BASELINE
ASSESSMENT OF
COMMUNITY BASED
TB SERVICES IN
8 ENGAGE-TB
PRIORITY COUNTRIES





#### WHO/CDS/GTB/THC/18.34

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This publication contains inputs from the consultation meeting on finding missing TB cases through integrated community-based TB service delivery held on 11-13 April 2018, Addis Ababa, Ethiopia and does not necessarily represent the decisions or policies of WHO.

Design by North Creative

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### **ABBREVIATIONS**

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
BMU	basic management unit
СВО	community based organization
CHV	community health volunteers
CHW	community health workers
CSO	civil society organization
DST	drug susceptibility testing
FBO	faith based organization
Global Fund	The Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
LHW	lady health workers
MDR/RR-TB	multidrug-resistant TB or rifampicin-resistant (but isoniazid-susceptible) TB
MDR-TB	multidrug-resistant TB, defined as resistance to rifampicin and isoniazid
МоН	ministry of health
NCB	national coordinating body
NGO	nongovernmental organization
NTP	national tuberculosis control programme or equivalent
PEPFAR	President's Emergency Plan for AIDS Relief
PPM	public-public and public-private mix
ТВ	tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
US	United States
USAID	The United States Agency for International Development
WHO	World Health Organization

### **ACKNOWLEDGEMENTS**

This document was drafted by the WHO THC Unit, with inputs from WHO country office staff, the Global Fund country teams, Challenge TB country teams and partners including USAID and the Stop TB Partnership. Additional inputs integrated in these reviews were provided by participants to the WHO Consultation meeting on finding missing TB cases through integrated community based TB service delivery held in Addis Ababa on 11-13 April 2018.

### Financial support

The Global Fund to Fight AIDS, Tuberculosis and Malaria is acknowledged for its financial support to the desk review development process through the WHO-GF grant (Award number 67014).

#### BACKGROUND

The overall objective of the Global Fund Strategic Initiative "Finding missing people with TB in selected countries" is to support countries to identify and treat missing TB cases. The Initiative has two specific objectives: 1) Address specific barriers to finding missing cases, especially in key populations and vulnerable groups and 2) Develop and apply innovative approaches and tools to find and treat missing cases. The primary target of the Strategic Initiative is 13 countries (12 countries with matching funding and India) with the largest gap in terms of missing TB cases for both drug susceptible TB (DS-TB) and drug resistant TB (DR-TB). These countries together account to 75% of all missing DS-TB and 55% of DR-TBs.

WHO has been engaged by the GF to support countries to uptake and scale-up existing guidelines and recommendations, and overcome barriers on operationalization of the recommendations, in order to contribute to the GF goal of finding an additional 1.5 Million missing TB cases by end of 2019. Intensification and scale up of integrated community based TB activities is considered one of the key interventions to reach this goal. In this context, the WHO TB/HIV and Community Engagement Unit has carried out a gap analysis and situation assessment, in the form of desk reviews, for eight WHO ENGAGE-TB priority countries supported by the Global Fund, i.e. DRC Indonesia, Myanmar, Nigeria, Pakistan, Tanzania, Kenya and Mozambique, in order to summarize and analyze evidence about the state of community based TB activities. The focus on these eight countries was justified by two reasons: the countries experience a high prevalence of TB and have a very high number of missed/unreported cases.

### **METHODOLOGY**

These desk assessments involved two stages of data collection, review and synthesis:

### STAGE 1

Development of country profiles

Country profiles were compiled to provide an overview of their national community policies, strategies and programmes in place for accelerated TB case finding. To develop the profiles, Global Fund applications, national TB strategic plans and reports, programme review reports, relevant national guidelines and websites of the community stakeholders, to understand scope of their respective interventions, and other related grey literature (program monitoring data, evaluation reports, research reports) were examined. To ensure that the country profiles present valid and up-to-date information, drafts were shared (by e-mail) with the respective WHO country office staff, the Global Fund country teams, Challenge TB country teams and partners, including USAID and the Stop TB Partnership.

### STAGE 2

Integration of inputs from the WHO Addis consultations

A global consultation meeting on finding missing TB cases through integrated community-based TB service delivery was organized by the Global TB Programme (GTB) of the World Health Organization (WHO), on 11-13 April 2018 in Addis Ababa, Ethiopia. Participants from Democratic Republic of Congo, Indonesia, Kenya, Mozambique, Myanmar, Nigeria, and United Republic of Tanzania attended the meeting. The purpose was to share country best practices and implementation strategies, identify programme gaps and opportunities and develop country specific roadmaps to improve existing plans including technical assistance needs to find missing TB cases. The desk reviews were reviewed after the meeting in order to integrate the meeting's outputs.

#### Limitations

Information collected through the above sources might not be exhaustive and could be missing details, components or underreporting some of the specific issues. The focus of the reviews is on integrated community TB services, as described under the WHO ENGAGE-TB approach, and their national implementation; a broader analysis of all additional factors influencing access to TB services is outside the scope of these reviews.

### DEMOCRATIC REPUBLIC OF CONGO

### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

### **Application information**

Country	Democratic Republic of Congo
Component(s)	TB/HIV
Principal recipient(s) for TB	Ministry of Health, Cordaid (community activities)
Grant start/end date	1 January 2018/31 December 2020
TB/HIV funding request	US\$ 179 335 402
Matching funds	US\$ 10 000 000

**Tuberculosis funding landscape:** the overall Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) contribution constitutes 90% of the funding for tuberculosis (TB) activities, while partner contributions from Challenge TB (United States Agency for International Development – USAID) and Action Damien account for approximately 10% of available funding. The current Global Fund funding request focuses on key priority interventions of the National Strategic Plan (NSP) and complements Government and partner contributions. Most of the activities constitute a continuation of ongoing efforts.

**Budget for community-based TB activities:** community-based TB activities are budgeted under the Global Fund grant for a total of US\$ 5 860 000.1

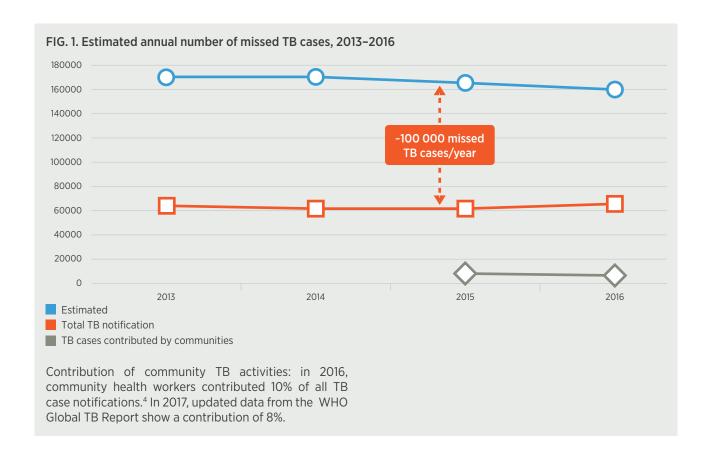
Country context: the Democratic Republic of Congo (DRC) is one of the biggest countries in Africa, with an estimated population of 85 million distributed over 26 provinces. The health system is fragmented, hospitals most often lack key equipment and drugs for primary health care and the predominantly impoverished population has limited access to health services. DRC is also classified by the Global Fund as a challenging operating environment because of several years of conflict and war. Access to certain populations in the east still is a major challenge.

TB burden and missed cases: DRC is a high-TBprevalence country according to WHO criteria, with an estimated incidence rate of 322 cases per 100 000 people in 2017.2 Case notifications saw an increase since 2008 as a result of improved case-finding, through increased coverage of the national programme, and population growth. However, TB case detection remains a major challenge, with an estimated >120 000 missed TB cases in 2016 (Fig. 1). TB control is integrated into primary health care through 1746 health centres (centres de santé de diagnostic et de traitement - CSDTs), but TB treatment coverage for 2016 was only 51%. Nationally, management of TB patients has improved in recent years, with a national treatment success rate of 89% for new cases registered in 2016,<sup>3</sup> although some provinces maintain high rates of loss to follow-up. Following a scoping mission with a WHO expert in 2016, the country plans a prevalence survey with a protocol that will first be tested in prisons (work planned for 2017–2018).

<sup>1</sup> DRC country presentation at the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018).

<sup>2</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.

<sup>3</sup> Ibid



### **OVERVIEW OF STRATEGIC PLAN AND** POLICIES FOR TUBERCULOSIS

The control of the TB epidemic is one of the main objectives of the National Strategic Health Plan 2016-2020. This plan also recognizes that the community is not sufficiently involved in the management and planning of the health activities and has set a target of a 50% increase in community involvement in health-care services.<sup>5</sup> An assessment is also planned to establish how many legally recognized nongovernmental organizations and civil society organizations are presently involved in TB community activities. 6 In line with the National Strategic Health Plan, one of the main interventions in the National Strategic Plan for Tuberculosis 2018–2020 (NSP) for this new grant is to reinforce community-based activities (including the ENGAGE-TB approach) and work more closely with all community-based organizations and civil society organizations on TB management activities. In particular: training members of the community, nongovernmental organizations and community-based organizations in TB contact tracing and active case-finding among key populations for 2060 health centres (six per centre), strengthening community involvement in patient follow-up (community directly observed treatment – DOT, treatment support and recovery of lost-to-follow-up patients, smear appointment reminders), sputum transport and publishing an annual narrative and epidemiological report of the national TB programme (NTP), including community TB data.<sup>7</sup>

A community intervention strategy has been developed and is currently being implemented by partners (e.g. Challenge TB) in some provinces.8 The strategy targets 11 out of 26 provinces with urban centres. At the community level, TB screening and diagnostic services will be strengthened by intensifying services in vulnerable populations: slums, prisons, mines, camps for internally displaced people (IDP); household contact tracing; integration of TB into the community-based work of nongovernmental organizations working on HIV maternal and child health; and integrated community case management of malaria.9 As highlighted by the Global Fund country team, community support is key to the achievement of impact and technical assistance should be mobilized as soon as possible to start working on the definition of its approach in line with ongoing national efforts and the NSP.

During a mission by the TB/HIV & Community Engagement Unit of WHO in September 2017, integrated communitybased activities in line with the WHO ENGAGE-TB grant were discussed and endorsed through a national consultation, with representation of the NTP, USAID, Stop TB Partnership, WHO country office and civil society. The package of activities to be implemented by community health workers includes: household contact tracing for all notified TB patients; collection and transport of samples to TB diagnosis sites; accompanying persons with presumptive TB for diagnosis; systematic screening

<sup>4</sup> Ihid

National Health Plan 2016–2020 - French version (Plan national de developpement sanitaire 2016–2020).

Input provided by WHO country office - March 2018.

National Strategic Plan for Tuberculosis 2014-2017- French version (Plan stratégique national tuberculose 2014-2017).

Input provided by WHO national professional officer - March 2018.

WHO country mission - September 2017.

for TB (and referral) during all community-based HIV/child immunization or other activities; psychosocial support during treatment; door-to-door screening in slums with high TB incidence. Although a number of approaches to implement community-based TB activities have been tested and implemented in the country, integration of these activities at community level remains limited. It was agreed to introduce integration of community-based TB activities into the work of nongovernmental organizations working on HIV, maternal and child health and integrated community case management of malaria, as a means to enhance effectiveness and cost-effectiveness. It has also been agreed to engage pharmacies in referrals of persons with presumptive TB in close collaboration with community health workers.

### Monitoring progress of strategic objectives

Monitoring and evaluation of TB community activities suffers from frequent stock-outs of community tools, a weak reporting system, lack of harmonized tools and the only partial integration of community TB indicators in the District Health Information System (DHIS2), which currently covers only 39% of districts. Community guidelines and community training tools are available along with the trainers and mentors, but the country has no training plan in place and training is mostly provided by partners on a one-off basis and without harmonization at country level. The availability of Global Fund, USAID and Government funds to improve community activities represents an opportunity to address the conflicting training agenda and the demotivation and retention of community health workers. With regards to integration of TB services with other disease programmes, the country has developed a "one-stop shop" strategy and a plan to change the current vertical approach and lack of integration of activities; however, an integration activity or strategy linking this plan to the community activities has not yet been developed. The support from the Global Fund resilient and sustainable systems for health grant could represent a good opportunity to develop and implement a community integration plan together with the "one-stopshop" strategy.

### COORDINATION AND COLLABORATION

Community-based organization networks for key populations in DRC are still rudimentary and have extremely limited capacities. They receive scant recognition or pay for their work, meaning they are unable to develop high-quality outreach prevention interventions. The midterm reviews of the NSP for HIV/AIDS 2014–2017 and the NSP for TB 2014–2017 revealed functional problems with the community system, chiefly because there is no formal consultation framework between nongovernmental and community-based organization networks (especially networks of youth, women, journalists and people living with HIV/AIDS).<sup>10</sup>

10 Global Fund funding request - 23 April 2017.

Under the last Global Fund grant, the **Stop TB RDC**, a "structural and organizational framework", was set up to strengthen collaboration with the community sector; its key functions are the regulation of community interventions, capacity building, mentoring, advocacy, concertation of TB nongovernmental organizations, sharing of experiences between nongovernmental organizations. The Stop TB RDC holds a quarterly meeting with key stakeholders.

During the September 2017 WHO joint mission to DRC, it was agreed that, in order to enhance meaningful engagement of community stakeholders in TB programming, community-based nongovernmental organization implementers would benefit from integrated NTP supervision to the grassroots. Nongovernmental organization activities will be coordinated through a coordinating platform and quarterly meetings at provincial and central levels. The platform is already in place and meetings have been held since December 2017; however; they are limited to the national level. The set-up of regular and harmonized provincial consultations is ongoing. 12

TB community workers are linked to NTP, but there are no regular coordination meetings. Although NTP supervisions and reviews include community aspects, community supervision is mostly done by the nongovernmental organizations responsible for community health workers. However, funding is insufficient to cover all community supervisions planned by NTP or nongovernmental organizations, and data validation exercises happen only sporadically.

### **POLICY AND TOOLS**

The **TB National Strategic Plan 2018–2020** recognizes that the community is not sufficiently involved in the management and planning of health activities and has listed the community system as one of the key implementing actors for the success of the current strategy, in line with the national Strategy for Strengthening the Health System (Stratégie de Renforcement du Système de Sante- SRSS).

Community participation activities are based on the fifth component of the country's **Stop TB strategy,** defined in the **TB National Strategic Plan 2018–2020** and the **Guide de prise en charge de la tuberculose** [Guide on TB management] and cover the following activities: homebased DOT for TB, retrieval of TB patients lost to follow-up, reminders for TB and HIV monitoring checks, transport of collected TB and HIV test samples, psychological support.

A gender mainstreaming project is currently being implemented, with a view to better targeting "gender" activities in HIV/AIDS and TB control programmes (focusing on vulnerabilities among women, young and adolescent girls, community leaders and key populations). Under this funding request, the plan is to support the extension of these projects and produce **standardized "gender" tools,** including training modules for community workers.<sup>13</sup> The development of the tools is currently ongoing.<sup>14</sup>

<sup>11</sup> WHO mission - September 2017.

<sup>12</sup> Input provided by WHO national professional officer - March 2018.

<sup>13</sup> Global Fund funding request - 23 April 2017.

<sup>14</sup> Input provided by WHO national professional officer - March 2018.

The following implementation tools are available and up-to-date:

- national guidelines relevant for community-based TB activities – PATI 5 and ENGAGE-TB;
- referral mechanisms and tools (for presumptive TB):
   BILO and FIDESCO (referral and household contact tracing sheets and forms, respectively);
- job aids for referral, diagnosis and treatment of TB;
- recording and reporting tools: TB register, Tb lab, TB quarterly report in health centre;
- tools to ensure treatment completion and patient support: TB register, TB quarterly report at Health centre level.

# IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

The principal recipients for TB and HIV activities in DRC are the Ministry of Health and Cordaid (community activities) and in order to address the issues of vertical programmes, separate management and poor collaboration, the Country Team and Country Coordinating Mechanism decided to better integrate TB/HIV coinfection services by having joint principal recipients for TB and HIV. Principal recipients will implement community-based TB activities through several organizations on the ground; the selection process for the sub-recipients under the new grant is ongoing. The principal organizations currently implementing, or coordinating implementation of, community-based TB activities are:

**CAD** – independent organization of former TB patients involved in advocacy and active contact tracing. It is composed of 90 satellite groups in eight (out of 26) provinces, seven of which are high-burden provinces. <sup>16</sup>

LNAC (Ligue national anti-lépreuse et anti-tuberculeuse du Congo – National Anti-Leprosy and Anti-TB League of DRC) – works in partnership with 250 community-based organizations on advocacy, social mobilization and awareness. Its activities are implemented through a network of 13 clusters active throughout the year but particularly for World TB Day. Tolven its large partnerships portfolio and geographical coverage, LNAC could be a potential candidate as the national coordinating body.

**Femme-Plus** – nongovernmental organization supported to integrate TB services into community-based HIV activities in Kinshasa and Kikwit, targeting the urban poor and vulnerable groups. Its activities were extended to Kasai

central and Maniema.<sup>19</sup> It mobilizes communities through its existing prevention of mother-to-child transmission (PMTCT) services and orphans and vulnerable children programmes. It screens household contacts of persons with TB for symptoms and refer persons with presumptive TB for diagnosis. It provides home-based care for those affected by TB and HIV and identifies and traces patients lost to follow-up.<sup>20</sup> The organization's activities are formally integrated within the national health service and it uses NTP recording and reporting tools, so its contributions are captured by the national monitoring and evaluation system.<sup>21</sup>

**ALTB** – local nongovernmental organization of former TB patients located at South Kivu and currently active in TB community work.<sup>22</sup>

Under the current grant, there is a plan to put in place a **long-term technical assistance scheme**, which will enable nongovernmental organizations/community-based organizations to reinforce their capacity in a resilient and sustainable manner as well as competing for future funding opportunities. Additionally, this funding request aims to support community systems strengthening by creating and operationalizing **observatories**, which will be responsible for improving care and treatment access and ensuring that human rights are respected.<sup>23</sup> The discussion on this topic is currently ongoing.<sup>24</sup>

Although the current plan identifies key populations for TB interventions (children under 15 years, prisoners, refugees and miners), mapping and size estimation are still under way<sup>25</sup> and will inform interventions targeted to these groups to ensure effective case-finding and case holding.

### Personnel

In DRC, community-based workers implementing TB activities are mostly former patients or community volunteers (Table 1).<sup>26</sup> For an overview of key stakeholders for integrated community TB activities, see Table 2.

#### Incentives and sustainability

Community cadres receive incentives for transport and/or for attending coordination meetings.<sup>27</sup>

### Monitoring and supervision

Supervisory meetings between NTP and local nongovernmental organizations are scheduled twice a year, with very little supervision at the field level. Monitoring and supervision of community health worker/community volunteer performance by local nongovernmental organizations is conducted quarterly.

<sup>15</sup> Input provided by WHO country officer- March 2018.

<sup>16</sup> Input provided by WHO national professional officer - March 2018.

<sup>17</sup> National Strategic Plan for Tuberculosis 2014–2017- French version (Plan stratégique national tuberculose 2014–2017).

<sup>18</sup> Input provided by WHO national professional officer - March 2018.

<sup>19</sup> Update provided by KNCV on 3 April 2018.

<sup>20</sup> ENGAGE-TB pilot project - the Democratic Republic of Congo. In: World Health Organization [website]. Geneva: World Health Organization; 2018 (http://www.who.int/tb/areas-of-work/community-engagement/drcongo/en/, accessed 1 June 2018).

<sup>21</sup> Input provided by WHO national professional officer – March 2018.

<sup>22</sup> Input provided by KNCV on 3 April 2018.

<sup>23</sup> Global Fund funding request - 23 April 2017.

<sup>24</sup> Update provided by WHO national professional officer - March 2018.

<sup>25</sup> Update provided by WHO national professional officer - March 2018.

<sup>26</sup> Input provided by WHO country officer - March 2018.

<sup>27</sup> Input provided by WHO country officer - March 2018.

TABLE 1. Cadres implementing community-based TB activities

Cadres implementing community- based TB activities in the country <sup>28</sup>	NGO/other CBOs/Ministry of Health/ other	Geographical coverage	Amount of funding allocated in 2017–2018
Former TB patients	ALTB	SUD KIVU: 22/34 ZS	US\$ 99 000
Former TB patients	CAD	Mongala: 8/12 ZS Kasai: 8/18 ZS	US\$ 97 000
Community volunteers	Foundation Femme Plus	Maniema: 4/18 ZS Kasai central: 4/26 ZS	US\$ 97 000
Community volunteers	LNAC	Kasai oriental:10/19 Lomami: 12/17 ZS Sankuru: 7/ 16 ZS	US\$ 97 000

CBO: community-based organization; NGO: nongovernmental organization.

TABLE 2. Overview of key stakeholders for integrated community TB activities

Stake- holder	Туре	Number of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
МОН	Govern- ment PR	7 local sub- recipients <sup>30</sup> - CAD - BDOM <sup>31</sup> - LNAC - Femme-Plus	Only highest TB burden and historic provinces	DR-TB patients HIV/TB coinfected patients	Work more closely with all CBOs and CSOs Develop an implementation plan for community activities
Cordaid <sup>29</sup>	NGO PR				Training of community outreach workers on the new guidelines (and case identification in particular)  CWs to provide education in TB testing centres TTCs  Get communities to engage with DR-TB to spur community demand for capacity building on patient referral and support  Information and awareness-raising sessions focusing on managing TB cases for family members of DR-TB  Training modules for service providers and community workers  Psychosocial support from CBOs for TB/HIV coinfected patients  Involvement of churches, CBOs and civil society in TB, DR-TB, TB-HIV activities  Engagement of pharmacies in referrals of persons with presumptive TB in close collaboration with CHWs  Community outreach workers to provide home visits (DOT for TB, recovery of TB patients lost to follow-up, reminders for TB and HIV samples, psychological support)

<sup>28</sup> Inputs for the table provided by WHO national professional officers and KNCV.

<sup>29</sup> Democratic Republic of Congo. In: Cordaid [website]. The Hague: Cordaid; 2018 (https://www.cordaid.org/en/countries/democratic-republic-congo/,

accessed 30 May 2018).

30 Caritas. RDC: le travail de Caritas contre la tuberculose expliqué aux délégués de l'Inspecteur général du Fonds Mondial [DRC: Caritas' work explained to delegates of the Inspector General of the Global Fund. Vatican City; Caritas; 2016 (https://reliefweb.int/report/democratic-republic-congo/rdc-letravail-de-caritas-contre-la-tuberculose-expliqu-aux-d-l-gu, accessed 30 May 2018).

<sup>31</sup> See Bureau Diocésain des Œuvres Médicales [Diocesan Bureau for Medical Activities] [website] (http://www.bdombkv.org/crbst\_4.html, accessed 30 May 2018).

Stake- holder	Type	Number of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
Club des Amis Damien (CAD)	CBO of former TB patients	One	8 CPLT (EQE, MAN, POO, KIN, KOO, KOE, KVS)	General population	Home visits Referral of suspected cases Recovery of irregulars and dropouts DOTS at home (in collaboration with the responsible staff at health centre) CAD has trained 1083 former TB patients (data from 2013) and 25 provincial trainers, and distributed 42 bicycles to trained members
LNAC	Local NGO	13 clusters	National	General population	Advocacy Social mobilization and awareness
Femme Plus	Local NGO	One	National	Urban poor and vulnerable groups (mothers, orphans and vulnerable children) through its existing PMTCT services <sup>32</sup>	Case-finding and notification Implementing Engage-TB approach since 2013
ALTB	Local NGO	One	South Kivu in 22 Health zone	Contact index TB cases	Active case detection by interviews living near an index case (door-to-door) <sup>33</sup>

CBO: community-based organization; CHW: community health worker; CSO: civil society organization;

CSO: civil society organization; CW: community worker:

DOTS: directly observed treatment, short course;

DR-TB: drug-resistant TB; MOH: Ministry of Health;

NGO: nongovernmental organization;

PMTCT: prevention of mother-to-child transmission;

PR: principal recipient.

### MONITORING AND EVALUATION

Contribution of community-based TB activities is monitored through WHO core indicators which are part of the NTP monitoring and evaluation system; a special study to analyse the contributions made by different activities, including household contact tracing and referrals from pharmacists, will be commissioned in 2019. In relation to community monitoring and evaluation, **DHIS2 adoption** (since December 2016) by the NTP is under way and currently used by 39% of districts with routine WHO support, including the data needed for the calculation of community indicators. At the time of writing of this assessment, DRC is in the process of building capacity among key stakeholders (NTP monitoring and evaluation focal points; DHIS2 users during the initial roll-out phase at all levels) to accelerate national DHIS2 adoption.

The indicators used to track contributions of community health workers/volunteers are (Table 3):

- proportion of TB presumptive cases referred by the community;
- proportion of notified TB cases who were referred by CVs/ community-based organizations;
- proportion of TB patients receiving community support during treatment;
- treatment success rate among patients supported by community-based DOTS throughout their TB treatment.

However, as pointed out in the NSP 2018-2020, there is still lack of integration between the national health system and the community network and the tools for collecting community data are often absent or not appropriate to capture community contributions. See Table 3 for details on NSP targets, monitoring plans and status and Table 4 for a short description of existing tools and registers.

<sup>32</sup> ENGAGE-TB pilot project - the Democratic Republic of Congo. In: Tuberculosis [website]. Geneva: World Health Organization; 2018 (http://www.who.int/tb/areas-of-work/community-engagement/drcongo/en/, accessed 30 May 2018).

<sup>33</sup> Update provided by KNCV - April 2018.

TABLE 3. **Community TB care indicators** 

Indicator	NSP targets	Monitoring plan	Current status
Proportion of TB cases who were referred by CVs/CBOs	5% by 2020	Quarterly and annual epidemiological report	29% (43 307/151 832) 2017
TSR among TB patients (all forms) supported by community-based DOTS throughout their TB treatment	95% by 2020	Quarterly and annual epidemiological report	-
Number of patients under community-monitored DOTS	-	Quarterly and annual epidemiological report	13% (20 273/151 832)

CBO: community-based organization; CV: community volunteer;

DOTS: directly observed treatment, short course; NSP: National Strategic Plan.

TABLE 4. **Existing tools and registers** 

Tool	Description	Level of use	Responsible person	Frequency
BILO	Request for screening of presumptive TB clients identified in the community (billet orientation du presume)	Community	Community members	Daily
Presumptive TB register	Daily records of referrals for presumptive TB clients referred from the community (Register des presume)	Community	Community volunteer/ CBO	Daily

CBO: community-based organization;

### **KEY CHALLENGES AND OPPORTUNITIES**

Even though the ENGAGE-TB pilot in the country in 2013-2014 helped demonstrate that integration of communitybased TB activities into other health themes is feasible and effective, integration of activities at community level remains limited owing to the flow of funding and different reporting requirements of different partners. This brings challenges linked to fragmented management of different partner initiatives and poor collaboration. However, the new joint community principal recipient for TB/HIV (Cordaid) with 30 sub-recipient nongovernmental organizations specialized in TB or HIV is being trained on crosscutting TB/HIV issues, and it is anticipated that the implementers will be rolling out integrated community services.<sup>34</sup> In addition, the one-stop-shop currently being finalized is expected to strengthen the integrated service delivery model for TB/HIV.35 Furthermore, the Ministry of Health has developed an integrated community strategy. Operationalization of the strategy is currently under way using in-country expertise. A number of geographical areas targeted under the Global Fund workplan will be covered by this new cadre, with scale-up planned over the coming years.36

Another key challenge is poor sustainability of TB response, with domestic funding at only 3%.37 In the short term, integrated TB/HIV programming including community activities could yield significant savings and efficiencies. Advocacy activities to increase domestic financing for TB are under way. Ministry of Health initiative to roll out the community health strategy is an opportunity to address sustainability and ensure strong support for the community cadre through the Ministry.

Coverage of community-based TB activates is suboptimal, including services for key populations. Distance to health services is mostly more than 5 km, which has a negative impact on the utilization of services. The matching fund grant seeks to expand the coverage of community-based activities in priority areas. Further opportunities are posed by successful initiatives led by, for instance, HIV (for example, the "mentor mothers" HIV model could be applied to TB). Successful pilot projects of community health sites exist (e.g. gastrointestinal disease health sites for children under five years – 3828 sites in 2015).<sup>38</sup>

Despite the overall good treatment success rate in the country, some provinces are facing challenges with high proportions of persons lost to follow-up. Under the current grant, 12 new nongovernmental organizations will be provided with funds to help expand and strengthen community support during treatment in order to help reduce this defaulting.

### ROADMAP AND NEXT STEPS

As a result of the specific discussions on the country workplans during the WHO Addis consultations, participants identified distinct areas for intervention and technical assistance needs for nationwide scale-up of quality models and tools. These areas are listed below and will be the focus of the country-specific roadmap to implement integrated community-based TB activities for finding missing TB cases; they should be considered for reprogramming of current Global Fund grants/matching funding whenever appropriate.

To address the multiplicity of community data tools, the country team plans to harmonize the tools in collaboration with community actors using technical assistance with the required expertise. Similarly, technical assistance will be needed to address the following challenges the country is facing: need for development of a training plan for community actors; need for community monitoring and evaluation plan and reporting system to ensure all activities are systematically recorded and reported; need for harmonizing the existing integrated community health strategy of the Ministry of Health and implementation plans of different community actors in the Global Fund TB and HIV workplans; need for scale up of DHIS2 to improve the quality of community data; and need for development of a functional coordination mechanism at all levels.

<sup>34</sup> DRC country presentation at the WHO Addis consultations, 11-13 April 2018.

<sup>35</sup> DRC country team presentation - July 2017.

<sup>36</sup> DRC country presentation at the WHO Addis consultations, 11-13 April 2018.

<sup>37</sup> DRC country presentation at the WHO Addis consultations, 11-13 April 2018.

<sup>38</sup> National Health Plan 2016-2020 - French version (Plan national de développement sanitaire 2016-2020).

### **INDONESIA**

### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

### **Application information**

Country	Indonesia
Component(s)	TB/HIV/RSSH
Principal recipient(s) for TB	Ministry of Health; Aisyiyah; LKNU
Grant start /end date	1 January 2018/31 December 2020
TB component	US\$ 102 416 560
Matching funds	US\$ 15 000 000

Tuberculosis funding landscape and budget for community-based tuberculosis activities: Challenge TB (United States Agency for International Development – USAID) tuberculosis (TB) support is complementary to Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) assistance and supports the National TB Control Programme with implementation of the national strategic plan for TB by ensuring technical leadership. Community-based TB activities are budgeted under the TB care and prevention module of the Global Fund grant. The sum of US\$ 1 million has been budgeted within the TB care and prevention allocation for incentives for community workers.

Country context: Indonesia is the fourth most populous country in the world, with over 17 500 islands. The country has a decentralized system of government with 514 districts and cities in 34 provinces. Health services are provided by both the public and the private sector; the private sector is largely unregulated and does not report to the Ministry of Health. The National Health Insurance scheme has reached 66% of the population, with the goal of covering the entire population by 2019. Since 2016, there has been a new focus on service provision through primary care at subdistrict level (puskesmas<sup>39</sup>), including planning, coordination and oversight of other primary health care providers and community health

services. Community involvement is largely focused on health promotion and prevention through the community-based units (posyandu<sup>40</sup> and poslansia<sup>41</sup>) and village health posts (poskesdes) while civil society organizations are mostly involved on specific health and social subjects.

TB burden and missed cases: TB incidence in 2017 was estimated at 319/100 000 population, with 842 000 cases.<sup>42</sup> In 2017, the number of TB cases detected but not notified was estimated at 303 000, while the number of missed cases was estimated at 165 000 (see Fig. 1).43 The 2013 prevalence survey suggested that large numbers of missing TB patients may already be receiving care from public and private providers not reporting to the national TB programme (NTP).44 Mandatory notification came into effect in 2016. The estimated number of multidrug-resistant (MDR) TB patients in 2017 was 12 000, only 16% of them being notified and tested for rifampicin resistance. Loss to follow-up and death rates among MDR/rifampicin-resistant patients started on 2nd line treatment in 2015 is currently 73%.45 The NTP is addressing these challenges through decentralization of services, introduction of shorter treatment regimens and enhanced treatment support at community level from civil society organizations and community-based health posts (UKBM).

<sup>39</sup> Community health clinics at subdistrict level.

<sup>40</sup> Community-based integrated health service for mother and child health care.

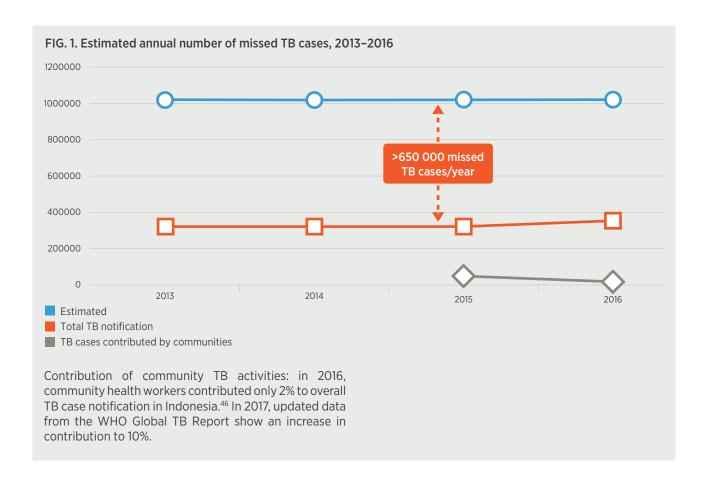
<sup>41</sup> Community-based integrated health service for the elderly.

<sup>42</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.

<sup>43</sup> Data from country presentation at the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018).

<sup>44</sup> Data from the National Prevalence Survey 2013, the latest Epi Review 2017, Joint External TB Monitoring Mission (JEMM) 2017 and preliminary results of the ongoing inventory study.

<sup>45</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.



# OVERVIEW OF STRATEGIC PLAN AND POLICIES FOR TUBERCULOSIS

Ministry of Home Affairs Decree No. 18/2016 stipulates that TB must be included as a priority component of planning and budgeting. The USAID-funded Challenge TB programme, in collaboration with the NTP, has developed a successful district planning and implementation model and tools, which will be utilized as templates for the priority districts proposed in this funding application.<sup>47</sup>

**TB notification** was officially made **mandatory** for all service providers in 2016. <sup>48</sup> To facilitate compliance, the NTP, with support from Challenge TB, has developed a user-friendly mobile-phone-based TB notification application (WIFI TB) for private practitioners and primary health clinics, which is currently being piloted in four subdistricts and will shortly be rolled out in other areas supported by Challenge TB. The application does not capture community referrals. <sup>49</sup>

The NTP has revised its **National Strategic Plan of Tuberculosis Control 2016–2020** in alignment with the National Ministerial Strategic Plan for Health: **Healthy Indonesia Programme 2015–2019** in order to accelerate progress towards achieving the targets laid out by the End TB Strategy (reducing TB deaths by 95% and cutting new cases by 90% between 2015 and 2035). The key element of

the revised strategy is the radical change from a centralized to a **district-based approach**, maximizing the utilization of existing district, subdistrict and community systems.<sup>50</sup> The TB priority districts will implement a **comprehensive service package** engaging both private service providers and communities. The approach aims to (a) increase case detection and notification of drug-susceptible (DS) and drug-resistant (DR) TB (70% overall and 80% for DR-TB); (b) retrieve missing TB patients; (c) provide bidirectional screening for TB and HIV patients; and (d) achieve early detection of MDR-TB and enrolment onto second-line treatment (95% by 2020). **Community engagement activities** include:

- home visits to newly diagnosed patients for contact investigation and vulnerability assessment, and to provide isoniazid preventive therapy support for eligible children;
- treatment support for vulnerable DS-TB patients and all DR-TB patients (including those with TB/HIV coinfection);
- awareness campaigns to encourage the general population to seek medical care immediately when they have TB symptoms and to join TB screening activities for diabetes patients and elderly citizens;

<sup>46</sup> Global tuberculosis report 2017. Geneva: World Health Organization; 2017.

<sup>47</sup> Global Fund funding request - 19 June 2017.

<sup>48</sup> Ministry of Health Decree No. 67/2016 on TB control, art. 23.

<sup>49</sup> Update provided by KNCV – 5 April 2018.

<sup>50</sup> Global Fund funding request - 19 June 2017.

 advocacy for district authorities to ensure TB commitment and allocate a TB budget and for communities to support TB activities and vulnerable patients.

In order to **build capacity for community organizations** to function more effectively, the following activities are proposed: (1) organizational capacity strengthening for civil society and nongovernmental organizations in priority districts; (2) core institutional support for national networks; (3) basic advocacy training; and (4) gender equality and feminism training for civil society organizations and nongovernmental organizations.<sup>51</sup> One of the key **TB control policies** listed in the NTP include TB control implementation through social mobilization and partnership between the public sector, nongovernmental organizations, the private sector and the community through the **TB Forum Coordination.**<sup>52</sup> The key strategies are:

- increasing participation of TB patients, former patients, families and communities in TB control;
- engagement of the community's role in TB promotion, TB case-finding and treatment support;
- community empowerment through integration of TB services into health services based on families and communities

Monitoring progress of strategic objectives

Although national guidelines for integrated communitybased TB activities exist and community involvement has become part of the national strategy, there is no national operational plan to roll out these activities and the funding is still largely donor-dependent. Furthermore, community involvement is still considered unimportant by local governments and the coverage area of community activities is limited to public health services (puskesmas) and public hospitals (for DR-TB only), with very limited community support in the private sector where many patients seek care. No formal coordination mechanism has yet been established at the national level; the Forum Stop TB Partnership Indonesia (FSTPI), consisting of civil society organizations, private sector, ministries and patient and professional organizations, is currently the only forum bringing together all civil society organizations involved in community-based TB activities, but it meets only annually and its focus on harmonizing and building cohesiveness for community engagement activities is limited to priority districts.

TABLE 1.
Objectives, indicators, tools and status of strategic plans

Strategic plan objectives	Indicators	Tools	Status
Increasing access to high quality services with TOSS-TB (find, treat until cured)	% patients enrolled for TB treatment; treatment success rate	Forms TB 01, TB 03	Community activities limited to public health services (puskesmas) and public hospitals (for DR-TB only); limited community support for patients in private sector
Enhance partnership through Forum Koordinasi TB	Number of Forum Koordinasi TB established at provincial level	Memorandum of understanding/ agreement letter	There is no formal coordination mechanism e.g. NTP-NGO coordination body
Strengthening the sustainability of community engagement for TB control	% TB cases who were referred by community	TB 06	No operational plan for integrated community-based TB activities; community-based TB activity limited to public health services (puskesmas) and public hospital (for DR-TB); lack of funding for community capacity building; CSOs are highly donor-dependent
Intensified case- finding	Case-detection rate	TB 07, estimation of TB burden	Not all community referrals are recorded in national recording and reporting system; there is no integration between different electronic reporting systems

CSO: civil society organization; NGO: nongovernmental organization;

<sup>51</sup> Global Fund funding request - 19 June 2017.

<sup>52</sup> National Strategic Plan of Tuberculosis Control 2016–2020.

### COORDINATION AND COLLABORATION

The NTP will coordinate with UKBM community health posts to conduct TB screening and refer them to health facilities. The community workers will conduct contact investigation under the coordination of puskesmas (community health clinics at subdistrict level). UKBM have monthly meetings at the puskesmas to discuss TB cases and challenges and develop action plans.

There is no national formal coordination mechanism (e.g. coordination body of the NTP and nongovernmental organizations) but the **Forum Stop TB Partnership Indonesia (FSTPI)**, consisting of civil society organizations, private sector, ministries, patient organizations and professional organizations, working in collaboration with district and provincial health offices, organizes the annual coordination meeting of civil society organizations. In priority districts, these meetings are also used as a way of harmonizing and building cohesiveness for community engagement activities.<sup>53</sup>

The Ministry of Health's Layanan Komprehensif Berkesinambungan (LKB) (continuum of care model) was implemented in order to increase the collaboration between health facilities and civil society organizations operating at the community level. While there are some examples of effective partnership under the LKB model, meaningful community participation has proven elusive on a wider basis. Community groups report not being consulted on major decisions and planning concerning health services and service delivery, and perceive that their feedback on service provision is not taken seriously.<sup>54</sup>

#### **POLICY AND TOOLS**

Existing guidelines and tools available:

- Ministry of Health Regulation No. 65/2013 Guidelines for the Implementation and Development of Community Empowerment for Health;
- Guidelines of Case Management for DR-TB Patients (case management for psychosocial support), in press 2018;
- Guideline for Training Cadres, 2017;
- Manual for Cadres, 2016;
- Guidelines for Peer Educator Training, 2014.

# IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

Over the new grant period, the country plans to firmly link civil society organizations into district planning and connect them to the respective primary health care programme in their catchment area. A comprehensive civil society organization package was developed for this new implementation period. Civil society organizations will be attached to puskesmas and provide contact investigation, support for children, treatment support for MDR-TB, TB/HIV and vulnerable DS-TB, and screening for KAP (elderly).

The Country Coordinating Mechanism nominated the Ministry of Health, Aisyiyah, and LKNU to be the principal recipients for TB. District health offices will act as sub-subrecipients, under the provincial health office sub-recipient for both TB and HIV. Specific targets will be assigned for each sub-sub-recipient (case notification and treatment success of TB and DR-TB), while the target of the subrecipient will be the number of districts with successful achievement. Together, the community principal recipients for TB will cover 191 districts: Aisyiyah will cover 131 districts in 14 provinces and LKNU will cover 60 districts in 10 provinces. The TB community organizations will be supported by the two principal recipients, which will implement activities in 191 out of 271 priority districts. Activities will include treatment support in prisons, including post-release support and referral, and provision of comprehensive community package, in particular:

- contact investigation linked with puskesmas household contacts and closed contacts;
- TB screening and prevention in community health posts (UKBM) for children and elderly people;
- treatment support and defaulter tracing in health facilities – the participation of peer supporters (expatients) to improve treatment success and prevent initial defaulting will be optimized;
- advocacy to integrate TB as high priority for district planning, budgeting and policy;
- awareness campaign to improve care and treatmentseeking behaviour.

Mobile clinics will be deployed to high-burden districts to conduct active screening among the urban poor and in prisons. Community health workers will collaborate by actively searching for presumptive TB cases and referring them to the mobile clinic. This activity is planned under catalytic funding.<sup>55</sup> The NTP is also supported, through a five-year project (2015–2019), by Challenge TB (USAID), which provides support for the principal recipients of the Global Fund TB funding. Challenge TB Indonesia is led by KNCV (sub-recipient), collaborating with two incountry coalition partners, FHI 360 and WHO. KNCV is assisted through short-term technical assistance from three external coalition partners; American Thoracic

<sup>53</sup> Input provided by WHO national professional officer - March 2018.

<sup>54</sup> Global Fund funding request – 19 June 2017.

<sup>55</sup> Global Fund funding request - 19 June 2017.

Society (ATS), Management Sciences for Health (MSH) and Interactive Research and Development (IRD).<sup>56</sup> USAID also launched the Community Empowerment of People Against Tuberculosis (CEPAT) programme to support NTP objectives in mobilizing and empowering communities to take action and contribute to addressing TB issues in their areas. Under CEPAT, three grants were awarded to local nongovernmental organizations: Lembaga Kesehatan Nahdatul Ulama (LKNU), Jaringan Kesehatan/Kesehatan Masyarakat (JKM), and the Roman Catholic Diocese (RCD). The programme is being implemented in seven provinces (North Sumatra, West Sumatra, West Java, DKI Jakarta, East Java, Papua and West Papua) and it focuses on increasing people's awareness of TB prevention and early detection, as well as fostering and facilitating local commitment to the national programme. Under CEPAT, USAID has trained more than 2900 health cadres (volunteers) in six different provinces in Indonesia to act as TB agents to educate communities about TB prevention and control. As a result, the number of cases detected has increased by 20%.<sup>57</sup> Training-of-trainers activities are also planned for high-burden areas and will be supported by the Global Fund and Challenge TB; the project will provide three days' training at district level.58

**Personnel:** in Indonesia, community health workers are trained cadres, ex-TB patients and community leaders, who are involved as case managers. The cadres are responsible for providing health education for the community, contact investigation, identifying TB symptoms and supporting patients during their treatment. Ex-patients provide support for patients from the time they are diagnosed until they are cured, with coordination by the case manager at the referral hospital and puskesmas.

**Incentives and sustainability:** community health workers work on a volunteer basis and are only supported with transportation costs. Funding of civil society organizations supporting community health workers is largely donor-dependent.

**Monitoring and supervision:** community health workers work in the villages under the coordination of primary health offices (puskesmas). Monitoring meetings are scheduled every two months.

See Table 2 for details of cadres implementing community-based TB activities and Table 3 for key stakeholders.

TABLE 2.
Cadres implementing community-based TB activities

Cadres implementing community-based TB activities <sup>59</sup>	NGOs/other CBOs/Ministry of Health/ other	Responsible agency	Geographical coverage
Community health workers/cadres	мон	TB programme coordinator	33 provinces
Peer supporters (ex-patients)	PETA, Terjang, PESAT, SEMAR, PANTER, REKAT, SEKAWANS, PETIR, KAREBA BAJI, DAENG TB, CTP, GAMELAN BALI, SIKKA BERAKSI, BEKANTANS, STORY, LKNU CIREBON	POP TB Indonesia (national network of TB patients) at national level, and case manager in hospitals	10 provinces with intensive intervention in 23 districts
Community cadres	AISYIYAH LKNU Perdhaki Pelkesi PPTI LKC PKPU	Coordinator ACSM Programme manager	131 districts in 14 provinces

ACSM: advocacy, communication and social mobilization;

CBO: community-based organization;

MOH: Ministry of Health;

NGO: nongovernmental organization.

<sup>56</sup> Challenge TB countries. In: Challenge TB [website]. The Hague: Challenge TB; 2018 (http://www.challengetb.org/where, accessed 31 May 2018).

<sup>57</sup> Controlling tuberculosis in Indonesia. In: USAID [website]. Washington (DC): USAID; 2018 (https://www.usaid.gov/indonesia/fact-sheets/reducing-multidrug-resistant-tuberculosis-indonesia, accessed 31 May 2018).

<sup>58</sup> Indonesia country presentation at the WHO Addis consultations, 11-13 April 2018.

<sup>59</sup> Inputs in the table provided by WHO national professional officer – March 2018.

TABLE 3. Overview of key stakeholders for integrated community TB activities

Stakeholder	Туре	Number of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
Ministry of Health	PR/ Government	Ministry of health as PR, in collaboration with SR, LKNU, PDPI and Penabulu	33 provinces	Key affected population	Treatment support in prisons; Contact investigation linked with puskesmas: household contacts and closed contacts;
					TB screening and prevention in community health posts (UKBM) for children and elderly; Treatment support and defaulter tracing in health facilities
					Optimize participation of peer supporters (ex-patients) to improve treatment success and prevent initial defaulter
					Advocacy to integrate TB as high priority for district planning, budgeting, and policy
					Awareness campaign to improve health seeking behaviour
Aisyiyah	PR/CSO	Selection in progress	131 districts in 14 provinces	Key affected population	TB screening and prevention in community;
					Advocacy to integrate TB in district planning, budgeting, and policy;
					Awareness campaign to improve health seeking behaviour.
LKNU	SR/CSO	Selection in progress	60 districts in 10 provinces	Key affected population	TB screening and prevention in community; advocacy to integrate TB in district planning, budgeting, and policy; awareness campaign to improve health seeking behaviour
Challenge TB	International technical assistance	Challenge TB Indonesia is led by KNCV, collaborating with two in-country coalition partners:	Nine provinces (Jakarta, West Java, Central Java, East Java, North Sumatra, Papua,		Design "best models", test through small-scale implementation and scale up of strong laboratory network, PPM, PMDT, TB/HIV and surveillance Treatment support in prisons led by
		FHI 360 and WHO	West Papua, West Sumatera and South Sulawesi)		FHI in collaborating with Ministry of law and human rights; contact investigation linked with puskesmas; TB screening and prevention in community health posts (UKBM); treatment support and defaulter tracing in health facilities; optimize participation of peer supporters (ex-patients) to improve treatment success; advocacy to integrate TB in district planning, budgeting, and policy; awareness campaign to improve care and treatment-seeking behaviour

CBO: community-based organization; CSO: civil society organization;

MOH: Ministry of Health;

NGO: nongovernmental organization;

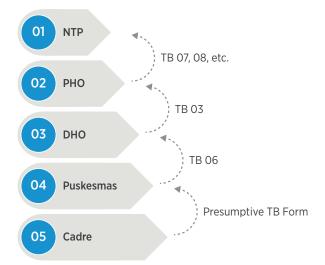
PMDT: programmatic management of drug-resistant TB; PPM: public-private mix; PR: principal recipient;

SR: sub-recipient.

#### MONITORING AND EVALUATION

Collection of health information is the responsibility of the Information Centre of the Ministry of Health. Data collection for TB and HIV programmes is fragmented and relatively inefficient. Both the TB and the HIV programmes suffer from weak routine reporting from health facilities. For TB, only 231 districts (45%) provide timely quarterly reports on TB case notification and treatment outcomes for the Integrated Tuberculosis Information System (SITT). The uptake of e-TB Manager for DR-TB reporting is more successful. However, the lack of integration between SITT and e-TB Manager poses a big challenge in data analysis and patient tracking. In the short term, the NTP is working to connect e-TB Manager and SITT for data exchange. Over the coming two years, the NTP will develop a new TB information system, fully interoperable with the existing interfaces. The system will be piloted in two districts in mid-2018. The aim of the new TB information system improvement is to accommodate reporting of TB cases from different sources, including community referrals and enable linking to the national information system. 60 The NTP has also introduced a mobile TB notification application for private practitioners and clinics, which will be linked to the new system. An important challenge is the lack of adequate internet connectivity in many health facilities. See Fig. 2 for an overview of the reporting structure.

FIG. 2. Reporting system



The District Health Information System 2 (DHIS2) platform is currently being rolled out at the central level and in five provinces and 10 districts. Once the roll-out is completed at the end of April 2018, the use of DHIS2 will be implemented for a year in these locations to identify issues and necessary adjustments. Global Fund funding is requested to expand the coverage of the DHIS2 TB and HIV components to all 514 districts during the period 2018–2020. In parallel with expansion of DHIS2, a coordinated initiative will be undertaken to evaluate and improve the quality of routinely reported TB and HIV data. This will entail data verification at the district level, for which protocol development and training will be needed, and the development of tools for TB/HIV data-based supervision. Data validation meetings in the districts involved TB and HIV officers from different providers for TB, HIV testing, care, treatment and support. In these meetings, the data from each facility are verified for completeness, duplication, and consistency. Additional TB or HIV patients who have not been registered will be added to the database. The data validation tools are provided by the NTP and National AIDS Programme. 61 Data from community-based activities will be collected through the contact register of TB patients (TB form 16).

Monitoring and evaluation reviews of community activities (by civil society organizations, cadres, UKBM and community leaders) are conducted annually at the national level and quarterly at the provincial and district levels. The main indicator for the community principal recipients is the number of presumptive TB cases that undergo contact investigation (see Table 4). In 2018–2020, LKNU is planning to screen household contacts of 203 024 bacteriologically confirmed TB patients, which may reveal an additional 30 000 TB cases. Aisyiyah will screen household contacts of 228 943 patients, which may reveal an additional 35 000 TB cases.<sup>62</sup> For a list of existing tools and registers, see Table 5.

<sup>60</sup> Input provided by WHO national professional officer - March 2018.

<sup>61</sup> Global Fund funding request - 19 June 2017.

<sup>62</sup> Global Fund funding request - 19 June 2017.

TABLE 4. Community tuberculosis care indicators

Indicator	NSP Target	Monitoring plan	Current status
Treatment success rate among TB patients (all forms) supported by treatment supporters (TS) throughout their TB treatment	95%	TB 08	86%
Proportion of local government authorities with formally established / community structure for providing TB care services	75%	-	-
Proportion of participating CSOs/CBOs with operational work plans	100%	Provincial report	60% (CSO mapping)
Proportion of all presumptive TB cases examined who were referred by community volunteers/CBOs	18%	TB 06	0.2%
Number of same-house contacts and nearby contacts who complete the screening process	30	TB 16	-
Percentage of villages utilizing 10% of the village fund for community-based health efforts is $50\%$	25%	-	-
Number of community-based organizations working to support health-related programmes is at least 45	75%	Provincial report	55%
The percentage of TB cases detected and referred by public or community organizations	20%	TB 03	1%
Percentage of provinces with established TB coordination forum	75%	-	-

CBO: community-based organization; CSO: civil society organization;

N/A: not applicable; NSP: National Strategic Plan.

TABLE 5. **Existing tools and registers** 

Tool	Description	Level of use	Responsible person	Frequency
TB 01 form	Administrative and technical details about patients and treatment, including community referral	Hospital, puskesmas	Physician, nurse	Weekly
Treatment card	Patients treatment adherence and identity of patients	Hospital, puskesmas	Nurse and patients	Daily
TB register (TB 02)	Administrative and technical details about patient and treatment, including community referral	Hospital, puskesmas	Nurse/physician	Daily
CTBC referral forms (paper)	Identity of patient, symptoms	Cadre/NGO/CBO and puskesmas/hospital	Cadre/nurse at puskesmas	Weekly
Community volunteer register (paper)	Identity, educational background	NGO/puskesmas	Nurse	Biannual
Patient Treatment support card (paper)	Technical detail about patients and psycho social aspect during treatment and support	NGO/patients organization/Hospital	Peer educator/ nurse / case manager	Daily

CBO: community-based organization; CTBC: community-based TB care; NGO: nongovernmental organization.

## KEY CHALLENGES AND OPPORTUNITIES

In order to address low case detection in rural areas. under CEPAT. USAID trained over 2900 health cadres (volunteers) in six different provinces to act as TB agents and educate communities about TB prevention and control. Case detection increased by 20%.63 Another key challenge is the high rate of initial defaulters and loss to followup of DR-TB patients. Opportunities to address these weaknesses include 16 patient organizations established under Challenge TB and YKI programmes which will provide support for DR-TB patients; the Ministry of Health is also developing an integrated model including case managers, peer educators and cadres. In order to address the lack of awareness about TB and health services and limited involvement of patients and families, community mobilization has been one of the key approaches of the Ministry of Health to engage communities in health; TB is part of the minimum service standard to be achieved by the head of district which is expected to improve service utilization. Involvement of civil society organizations and other stakeholders in outreach and education remains limited. In order to address this challenge, the country established close collaboration with a number of new civil society organizations, including the women's movement PKK, one of the largest civil society organizations with a strong network at village level. Furthermore, in order to promote, the engagement of private providers and strengthen links with community-based activities, Challenge TB and the NTP will pilot the district publicprivate mix model to ensure access to diagnosis and treatment of uncomplicated TB at primary and secondary health level. The model establishes a health network consisting of puskesmas, private providers and civil society organizations under the coordination of puskesmas.

#### ROADMAP AND NEXT STEPS

As a result of the specific discussions on the country work plans during the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11-13 April 2018), participants identified distinct areas for intervention and technical assistance needs for nationwide scale-up of quality models and tools. The country team identified four key areas where technical assistance will be needed. These include development of plans to strengthen interministerial commitment to support community TB activities; conducting assessments of barriers to access to TB services for key populations, for gender-related issues and human rights; development of guidelines for integrated community-based TB activities; and updating of training modules and provision of refresher training courses in line with the guidelines for the new and existing integrated community-based TB activities. The timeline for each of these consultancies and needs is currently being developed at country level.

<sup>63</sup> Controlling tuberculosis in Indonesia. In: USAID [website]. Washington (DC): USAID; 2018 (https://www.usaid.gov/indonesia/fact-sheets/reducing-multidrug-resistant-tuberculosis-indonesia, accessed 31 May 2018).

### **KENYA**

### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

### **Application information**

Country	Kenya
Component(s)	TB/HIV/Resilient and Sustainable Systems for Health
Principal recipient(s) for TB	National Treasury (TB); Kenya Red Cross Society (KRC) (HIV); African Medical and Research Foundation (AMREF) (TB)
Grant start /end date	1 January 2018/31 December 2020
TB component	US\$ 40 046 233
Matching funds	US\$ 6 000 000

Tuberculosis funding landscape: the main funder for tuberculosis (TB) is the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). Sixteen (16) bilateral and multilateral development partners<sup>64</sup> form the Development Partners in Health Kenya (DPHK) group, working to harmonize the health development agenda. Kenya is also a signatory of IHP+,65 providing pivotal support for Kenya during the last funding cycle.

Budget for community-based TB activities: AMREF Health Africa in Kenya is the principal recipient for non-State actors under the Global Fund TB grant and has a budget of US\$ 32 651 550 for the 2018-2021 grant and community TB activities comprise 47% of the budget. 66

Country context: Kenya is a lower-middle-income country with an estimated population of 44.1 million. Its devolved governance system comprises the national Government and 47 county governments which are autonomous and responsible for provision of health care. Global Fund grants are managed through the Ministry of Health's national disease programmes and two separate civil society principal recipients for TB and HIV. Counties are involved in the funding request development through the Kenya Coordinating Mechanism (KCM).

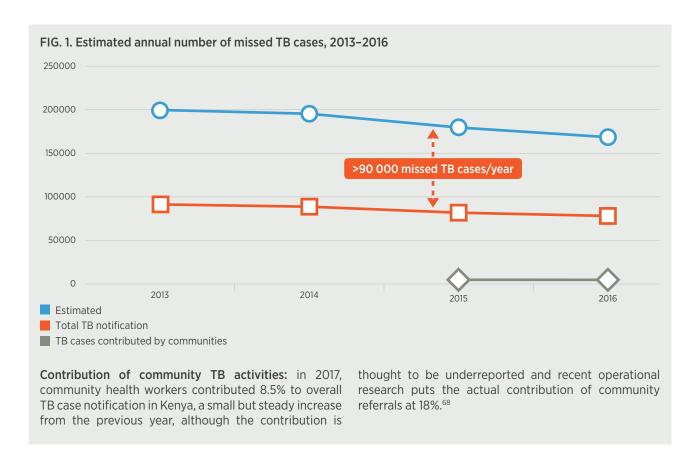
TB burden and missed cases: TB case notification has remained constant or even declined in the last few years despite increased efforts to find more cases at facility and community level. In 2015/16, Kenya carried out a TB prevalence survey which indicated that the TB burden in Kenya is higher than previously estimated (426/100 000 instead of WHO estimates of 217/100 000). Case notification in 2017 was 83 599 with an estimated 50% of TB cases remaining undetected. See Fig. 1 for the estimated annual number of missed cases in the previous year. Prevalence was twice as high in men and the highest burden of TB is among people aged 25-34. According to survey findings, is that a high percentage of TB infected people (22 %) seek initial care at private facilities, including pharmacies.67

<sup>64</sup> Including the World Bank, United States Government, United Kingdom Department for International Development and the United Nations.

<sup>65</sup> International Health Partnership - key members: UNAIDS, WHO, United States Government.

<sup>66</sup> Input provided by country team during the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11-13 April 2018).

<sup>67</sup> Updated survey findings provided by WHO national professional officer.



# OVERVIEW OF STRATEGIC PLAN AND POLICIES FOR TUBERCULOSIS

Promoting and strengthening community engagement is one of the strategic objectives of the **National Strategic Plan for Tuberculosis, Leprosy and Lung Health 2015–2018** (NSP). Proposed approaches include the following.<sup>69</sup>

- 1. Build the foundation for systematic community and partner engagement:
  - (a) identify opportunities for expansion of proven models – conduct mapping of community platforms and partners that may reach populations in need of TB, leprosy and lung health services; examples include other health- and development-related programmes such as nutrition and maternal, newborn and child health programmes; emphasis will be given to mapping areas with low community engagement;
  - (b) build a web of community organizations linked to the National Tuberculosis Leprosy and Lung Disease Unit (NTLD-Unit) – develop memoranda of understanding between the NTLD-Unit or county health offices and civil society organizations, nongovernmental organizations and community partners to define roles, responsibilities and resources; use memoranda of understanding to connect community-level actors to service delivery points for mentorship, monitoring and support;

- (c) enhance capacity at community level develop a capacity building plan for community-based TB care, based on needs and capacities of newly identified community-level partners; engage the implementers of successful models as centres of excellence, for on-site mentoring and training;
- (d) engage communities and counties in planning include community stakeholders in coordination, annual planning, implementation, monitoring and evaluation of activities at national and county level; ensure NTLD-Unit participation in county health and nongovernmental organization forums; support county coordination committees to oversee implementation of community engagement and communication activities; organize forums with governors to advocate for resource allocation for community-based TB and leprosy activities;
- (e) create patient engagement guidelines and update other policy tools;
- (f) actively participate in the harmonization of payment levels of community health volunteers (CHVs) across programmes according to Ministry of Health guidelines.

<sup>68</sup> Input provided by country team during WHO Addis consultations on 11-13 April 2018.

<sup>69</sup> National Strategic Plan for Tuberculosis, Leprosy and Lung Health 2015-2018, section 4.3.4.

- 2. Operationalize patient-centred care through community structures, scaling up proven community-based models:
  - (a) train, mentor and support new community-level partners - based on proven models of communitybased engagement, provide targeted training, supportive supervision and mentorship collaboration with county governments targeting CHVs and community health extension workers (CHEWs); disseminate updated community-based TB care policies, manuals and guidelines, including ENGAGE-TB guidelines;
  - (b) pilot new approaches to supporting patients through community structures, such as sustainable livelihood and nutritional support programmes.
- 3. Improve monitoring and evaluation of communitybased TB, leprosy and lung disease interventions to increase accountability to all stakeholders:
  - (a) integrate community-based TB, leprosy and lung disease care indicators in the TIBU and district health information system (DHIS) systems to mirror the reporting of civil society organization involvement captured in the NTLD-Unit monitoring system; develop and disseminate related tools to ensure data capture and reporting by nongovernmental organizations/civil society organizations and CHEWs;
  - (b) introduce a register for presumptive TB to allow capturing of screening and referral results and enable treatment follow-up;
  - (c) revise and update peripheral-level health facility chalkboards to include comprehensive community TB indicators:
  - (d) identify priority areas for operational research jointly with key community stakeholders, include learning institutions:
  - (e) fully evaluate pilot projects.

Through this grant, AMREF, the principal recipient for community-based TB activities, will support key national interventions, including finding missing TB cases through engagement of private providers, targeted outreaches using mobile X-ray and GeneXpert, contact screening, tracing of patients who interrupt TB treatment, sputum sample networking, social support for patients with drugresistant TB (see www.amref.org).70

### Monitoring progress of strategic objectives

From the documents reviewed and the outcome of the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11-13 April 2018), it emerged that, for some of the strategic objectives defined to identify missing TB cases, there are no corresponding indicators being collected as part of the national monitoring and evaluation framework and/or the relevant tools are missing or not used effectively in order to meet the objectives. For example, capacity building for community health workers is one of the main strategic objectives in the NSP, but the country is lacking guidelines on selection criteria for CHVs and ways of improving retention, training materials in local languages and a clear capacity building plan. Monitoring and evaluation improvement and increased referral by the community is also one of the national strategic objectives; however, there is still a high level of underreporting owing to the erratic supply of tools (e.g. referral forms) at health facilities, lack of support for data review meetings and low motivation by the facility staff to record CHVs' contributions. A brief summary of the gaps identified are listed on page 7 (Table 1).

<sup>70</sup> Amref receives Ksh 4.6 billion grant to fight TB and malaria in Kenya. In: Amref Health Africa [website]. Nairobi: Amref Health Africa; 2017 (http://amref.org/news/amref-receives-ksh-4-6-billion-grant-fight-tb-malaria-kenya/, accessed 8 March 2018).

TABLE 1.

Monitoring progress of strategic objectives

Strategic plan objectives	Indicators	Tools	Status
Build the foundation for systematic community and partner engagement	Number of CHVs trained and retained	Capacity building plan for CBOs/ CSOs; selection criteria for CHVs; training materials; coordination plan for implementation of community engagement and communication activities; guidelines for harmonization of payment levels of CHVs across programmes	Training materials not harmonized and not in local language, high dropout after training; lack of a nationwide coordinating body for nongovernmental organizations; supervisory review outcomes of community activities at county level are not captured; incentive scheme not harmonized and donor-dependent
Operationalize patient-centred care through community structures, scaling up proven community-based models	Number of CBOs trained, policies updated and disseminated	National guidelines for community- based TB activities, including ENGAGE- TB guidelines	Limited coverage of community health units and insufficient integration of TB into other community outreaches and activities; lack of updated national guidelines for community- based TB activities
Monitoring and evaluation of community-based TB activities	Two WHO- recommended core indicators	Completed referral forms and registry; regular review meetings	Currently highly underreported (8% vs. 18% shown by operational research) owing to low motivation of facility staff to record community contributions in referral registries; referral forms unavailable at some facilities; rare data review meetings

CBO: community-based organization; CHV: community health volunteer; CSO: civil society organization.

### COORDINATION AND COLLABORATION

In 1998, community-based TB care was launched nationally with the introduction of community health workers for case-finding, case-holding and health promotion activities in collaboration with the Ministry of Health. In 2006, the Ministry of Health developed a community health strategy to enable health service delivery at the household and community level through the introduction of 6000 community units. The plan aimed to link each community unit to a health facility under the management of a community health extension worker (CHEW), covering a population of 1000 individuals and 25 community health volunteers. There are now 2943 community health units established across the country, although only 1587 are fully functional.<sup>71</sup>

In May 2012, the Kenya National TB Program and WHO convened a national consultation on the ENGAGE-TB approach with nongovernmental organizations engaged and unengaged in TB services. The consultation defined the process to develop national guidelines on nongovernmental organizations and other civil society organization engagement in community-based TB and TB/HIV services. Following the consultation, PLAN International took the leadership of a newly formed nongovernmental organization coordinating body (TB civil society organizations coordination forum).<sup>72</sup> Forty-

eight nongovernmental organizations were engaged via this framework. However, no meetings have been held since 2015 because of funding constraints. AMREF has now a **TB Inter Agency Coordinating Committee**, which acts as a coordination mechanism for NGOs/CSOs engaged in Global Fund supported TB work, with quarterly performance review meetings.<sup>73</sup>

Regular meetings between public health and community stakeholders take place throughout the year, in particular: (a) quarterly review meetings between the national TB programme (NTP) and implementing civil society organizations and (b) AMREF and Global Fund TB quarterly review meetings with the NTP and the Community Health and Development Unit. During routine technical assistance missions of the NTP, community-based TB services are also discussed, although there are no specific tools to capture these discussions. Supervisory visits by subcounty TB and leprosy coordinators are also planned routinely to verify community contributions recorded at the health facility, in order to determine CHVs' remuneration.

Joint data validation exercises take place twice a year during programme officers' and civil society organizations' quarterly review meetings and during onsite data verification by the principal recipients, sub-recipients and county and subcounty TB and leprosy coordinators. However, poor intrasectoral and intersectoral collaboration

<sup>71</sup> National Strategic Plan for Tuberculosis, Leprosy and Lung Health 2015-2018.

<sup>72</sup> ENGAGE-TB Pilot Project - Kenya. In: World Health Organization [website]. Geneva: World Health Organization; 2018 (http://www.who.int/tb/areas-of-work/community-engagement/kenya/en/, accessed 1 June 2018).

<sup>73</sup> Input provided by WHO national professional officer - March 2018.

and inadequate linkage to community units were reported during the WHO Addis consultations, affecting many of the planned coordination activities listed above and resulting in underreporting of community contributions and low motivation of community actors. Main reasons reported were limited resources, but also weak cross mechanisms between community players.

### **POLICY AND TOOLS**

- In the Kenya Health Policy Framework 2012–2030, the community is recognized as a level of health service delivery (Tier 1). This policy boosts Kenya's focus on the role of community participation in health and general socioeconomic development actions.
- The National Strategic Plan for Tuberculosis, Leprosy and Lung Health 2015–2018 sets out the interventions to be rolled out across the country in the implementation of TB control, including community-based TB activities.
- The Monitoring and Evaluation Framework presents the plan for monitoring and evaluating all the programmatic activities undertaken by the National Leprosy, TB and Lung Disease Program (NTLD-Program) in Kenya.
- A national communication strategy exists and an advocacy strategy is still in its draft form.<sup>74</sup> These two documents have not yet been fully disseminated and are underutilized at the community level.<sup>75</sup>
- National guidelines for community-based TB activities

   available though not updated.
- Referral mechanisms and tools (for presumptive TB) referral forms are available though not in all facilities. Weak linkages from the community to the facility.
- Job aids for referral, diagnosis and treatment of TB available at health facilities targeting health-care workers.
- Recording and reporting tools available though not optimally utilized.
- Tools to ensure treatment completion and patient support - available.

# IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

Global Fund's funding will flow from the National Treasury to the Ministry of Health and finally to the disease programmes. The National Treasury and AMREF are the principal recipients for the new TB grant (as in the previous funding cycle). The NTP is a sub-recipient for the National Treasury and will implement in collaboration with county governments. AMREF is the principal recipient for non-State actors under the Global Fund TB grant. During the past funding cycle, from October 2015 to December

2017, AMREF sub-granted 29 civil society organizations to implement community TB control activities in all 47 counties in Kenya. Key activities included are detailed in Table 2 on page 9.76 AMREF, through the Global Fund Country Coordinating Mechanism, is now in the final stages of recruiting sub-recipients for the 2018–2021 Global Fund TB grant. The sub-recipients include Kenya AIDS NGOs Consortium, National Empowerment Network of People Living with HIV/AIDS in Kenya and World Vision.77 Each civil society organization has a catchment area (county, subcounty) that covers at most three counties; performance is reviewed periodically.78

Personnel: CHVs in Kenya are volunteers who are recruited from the community with input from CHEWs and members from the village, sublocation and district. They are often recruited through a baraza (meeting with community elders). Ideally, CHVs should be literate and respected, so that they can help to motivate others in their communities. In general, they receive approximately six weeks of initial training and quarterly refresher training. In the current Kenyan Government model, CHVs are supervised by a facility-based, Government-employed CHEW. Each community unit, made up of approximately 5000 people, is supported by 50 CHVs and two CHEWs. Each CHEW supervises approximately 25 CHVs. At least one CHEW is attached to each TB treatment site; they support CHVs through supervision and coaching and are supposed to meet with them once a month. CHEWs receive phone credit for Ksh 250 (US\$ 2.5) per month as an incentive for this task.

Volunteers perform numerous tasks, in households but also in the community at large. Essentially, the role of the CHV is to identify health needs, educate and manage some conditions at the household level and link/refer patients to health facilities. Their main tasks include disease prevention and control, family health services and hygiene and sanitation. Specific tasks include taking vital signs, dispensing medication, providing individual and group education, mobilizing the community and advising on proper diet, nutrition, sanitation and hygiene. Other tasks may include defaulter tracing, raising awareness of noncommunicable disease control, caring for chronically ill people and health promotion. Volunteers are also trained in aspects related to community and household data entry and data collection methods.<sup>79</sup> With regard to TB, CHVs are mainly responsible for tracing of patients who are lost to follow-up, management of childhood TB contacts and for administering community-based directly observed TB treatment. The CHVs are attached to specific health facilities and they liaise between the community and the health facility. A pilot is currently under way in three counties (Homabay, Kwale, Vihiga) where CHVs have been trained to offer specific TB services along with other services (HIV/AIDS, malaria). A mid-term assessment has shown overall improvement in all other indicators as well.80

<sup>74</sup> Update provided by WHO national professional officer - March 2018.

<sup>75</sup> National Strategic Plan for Tuberculosis, Leprosy and Lung Health 2015--2018.

<sup>76</sup> Annual Report 2016 - National Tuberculosis, Leprosy and Lung Disease Program.

<sup>77</sup> Input provided by WHO national professional officer - March 2018.

<sup>78</sup> Input provided by country team during WHO Addis consultations, 11–13 April 2018.

<sup>79</sup> Rachlis B, Naanyu V, Wachira J, Genberg B, Koech B, Kamene R et al. (2016). Community perceptions of community health workers (CHVs) and their roles in management for HIV, tuberculosis and hypertension in western Kenya. PLOS ONE. 11(2) (http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149412, accessed 31 May 2018).

<sup>80</sup> Input provided by country team during WHO Addis consultations, 11-13 April 2018.

Incentives and sustainability: CHVs are paid a stipend equivalent to Ksh 800 (US\$ 8) for action related to a single TB or presumptive TB patient (Ksh 1100 (US\$11) for hard-to-reach areas) for every household visit for contact or treatment interrupter tracing. Under the Community Systems Strengthening pilot, CHVs receive a monthly stipend of Ksh 2000 (US\$ 20). However, stipends are often dependent on ongoing projects/ grants and closure of project grants frequently leads to significant scaling-down of work. Low morale among CHVs and CHEWs was reported during the WHO Addis consultations, mostly due to the inconsistency of financial incentives and lack of capacity building. Under the current Global Fund grant, Kenya is requesting significant funding to maintain the stipends for CHVs under the community strategy; this is an integral part of the community strategy and a key intervention, since the CHVs for both TB and HIV play a very important role in the

overall impact of the interventions. Although Kenya has not provided details of how the incentive payments to CHVs will be sustained, significant efforts have been made in this direction in the current implementation. For example, the Government principal recipient is discussing with counties about a plan for uptake of some of the stipend costs. Three counties have so far directly employed CHVs and pay them a monthly salary to conduct general health promotive and preventive activities in the community.<sup>81</sup>

Monitoring and supervision: CHVs are supervised by CHEWs. Subcounty TB and leprosy coordinators verify forms filled by CHVs before submission to the sub-recipient for payment. Monitoring and evaluation of CHV performance is conducted through CHV feedback meetings; under the integrated CSS pilot, monthly performance monitoring forms are filled by CHEWs supervising CHVs.

TABLE 2.

Overview of key community stakeholders for TB-related activities

Overview of key community stakeholders for 115 related detivities							
Stakeholder	Type	No. of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities		
National Treasury (TB)	Govt PR	Selection in progress	27 counties with low treatment success rates	Nationwide	Building CHEW capacity to oversee family-based and CHV-supported DOT		
(AMREF-TB)	Int. NGO PR	Selection in progress	Nationwide	Nationwide	Training of CHVs and CHEWs in community TB care; household health education and contact investigation; tracing of treatment interrupters; community outreach; screening in prisons; training CHVs in infection prevention and control; payment of CHVs' stipends, review meetings		
Bristol-Myers Squibb	Private	-	2 counties	Rural areas	Integrating TB services into health, immunization, sanitation and breastfeeding; increasing awareness and access to TB care services; household screening, contact tracing, treatment and social support  CHAP reported a contribution of 12% of total case notifications in its coverage area. CHAP still conducts these activities in two counties. The activities are, however, being scaled down owing to funding issues <sup>82</sup>		
Grassroots Poverty Alleviation Program- (GAPP)	Local NGO	-	Lake Victoria	Working with rural fishermen	Integrating TB services into HIV, agriculture and livelihoods, social justice and human rights programmes; increasing awareness and access to TB care services; household screening and contact tracing; case-holding, community follow-up and support till the patient completes treatment. GAPP reported a contribution of 9% of total case notifications in its coverage area		

CBO: community-based organization; CHAP: Community Health Access Program; CHEW: community health extension worker; CHV: community health volunteer;

DOT: directly observed treatment; NGO: nongovernmental organization;

PR: principal recipient.

<sup>81</sup> Input provided by WHO national professional officer - March 2018.

<sup>82</sup> Update provided by WHO national professional officer – March 2018.

### MONITORING AND EVALUATION

The NSP Monitoring and Evaluation framework 2015-2018 presents the plan for monitoring and evaluating all the programmatic activities undertaken by the NTLD-Program in Kenya. Currently, data are collected at service delivery points and in the community using a paper-based system. At the subcounty level, data from the facility level are entered into the national electronic system (TIBU). TIBU automatically synchronizes to the central server, with the data becoming available in real time to all levels of the health system that have access (see Fig. 2).83 A TIBU/DHIS integration is currently on a test platform, and a meeting is planned on pushing data to a live platform.84 See Table 3 for existing tools and registers.

FIG. 2. Submission path for monitoring and evaluation data



CHEW: community health extension worker: CHV: community health volunteer; NTLD: National Leprosy, TB and Lung Disease Program; S/CTLC: county/subcounty TB/leprosy coordinators.

Kenya's national monitoring and evaluation system captures data on both WHO ENGAGE-TB core indicators, and they are part of the electronic data system. However, the indicators are subject to a high level of underreporting. According to national data, the contribution of community referrals towards notifications is between 4% and 5%, but a recent piece of operational research demonstrated that the contribution of community referrals to notifications is around 18%. The NTP underlined two main issues which are likely fuelling this discrepancy: the varying commitment of facility staff in charge of recording to systematically reflect community referrals in the facility registers; some sites in the country do not systematically use referral and back referral sheets, which are necessary to ensure completeness of reporting. Furthermore, the NTP suspects there are issues with the quality of the data needed for calculation of the second core indicator - treatment success in patients who benefited from community-based treatment support (treatment directly observed by CHVs). WHO is currently discussing the timeline for technical support to assist key stakeholders to address this concern through a wide consultation with key partners including the NTP. AMREF as the principal recipient for communitybased activities, the Community Health and Development Unit of the Ministry of Health, the WHO country office and others.85

Documentation of community TB interventions, including community referral, body mass index monitoring and access to nutritional support, are incorporated in the e-reporting system and are part of the systemic monitoring and evaluation of the NTP. A mechanism for retrieval of treatment interrupters is in place, but these efforts are not captured in the e-reporting system (TIBU). A budget line for developing/revising community recording and reporting tools was included in the monitoring and evaluation framework for 2015-2018.86 Under the New Funding Model, health facilities reporting 10 or more cases monthly were financially supported to hold monthly meetings to review community TB data; meetings included the healthcare worker managing the TB clinic, CHEWs and CHVs. A total of 106 facilities were supported. The proportion of TB cases referred by CHVs increased by 59% from 2015 to 2016 in the 106 facilities.

<sup>83</sup> National Strategic Plan for Tuberculosis, Leprosy and Lung Health, Monitoring and Evaluation Framework 2015-2018.

<sup>84</sup> Input provided by country team during WHO Addis consultations, 11-13 April 2018.

<sup>85</sup> Update from WHO mission - December 2017.

<sup>86</sup> National Strategic Plan for Tuberculosis, Leprosy and Lung Health, 2015-2018, Monitoring and Evaluation Framework 2015-2018.

TABLE 3. Existing tools and registers

Tool	Description	Level of use	Responsible person	Frequency
CBTC referral forms (e.g. TB screening tool at community level – 2015)	Used by the CHVs to refer presumptive TB patients for further evaluation at the health facility	Community	CHVs	Per TB suspect
Community Volunteer Register	Used by the CHVs to record presumptive TB patients, childhood contacts, patients lost to follow-up	Community	CHVs	Per TB suspect
TB patient contact investigation form	Used to record patient's contacts to be investigated	Community	CHVs	Per TB patient
Treatment interruption tracing form	Used to record and trace patients who have interrupted TB treatment	Health facility	Health facility personnel	Per TB patient
Monthly reporting form for CHWs	Summary of activities undertaken by individual CHW	Community	CHW/CHEW	Monthly

CBTC: community-based TB care;

CHEW: community health extension worker;

CHV: community health volunteer; CHW: community health worker.

### KEY CHALLENGES AND OPPORTUNITIES

A number of challenges emerged from this review and the Addis consultations, in particular the issue of sustainability, the need to identify county-specific customized interventions with proven efficacy in finding missing TB cases, weak linkages between the community and the health facilities and the consequent inability to adequately measure contribution of CHVs to TB prevention and control, underlining the need to improve capacity building for community actors and close the existing gap in recording and reporting of community-based activities. Opportunities and best practices that could be built upon in order to overcome some of the challenges also emerged from the review and the consultations; they include using the Global Fund TB County Innovation Challenge Fund to identify new approaches to increase case-finding, increase active case-finding in key populations using mobile digital X-ray and corporate screening and providing financial support for health facilities to hold regular data review meetings on community activities.

### ROADMAP AND NEXT STEPS

As a result of the specific discussions on the country work plans during the WHO Addis consultations, participants identified specific areas for intervention and technical assistance needs for nationwide scale-up of quality models and tools. In order to address the lack of countyspecific customized interventions for finding missing cases, the country stakeholders will use the opportunity of the Global Fund County Innovation Challenge Fund; strategic technical assistance will be needed in the second and third guarters of 2018 to assist the development of implementation guidance. Furthermore, to address weak linkages between certain communities and facilities, the pay-for-performance strategy will be used, for which the country is seeking ongoing implementation guidance. Finally, in order to improve monitoring and evaluation of community-based TB activities, the country has decided to embark on a review of the community monitoring and evaluation tool in order to simplify and harmonize all available tools and create a robust, user-friendly monitoring and evaluation system for community activities.

### **MOZAMBIQUE**

### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

### **Application information**

Country	Mozambique
Component(s)	TB/HIV
Principal recipient(s) for TB	Ministério de Saúde; Centro de Colaboração em Saúde (CCS) <sup>87</sup>
Grant start/end date	1 January 2018/31 December 2020
TB component	US\$ 45 122 235
Matching funds (RSSH)	US\$ 3 000 000

Tuberculosis funding landscape and budget for community-based tuberculosis activities: the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States Agency for International Development (USAID) through Challenge TB are the largest donors, financing HIV, tuberculosis (TB) and malaria interventions. The National Strategic and Operational Plan for TB 2014–2018 (NSP) has budgeted US\$ 3 290 294 for community empowerment and strengthening of the community sector (3.3% of the national TB programme (NTP) budget for 2015–2018).88 Funds allocated to the Collaborating Centre for Health (CCS) for community-based TB activities equal US\$ 7 088 947.89

**Country context:** Mozambique is a low-income country with a population of 28.8 million, divided into 11 provinces and subdivided into 153 districts. Mozambique is one of the WHO high-burden TB countries.

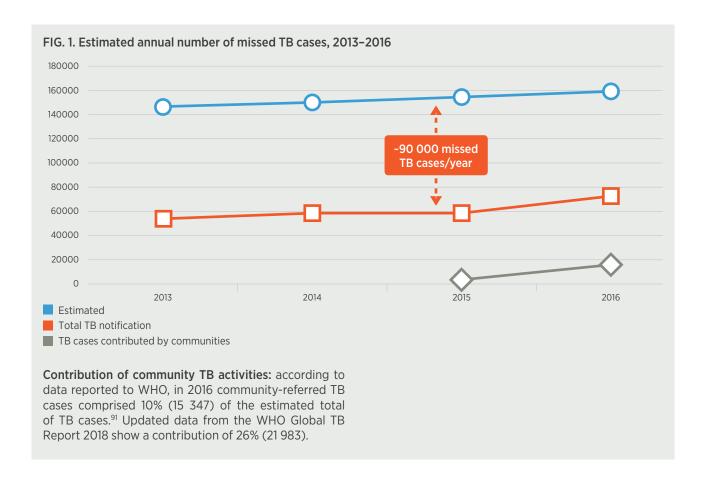
TB burden and missed cases: in 2017, WHO estimated the TB incidence in Mozambique at 551 per 100 000 population with an estimated 163 000 TB cases, of which 85 376 were officially notified. This translates to almost 50% of TB cases being missed. The overall treatment success rate in 2017 was 90% but treatment success rates for multidrug-resistant (MDR) TB remain low, with only 48% success among MDR- and rifampicin-resistant TB patients started on second-line treatment in 2015.90

<sup>87</sup> Who we are. In: Centro de Colaboração em Saúde [Centre for Collaboration in Health] [website]. Maputo: Centre for Collaboration in Health; 2018 (http://ccsaude.org.mz/en/index.php/sobrenos/quem-somos, accessed 31 May 2018).

<sup>88</sup> National Strategic and Operational Plan for TB 2014 - 2018 (Plano Estratégico e Operacional).

<sup>89</sup> Country presentation at the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018).

<sup>90</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.



# OVERVIEW OF STRATEGIC PLAN AND POLICIES FOR TUBERCULOSIS

Involvement of civil society in the design, implementation and monitoring and evaluation of health policies and programmes is one of the key interventions in the **National Strategic Health Plan (NSP).** The community sector is also recognized in the **NSP** as one of the four health sectors in Mozambique (public, private, nongovernmental organizations, community) and partnership with civil society is considered essential for community participation in TB care. 93

Quality **community DOTS** (directly observed treatment, short course) is one of the seven strategic areas in the NTP, and community workers are recognized as important partners in diagnosis, treatment adherence and active finding of defaulter patients. Community DOTS has reached national coverage, and increasing attention will be dedicated to vulnerable groups, in particular miners, prisoners and refugees, in order to increase access to TB services for these populations. One of the strategic objectives in the NSP is to improve the coordination of current DOTS activities and increase involvement of the private sector in DOTS implementation, with a target of 90% for overall TB treatment success in 2018 and following years.

Another strategic area in the NSP is the strengthening of integration between the TB and HIV programmes with the objective of training and involving HIV community health workers in active case-finding for TB.

#### Monitoring progress of strategic objectives

At the moment, there is no focal point in the NTP to coordinate community activities with different stakeholders. National coverage of community TB activities is 86% of basic management units, with CCS covering 65 districts (42%) and Challenge TB covering 68 districts (44%), leaving some districts without a TB community partner. National coverage of recording and reporting of community-based TB activities in terms of basic management units is 100%; however, although the district health information system (DHIS2) has seen a compelling development over the last grant period, completeness of reporting and data quality are still a challenge at the lower level, owing particularly to weak supervision and lack of harmonization of the community tools. The national DOTS strategy has yet to be updated to reflect the NSP strategic objectives and take into consideration recent experiences and best practices.

<sup>91</sup> Global tuberculosis report 2017. Geneva: World Health Organization; 2017.

<sup>92</sup> Health Sector Strategic Plan (Plano Estratégico do Sector da Saúde - PESS) 2014-2019, objective 5.

<sup>93</sup> National Strategic and Operational Plan for TB (Plano Estratégico e Operacional) 2014–2018.

<sup>94</sup> Ibid

#### COORDINATION AND COLLABORATION

All community activities are coordinated by the NTP and the country is in the process of identifying the **community focal point** for integrated community-based TB activities. The focal point will coordinate quarterly meetings among various stakeholders, to define strategies to find missing cases at community level and to oversee implementation of these activities. During these meetings, the group will also jointly plan supervision of data quality and completeness of data, and will discuss challenges and solutions for the issues identified. At the provincial level the meetings will occur quarterly, and at the district level the meetings will occur monthly and will be coordinated by the provincial and district medical chief, with the participation of various stakeholders and implementers at that level.

Currently, there are task forces for TB/HIV at provincial, district and health facility levels, which act as a formal coordination mechanism to discuss and coordinate all health activities, including training, supervision, monitoring and evaluation tools, laboratory issues, tests, reagents and drugs. These meetings are held monthly.

### **POLICY AND TOOLS**

The following documents are currently available:

- Guide on Tuberculosis and TB/HIV for Community Volunteers (2009)
- TB and HIV Guide for Treatment Supporters (2009)
- National Strategy for Community-Based DOTS (2009)
- monitoring and evaluation tools.

# IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

The Government is not a community implementer: all the work is done in partnership with community-based organizations through subagreements or subventions with implementing partners at provincial and district level. See Table 1 on page 7.

ccs is the new civil society principal recipient for TB and will be carrying out community-based activities under the new funding cycle. CCS was established in 2010 as a local partner of the Ministry of Health and it was supported by the International Center for AIDS Care and Treatment Programs, the United States Government and the United States Centers for Disease Control and Prevention. CCS works in 23 health units in Maputo City and 35 health units in the province of Inhambane. In January 2018, as the Global Fund's main recipient, CCS launched the project Reinforcing the National HIV and TB Response in Mozambique. This is a national implementation project for the provinces of Cabo Delgado, Niassa, Manica, Inhumane, Maputo City and Maputo Province (six out of 11 provinces).

Activities implemented under this project include:

- training of activists to implement a standardized package for community TB diagnosis interventions, covering prevention, diagnosis, referrals, treatment adherence support, human rights literacy, advocacy and stigma reduction;
- household screening of TB contacts and referral to HIV testing services, evaluation for isoniazid preventive therapy eligibility and tracking down of patients diagnosed with TB by the laboratory but who could not return for their laboratory results;
- design and implementation of sputum transportation system in the six selected provinces; at intradistrict level, activists will collect sputum samples from households and send the samples to health facilities equipped with GeneXpert or microscopy for TB diagnosis; samples for culture and DST will be transported to provincial-level facilities:
- monthly community meetings to engage and educate the community and traditional and religious leaders about HIV literacy, TB, treatment, retention, adherence, access to health care and issues of stigma, discrimination and their solutions.

Community-based DOTS (CB-DOTS) will be the core community-based activity in each province. Community DOTS was introduced in 2006 and is now implemented nationwide. The DOTS programme is mainly carried out by nongovernmental organizations and implementation is coordinated by the national health authorities. The next step in the NSP is to increase DOTS autonomy and sustainability through the expansion of the community health worker (agente polivalente elementar – APE) programme. Community volunteers are responsible for active case-finding and treatment monitoring, while community leaders support them in their activities.<sup>95</sup>

**Personnel:** in Mozambique, community activities are mainly implemented by stakeholders through community health workers; these include activists, APEs, traditional leaders and community volunteers.

Incentives and sustainability: the country does not have an official policy on salaries or incentives for community health workers, although there are initiatives and ongoing discussions to define and harmonize the salary for this group. Currently, community health workers are paid according to the budget available in each project or organization. The amount paid varies between 60% and 100% of the national minimum wage.

<sup>95</sup> National Strategic and Operational Plan for TB (Plano Estratégico e Operacional) 2014–2018.

TABLE 1.

Overview of key stakeholders for integrated community TB activities

Stakeholder	Туре	implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
Centre for Collaboration in Health <sup>96</sup>	NGO	Selection in process	6/11 provinces (Inhambane, Maputo City, Maputo Province, Cabo Delgado and Niassa)	TB patients and their contacts (families)	Find missing TB cases through activities run at community level; TB contact tracing; sputum collection and transportation; community DOT (treatment adherence support)
Challenge TB <sup>97</sup>	Govt	FHI 360 KNCV	The project is implemented in four high TB burden provinces (Zambézia, Nampula, Sofala and Tete) covering 64 districts and 50% of the country's population. The provinces were identified by the NTCP	The project target population/key groups includes people living with HIV not enrolled, enrolled in pre-ART and/or not receiving IPT/ART, prisoners, children under five years, mining communities, health-care workers and the general population, especially rural communities where CB-DOTS will be implemented	Challenge TB implementation in Mozambique is led by FHI 360 with KNCV as implementing partner; community-based DOTS Strategy (CB-DOTS) is core activity in each province; FHI 360 provides technical assistance to the NTCP to expand intensified casefinding, provide universal and early case detection (including access to drug-susceptibility testing for suspected cases), provide treatment for patients confirmed with MDR-TB, enhance airborne infection control, expand access to and integrate treatment of TB/HIV coinfection and strengthen the TB health system <sup>98</sup>
International Center for AIDS Care and Treatment Programs (Columbia University)	Govt	-	2 out of 10 provinces (Zambezia, Nampula)	-	Technical assistance to achieve full coverage of high-quality HIV and TB service. At the district level, this includes capacity building and implementation support to health directorates in Nampula and Zambezia provinces to strengthen and target HIV prevention and care, including adult and paediatric treatment and integrated TB/HIV services
Elizabeth Glaser Pediatric AIDS Foundation	NGO	-	1/10 provinces (Gaza)	-	Through the Foundation's CDC-funded Project DELTA, aims to design and pilot an approach to improve case detection and management of TB and HIV among adults and children by strengthening contact tracing and follow-up for people residing in the household of a person with active TB disease

ART: antiretroviral treatment;

CB-DOTS: community-based directly observed treatment;

IPT: isoniazid preventive therapy; NGO: nongovernmental organization; NTCP: National TB Control Programme.

<sup>96</sup> http://ccsaude.org.mz/en/index.php, accessed 1 June 2018.

<sup>97</sup> https://www.challengetb.org/where, accessed 1 June 2018.

<sup>98</sup> https://www.fhi360.org/projects/tb-care-i-mozambique, accessed 1 June 2018.

### MONITORING AND EVALUATION

One of the great successes of the past implementation period was the **roll-out of the DHIS nationally**. Mozambique scaled up DHIS2 to all districts by December 2016, and 98% of districts are currently entering data regularly. Although the paper-based system is not yet abandoned, the plan is to move completely to DHIS2 data reporting from the second quarter of 2018.<sup>99</sup> At the provincial level, quarterly meetings are held in which the persons responsible for

each program discuss and coordinate activities with all stakeholders. NTP supervisions are integrated and cover both clinical and community areas. Joint data validation exercises take place every quarter at the province level with NTCP district and provincial supervisors, DOTS implementers where all registers are checked and data validation is conducted. For indicators, see Table 2 and for monitoring tools, see Table 3.

TABLE 2. Community TB care indicators

Indicators included in NTCP	Target for 2020	Progress/Status	Activity/Monitoring plan
Percentage of notified TB cases, all forms, contributed by non-NTCP providers – community referrals	25%	10% in 2016	To be updated in consultation with the national programme and principal recipient
Treatment success rate among TB patients (all forms) supported by community treatment supporters throughout their TB treatment	90%	-	To be updated in consultation with the national programme and principal recipient
Number of districts reporting community contribution on TB care	153	-	To be updated in consultation with the national programme and principal recipient

NTCP: National TB Control Programme.

TABLE 3.

Community TB care monitoring tools

Tool	Description	Level of use	Responsible person	Frequency
Community TB care referral forms	Used by the CHWs to refer presumptive TB patients for further evaluation at the health facility	Community, health facility, district, provincial and central level	Monitoring and evaluation adviser	Daily with quarterly review
Community volunteer register	Used by the CHVs to record presumptive TB patients, childhood contacts, patients lost to follow-up	Health facility	Health facility	Daily
Patient treatment support card	Used to record treatment adherence	Health facility	Nurse or TB focal point	Daily

CHV: community health volunteer; CHW: community health worker.

## KEY CHALLENGES AND OPPORTUNITIES

The addition of a new civil society principal recipient under the current Global Fund grant represents an opportunity to overcome programmatic capacity constraints in the scale-up of integrated community-based TB activities, particularly for adherence to MDR-TB treatment and community outreach. Other in-country opportunities include the large availability of civil society organizations, community health workers and associations of former TB patients throughout the country, many of which are already trained in other health areas where TB could easily be integrated. Additionally, the advanced scale-up status of DHIS2 to all districts presents an opportunity to build upon and further roll out the electronic data systems and strengthen data use for programme improvement at community level. This would help to address some of the issues in ensuring good quality data and facilitate monitoring of community contributions.

### ROADMAP AND NEXT STEPS

Key gaps identified and presented at the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11-13 April 2018) were: lack of a national community DOTS strategy and harmonization of training curricula and tools; lack of reliable sample transportation system; weak supervision at community level and lack of a focal point at national level. Interventions planned to address above gaps include identifying a focal person in ministry of health to revitalize the community technical working group, update the national DOTS strategy and harmonize tools, implement advocacy and communication activities, enhance screening of high-risk groups, create a sample transportation mechanism using community members and improve mentoring and supervision at the community level by conducting regular meetings with implementing actors. The specific technical assistance needs will be shared following in-country consultations.

### **MYANMAR**

#### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

#### **Application information**

Country	Myanmar
Component(s)	TB and HIV
Principal recipient(s) for TB	United Nations Office for Project Services (UNOPS); Save the Children Fund (SCF)
Grant start /end date	1 January 2018/31 December 2020
TB component	US\$ 82 947 503
Matching funds	US\$ 10 000 000

Tuberculosis funding landscape and budget for community-based tuberculosis activities: the main donors for tuberculosis (TB) are the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States Agency for International Development (USAID) (through Challenge TB). The Three Millennium Development Goal Fund (3MDG) also used to provide funding, but its activities ended in December 2017. The current Challenge TB<sup>100</sup> grant will run until September 2019. In the current Global Fund grant, these are budgeted under the TB care and prevention and multidrugresistant (MDR) TB modules of the grant. A total of US\$ 7 380 519 has been budgeted for community TB/ MDR-TB care interventions.<sup>101</sup>

Country context: Myanmar (also known as Burma) has been going through a gradual liberalization process since 2010, and its political leadership has expressed a strong commitment to accelerating progress towards universal health coverage (UHC). The National Health Plan (NHP) 2017–2021 aims to strengthen the country's health system and pave the way towards UHC, with the goal of extending access to an essential package of health services to the entire population by 2020. Among the countries of the Association of Southeast Asian Nations, Myanmar has the lowest life expectancy and the second-highest rate of infant and child mortality. Health-care systems are a mixture of public and private

provision, for both finance and supply; the Ministry of Health and Sports remains the major provider of healthcare services. Local nongovernmental organizations are taking a share of service provision such as health education, presumptive referral and patient support. Nationwide nongovernmental organizations, as well as locally acting community-based organizations and religion-based societies, also support and provide health-care services.<sup>102</sup>

TB burden and missed cases: Myanmar is among the 30 highest TB burden countries worldwide, with an estimated incidence rate of 358/100 000 population. In 2017, 130 418 cases of TB were notified, with an estimated MDR-TB prevalence of 5.1% among new cases and a treatment success rate of 88% overall and 80% among MDR/rifampicin-resistant TB cases. It is currently estimated that over 60 000 TB cases are missed every year.<sup>103</sup> A prevalence survey started in October 2017 and is ongoing; preliminary results are expected to be available at the end of 2018, which will allow for validation of the epidemiological trends.<sup>104</sup>

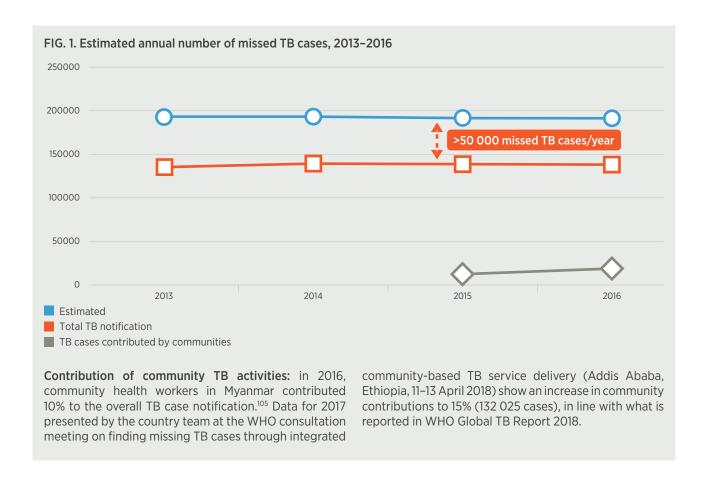
<sup>100</sup> US foreign aid by country: Burma (Myanmar), In: United States Agency for International Development [website], Washington (DC): United States  $Agency for International \ Development; 2018 \ (https://explorer.usaid.gov/cd/MMR?implementing\_agency\_id=1\&measure=Obligations\&fiscal\_year=2017, and the properties of the p$ accessed 1 June 2018).

<sup>101</sup> Input provided by UNOPS – 29 March 2018.

<sup>102</sup> Latt NN, Myat Cho S, Htun NMM, Yu Mon Saw, Myint MN, Aoki F et al. Healthcare in Myanmar. Nagoya J Med Sci. 2016;78(2):123-34.

<sup>103</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.

<sup>104</sup> Update provided by WHO national professional officer - 3 April 2018.



# OVERVIEW OF STRATEGIC PLAN AND POLICIES FOR TUBERCULOSIS

The National Strategic Plan for Tuberculosis 2016–2020 (NSP) embraces the principle of formal engagement of civil society organizations and communities. To promote and strengthen community engagement is one of the key interventions in the NSP and planned activities include:

- enabling community volunteers to engage in active TB case-finding, contact tracing, income generation activities for TB patients, peer support, sputum collection, default tracing and directly observed treatment (DOT);
- establishing village-based support groups and other selfhelp groups that are supported by volunteers, basic health staff and the National Tuberculosis Programme (NTP);
- creating a network of community-based organizations committed to supporting TB activities, especially in hard-to-reach areas.

Community involvement is also intended to have a pivotal role in management of MDR-TB and childhood TB, for which the following activities are planned:

 community-based treatment networks to be further strengthened to accommodate the planned scale-up of MDR-TB treatment; the NTP will collaborate with health facilities to identify community volunteers, train them in DOT for programmatic management of drug-resistant tuberculosis, as well as on signs of side effects and referral for multi-drug resistant testing MDR referral;

- systematize **contact tracing** for all household contacts of MDR-TB patients, providing transport reimbursements for household members or community volunteers conducting household-level screening;
- enable treatment of MDR-TB cases; the entire Yangon Region has been covered by MDR-TB management since 2015 and all 330 townships have become MDR-TB townships since the first quarter of 2016, with scale-up based on the detection of new cases; once patients are stabilized and side-effects managed, they can opt to return home and continue treatment through communitybased care with an established or newly trained DOT supporter and identified referral health facility;<sup>106</sup>
- address the proper diagnosis of childhood TB; childhood TB management guidelines were developed by the NTP in December 2016 (childhood TB accounts for about 25% of all cases). The guidelines cover symptom screening, appropriate referral and diagnosis and are distributed to NTP medical doctors (regional TB officer and TB team leader) and paediatricians. Coordination with the maternal, newborn and child health programme and community-based organizations is planned, to ensure the full engagement and appropriate targeting of messages;

<sup>105</sup> Global tuberculosis report 2017. Geneva: World Health Organization; 2017.

<sup>106</sup> Update provided by WHO national professional officer – 3 April 2018.

<sup>107</sup> Update provided by WHO national professional officer – 3 April 2018.

- community-based TB care to increase access to quality directly observed treatment, short course (DOTS) services; guidelines are available and were developed after piloting community-based care as operational research in 2011:
- contact tracing of all childhood contacts of TB patients, sustained by facilities engaged in TB diagnosis and treatment; the engagement of communities, as a critical liaison between patients and facilities, will be supported with adequate financial and logistical support for referrals and follow-up;108
- community-based organizations are listed in the NSP as one of the key players; planned activities to support and strengthen their role include: mapping (mapping international nongovernmental organizations, nongovernmental organizations and community-based organizations working for community-based care is currently updated yearly);109 develop an advocacy startup package; develop a standardized training package, job aids and information, education and communication materials for community-based organizations in line with WHO and national guidelines; a training module for community health volunteers (CHVs)/TB volunteers (in local language) was developed in 2013 and is currently in use (revisions are planned);<sup>110</sup> develop standardized incentive schemes for community-based organizations; provide monitoring and supervision support.111

#### Monitoring progress of strategic objectives

The country benefits from a good coverage of communitybased care activities (85% in 2017), as reported during the WHO Addis consultations, and an extensive network of local and international nongovernmental organizations; however, the community contribution to TB case notification is still low (15% in 2017) and multiple approaches and initiatives implemented by variety of actors sometimes result in overlapping of activities that replace existing services rather than adding value. 112 A nongovernmental organization coordinating body (NCB) is planned, working at regional, state and township level with all TB actors, including nongovernmental organization representatives and the responsible health authorities, and regular NCB meetings at township level have been budgeted under the current Global Fund grant to make most out of the extensive network of nongovernmental organizations/community-based organizations to improve integration of services, coverage and reporting. The reporting system is largely paper-based, which leads to underreporting. Improvements in reporting systems at community and township level, including the rollout of the district health information system (DHIS2) in 2018, are therefore prioritized.

#### COORDINATION AND COLLABORATION

Most local and international nongovernmental organizations engaging in TB services are members of the TB Technical and Strategy Group under the Myanmar Health Sector Coordination Committee (M-HSCC),113 an expanded version of the Country Coordinating Mechanism. For key stakeholders, see Table 1 on page 8. More than 30 organizations (including WHO) participate in Strategy Group meetings regularly, 3–4 times per year. The country is planning to create a nongovernmental organization coordinating body (NCB) working at regional, state and township level (see preceding section). Regular NCB meetings at township level have been budgeted for under the current Global Fund grant.114

Coordination between principal recipients: regular meetings between the Global Fund principal recipients (UNOPS and Save the Children) and sub-recipients take place quarterly to discuss programmatic achievements, procurement and supply management, monitoring and evaluation, programmatic challenges and lessons learned. Moreover, technical working meetings are also conducted between the NTP, principal recipients, concerned partners and expert groups as needed. UNOPS manages grants for WHO, local professional organizations such as the Myanmar Medical Association, and the AIDS, TB and malaria national programmes; Save the Children manages the grants for international and local nongovernmental organizations. Sub-recipients were selected under supervision of the M-HSCC for the Global Fund 2018-2020 in Feb 2017<sup>115</sup> following the principle of maximizing cost-effectiveness and avoiding duplication of efforts in states and regions.

Coordination between principal recipient and its respective sub-recipients: principal recipients regularly conduct meetings, in addition to day-to-day communication, to review programmatic achievements, issues and lessons learned. Workshops to review standard operating procedures in various technical and management areas are also conducted together with the AIDS, TB and malaria national programmes and sub-recipients to seek inputs and validate policy guidance.116

<sup>108</sup> See Strategic Direction I: Integrated, Patient-centred Care and Prevention, intervention 1.7 of the National Strategic Plan for Tuberculosis 2016-2020.

<sup>109</sup> Update provided by WHO national professional officer - 3 April 2018.

<sup>110</sup> Update provided by WHO national professional officer - 3 April 2018.

National Strategic Plan for Tuberculosis 2016-2020.

<sup>112</sup> National Strategic Plan for Tuberculosis 2016–2020.

<sup>113</sup> http://www.myanmarhscc.org, accessed 1 June 2018.

<sup>114</sup> Update provided by WHO national professional officer - 3 April 2018.

<sup>115</sup> Update provided by WHO national professional officer - 3 April 2018.

<sup>116</sup> Global Fund concept note - 5 July 2016.

#### **POLICY AND TOOLS**

Existing guidelines and tools available include the National Health Plan 2017-2021; the National Strategic Plan for Tuberculosis 2016–2020; the Health Workforce Strategic Plan 2012–2017, which guides the development of human resources for health and covers recruitment and training of community health workers (CHW); the Strategic Action Plan for Strengthening Health Information 2017-2021, covering community health care and referral of basic health staff (BHS), but not covering TB community-based activities; community-based TB care guidelines which are expected to be revised after the TB prevalence survey. Revisions of guidelines and standard operating procedures are also planned to incorporate changes under the End TB Strategy, including universal access to drug susceptibility testing and treatment for latent TB infection. A revision of the standard operating procedures for active case detection is also planned.

## IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

Almost 70% of the population reside in rural areas, and BHS are the main health-care providers for them. BHS are responsible for training volunteer health workers (community health workers and auxiliary midwives). These health workers face many challenges in their effort to reach out to the remote villages, with meagre resources and support. However, the 2014 Joint Monitoring Mission for TB Care and Prevention in Myanmar observed a number of good practices in community-based programmes conducted by different agencies. Activities included volunteer engagement in active case-finding, contact tracing, income generation activities, peer support, sputum collection, default tracing and home-based DOT, and proved particularly useful in reaching remote areas and marginalized segments. Currently, 75% (242/321) of townships are funded for implementing community-based TB activities.<sup>117</sup>

International or national nongovernmental organizations play an important role in community-based care; nongovernmental-organization-supported community health volunteers (CHVs) conduct general or TB-specific tasks (health education, screening, referral and DOT support) and link presumptive TB cases to private practitioners, who diagnose and treat drug-sensitive TB patients and refer MDR-TB cases to Government facilities. Some partners (Japan International Cooperation Agency) work with pre-existing community structures, while others recruit their own community volunteers for TB work (International Union against Lung Disease and

Tuberculosis, Population Services International and World Vision). Some organizations provide financial incentives (paid per item of service) others provide token incentives (annual gifts). The type of work also varies, ranging from running clinics or providing treatment to filling gaps in TB control, but in all scenarios there is collaboration with the NTP. The different approaches and initiatives between nongovernmental organizations and Government and within the nongovernmental organizations result in overlapping and often uncoordinated efforts, with the additional issue that nongovernmental organizations often focus only on their own activities in their own catchment areas, increasing the risk of duplicating existing services rather than adding value.<sup>118</sup> Although still fragmented, the network of collaborations is wide, and a substantial contribution of NTP community partners to case notification was observed in the past, with 19% of notified TB cases in 2016 referred by the community.<sup>119</sup>

Recent successes with partnership models between Government, nongovernmental organizations community self-help groups collaboratively implementing treatment and treatment adherence programmes encourage the expansion of these models - also as a way of providing extra human resources where needed. A model for community-based care was developed and piloted at Naypyitaw-Pyinmana township in 2011 in collaboration with the Japan International Cooperation Agency; the model currently includes referral of persons in need of TB investigation, supervision of diagnosed TB patients and health education by CHVs. Active participation and support from the township health department/TB centre. as well as adequate resources (including human resources and laboratory and radiological facilities) were key factors for the successful implementation of this care model.<sup>120</sup>

Past Global Fund grants have supported malaria control programmes in the special regions, resulting in a basic health provider network involving 400 village volunteers, all of whom are from the local communities. The latest grant proposes to integrate TB case-finding and care into the existing malaria platform at community and primary care level. This approach avoids competition for scarce human resources for health in the special regions. Given the reduced malaria incidence in these regions, it seems feasible to add TB responsibilities without overburdening the CHVs. <sup>121</sup>

<sup>117</sup> Myanmar country presentation at the WHO consultation meeting on finding missing TB cases through integrated community-based TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018).

<sup>118</sup> National Strategic Plan for Tuberculosis 2016–2020.

<sup>119</sup> WHO extranet, accessed 19 March 2018.

<sup>120</sup> Update provided by WHO national professional officer Myanmar - April 2018.

<sup>121</sup> Global Fund concept note - 5 July 2016.

TABLE 1. Overview of key stakeholders for integrated community TB activities

Stakeholder	Type and number of implementing NGO/CBO where available	Geographical coverage (2018)	Activities
UNOPS (PR)	UNOPS NTP and five NGOs (2018-2020) NTP, MHAA, PGK, MAM, MMA, The Union	Nationwide - see detail in each NGO coverage	Funds management  Community DOTs, patient adherence support, initial home visit by CVs
Save the Children Fund (PR)	International NGO AHRN, IOM, Malteser International, PSI	Nationwide - see detail in each NGO coverage	Funds management See further details under individual SRs
CESVI (SR until 2016)	International NGO	12 townships in Kachin and Shan State	CBTBC project ended in December 2017
IOM (SR until 2016)	International Agency KDHW	Hpa-An, Myawaddy (2 tsps in Kayin State); Bilin, Kyaikmaraw, Mawlamyine, Mudon, Thanbyuzayat, Thaton, Ye (7 tsps in Mon State)	CBTBC and MDR-TB – DOT
Malteser International (SR until 2016)	International NGO	Buthidaung, Maungdaw (2 tsps in Rakhine State), Kengtung, Monghpyak, Mongkhet, Mongping, Mongyawng, Tachileik (6 tsps in Eastern Shan)	СВТВС
PSI (SR until 2016)	International NGO	CBTBC project in areas listed at (a) below ICMV project in areas listed at (b) below Drug seller activities in areas listed at (c) below	CBTBC project, ICMV project, drug seller activities and public-private mix with private practitioners
World Vision	International NGO	Demoso, Hpruso, Bawlakhe (3 tsps in Kayah State)	Community support models through creation of self-help groups of current or former TB patients  CBTBCChallenge TB project:  Build linkages with NTP and local stakeholders  Strengthen community mobilization for TB care and prevention  Enhance case-finding in hard-to-reach areas and support for treatment success  Ensure sustainable TB care by building linkages and collaboration with all care providers  Collaborate with NTP to carry out research
			(operational/implementation) on prioritized topics from the national TB research agenda
НРА	International NGO	Mongla, Nan Ban, Mongyang (3 tsps in Special Region 4 of Eastern Shan State; Pangsang, Namphan (2 tsps in WA Special Region of Northern Shan State)	CBTBC project in Special Region 4 of Eastern Shan State and WA Special Region of Northern Shan State

Stakeholder	Type and number of implementing NGO/CBO where available	Geographical coverage (2018)	Activities
AHRN	International NGO	Bamaw, Hpakant, Shwegu, Momauk, Waimaw (5 tsps in Kachin); Homalin, Indaw, Kale, Katha, Tamu (5 tsps in Sagaing); Konkyan, Kunlong, Laukkaing, Pangsang (4 tsps in Northern Shan State)	<ul> <li>Active case-finding through mobile clinics and passive case-finding through drop in centres/key population service centres</li> <li>CBTBC project (recruiting outreach workers, DOTS providers and DOTS supervisors for contact tracing, referrals for presumptive TB cases, DOTS follow-up and adherence support which are integrated with both active and passive case-finding)</li> </ul>
Medical Action Myanmar (MAM)	International NGO	CB-ACF project in areas listed at (d) below ICMV project in areas listed at (e) below	Community-based TB active case-finding, ICMV
Myanmar Maternal and Child Welfare Association (MMCWA)	Local NGO	Total 30 townships listed at (f) below	CBTBC project
Myanmar Health Assistant Association (MHAA)	Local NGO	CBTBC - Areas listed at (g) below	CBTBC (community awareness on TB, presumptive case referral, DOTS provision), COMMUNITY-based MDR-TB care
Myanmar Medical Association (MMA)	Local NGO	Community-based MDR-TB Care – listed at (h) below	Community-based MDR-TB care, CBTBC project and public-private mix
Myanmar Women's Affairs Federation (MWAF)	Local NGO	Total 30 townships including those listed at (i) below	CBTBC project
Pyigyikhin (PGK)	Local NGO	CBTBC - Challenge TB project listed at (j) below	CBTBC- Challenge TB project and patient- centred community-based MDR-TB care model project
The Union	INGO	Listed at (k) below	<ul> <li>MDR-TB and TB/HIV</li> <li>Active Case-finding TB (Program to Increase Catchment of Tuberculosis Suspects-PICTS)</li> <li>Active case-finding and case holding TB (Challenge TB Project -CTB)</li> </ul>
Myanmar Red Cross Society (MRCS)	Local NGO	Total 10 townships listed at (I)	CBTBC project
EHO and implementing partners in non- State actor areas EHO-SR2, EHO-SR4	ЕНО	EHO SR2 in areas listed at (m)	<ul> <li>Establish a network of sputum collection, diagnostic and treatment services;</li> <li>Build the capacities of basic health workers and voluntary health workers to implement "migrant-friendly" outreach and care</li> </ul>
EHO – KDHW	ЕНО	CBTBC activities in areas listed at (n) below	<ul> <li>CBTBC, TB (CBTBC) + malaria, TB (CBTBC) + HIV</li> <li>Awareness-raising activities, case identification, notification, referral, follow-up and DOTS supervision, contact and defaulter tracing, referral facilitation, care and support</li> </ul>

Stakeholder	Type and number of implementing NGO/CBO where available	Geographical coverage (2018)	Activities
Community Partners International (CPI)	International NGO Works and partners with CBOs (Civil Health and Development Network, Karen Baptist Convention), EHO-KDHW	In areas listed at (o) below	ICMV project (integrated case referral, service delivery on malaria case management, integrated services, mobile trip to migrant and mobile sites, health education session)
Burnet Institute	International NGO	South Dagaon (Yangon)	<ul> <li>Community-based MDR-TB care (project duration: 2014 to June 2018)</li> <li>Standard package includes evening DOTS, side effect assessment, infection control assessment, health education (MDR-TB patient and family members; mass health education session for community), referral support and contact tracing, nutrition support, psychosocial support and counselling services for diabetes, HIV, birth spacing</li> </ul>

AHRN: Asian Harm Reduction Network; CBO: community-based organization; CBTBC: community-based TB care; CV: community volunteer; DOTS: directly observed treatment; EHO: ethnic health organization; HPA: Health Poverty Action; ICMV: Integrated Community Malaria Volunteers; IOM: International Organization for Migration; KDHW: Karen Department of Health and Welfare; MAM: Medical Action Myanmar; MDR-TB: multidrug-resistant TB; CBO: community-based organization; MHAA: Myanmar Health Assistant Association; MMA: Myanmar Medical Association; NGO: nongovernmental organization: NTP: National Tuberculosis Programme; PGK: Pyi Gyi Khin; PR: principal recipient; PSI: Population Services International; SR: sub-recipient: The Union: International Union against Lung Disease and Tuberculosis; tsp: township:

- (a) Bogale, Danubyu, Hinthada, Mawlamvinegyun, Myaungmya, Ngapudaw, Pantanaw, Pathein, Wakema (9 tsps in Aveyarwaddy Region); Bago, Taungoo, Thayarwady (3 tsps in Bago Region); Magway (Magway Region); Kyaukpadaung, Meiktila, Mogoke, Myingyan, Singu (5 tsps in Mandalay Region); Bilin (Mon State); Tatkon (Naypyitaw); Kale (Sagaing Region); Dagon Myothit (East), Dagon Myothit (North), Dagon Myothit (Seikkan), Dagon Myothit (South), Dala, Hlaing, Hlaingtharya, Hlegu, Hmawbi, Insein, Kawhmu, Mayangone, Mingaladon. North Okkalapa, Shwepyithar, Taikkyi, Tamwe, Thaketa, Thanlyin, Thingangyun (20 tsps in Yangon Region)
- (b) Gyobingauk, Letpadan, Monyo, Padaung, Paungde, Shwedaung (6 tsps in Bago Region); Hopang, Hseni, Kunlong, Muse, Tangyan (5 tsps in Northern Shan); Kalaw, Kunhing, Kyethi, Laihka, Langkho, Lawksawk, Loilen, Mongkaing, Mongnai, Nyaungshwe, Pinlaung, Ywangan (12 tsps in Southern Shan); Dawbon, Kamaryut, Kungyangon, Kyeemyindaing, Mingalartaungnyunt, UNOPS: United Nations Office for Project Services. Pazundaung, Twantay (7 tsps in Yangon Region)
  - (c) Bago, Daik-U, Kawa, Nyaunglebin, Oktwin, Phyu, Taungoo, Thanatpin, Waw, Yedashe, Gyobingauk, Letpadan, Okpho, Pyay, Thayarwady (15 tsps in Bago Region), Dagon Myothit (East), Dagon Myothit (North), Dagon Myothit (Seikkan), Dagon Myothit (South), Dala, Hlaing, Hlaingtharya, Insein, Kyeemyindaing, Mayangone, Mingaladon, North Okkalapa, Sanchaung, Shwepyithar, South Okkalapa, Taikkyi, Tamwe, Thaketa, Thanlyin, Thingangyun, Twantay (21 tsps in Yangon); Monywa, Sagaing (2 tsps in Sagaing Region); Mawlamyaing in Mon State; Kyaukpadaung, Myingyan, Myittha, Pyawbwe, Thazi, Yamethin (6 tsps in Mandalay Region); Chauk, Magway, Pakokku, Yenangyaung (4 tsps in Magway Region); Pathein (Ayeyarwaddy Region)

- (d) Paletwa (Chin State); Chipwi, Hpakant, Machanbaw, Mansi, Momauk, Myitkyina, Nawngmun, Putao, Shwegu, Tanai (10 tsps in Kachin State); Demoso, Hpasawng, Hpruso (3 tsps in Kayah State); Kawkareik, Kyainseikgyi, Thandaunggyi (3 tsps in Kayin State); Lahe, Lay Shi, Nanyun (3 tsps in Sagaing region), Yebyu (Tanintharyi Region)
- (e) Kyaikmaraw, Mudon, Paung, Ye (4 tsps in Mon State), Hkamti, Kale, Mawlaik, Paungbyin, Tamu (5 tsps in Sagaing Region)
- (f) Bago, Daik-U, Kawa, Kyauktaga, Oktwin, Phyu. Shweqvin. Taungoo. Yedashe. Gyobingauk, Padaung, Pyay (12 tsps in Bago Region); Hlaingbwe, Hpa-An (2 tsps in Kayin State); Meiktila, Ngazun, Nyaung-U, Singu, Tada-U, Taungtha, Thazi (7 tsps in Mandalay Region); Mawlamyine, Mudon, Paung, Thanbyuzayat, Thaton, Chaungzon (6 tsps in Mon State); Lewe, Pyinmana, Tatkon, (3 tsps in Naypyitaw)
- (g) Shwegyin, Thanatpin, Kyaukkyi (3 tsps in Bago Region); Hlaingbwe, Hpapun (2 tsps in Kayin State); Myaing, Pakokku, Seikphyu (3 tsps in Magway Region); Kyaukse, Mahlaing, Meiktila, Thazi, Wundwin (5 tsps in Mandalav): Minbva. Mrauk-U. Pauktaw. Rathedaung, Sittwe (5 tsps in Rakhine State): Budalin, Kani, Pale, Taze, Hkamti, Homalin, Kale, Kalewa, Mawlaik, Mingin, Paungbyin, Tamu, Shwebo, KhinU, Kanbalu, Kyunhla, Katha, ChaungU, Salingyi, Ayadaw, Wetlet, Myinmu (22 tsps in Sagaing Region) Dala, Hlaingtharya, Hlegu, Htantabin, Insein, Lanmadaw, Pabedan, Pazundaung, Seikgyikanaungto, Twantay (10 tsps in Yangon Region) Community-based MDR-TB care - Dala, Hlaingtharya, Hlegu, Htantabin, Insein, Lanmadaw, Pabedan, Pazundaung, Seikgyikanaungto, Twantay, Minbya, Mrauk-U, Pauktaw, Rathedaung, Sittwe (15 tsps in Yangon Region)

- (h) Myaungmya, Pathein, Pyapon (3 tsps in Ayeyarwaddy Region); Bago, Pyay (2 tsps in Bago Region); Hpa-an (Kayin State); Magway (Magway Region); Kyaukse (Mandalay Region); Dagon Myothit (East), Dawbon, Hmawbi, Kawhmu, Kayan, Kungyangon, Kyauktan, South Okkalapa, Taikkyi, Thaketa, Thanlyin, Thingangyun, Thongwa (13 tsps in Yangon) CBTBC -Bogale, Hinthada, Myaungmya, Pathein, Pyapon (5 tsps in Ayeyarwaddy Region); Bago, Phyu, Taungoo, Letpadan, Pyay (5 tsps in Bago Region); Hpa-an (Kayin State); Magway, Pakokku (Magway Region); Aungmyaythazan, Chanayethazan, Chanmyathazi, Mahaaungmyay, Meiktila, Myingyan, Nyaung-U, Pyinoolwin (8 tsps in Mandalay Region); Mawlamyine, Chaungzon (2 tsps in Mon State); Pyinmana (Naypyitaw); Sittwe (Rakhine): Monywa (Sagaing): Kyaukme, Lashio, Muse (Shan North); Myeik (Tanintharyi Region); Bahan, Dagon Myothit (East), Dagon Myothit (North), Dawbon, Hlaingtharya, Insein, Kayan, Kyeemyindaing, North Okkalapa, Sanchaung, Shwepyithar, South Okkalapa, Tamwe, Thaketa, Thanlyin, Thingangyun, Yankin (17 tsps in Yangon)
- (i) Bogale, Einme, Hinthada, Kangyidaunt, Labutta, Maubin, Mawlamyinegyun, Myaungmya, Pantanaw, Pyapon, Thabaung, Zalun (12 tsps in Ayeyarwaddy Region); Kengtung, Monghyak, Monghsat, Mongkhet (4 tsps in Eastern Shan); Hseni, Hsipaw, Kyaukme, Lashio, Muse, Namtu, Nawnghkio (7 tsps in Northern Shan); Kalaw, Loilen, Nyaungshwe, Pindaya, Pinlaung, Taunggyi, Ywangan (7 tsps in Southern Shan)
- (j) Hakha, Falam, Thantlang (3 tsps in Northern Chin State) Community-based MDR-TB Care in Ahlone, Bahan, Botahtaung, Dagon, Dagon Myothit (North), Dagon Myothit (Seikkan), Dagon Myothit (South), Hlaing, Kamaryut, Kyauktada, Kyeemyindaing, Latha, Mayangone, Mingaladon, Mingalartaungnyunt, North Okkalapa, Sanchaung, Seikkan, Shwepyithar, Tamwe, Yankin (21 townships of Yangon region)
- (k) Aung Myay Tarzan, Amarapura, Chan Aye Tar San, Chan Mya Tar Zi, Patheingyi, Pyigyitagon, Maha Aung Myay, Myingyan (8 tsps in Mandalay Region); Lashio (Northern Shan State); Sagaing, Monywa, Taungyi (Southern Shan State); Ye U, Depayin, Banmauk, Wuntho, Pinlebu, Tigyaing, Myaung, Yinmabin (8 tsps in Sagaing Region)

- (I) Pathein (Ayeyarwaddy Region); Kyainseikgyi (Kayin State); Taungdwingyi (Magway Region); Yamethin (Mandalay Region); Minbya, Mrauk-U (2 tsps in Rakhine State); Lawksawk (Shan South); Kawhmu, Kungyangon, Kyauktan (3 tsps in Yangon)
- (m) Ka Lawng Hpar, Lin Haw, Pangsang (3 tsps in Northern Shan State); EHO SR4 in Mongla, Mongyang, Nam Hpai (3 tsps in Eastern Shan State)
- (n) Hpa-an (Kayin State), CBTBC and malaria activities in Kawkareik, Kyarinseikkyi (Kayin State), CBTBC and HIV community-based care in Hlaingbwe, Kawkareik, Myawaddy (Kayin State); Bilin, Thaton, Kyaikhto, Ye, Kyaikmayaw (Mon state)
- (o) Bawlekhe, Demoso, Hpruso, Hpasawng, Mese, Loikaw, Shardaw (7 tsps in Kayah State)

#### Personnel

Cadres engaged in community TB activities include CHVs, CHWs, auxiliary midwives (AMWs) and cadres appointed by the Department of Public Health.

CHWs date back over 30 years and many are no longer particularly active in community-based health care, besides mobilizing people occasionally for events such as the arrival of mobile clinics or immunization campaigns. Large numbers of CHWs have dropped out, and now the Department of Public Health is undertaking a process to replace them. However, it is unlikely that these cadres will be able to make a significant contribution to TB services, given the lack of connection with BHS.

**AMWs** work directly with midwives. They focus on community-based maternal, newborn and child health activities, particularly assisting in childbirth, for which they receive a fee for service in cash or in kind. They have no specific training in TB.

**CHVs** are usually selected in collaboration with township and village authorities, the BHS and the township medical officer and work cooperatively with BHS.

#### Incentives and sustainability

CHVs appointed by international nongovernmental organizations are usually given financial rewards by way of transport allowances and/or incentive payments for specific results (referrals, notifications, treatment success). In addition, they attend regular meetings and receive focused training, which contributes to their overall motivation and ability to contribute effectively. There is strong evidence to show that such volunteer models work effectively and contribute to case notification and treatment success.<sup>122</sup>

Other forms of financial support for volunteers include: transportation allowance for sputum transportation from presumptive TB cases; financial incentives for notified TB cases and DOT provision for MDR-TB patients (in certain nongovernmental organizations, DOT provision for drugsensitive TB cases as well). Infection control tools (surgical masks; N95 mask for MDR-TB DOT providers), sputum cups and referral/reporting forms are also provided.<sup>123</sup>

<sup>122</sup> National Strategic Plan for Tuberculosis 2016–2020.

<sup>123</sup> Update provided by WHO national professional officer – 3 April 2018.

#### MONITORING AND EVALUATION

Data on community-based activities are submitted monthly by CHV to their supervisors, who transfer them to the township NTP office, and they are then reported quarterly at national level. In 2014, the Ministry of Health and Sports began using **DHIS2** for processing its data at the national level. In 2015, DHIS2 has begun expansion to the township level. The township-level roll-out was expected to be mostly completed by the end of 2016; however, although DHIS2 has begun to function and provides basic TB information in parallel, the paper-based system with aggregated data is still the main tool used to develop quarterly and annual TB reports.<sup>124</sup> Training of trainers for end users has been conducted to enable end users to familiarize themselves with the functions of DHIS2. Four batches of multiplier training courses for all partners, including HIV-TB end users, in all states and regions (with funding from the Global Fund through UNOPS) took place in October-November 2016. Approximately 140 participants were trained in the HIV session and 120 in the TB session. Currently, all township level data are collected and entered in DHIS2 at state/ region level. The NTP plans to expand the use of DHIS2 to the township level in the second quarter of 2018. Data will be captured with tablet computers.125

indicators for community-based TB activities, but they are not yet captured by DHIS2; standard and benchmark analysis on TB Surveillance was done in collaboration with WHO and the Research Institute of Tuberculosis in 2014 and 2017, showing good progress of the monitoring and evaluation system. 126 The Ministry of Health and Sports and development partners are collaborating on an HIV, TB and malaria e-health investment plan (2016–2020). In May 2016, an integrated e-health plan for HIV/AIDS, TB and malaria case-based surveillance and aggregate reporting systems was formulated and agreed upon by the three national programmes. Software was chosen to develop the Master Patient Index (MPI) for effective longitudinal patient monitoring across care and aggregate DHIS2 reporting forms (TB 07, 08, TB/HIV and MDR-TB notification and outcome) and development was prioritized for 2016. See Table 2 below for a list of indicators for community-based care and Table 3 for existing tools and registers.

Myanmar has adopted the WHO core ENGAGE-TB

Overall, health information system strengthening is primarily financed by the Global Fund, the GAVI Alliance, the World Bank and Measurement and Accountability for Results in Health (MA4Health). Under the Global Fund grant, 17 national technical officers, six laboratory supervisors and 18 data assistants were recruited by WHO to support the NTP in carrying out supportive supervision and monitoring and evaluation activities. They are assigned at state and regional levels of the NTP and every township is visited at least once a year.<sup>127</sup>

TABLE 2. Community TB care indicators

Indicator	NSP target	Monitoring plan		Current status
Percentage of notified TB cases (all forms) contributed by non- NTP providers – community referral  17% of total notified cases		Regular supervision of CHVs by community-based TB care officers planned to address challenges identified during quarterly evaluation meetings and improve collaboration between BHS and volunteers. An annual evaluation meeting at central level planned including INGOs and local NGOs involved in community-based TB care		15% of total notified cases in 2017
Proportion of local government authorities with formally established /community structure for providing TB care services	Not specified in NSP	-		-
Proportion of participating CSOs/ CBOs with operational work plans (no indicator, but activities were done)	Not specified in NSP	-		MMCWA, MWAF, MRCS, MHAA, EHO (SR2, SR4, KDHW) are participating with operational work plans
Proportion of all presumptive TB cases examined who were referred by community volunteers/CBOs (not included in NSP)	Not specified in NSP	-		Of 461 450 sputum examined, 146 350 were referred from CBTBC in 2017 <sup>128</sup>
CHV: community health volunteer; KDF CSO: civil society organization; MHA	IW: Karen Depart AA: Myanmar Hea	ment of Health and Welfare; Ith Assistant Association;	NGO: nongovernme NSP: National Strat	/omen's Affairs Federation; ental organization; egic Plan for Tuberculosis 2016–202 rculosis Programme;

<sup>124</sup> Update provided by WHO national professional officer - April 2018.

MRCS: Myanmar Red Cross Society;

EHO: ethnic health organization;

SR: special region.

<sup>125</sup> Update provided by WHO national professional officer - April 2018.

<sup>126</sup> Update provided by WHO national professional officer – April 2018.

<sup>127</sup> Update provided by WHO national professional officer – April 2018.

<sup>128</sup> Update provided by WHO national professional officer - April 2018.

TABLE 3. Existing tools and registers

Tool	Description	Level of use	Responsible person	Frequency
CTBC referral forms (paper)	Information of presumptive TB and CHV, referred unit	Community level	Community volunteer	When presumptive TB is identified
Community volunteer register (paper form)	Health education to community and TB patients and family, presumptive referral, DOT provision, outcome	Community level	Community volunteer	Depends on activity
Monthly reporting form for CHV (paper form)	Nine indicators (referral from community, contacts, notified TB cases, DOT, treatment completion, health education session attendees, HCT, HIV status)	Community and township level	Community volunteer and respective supervisor	Monthly/ quarterly
Reporting form for CHV supervisor	Nine indicators plus number of CHV trained and active, patient support, frequency of supervision	Township level	CHV supervisor	Quarterly
Supervisor registry form	monthly recording of supervisor reporting form (volunteer-based)	Township level	CHV supervisor	Monthly
Patient treatment support card (paper form)	patient information, treatment regimen, treatment monitoring, outcome	Township level	TBC, Midwife, CHV	Daily

CHV: community health volunteers; CTBC: community-based TB care; DOT: directly observed treatment.

# KEY CHALLENGES AND OPPORTUNITIES

Poor coordination between community actors in different programmes and limited human resources are seen as some of the biggest challenges in the implementation of integrated community-based TB activities, together with limited integration between programmes, often due to different disease patterns. However, good collaboration between programmes was achieved both at central level and state/regional levels since TB/HIV integrated activities started in 2006, and the integration of programmes was extended down to the township level in 2016. A good opportunity for integration also comes from past Global Fund grants that have supported malaria control programmes in the special regions, resulting in a basic health provider network involving 400 village volunteers, all of whom are from the local communities. Building on this success, the latest grant proposes to integrate TB case-finding and care into the existing malaria platform at community and primary care level, in order to foster integration and avoiding competition for scarce human resources in the health sector.

#### ROADMAP AND NEXT STEPS

Although a roadmap could not be finalized during the WHO Addis consultations, the country had previously identified priority areas and successful practices which will be the focus of future work in expanding integrated community-based TB activities, in particular, it will be holding a national-level consultation to review and endorse the advocacy and communication plan and tools, the human resources plan and tools and the monitoring and evaluation indicators; new and refresher training courses for community actors will be organized, in order to integrate TB activities into current programmes (e.g. malaria) and retain more CHVs; and, the NTP will work with implementing partners to provide incentives for CHWs together with mapping of the current activities in order to better utilize the existing and consistent network of nongovernmental organizations, minimize overlapping of activities and maximize geographical coverage.

### **NIGERIA**

#### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

#### **Application information**

Country	Nigeria
Component(s)	TB and RSSH
Principal recipient(s) for TB (to be confirmed following resubmission)	Association for Reproductive and Family Health (ARFH) (TB) Institute for Human Virology, Nigeria (IHVN) (multidrug-resistant TB) Family Health International (FHI 360) (integration of HIV/AIDS and TB)
Grant start/end date	1 January 2019/31 December 2020
TB component	US\$ 71 216 215
Matching funds	US\$ 14 000 000

TB funding landscape: The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States Government are the two main donors for tuberculosis (TB) activities; further funding is provided by the United Kingdom Government and the Damien Foundation (Belgium).

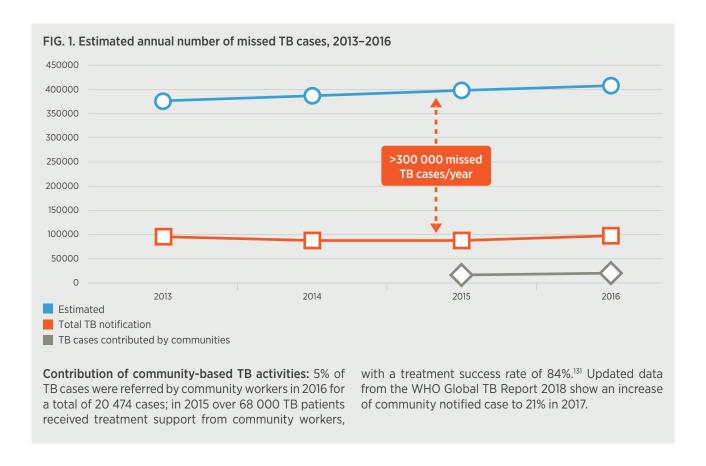
Budget for community-based TB activities: under the Global Fund New Funding Mechanism, a total of US\$ 10.7 million has been budgeted for community TB activities for drug-susceptible TB, however there are concerns about sustainability of funding, particularly because the domestic funding for TB accounts for only 4% of the total TB budget.

Country context: Nigeria is Africa's most populous country, with 182 million people. Strategic investments in the health system have contributed significantly to the progress achieved in recent years with regard to HIV and TB prevalence; nonetheless, Nigeria still has high disease burdens and very low TB treatment coverage. In fact, only 25% of primary health facilities can provide TB testing and treatment, as shown by the 2017 National Health Facility Survey.

TB burden and missed cases: in 2017, WHO estimated the TB incidence in Nigeria at a rate of 219 per 100 000 population, with a total of approximately 418 000 cases; however, only 102 387 TB cases have been notified, putting the number of missed TB cases at over 300 000 per year, as in 2016 (see Fig. 1).129 These results are worrying, as Nigeria has the highest TB burden in Africa and the fourth highest burden globally. Multidrugresistant (MDR) and rifampicin-resistant (RR) TB among new TB cases is estimated at 4.3%. TB treatment success rates reported in 2017 were 86% overall and 78% among MDR/RR-TB cases. The focus of the TB component in the current Global Fund grant is on finding missing TB patients; however, the proposed prioritization of active TB case-finding is focused on tertiary health facilities, whereas the majority of presumptive TB cases use primary health facilities as their first point of contact. 130 Given that only 25% of these facilities can provide TB testing and treatment, there is concern that this might affect impact of planned TB interventions.

<sup>129</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.

<sup>130</sup> National Health Facility Survey (May 2017).



## OVERVIEW OF STRATEGIC PLAN AND POLICIES FOR TUBERCULOSIS

Both the National Strategic Health Development Plan and the National Strategic Plan (NSP) for TB Control 2015–2020 include strengthening of collaboration and capacity of community-based organizations and networks as one of the priority areas to achieve increased TB case notification (target: from 57.3 per 100 000 in 2013 to 287 per 100 000 population in 2020). Key activities are to:

- build on the existing community system strengthening (CSS) AIDS, TB and malaria (ATM) activities under the Global Fund to coordinate activities of communitybased organizations (CBOs) engaged in HIV, TB and malaria control at community level;
- build the technical, managerial and administrative capacities of CBOs to provide effective support in implementation of the NSP 2015–2020;
- strengthen the community monitoring and evaluation system in planning, managing and improving performance;
- strengthen the administrative functions of civil society organization (CSOs) working on TB control.

While basic TB services will be expanded to cover all the country, the National Tuberculosis and Leprosy Control Programme (NTBLCP) analysed existing epidemiological and performance data and has prioritized certain geographical regions for intensified interventions to increase case-finding in 13 states and the Federal Capital Territory (FCT), representing an estimated 50% of the missing cases in Nigeria. The analysis was based on the burden of HIV, current case notification rates and current population coverage of TB diagnostic and treatment services. Priority was given to states with a high burden of TB, a large gap in actual versus expected case notification and low coverage of services. FCT was added because of the high concentration of key affected populations within the FCT area. The intensified intervention package will include community outreach for demand creation; active case-finding in key affected populations; public-public and public-private mix strategies to engage key care providers in case-finding; scale-up of rapid diagnostic technologies; and expansion of treatment capacity to meet the increased need. States targeted for this intensified package of services include Akwa Ibom, Anambra, Bauchi, Borno, Imo, Jigawa, Kaduna, Kano, Katsina, Lagos, Oyo, Rivers and Sokoto, as well as the FCT.<sup>132</sup>

<sup>131</sup> Global tuberculosis report 2017. Geneva: World Health Organization; 2017.

<sup>132</sup> National Strategic Plan for TB Control 2015-2020.

A number of community-based activities are planned within the NSP 2015–2020 under this intensified intervention:

- house-to-house TB active case-finding (ACF), contact tracing of index cases, outreach for sensitization and mobilization;
- establishment of community escort service and provision of transport support for accompanied referral;
- piloting of community sputum collection points to enhance access for diagnosis;
- training and supervision of 500 community-based sputum collectors in the five most densely populated states;
- implementation of active TB case-finding activities for people living with HIV (PLHIV) through CBOs providing community-based HIV services and PLHIV support groups;
- contact tracing for all MDR-TB cases using community health workers and community-based organizations;
- provide community-based treatment and support to MDR-TB patients; train CBOs/community volunteers (CVs) in providing medications, side effect monitoring, psychosocial support and counselling, recording and reporting.

The plan is to implement these activities over two years and it is expected that, through these activities, community contribution to TB cases should reach 30% of the national target. Currently, community TB care (CTBC) does not cover all of the country and relies heavily on the engagement of technical partners (United States Agency for International Development (USAID), TB REACH, KNCV) to manage CBOs and volunteers involved in CTBC. Linkages between CBOs and the local health system remain relatively weak.<sup>133</sup>

#### Monitoring progress of strategic objectives

Building on the existing CSS AIDS, TB and malaria (ATM) activities under the Global Fund to coordinate activities of CBOs engaged in HIV, TB and malaria control at community level is one of the key interventions in the national TB programme (NTP), but the strong presence of parallel programmes and the current lack of a national coordinating body for CBOs/nongovernmental organizations involved in community TB activities may hinder the realization of this intervention if not adequately addressed. There is also a notable gap in the articulation of CSS activities and the expected measurable outcomes in terms of increased case-finding and retention. Although strengthening of the community monitoring and evaluation system is another key NSP intervention, and some indicators have been identified to monitor this progress, the lack of systematic supervision and review mechanisms at community level, the multiplicity and shortage of tools, sometimes accompanied by misinterpretation of indicators, are important challenges that need to be addressed in order to increase TB case notification at community level.

#### COORDINATION AND COLLABORATION

Although the country currently does not have a nongovernmental organization coordinating body, funding support from the CSS component of the last Global Fund HIV grant has been used to build the capacity of CBOs, through a network of ATM organizations, which jointly coordinate CSS activities nationwide. This ATM approach includes identification and training of local CBOs in targeted areas coordinated through umbrella organizations (one for AIDS, one for TB and one for malaria). The principal recipient in charge of CSS under the last Global Fund HIV grant was the Association for Reproductive and Family Health (ARFH) and the sub-recipient for TB was the Civil Society for the Eradication of Tuberculosis in Nigeria (TB Network). TB Network works in 11 of 36 states. In addition, a second network of TB-related CBOs has been formed under the Africa Coalition on Tuberculosis - Nigeria (ACT! Nigeria). ACT! Nigeria has yet to receive funding for activities as a coordinated group of organizations.

A structured, one-day, monthly ATM CSO coordination meeting at local government area (LGA) level in the 14 priority areas (13 states + FCT) to review progress on the workplan, review data, solve problems and receive technical updates and mentoring from ATM programmes is planned for in the NSP 2015–2020.

Coordination at the lower level and supportive supervision of community health workers and volunteers remains a challenge, often due to lack of funding to support systematic supervision and regular meetings.

#### **POLICY AND TOOLS**

Existing guidelines and tools available:

- Objective 7 of the NSP 2015-2020 focuses on strengthening the collaboration with and capacity of CBOs and networks to support NTBLCP objectives and activities;
- the TB and Leprosy Indicator Reference Book provides definitions and guidance for monitoring and evaluation;<sup>134</sup>
- Capitalize manual on electronic TB Manager (e-TB Manager) for health care workers in Nigeria;<sup>135</sup>
- roles and responsibilities of CBOs are included in Standard Operating Procedures for Programmatic Management of Drug-Resistant Tuberculosis;<sup>136</sup> (uploaded Jan 2018);
- Health Information System Policy 2014 (monitoring and evaluation) and National Indicators Reference Sheet (revised every two years);
- National Human Resources in Health (HRH) Policy (2015–2019) – the policy has significant implications for expanding services, particularly at the primary health care and community level;<sup>137</sup>
- End TB Strategy Operational Framework for Nigeria (2017);
- Implementation Plan for Accelerated TB Case-finding (2017).

## IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

For key stakeholders, see Table 1 on page 8. The Global Fund and USAID are the main donors for TB activities and will provide nationwide funding coverage. The Institute for Human Virology, Nigeria (HIV and MDR-TB) (IHVN) and the Association for Reproductive and Family Health (TB) (ARFH) were the principal recipients for TB in the last grant and are recommended to continue for the current application. The sub-recipients will be a combination of nongovernmental organizations, states and Government actors, including the NTP. The number of nongovernmental organization sub-recipients that will be engaged will be determined during the grant-making process. In the past, the programme management capacity of 107 CBOs has been strengthened, 80 of which (10 per state) will be selected in HIV and TB scale-up states for further capacity building by the national ATM CSO networks.<sup>138</sup>

The main implementers of community-based TB activities are TB Network (23 CBOs in 2018) and the Health Alive Foundation (24 CBOs in 2018), as sub-recipients of ARFH. Community-based TB activities were implemented in 163 LGAs (21% of basic management units) in 2017; 76 LGAs were supported through Challenge TB funding and 87 LGAs through Global Fund funding.

#### Personnel

Community-based organizations (CBOs), community volunteers (CVs) and community TB workers (CTWs) are the cadres currently implementing community-based TB activities in Nigeria.

#### Incentives and sustainability

CBO staff and CVs are paid a salary (US\$ 131/month) while CTWs are given incentives (transport, t-shirts, etc.)<sup>139</sup> Performance-based funding is also given (US\$ 3. USD per TB case diagnosed) under the current Global Fund grant. However, stipends are not harmonized nationwide and are mostly dependent on ongoing projects/grants so closure of project grants frequently leads to significant scaling-down of work and low retention of community health volunteers (CHVs) and CTWs. Low morale among CHVs/CTWs was reported during the WHO consultation meeting on finding missing TB cases through integrated community-based TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018), owing to the inconsistency of financial incentives and lack of capacity building.

#### Monitoring and supervision

CTWs/CHVs are supervised by their reference CBO or health facility staff; however, monitoring and evaluation of CTW/CHV performance is not conducted systematically, since review meetings do not follow a regular schedule, often owing to inconsistent funding, leading to underreporting of the community contribution.

<sup>134</sup> Global Fund funding request 2018-2020 - 22 May 2017.

<sup>135</sup> Training manual on electronic TB Manager for health care workers in Nigeria. Abuja: National Tuberculosis and Leprosy Control Programme; 2017 (http://Ntblcp.Org.Ng/Resources/Training-Manual-Electronic-Tb-Manager-Health-Care-Workers-Nigeria, accessed 1 June 2018).

<sup>136</sup> Standard Operating Procedures (SOPs) for Programmatic Management of Drug Resistant Tuberculosis (PMDT). Abuja: National Tuberculosis and Leprosy Control Programme; 2017 (http://ntblcp.org.ng/resources/standard-operating-procedures-sops, accessed 1 June 2018).

<sup>137</sup> Global Fund funding request 2018–2020 – 22 May 2017.

<sup>138</sup> Global Fund funding request 2018-2020 - 22 May 2017.

<sup>139</sup> Input provided by WHO national professional officer and Nigeria presentation at the WHO consultation meeting on finding missing TB cases through integrated community-based TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018).

TABLE 1. Overview of key stakeholders for integrated community TB activities

Stakeholder	Type	Number of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
IHVN	NGO	Not applicable	Nationwide		See SRs
NTBLCP (NTP)	Govt. SR	Not applicable	Nationwide		See SRs
ARFH	NGO PR	80 NGOs across eight priority states coordinated through ATM network.  ARFH sub-recipients in past grant (SR) included:140  NTBLCP, TB-Network, Health Alive Foundation (HAF), Netherlands Leprosy Relief (NLR), Damien Foundation Belgium (DFB), German Leprosy and TB Relief Agency (GLRA), The Leprosy mission Nigeria (TLMN)	14+1 (out of 36) states are in the "scale-up category" under the funding proposal (Lagos, Kano, Kaduna, Katsina, River, Osun Oyo, Bauchi, Jigawa, Anambra, Imo, Borno, Delta, Niger and FCT)	TB contacts (14+1 states), PLHIV (14+1 states), ACF in slums, prisons, barracks, orphanages, Quranic schools and IDPs in five states; 141 OVC (14+1 states)	Active case-finding
TB Network	CSO SR	10 CBOs in each state (110 total)	11/36 states (Anambra, Bayelsa, Benue, Borno, Kaduna, Kano, Osun, Oyo, Rivers, Plateau and Yobe)	-	Referrals for evaluation and follow-up at a health facility: each of the 10 CBOs has a monthly target of 10 referrals.
KNCV (implementing partner for USAID Challenge TB)	technical assistance/ implementation partner	-	12 states <sup>142</sup>	-	Contact tracing and examination of index TB cases (DS-TB and DR-TB); engagement of patient medicine vendors for symptom screening and refer; referral coordinators at LGA and facility level
GLRA (funded by Canadian International Development Agency)	NGO/ technical assistance/ implementation partner	-	Urban slums in 14 states	-	Implementation of TB REACH: training of community volunteers and patent medicine vendors to identify TB suspects and refer them to the TB microscopy/treatment centres <sup>143</sup>
FHI 360 (integration of HIV/AIDS and TB)	NGO/ technical assistance/ implementation partner	-	9 States+FCT	-	TB screening for PLHIV and referrals for treatment; strengthening community TB care interventions through trained community volunteers

ARFH: Association for Reproductive and Family Health; FHI 360: Family Health International;

ATM: AIDS, TB and malaria;

CBO: community-based organization;

CSO: civil society organization;

DS-TB: drug-susceptible TB;

DR-TB: drug-resistant TB;

IDP: internally displaced person; IVHN: Institute for Human Virology;

NGO: nongovernmental organization; NTBLCP: National Tuberculosis and Leprosy Control Programme;

NTP: national TB programme;

OVD: orphans and vulnerable children;

PLHIV: people living with HIV;

PR: principal recipient;

SR: sub-recipient:

USAID: United States Agency for International Development

<sup>140</sup> Global Fund TB. In: Association for Reproductive and Family Health [website]. Ibadan: ARFH; 2018 (http://arfh-ng.org/project/global-fund-tb/, accessed 1 June 2018).

<sup>141</sup> Lagos, Oyo, Kano, Osun, and Kaduna: these five (5) states demonstrated significant yield in case-finding (see lessons learned session in funding proposal).

<sup>142</sup> Six priority states with the highest burden of TB: Akwa Ibom, Bauchi, Kano, Katsina, Lagos and Rivers and in six other states: Benue, Cross River, Enugu, Niger, Ondo and Osun (see http://www.challengetb.org/where#africa, accessed 1 June 2018).

<sup>143</sup> German Leprosy and TB Relief Agency. In: Stop TB Partnership [website]. Geneva: Stop TB Partnership; 2017 (http://www.stoptb.org/assets/ documents/global/awards/tbreach/Nigeria%20GLRA.pdf, accessed 1 June 2018).

#### MONITORING AND EVALUATION

At the time of writing, reporting, recording and data management of TB services were primarily **paper-based** (using standard WHO forms) and under the responsibility of general health-care workers, heads of directly observed treatment (DOTS) clinics. At the LGA level, data was collected and compiled into a central register and submitted quarterly to the State Control Office, where it was collated into a standardized reporting form. The NTBLCP Central Unit then collated all State TB data and shared the information with the principal recipients of Global Fund grants. In 2017, the NTPLCP introduced e-TB Manager, an electronic real-time TB data collection tool; NTPLCP hopes to cover the whole country by the first quarter of 2018. There are plans to link e-TB Manager with DHIS2. In 2017, the NTPLCP hanager with DHIS2.

The review and activation of community tools on the DHIS2 National Health Management Information System platform have contributed to improved community level health data reporting, but gaps still exist owing to comparatively weak operational capacity; weak coordination of various community systems and structures; and the **absence of a** 

national framework for community systems operations. The proposed strategic objective of investing in the community systems in this grant will include strengthening of mechanisms for performance monitoring and accountability.<sup>146</sup>

Community care indicators are incorporated in the NSP 2015–2020<sup>147</sup> – including key **WHO Engage-TB indicators** – and progress is reported in the NTBLCP annual report.

In 2014, Nigeria developed the Health Information System Policy, which prescribed a single platform (DHIS2) for health data management across the country. Despite improvements in data reporting to DHIS2, fragmentation and poor coordination have delayed integration of all reporting platforms with DHIS2. Integration of routine information for AIDS, TB and malaria and database harmonization are currently being supported by the Global Fund and other partners (including the United States Government, WHO, UNAIDS, Bill and Melinda Gates Foundation).

For community TB care indicators, see Table 2 below. For existing tools and registers, see Table 3.

TABLE 2. Community TB care indicators

Indicator	NSP Target	Monitoring plan	Current status
Proportion of TB cases who were referred by CVs/CBOs	> 30%	NTBLCP quarterly/annual reports	21%
TSR among TB patients (all forms) supported by treatment supporters throughout their TB treatment	>90% (baseline 2017: 80%) <sup>148</sup>	CSO quarterly reports	85%
Proportion of LGAs with formally established/ community structure for providing TB care services	> 25%	-	-
Proportion of participating ATM CSOs with operational workplans	100%, for TB programme, baseline is 100%	NTBLCP quarterly/annual reports	-
Proportion of all presumptive TB cases examined who were referred by CVs/CBOs	> 30%, (baseline 2013: 11%)	-	-

ATM: AIDS, TB and malaria;

CBO: community-based organization;

CSO: civil society organization;

CV: community volunteer;

LGA: local government area;

NTBLCP: National Tuberculosis and Leprosy Control Programme;

TSR: treatment success rate.

<sup>144</sup> National Strategic Plan for TB Control 2015–2020.

<sup>145</sup> Input provided by WHO national professional officer - March 2018.

<sup>146</sup> Global Fund funding request 2018-2020 - 22 May 2017.

<sup>147</sup> National Strategic Plan for TB Control 2015-2020 - Objective 7.

<sup>148</sup> Input provided by WHO national professional officer - March 2018.

TABLE 3. Existing tools and registers

Tool	Description	Level of use	Responsible person	Frequency
CTBC referral forms (paper form)	Request for screening of presumptive TB clients identified in the community	Community/health facility	CHW/health care worker	Daily
CV register (paper form)	Daily records of referrals for presumptive TB clients referred from the community	CV/CBO	CV/CBO	Daily
Patient treatment support card (paper form)	Patient treatment records and progress	Health facility	Health care worker	Daily
NTBLCP/TB: 15b Form <sup>149</sup> (paper form)	Quarterly report on TB case-finding entered on e-TB Manager platform	State/ LGA/ private/ prisons	Responsible officer	Quarterly

CBO: community-based organization; CTBC: community-based TB care; CV: community volunteer; LGA: local government area;

NTBLCP: National Tuberculosis and Leprosy Control Programme.

### KEY CHALLENGES AND OPPORTUNITIES

A number of challenges emerged from this review and the WHO Addis consultations, in particular the issue of funding (particularly domestic funding), the lack of a national coordinating body for overall coordination of all CSOs and nongovernmental organizations implementing integrated community-based TB activities, the lack of a well defined integration mechanism with clear roles and responsibilities between CBOs and the National Health Service (NHS) network and gaps in community-level data reporting, owing to comparatively weak operational capacity, shortage of tools at health facilities and suboptimal cooperation from facility staff. These gaps are exacerbated by the limited coverage of TB services at primary health facilities, which represents an important obstacle to finding TB missing cases and may undermine the national objectives in this regard if not adequately addressed. Opportunities and best practices that could be built upon in order to address some of the challenges also emerged from the review and the consultations; in particular, ACF in slums and selected LGAs resulted in a substantial increase in TB case notification (e.g. 12 LGAs in Kanu State engaged in ACF in 2016-2017); TB Network activities have been shown to contribute to community acceptance and improved collaboration between the health facilities and the CBOs, providing models for further expansion, and projects using volunteers selected by community leaders resulted in an increased sense of ownership and improved outcomes. The use of "referral coordinators" has fostered integration at LGA and facility level in pilot projects led by KNCV.

#### **ROADMAP AND NEXT STEPS**

To address low awareness of TB, Nigeria plans to develop communication materials, create a social media platform for TB and engage the Ministry of Education to incorporate TB awareness into the school health curriculum. The country will also carry out active case-finding in prisons and slums to tackle low case-finding rates, review and harmonize existing community tools and promote data review meetings to address the weak linkages between community and health facilities, resulting in underreporting of community contributions. Nigeria is also planning to integrate support activities for TB patients with the existing activities under the HIV programme and establish a technical working group for coordination of CSOs/CBOs involved in TB activities, which will meet quarterly.

<sup>149</sup> From Training manual on electronic TB Manager for health-care workers in Nigeria. Abuja: National Tuberculosis and Leprosy Control Programme; 2017 (http://Ntblcp.Org.Ng/Resources/Training-Manual-Electronic-Tb-Manager-Health-Care-Workers-Nigeria, accessed 1 June 2018).

### **PAKISTAN**

Application information

#### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

Pakistan			
ТВ			
Common Management Unit/National TB Control Program (NTP); The Indus Hospital (TIH); Mercy Corps			
1 January 2018/31 December 2020			
US\$ 130 163 215			
	TB  Common Management Unit/National TB Con The Indus Hospital (TIH); Mercy Corps  1 January 2018/31 December 2020		

Matching funds
Finding missing drug-susceptible and drug-resistant TB cases and reducing TB incidence: US\$ 13 000 000 (TIH); improving data systems, generation and use: US\$ 1 000 000 (NTP)

Tuberculosis funding landscape: the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) is the main donor for tuberculosis (TB), with US\$ 130 million available in the new funding cycle (plus US\$ 14 million through catalytic funding). WHO, along with other development partners, is providing support for the national and provincial TB control programmes, through capacity building on the latest WHO diagnostics and treatment guidelines, programme evaluation, management of multidrug-resistant (MDR) TB, resource mobilization and support for research and development. MDR-TB activities account for the largest share, US\$ 60 373 741, representing 46% of the total TB budget.

Budget for community-based TB activities: funding will cover the activities carried out by lady health workers (LHWs); they are included in the detailed budget of the Global Fund funding request and amount to a total of US\$ 251 951 65.<sup>150</sup> The National TB Control Program Pakistan (NTP) is also benefiting from TB matching funds for multiple strategic priorities (missing TB cases, The Indus Hospital (TIH) and resilient and sustainable systems for health).

**Country context:** Pakistan is the world's sixth most populous country, with an estimated population of 189 million and more than 60% of the total population living in rural areas.<sup>151</sup> Pakistan's health-care delivery system

includes provincial and district public health departments, nongovernmental organizations and the private sector. An estimated two thirds of the population initially access health care through the private sector which, despite its significant role, is largely unregulated. <sup>152</sup> The Federal Ministry of Health was dissolved in June 2011 and responsibility for health services was devolved to the provinces. Owing to the recent decentralization of former core functions of the NTP (monitoring and evaluation, grant management) the provincial management capacity is still weak. <sup>153</sup>

TB burden and missed cases: Pakistan has an estimated incidence rate of 267/100 000 population, with 525 000 new TB cases emerging each year. The country is ranked fifth among the TB high-burden countries worldwide. The country is also estimated to have the sixth highest prevalence of MDR-TB and rifampicin-resistant (RR) TB globally, with 15 000 TB cases developing drug resistance every year (among notified TB cases).<sup>154</sup> Key reasons for emergence of drug-resistant forms of TB include: delays in diagnosis; unsupervised, inappropriate and inadequate drug regimens, mostly in the private sector; poor followup and lack of a social support programme for high-risk populations. It is also estimated that over 160 000 TB cases are missed every year (see Fig. 1). A mandatory TB case notification act has been issued by three provinces (Punjab, Sindh and Khyber Pakhtunkhwa – KP) to address this issue, and formulation of by-laws is in progress. 155

<sup>150</sup> Input provided by WHO Pakistan national professional officer - March 2018.

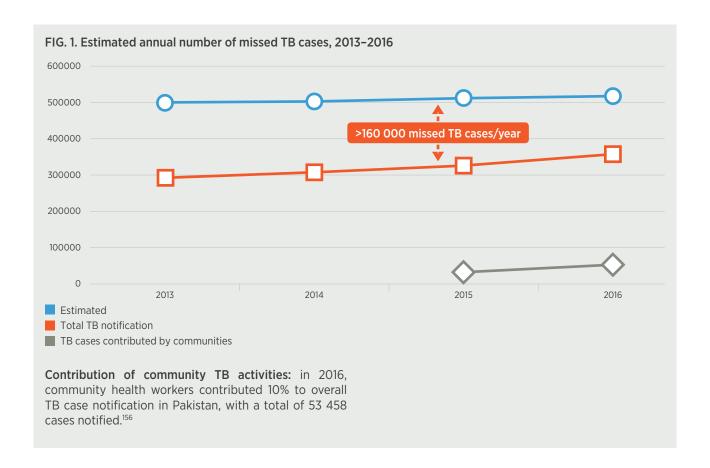
<sup>151</sup> Fatima R, et al. Delivering Patient-Centered Care in a Fragile State: Using Patient-Pathway Analysis to Understand Tuberculosis-Related Care Seeking in Pakistan. J Infect Dis. 2017;216(suppl\_7): S733-s739.

<sup>152</sup> World Bank. Rural population (% of total population).2017 https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=PK. Accessed 10 Sep 2018.

<sup>153</sup> Global Fund funding request - 15 December 2016.

<sup>154</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.

<sup>155</sup> Input provided by WHO national professional officer - March 2017.



### **OVERVIEW OF STRATEGIC PLAN AND** POLICIES FOR TUBERCULOSIS

The National Strategic Plan for Tuberculosis Elimination (NSP) 2017-2020 aims at reaching a case-detection rate of 90% in 2020, while the targets of the funding request represent intermediate targets; they are aligned with the objectives and intervention of the NSP but differ in scope. The funding request aims at achieving 85% notification of drugsusceptible TB cases and 33% of MDR-TB patients, compared with 90% of drug-susceptible TB case notifications and 60% of MDR-TB case notifications in the NSP.

With regards to integrated community-based TB activities for finding missing TB cases, the most relevant intervention is the active case-finding of symptomatic patients through lady health workers (LHWs). Other interventions include:

- screening of asymptomatic clients, mainly using mobile X-ray systems in chest camps
- scale-up of HIV testing among TB patients and screening for TB among key populations
- Zero TB city scale-up (Global Fund matching funds)
- electronic reporting through the District Health Information System (DHIS2) (Global Fund matching funds)
- notification of TB cases in the private sector through a call centre (Global Fund matching funds).

The funding request reflects the effort to define the most effective mix of approaches to case-finding and treatment, with disease burden, infrastructure, organizational capacity and available funding as major variables. Priority is given to tested, high-yield activities (public-private mix, passive case-finding, microscopy, etc.), 157 while other interventions like LHWs are being piloted before being considered for more important investments. The LHW approach is relatively untested, and only a small group of LHW (n = 1785) is currently included in the allocation request; this is because of the complexity of the operational issues (separate LHW programmes for each province, unavailability or unreliability of data or estimates of yield, etc.) but an early evaluation of the intervention could lead to reinvestment of savings in upscaling successful pilots with LHWs.

#### Monitoring progress of strategic objectives

The NSP 2017-2020 aims at reaching a case-detection rate of 90% in 2020, and community activities are recognized as an important part of achieving this target; however, the lack of monitoring and evaluation capacity, with only a paper-based system in place, no community registers and inconsistent analysis of community indicators, represents a serious gap in progress towards this target.

<sup>156</sup> Global tuberculosis report 2017. Geneva: World Health Organization; 2017.

<sup>157</sup> One important tested intervention in large tertiary-care hospitals could not be scaled up to an appropriate level for finding missing cases; therefore it is mentioned in the prioritized above allocation request (source: WHO national professional officer input - March 2018).

#### COORDINATION AND COLLABORATION

Mercy Corps sub-recipients will implement proposed interventions at the district level in close collaboration with the district health authorities. Sub-recipient senior management and regional coordinators will conduct monitoring and supervision at the district and subdistrict levels. The principal recipient team will visit the districts and sub-recipient offices regularly to ensure quality of the data reported by the sub-recipients. In addition to this, the representatives of national/provincial TB control programmes also validate the data at district level, especially during quarterly review meetings. Mercy Corps will ensure close coordination with all sub-recipients through regular communication (emails, letters, monthly workplans and programmatic and financial reports) and coordination meetings between principal recipient and sub-recipients. In quarterly coordination meetings involving national/ provincial TB control programmes, the principal recipient and sub-recipients discuss programmatic and financial progress, key challenges and successes, management issues and way forward for implementation.<sup>158</sup>

The people living with or at risk of the disease participate in the community gatherings and meetings organized in each programme district, with the help of local communities, to support active case-finding through chest camps. Participation of women in these meetings will be ensured by involving local LHWs, key influential members of the community (such as female councillors, teachers, village health committee members). During the contact screening, men, women and children who are contacts of TB patients will be screened and referred for TB tests. In districts where LHWs are engaged for active case-finding in the community, they will work through platforms such as community support groups (composed entirely of women) and village health committees (composed of men) to raise awareness, and provide information and counselling. In the proposed intervention, Mercy Corps will also work with key populations, such as people who inject drugs, in collaboration with Nai Zindagi, 159 and improve their access to TB diagnosis and treatment. 160

#### **POLICY AND TOOLS**

Existing guidelines and tools available:

- National Strategic Plan for Tuberculosis Elimination (NSP) 2017–2020;
- National Guidelines for the Programmatic Management of Drug-resistant Tuberculosis (PMDT) (November 2014);
- training module for private practitioners (2008);
- operational guidelines for public-private mix (includes community activities).

# IMPLEMENTATION OF INTEGRATED COMMUNITY-BASED TB ACTIVITIES

The grant will be implemented through the public sector (national/provincial TB programmes) and two private-sector principal recipients: **The Indus Hospital (TIH)** and **Mercy Corps.** The public sector and the provincial TB programmes contribute to the Zero TB city approach with their infrastructure, human resources and community health workers. For key stakeholders, see Table 1 on page 8. Activities planned under the new grant are:

- Mercy Corps will conduct active case-finding through engagement of 1785 LHWs in three districts of Sindh (population 5 million). Activities will cover: awarenessraising through community support group meetings for women and village health committee meetings for men, identification of and referral for TB symptoms and screening of household contacts of known TB patients. The expected outcome is notification and treatment of 8742 cases.
- Mercy Corps will also organize quarterly outreach chest camps for active case-finding for symptomatic patients in 46 districts, using sputum smear microscopy. These chest camps will be organized for high-risk populations pre-identified through epidemiological data analysis and prior mapping and will be preceded by community mobilization activities. A network of trained general practitioners and paramedics will conduct these camps. The local nongovernmental organizations/community-based organizations and LHWs will be engaged to increase service utilization. The assumption is that 552 camps will be conducted during the grant period, with 30-40 people screened and two cases detected per camp. The expected output is 1104 TB cases registered.
- The province of Punjab (sub-recipient of the NTP) has engaged and trained 2000 LHWs in three districts through domestic resources, and proposes to provide incentives of US\$ 10 for each notified and successful completion of treatment for enhanced case detection and treatment support. In addition, a community coalition meeting will be held every six months in 36 districts of Punjab to improve awareness and referral. A total of 6000 additional cases are expected to be notified over three years, which will be reported through the public sector. The assumption is that each LHW will refer 20 cases in one year and will register one TB case per year.
- The Indus Hospital Network (TIH) will organize outreach chest camps for active case-finding for symptomatic patients using sputum smear microscopy and mobile X-ray CAD4 vans. These chest camps will be organized for high-risk populations pre-identified through

<sup>158</sup> Global Fund funding request - 15 December 2016.

<sup>159</sup> Nai Zindagi is implementing the Global Fund HIV grant in 29 districts of Pakistan across all four provinces. The main objective of this programme is to scale up comprehensive HIV prevention and harm reduction services for people who inject drugs, their families and intimate partners. See http://www.naizindagi.com, accessed 1 June 2018.

<sup>160</sup> Global Fund funding request - 15 December 2016.

epidemiological data analysis and prior mapping and will be preceded by community mobilization activities. The local nongovernmental organizations/communitybased organizations and LHWs will be engaged to increase service utilization. Linkages will be developed through community volunteers and project staff to ensure enrolment on treatment of all TB cases diagnosed at the nearest TB care facility and RR-positives to a linked PMDT site. The expected output is 4440 TB cases and 390 RR cases, with an additional 4200 TB cases from three districts (of 19) with additional coverage in Zero TB cities through matching funds. The assumption is that 2220 camps will be held with 30-40 people per camp screened and two cases per camp detected.<sup>161</sup>

- The Indus Hospital Network (TIH) will also continue implementing Zero TB Karachi interventions as a principal recipient (part of the previous Global Fund grant) and expand Zero TB interventions in three other cities in the country, i.e. Lahore, Peshawar and Quetta. The interventions are mainly focused on active and enhanced case-finding, including adult and childhood drug-susceptible and drug-resistant TB cases, infection control and treatment, and establishing supportive systems like a helpline, awareness activities, community mobilization. The TIH will operate in 30 districts of the country through its two sub-recipients. Sub-recipient 1 is Community Health Solutions (CHS) which will implement the project in 17 districts of Sindh, Punjab and KP. The interventions will mainly include active and enhanced case-finding and enrolment of cases at CHS-managed "Sehatmand Zindgi" centres. TIH will also implement a general practitioner model through its sub-recipient 2, Greenstar Social Marketing (GSM), which will work in 21 districts of Sindh, Punjab and KP through a network of general practitioners and privatesector laboratories established under the current grant. In addition, GSM will also conduct active case-finding through outreach chest camps.
- Mercy Corps will implement TB case-finding by engaging the private sector in 65 districts (US\$ 15 million) through six sub-recipients already working under the current grant. These sub-recipients are: (a) Association for Community Development (ACD); (b) Association for Social Development (ASD); (c) Bridge Consultants Foundation (BCF); (d) Marie Adelaide Leprosy Centres (MALC); (e) Pakistan Lions Youth Council (PLYC); and (f) Strengthening Participatory Organization (SPO).

Mercy Corps also proposes to develop a sputum transport mechanism in six districts of Punjab (Gujranwala, Hafizabad, Khanewal, Multan, Mandi Bahauddin and Vehari) and six districts of Sindh (Dadu, Ghotki, Khairpur, Mirpurkhas, Sanghar and Umerkot) in order to increase case detection and diagnosis of MDR-TB. The intervention aims at improving remote communities' access to high-quality diagnosis of tuberculosis through implementing a mobile application and system to organize timely transportation of samples to centrally available GeneXpert diagnostic machines. The samples will be picked up and delivered physically by the "Xpert Riders", who will be identified by the communities. This intervention will be implemented through a prioritized above allocation request.<sup>162, 163</sup>

#### Personnel

LHWs will be the main community health workers involved in implementing TB activities in the community. Pakistan has about 150 000 LHWs based in the community, and they play a major role in maternal, newborn and child health, including immunization. Part of this workforce will be utilized for early TB case detection and treatment adherence support. LHWs trained and enabled through grant resources will identify TB presumptive cases at an early stage, act as treatment supporters and assist in contact tracing. This activity will be implemented through Mercy Corps and will initially cover three districts of Sindh (population 5 million). A total of US\$ 2.3 million over three years has been requested in the current Global Fund grant to support this activity.

### Incentives and sustainability

LHWs have been paid by the provincial department of health since 2016.

Currently, other types of community workers are not engaged in a structured way, and they are only supported with small incentives for following up patients who test positive or are strongly suggestive of TB.

<sup>161</sup> Global Fund funding request - 15 December 2016.

<sup>162</sup> Global Fund funding request - 15 December 2016.

<sup>163</sup> See summary table on p. 33 of the Global Fund funding request for details on activities and geographical coverage.

TABLE 1.

Overview of key stakeholders for integrated community TB activities

Stakeholder	Туре	Number of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
Indus Hospital Network (TIH)	PR	Community Health Solutions (CHS)     Greenstar Social Marketing (GSM)	30 districts (out of 144)	Nationwide adult and childhood DS-and DR-TB cases	Zero TB in Karachi and three other cities in the country i.e. Lahore, Peshawar and Quetta. The interventions are mainly focused on:  active and enhanced casefinding  chest camps  infection control and treatment  supportive systems e.g. helpline, awareness activities, community mobilization
Mercy Corps	PR	Six sub-recipients already working under the current grant:  • Association for Community Development (ACD)  • Association for Social Development (ASD)  • Bridge Consultants Foundation (BCF)  • Marie Adelaide Leprosy Centres (MALC)  • Pakistan Lions Youth Council (PLYC)  • Strengthening Participatory Organization (SPO)	65 districts	Nationwide	LHWs     Quarterly outreach chest camps     Xpert riders     Public-private mix interventions, general practitioner model
Mercy Corps	PR	Undisclosed	12 (out of 144 districts)	MDR-TB patients	It is proposed through PAAR to pilot test specimen transport in 12 districts at subdistrict level by engaging community workers already having their own motorcycle and use of wireless technology commonly used for hiring taxi services (Uber) <sup>164</sup>
National TB Control Programme	PR	Pakistan Anti-TB Association (PATA), Alkhidmat Foundation, AKHSP, and others, a total of 220 NGO outlets. The province of Sindh has also engaged 200 workers from PPHI through domestic resources; PPHI is responsible for management of basic health units of the health system	120 districts	Nationwide	PATA is exclusive for TB care, others are for general health care including TB

AKHSP: Aga Khan Health Service, Pakistan; CBO: community-based organization; DR: drug-resistant; DS: drug-susceptible; LHW: lady health worker; NGO: nongovernmental organization; PAAR: prioritized above allocation request; PPHI: People's Primary Healthcare Initiative; PR: principal recipient.

164 Global Fund funding request - 15 December 2016.

#### MONITORING AND EVALUATION

Lack of monitoring and evaluation capacity at the provincial level has been highlighted as a risk in the funding request. A capacity-building plan by the principal recipient to train the relevant monitoring and evaluation sub-recipient staff in the required skills to monitor projects and End TB strategy implementation indicators has been proposed as mitigating action, to be put in place by 2018. For community TB care indicators, see Table 2 below.

Currently, data collection remains paper-based at facility level; this is collated in MS Excel sheets for reporting to higher administrative levels. Data analysis and use thus remains a challenge. Devolution of monitoring and evaluation function to provinces has created implementation challenges, with a deterioration in coordination and integration at national/provincial level.

A DHIS2 platform has been set up and piloted with support of the WHO Global TB Programme using National TB data from 2011–2016. A national workshop on data analysis was organized in the second quarter of 2017. DHIS2 implementation (server, computers, internet charges, technical development assistance, capacity building) is planned with support from Global Fund catalytic funding. A total of US\$ 1 million in catalytic funds for resilient and sustainable systems for health will support the roll-out of DHIS2 and piloting of an electronic mandatory notification system for private practitioners, as well as operational research.

The NTP has initiated the process of adopting DHIS2 for the integrated programmes, but initially it will use district-based data instead of case-based data and will not include data from the private sector. The system is evolving, and the country is planning to implement the case-based notification system for four pilot districts where they are initiating the mandatory TB case notification system.<sup>165</sup>

Mercy Corps (private-sector principal recipient) has a centralized monitoring, evaluation and learning unit that provides overall monitoring and evaluation technical support for all projects. For the current grant, Mercy Corps has a team of monitoring and evaluation officers supervised by a project coordinator. The sub-recipients also have their own regional coordinators and programme managers for monitoring and evaluation. At the district level the regional coordinators of sub-recipients monitor the field activities, co-supported by the district TB coordinator. Interventions are monitored by public-sector monitors.<sup>166</sup>

The **TB 01 form** is filled for every newly diagnosed TB patient. This card contains administrative and technical details about the patient and his/her treatment; **referral by community** members and LHWs is captured on this form. Data from the TB 01 form are transferred to the **TB Register** by the public-private-mix field officer and form the basis for programme monitoring and quarterly reporting.<sup>167</sup>

The NTP monitoring and evaluation system has coverage indicators such as the number of TB cases detected and successfully treated for both drug-susceptible and drug-resistant TB treated in public and private sector; however, there are no specific indicators pertaining to community engagement in care and support. Community registers are not yet implemented. For existing tools and registers, see Table 3 on page 10.

TABLE 2. Community TB care indicators

Indicator	NSP target for 2020	Monitoring plan	Current status
Proportion of TB cases who were referred by LHWs/CBOs (the indicator is included in the TB 01 form but it is not routinely analysed) <sup>170</sup>	-	-	10%
Treatment success rate among TB patients (all forms) supported by treatment supporters throughout their TB treatment	90%	TS card data	93%

CBO: community-based organization;

LHW: lady health worker;

NSP: National Strategic Plan for Tuberculosis Elimination 2017-2020;

TS: treatment supporter.

<sup>165</sup> Input provided by WHO national professional officer - March 2018.

<sup>166</sup> Global Fund funding request - 15 December 2016.

<sup>167</sup> Training module for private practitioners (2008).

<sup>168</sup> Input provided by WHO national professional officer - March 2018.

<sup>169</sup> Recording and reporting tools available for the case notification can be accessed at www.ntp.gov.pk, accessed 1 June 2018.

<sup>170</sup> Input provided by WHO national professional officer - March 2018.

TABLE 3. Existing tools and registers for community TB care

Tool	Description	Level of use	Responsible person	Frequency
TB 01 form	Administrative and technical details about the patient and his/her treatment, including community referral	Facility/ community	CHW/health facility staff	Daily
CTBC referral forms (paper form)	Not in use	-	-	-
Community volunteer register (paper form)	Not in use	-	-	-
Patient treatment support card (paper form)	In use	Facility/ community	TS	Daily/ monthly

CBO: community-based organization;

LHW: lady health worker;

NSP: National Strategic Plan for Tuberculosis Elimination 2017-2020;

TS: treatment supporter.

# KEY CHALLENGES AND OPPORTUNITIES

The NTP is keen to boost TB case detection and MDR-TB treatment adherence through a number of strategies, including strengthened engagement of LHWs in TB activities. LHW have been regular employees of the Government since 2016, and their primary responsibility is maternal, newborn and child health and poliomyelitis. A pilot intervention for TB active case-finding with 1785 LHWs in three districts is planned under the current Global Fund grant. Early monitoring and rapid expansion of numbers and scope to include integrated community-based TB activities could represent an opportunity to boost case-finding and treatment success.

Currently implemented community-based activities are challenging for routine monitoring and evaluation, owing to suboptimal monitoring and evaluation capacity at lower administrative and service delivery levels. The plans for DHIS2 roll-out and scale- up provide an opportunity to include and strengthen reporting of community-based TB activities.

#### **ROADMAP AND NEXT STEPS**

Owing to administrative challenges, Pakistan is the only priority country for an ENGAGE-TB grant under the Global Fund strategic initiative which could not participate in the global integrated community-based service delivery event convened by WHO in April 2018. The Pakistan-specific approach to reviewing good practices and identifying areas for strengthening of the current Global Fund TB workplan includes desk-based consultation with national key stakeholders to agree on next steps. At the time of the desk review finalizations, a national consultation with support of the WHO Global TB Programme and representation of provincial TB programmes, all principal recipients, the Global Fund, the Stop TB Partnership Pakistan and WHO is being discussed. Scope, timeline and funding implications are currently under discussion at country level. This national consultation could be instrumental for the development and endorsement of a roadmap to strengthen community-based activities to find missing cases in Pakistan. Tentative dates in the third quarter of 2018 for the national consultation are currently under discussion.

### **TANZANIA**

#### GLOBAL FUND APPLICATION SUMMARY AND COUNTRY OVERVIEW

Application information	
Country	United Republic of Tanzania
Component(s)	HIV/TB and malaria/resilient and sustainable systems for health (RSSH)
Principal recipient(s) for TB	Ministry of Finance and Planning African Medical and Research Foundation (AMREF)
Grant start/end date	1 January 2018/31 December 2020
TB component	US\$ 23 239 048
Matching funds	US\$ 6 000 000

**Tuberculosis funding landscape:** the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States President's Emergency Plan for AIDS Relief (PEPFAR) are the key partners supporting HIV and tuberculosis (TB) programmes nationwide, in close collaboration with the Government. Global Fund catalytic funding covers 15 regions and the rest are covered by KNCV (United States Agency for International Development - USAID) and the Boresha Afya project. Strengthening of community-based monitoring and strengthening of the umbrella organization MKUTA will be covered through the new resilient and sustainable systems for health (RSSH) grant.<sup>171</sup>

Matching funds: the purpose is to increase TB case detection, given that Tanzania misses up to 50% of TB patients. There are elements in the request that are catalytic, as they seek to expand innovative approaches for TB case detection, such as the use of the quality improvement toolkit, the lessons learned from the Challenge TB programme, engagement of the private sector, and scaling-up of TB case detection among children. Concerning the RSSH, the proposed interventions for catalytic funding to support the Health Management Information System (HMIS) and District Health Information System (DHIS) seek to expand electronic reporting platforms down to the level of health facilities. This is leveraging on other partner support, such as the Bill and Melinda Gates Foundation and the United States Government.

Budget for community-based TB activities: communitybased TB activities under the Global Fund grant will be carried out by the African Medical and Research Foundation (AMREF) and a total of US\$ 2 191 080 has been allocated for 2017-2018. An additional US\$ 30 000 will be available to support community volunteers' activities under Challenge TB.

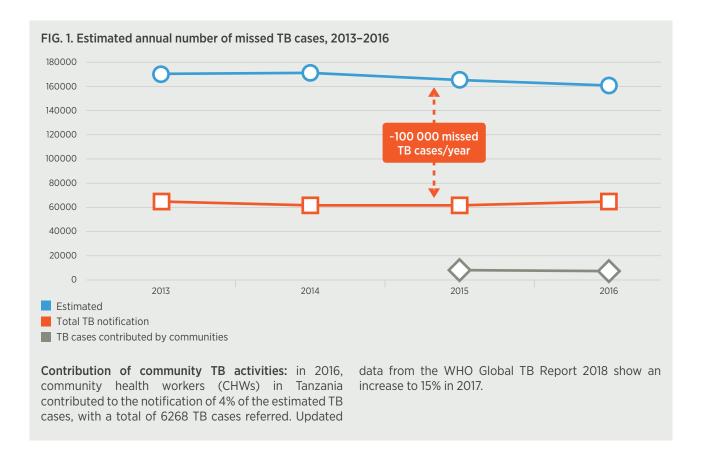
Country context: Tanzania is East Africa's largest country. It is an ethnically and culturally diverse, lowincome country with an estimated population of 50 million, 31 regions and 169 districts. The country has an overlapping high burden of tuberculosis (TB) and HIV. TB control is integrated into the primary health care services. All 6058 public health facilities are designated TB treatment sites, while 1199 (19.7%) are designated TB diagnostic sites, with provision for at least sputum microscopy.<sup>172</sup>

**TB burden and missed cases:** Tanzania is one of the 30 highest-burden countries in the world for TB, with 68 473 (44%) TB cases notified in 2017 (out of the estimated annual incidence of 154 000 cases) and initiated on TB treatment. This implies that almost 90 000 TB cases were missed, similar to 2016 (see Fig. 1). The treatment success rate for drug-sensitive TB in the 2016 cohort was 90%.<sup>173</sup> Prevalence of rifampicin resistance among new TB cases in 2017 was 0.9% with 640 estimated cases.

<sup>171</sup> Global Fund funding request - 22 May 2017.

<sup>172</sup> Global Fund funding request - 22 May 2017.

<sup>173</sup> Global tuberculosis report 2018. Geneva: World Health Organization; 2018.



# OVERVIEW OF STRATEGIC PLAN AND POLICIES FOR TUBERCULOSIS

The main priority of the National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020 (NSP) with regards to integrated community TB care is to scale up TB case-detection strategies and involve communities, civil society organizations (CSOs) and community-based organizations (CBOs), while building institutional capacity in these organizations so that they can be involved in TB care and prevention. The main challenges are low community awareness, lack of formal recognition and supervision of community TB health-care workers, stigma and discrimination. The ENGAGE-TB project was initiated in 2013 to address these issues.

The main **NSP Targets** for TB community activities are:

- Contribution of TB patients notified by CHWs to increase from 14% to 25% by 2019.
- Number of districts reporting community contribution in TB care to increase from 62 to 169.

**Strategic interventions** are to promote CSOs and community involvement and participation in TB and TB-HIV prevention, care and treatment; and to use advocacy, communication and social mobilization in promoting the utilization of TB and TB-HIV control services.<sup>174</sup>

**TB community systems** have been prioritized for support through the **RSSH** Global Fund grant component. Activities include: strengthening of the umbrella CBO for TB; procurement of motorcycles to facilitate sputum specimen transportation from peripheral health facilities to GeneXpert sites; strengthening of community-based monitoring.<sup>175</sup>

#### Monitoring progress of strategic objectives

As reported during the WHO consultation meeting on finding missing TB cases through integrated communitybased TB service delivery (Addis Ababa, Ethiopia, 11–13 April 2018), the country is lacking a comprehensive community strategic health plan, and integration of community health activities between different programmes is still weak, with inadequate engagement of other sectors (such as prisons, agriculture, and water, sanitation and hygiene) and the private sector. Another key issue is the poor linkage of community activities with health facilities and the lack of a systematic way of monitoring the quality of community TB services. Progress is being made with the creation of the Tanzania Community TB Forum, a formal coordination mechanism between the national TB programme and nongovernmental organizations which was recently established (2017) to oversee the implementation of community TB care interventions. Further progress is expected with the planned harmonization of community tools and the strengthening of monitoring activities at the health-facility level and the expansion of electronic reporting to the health-facility level, planned under Global Fund RSSH catalytic funding.

<sup>174</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020.

<sup>175</sup> Global Fund funding request - 22 May 2017.

#### COORDINATION AND COLLABORATION

A formal coordination mechanism between the national TB programme and nongovernmental organizations, called the Tanzania Community TB Forum, was recently (2017) established through the Eastern Africa National Networks of AIDS Service Organisations with Stop TB Partnership support. Key functions of the forum are to oversee the implementation of community TB care interventions and advocacy. The forum meets annually (last meeting was in 2017 for establishment) and it is funded through the Global Fund.<sup>176</sup> The CBOs and ex-TB patients in the field are also grouped as national TB "constituents" under the umbrella organization called MKUTA.<sup>177</sup> The supervision mechanism for community activities includes annual joint supervision at national level by the National Tuberculosis and Leprosy Programme (NTLP) and its implementing partners and quarterly data verification meetings for monitoring and evaluation of CHW and community volunteer (CV) performance. Health-care workers at the health-facility level are responsible for overseeing all advocacy, communication, social mobilization and community-based TB activities. Health facilities have the role and responsibility to (a) ensure a mechanism for referral and linkage with community-based TB services and (b) coordinate, supervise and mentor communitybased TB control services.178

#### **POLICY AND TOOLS**

During the last implementation period, the NTP conducted a study to identify best practices under different initiatives. The result of this undertaking was a manual/toolkit capturing the best practices for an ongoing pilot in selected districts of three regions. For example, data capture and reporting tools, such as the TB screening register that had been critically lacking, were developed as part of quality improvement at health facilities to find missing cases. The country intends to roll out this innovative approach initially to the 15 regions with the highest TB burden, to be expanded nationwide in a differentiated manner at a later date.179

Existing guidelines and tools available:

- Integrating Community Based TB and TB/HIV Activities into the Work of CSOs: National Operational Guidelines, March 2013;
- Advocacy, Implementation and Social Mobilization Strategy and Implementation Plan for TB and Leprosy Programme 2015-2020, March 2016;
- Community TB Care Handbook for Community Health Workers [in Swahili], August 2016;
- Country DR-TB Decentralization Framework to guide intervention will be revised and updated to provide guidance to community MDR-TB services;
- Monitoring and Evaluation Plan for TB and Leprosy Programme 2015-2020.

### IMPLEMENTATION OF INTEGRATED **COMMUNITY-BASED TB ACTIVITIES**

Implementation arrangements for the new grant remain mainly the same, with the majority of funding going through the existing public sector principal recipient: the Ministry of Finance and Planning. The most notable change is the selection of two new civil society principal recipients: (1) The Africa Medical and Research Foundation (AMREF), responsible for HIV/TB interventions at the community level and supported mainly by faith-based and community-based organizations; and (2) the Benjamin W. Mkapa Foundation (BMAF), responsible for RSSH activities (including TB-related activities) and HIV prevention in the general population. A total of 36 nongovernmental organizations, 315 CBOs and ex-TB patients' groups are engaged in TB control activities in all 26 mainland regions of the country. All implementers are required to ensure that community contribution reaches 20% by 2020.180 Most of the TB community-based interventions will fall under AMREF (principal recipient). The sub-recipients will be selected during grant-making and will work with faithbased organizations and CBOs who may serve as subsub-recipients; in turn, sub-sub-recipients will work with CHWs.<sup>181</sup> Healthcare workers at the health facility level are responsible for overseeing community-based TB activities and supervising CHWs.<sup>182</sup> For key stakeholders, see Table 1 on page 8.

<sup>176</sup> Country presentation at the WHO consultation meeting on finding missing TB cases through integrated community based TB service delivery (Addis Ababa, Ethiopia, 11-13 April 2018).

<sup>177</sup> Global Fund funding request - 22 May 2017.

<sup>178</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015-2020, Annex 2: stakeholders' roles and responsibilities.

<sup>179</sup> Global Fund funding request - 22 May 2017.

<sup>180</sup> Global Fund funding request - 22 May 2017.

<sup>181</sup> Global Fund funding request - 22 May 2017.

<sup>182</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015-2020.

CSOs and CBOs active in community-based TB activities are MKUTA (umbrella organization), the Association of Miners and other ex-TB groups. <sup>183</sup> In 2015, there were 400 CBOs (ex-TB patient groups) and one nongovernmental organization reporting TB case notification. <sup>184</sup> The last Global Fund grant supported ex-TB patient groups in 13 out of 31 regions and the USAID-supported Challenge TB project supported groups in 15 of 169 districts. The groups conducted contact tracing and supported treatment adherence. In the supported areas, the community contribution was 14% compared with the national average of 9.8%. Training of health-care workers and correct reporting will continue under the new grant and all data from the community will be recorded at the facility unit. <sup>185, 186</sup>

The DR-TB Decentralization Framework will be revised and updated to provide guidance to community MDR-TB services. Orientation will be provided for ex-TB patients in six regions to scale up MDR-TB services. CHWs will be oriented to provide home-based treatment and care services for 40 days for MDR-TB patients unable to attend treatment initiation at the hospital. Other interventions for MDR-TB patients include tracing of lost-to-follow-up patients and contact tracing for confirmed MDR-TB cases by CHWs/CHVs.<sup>187</sup>

In 2016, community-based activities were implemented in collaboration with local government authorities, implementing partners and nongovernmental organizations. Several activities such as organizing a joint meeting with the National AIDS Control Programme, regional health management teams and implementing partners to discuss the implementation of grant activities with a specific focus on the Global Fund, sensitization of unengaged CSOs for TB control and the engagement of 69 new CSOs and their capacity building took place at national level. Furthermore, a total of 247 CBOs (out of 400) were supported to provide community TB care and prevention. At regional and district levels, training was conducted to provide CHWs with the skills of conducting contact tracing, active case-finding and sputum fixation. A number of CHWs (ex-TB patients) and sputum fixers have been deployed to various regions. The NTP also printed and distributed monitoring and evaluation tools and operational guideline for community TB, TB/HIV and drug-resistant (DR) TB interventions. Home-based directly observed treatment (DOT) continued to be the most preferred mode of treatment, as 90.4% of TB patients in 2016 were treated under this modality.<sup>188</sup>

**Personnel:** Tanzania is using different type of community workers for TB community activities: CHWs, community health volunteers (CHVs) and ex-TB patients. CHWs are the more advocated and recognizable group in the public systems; it is a new cadre but at the moment only 2300 of them have been absorbed by the national health system owing to budget constraints, and they are not sufficient to cover 185 councils in the country.

Incentives and sustainability: CHWs are paid monthly, based on the government schemes; they are supposed to deliver primary health care services at the community level, including TB; however, programmes are advised to train CHWs to be competent in delivering a range of different health activities. Overall, CHWs who help to reach patients with limited access to TB services do not have adequate incentives and enablers to perform their duties. Low community awareness of TB and stigma and discrimination against TB patients also remain a challenge. Ex-TB patients and CHVs are paid incentives when they follow up patients and/or when given specific tasks. Sputum fixers receive a US\$ 25 monthly allowance and a US\$ 10 transport allowance.

<sup>183</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020.

<sup>184</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020.

<sup>185</sup> Global Fund funding request - 22 May 2017.

<sup>186</sup> A mapping of community contribution of TB referral by region can be found in the National Tuberculosis and Leprosy Programme – Annual Report for 2016 (Annex 5).

<sup>187</sup> Global Fund funding request - 22 May 2017.

<sup>188</sup> National Tuberculosis and Leprosy Programme - Annual Report for 2016.

<sup>189</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020.

TABLE 1. Overview of key stakeholders for integrated community TB activities

Stakeholder	Туре	Number of implementing NGOs/CBOs	Geographical coverage	Target groups	Activities
AMREF	PR	One – MDH	8 regions (Dodoma, Shinyanga, Ruvuma, Kagera, Mbeya, Simiyu, Mara, Tanga)	General population and TB patients	Awareness and community mobilization for TB activities Support timely diagnosis through community sputum fixation Referral of suspected case for TB diagnosis Treatment support and palliative care
NTLP	PR	Government	3 regions (Rukwa, Kigoma, Katavi)	General population and TB patients	TB care and prevention and community TB care delivery
Challenge TB/ KNCV	Technical assistance/ intellectual property	One	7 regions	TB patients	Support community support groups, peers and ex-TB patients of timely diagnosis and treatment referral
USAID /Boresha Afya	CSOs	Not reported	12 regions	N/A	Support for CHVs (ex TB patients/ sputum fixers)
LHL Internasjonal	СВО	One	7 councils	TB patients	Treatment support
Pathfinder International	NGO/IP	One	Periurban areas around Dar es Salaam	CHWs	Training of CHWs and home- based carers; Use of mobile phones to provide SMS services supporting TB screening and awareness through community volunteers; Integrating TB into home- based HIV care programmes. Pathfinder International reported a contribution of 8% of total case notifications in its coverage area
MKUTA – ex-TB patient groups supported by partners – KNCV, Boresha Afya	SSR/CBOs	Not reported	13 out of 31 regions	TB patients and contacts	Contact tracing Support treatment adherence Provide home-based treatment and care services for 40 days for MDR-TB patients unable to attend treatment initiation at the hospital; Tracing of lost-to-follow-up patients; Contact tracing for confirmed MDR-TB cases
NACOPHA	СВО	163 PLHIV district clusters	Nationwide	PLHIV	Support for TB/HIV patients

AMREF: African Medical and Research Foundation;

CBO: community-based organization;

CHV: community health volunteer;

CHW: community health worker;

CSO: civil society organization; MDH: Management and Development for Health;

MDR: multidrug-resistant;

NACOPHA: National Council of People Living with HIV/AIDS;

NGO: nongovernmental organization;

NTLP: National Tuberculosis and Leprosy Programme;

PR: principal recipient; SSR: sub-sub-recipient;

USAID: United States Agency for International Development.

#### MONITORING AND EVALUATION

In Tanzania, data for the NTLP are obtained from patient cards and TB registers that are filled out at directly observed treatment, short course (DOTS) centres. The district level reports to higher levels through **standardized paper-based forms** on a quarterly basis. Starting in 2014, district reports have been entered into the new electronic web-based database, the **District Health Information System (DHIS2).** 190 Through use of DHIS2, timely reporting and data completeness has increased from 75% in 2014 to 89% in 2016, resulting in a decrease in underreporting. DHIS2 has facilitated easier and timely subnational data analysis, thus enabling the NTLP to identify regions and districts with weak performance. 191 However, according to the NSP, integration between NTLP data systems and DHIS2 is minimal. 192

**Engage-TB core community indicators** are part of the Monitoring and Evaluation Plan for TB and Leprosy Programme 2015–2020, and data are reported quarterly. However, only the "percentage of notified TB cases, all forms, contributed by non-NTP providers" (% of notified

cases) is included in the Monitoring and Evaluation Plan for TB and Leprosy Programme 2015-2020; the target for community referrals is set at 20% for 2020. Community TB indicators in DHIS2 also include: number of presumptive TB cases referred from community, number of TB cases notified from community referrals (all forms), number of bacteriologically confirmed TB cases notified from community referrals; number of TB patients under home-based DOT, number of TB patients under home-based DOT successfully treated.<sup>193</sup> For community TB care indicators, see Table 2 below. For existing tools and registers, see Table 3.

Only a few organizations report directly to NTLP on their TB activities; other organizations implement TB activities but do not routinely report to NTLP. To strengthen reporting, the NTLP intends to intensify partner coordination.<sup>194</sup>

There is a **community help desk** that collaborates with the Health Management Information System unit and NTLP to develop standardized data collection procedures and reporting for community health workers.<sup>195</sup>

TABLE 2. Community TB care indicators

Indicator	NSP targets	Monitoring plan	Current status
Percentage of notified TB cases, all forms, contributed by non-NTP providers, community referrals (Global Fund DOTS-7c)	Contribution of TB patients notified by community health workers increased from 14% to 25% by 2019	Quarterly reports	4%
Treatment success rate among TB patients (all forms) supported by community treatment supporters throughout their TB treatment	-	Quarterly reports	-
Number of districts reporting community contribution on TB care (NPO to confirm whether these data are currently being collected)	Increased from 62 to 169	Quarterly reports	-

DOTS: directly observed treatment, short course; NPO: national professional officer;

NSP: National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020; NTP: national TB programme.

TABLE 3. Existing tools and registers for community TB care

Tool	Description	Level of use	Responsible person	Frequency
TB 12: Fomu ya watu (wateja) waliofanyiwa uchunguzi wa awali wa TB katika Jamii	Form for TB screening in the community	Community	CHWs, ex-TB patients	Monthly
TB 13: Rejesta ya Wanaohisiwa kuwa na TB katika Jamii	Community presumptive TB registers	Community	CHWs, ex-TB patients	Monthly
TB 14: Fomu ya Taarifa ya Robo Mwaka ya Kikundi cha Jamii cha Huduma za TB	Community TB services quarterly report form	Community	CHWs, ex-TB patients	Quarterly

CHW: community health worker.

<sup>190</sup> Monitoring and Evaluation Plan For TB and Leprosy Programme 2015-2020, October 2015.

<sup>191</sup> Global Fund funding request – 19 June 2017.

<sup>192</sup> National Strategic Plan for Tuberculosis and Leprosy Programme 2015–2020.

<sup>193</sup> Country presentation at the WHO Addis consultations, 11-13 April 2018.

<sup>194</sup> Monitoring and Evaluation Plan for TB and Leprosy Programme (2015-2020) October 2015.

<sup>195</sup> Monitoring and Evaluation Plan for TB and Leprosy Programme (2015-2020) October 2015.

### KEY CHALLENGES AND **OPPORTUNITIES**

Donor dependence and shortage of funding to support CHWs/CHVs and their activities have been identified as key challenges both through desk review and the WHO Addis meeting, leading to disruption of successful projects, poor monitoring and low motivation among implementers, primarily CHWs/CHVs. An opportunity to partially address this issue and build up integration is represented by the allocation under the malaria/RSSH component of the current Global Fund grant (about US\$ 4 million) for retention and scale-up of health workers, including CHWs. The expansion of electronic reporting to the health facility level is planned under RSSH component (catalytic funding) and presents an opportunity to address the issue of poor monitoring of community contributions at healthfacility level. Furthermore, it is expected that the recent changes to the electronic TB system, to be case-based, will facilitate data verification concerning community referrals. Finally, weak sputum transport system also emerged as a threat to increasing TB case detection; pilot projects (e.g. 2017 Kondoa district<sup>196</sup>) involving community members trained as sputum fixers showed good results and represent a feasible approach that leads to increased TB case detection.

#### ROADMAP AND NEXT STEPS

The country identified inadequate engagement of other sectors (including the private sector), poor linkage of community activities with health facilities and lack of quality monitoring of community TB services as key weaknesses in the implementation of integrated community TB activities; interventions planned under the current workplan to address these gaps include targeting of key populations (miners, fishers, long-haul drivers) and schools, strengthening monitoring and evaluation community activities, harmonizing community implementation tools, ensuring that TB is on the agenda in all meetings at facility level involving community TB activities, and further engage with the private sector to strengthen implementation of community activities. Technical assistance needs will be identified once the country roadmaps are finalized following consultations.