cases. These can be identified through community- and facility-based practices, as demonstrated by TB REACH interventions, the ENGAGE TB approach or other interventions. It is important to document this experience and identify interventions that can be scaled-up to other areas of the country. Regional and international experiences can also be important to inform local practices.

Approaches, tools and manuals for finding missing cases: While many guidelines and tools exist on improving case finding, new approaches and tools will be required to support countries to find missing cases. Although countries will develop approaches and tools which fit their local context, the Global Fund will work with partners such as WHO, Stop TB Partnership, USAID and other partners through Strategic Initiative Funding to support development of a number of tools based on best practices which can be adapted by countries as appropriate.

Implementation arrangement: The main objective of matching funds is to incentivize use of country allocations for strategic priorities; in case of TB is to find missing cases. Matching funds should not be viewed as 'add on' to the country allocation, but additional funding earmarked to support strategic priorities and adoption and scale up of innovative approaches and tools to detect and treat missing TB/DR-TB cases. Although matching funds will be implemented as part of the country grant, it is important that appropriate implementation arrangements are explored which will enable scale-up of proposed interventions under catalytic funding and full utilization and absorption of funding and achievement of targets. It will be important for countries to consider flexible and innovative implementation arrangements that could facilitate implementation of prioritized interventions, streamlined

funding flow and integrated monitoring system. This also includes expanding the pool of in-country partners and engaging local, regional and international technical partners to support implementation of the program.

Measurement of progress and results: Matching funds for TB is aimed at diagnosing and treating additional TB patients and bridging the gap of missing cases. Although it is not anticipated that countries would have a separate monitoring and evaluation framework for matching funds, they are expected to demonstrate an increase in programmatic targets and coverage that correspond to the additional funding they are requesting. Countries are also expected to have baseline data and targets for missing cases, including mechanism to monitor and report progress of implementation. Across the 12 countries, it is expected that about 300,000 missing people with drug susceptible and DR-TB will be found, and the average unit cost for achieving this is estimated at US\$400 and US\$4,000 per additional TB and MDR-TB case respectively.