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ACRONYMS AND ABBREVIATIONS

ACSM Advocacy – Communication – Social Mobilization

CBO Community based organization
CLM Community led monitoring

COPD Chronic obstructive pulmonary disease

COVID-19 Coronavirus disease
CSO Civil society organization

CSS Community systems strengthening
CST Care, support and treatment
DR-TB Drug-resistant tuberculosis
DST Drug susceptibility testing

GF The Global Fund

ICESCR International Covenant on Economic, Social and Cultural

Rights

IRD Interactive Research and Development Vietnam

KVP Key and vulnerable populations MDR-TB Multi drug-resistant tuberculosis

MOH Ministry of Health
NTP National TB Program
OOP Out of pocket

PAL Practical Approach to Lung Health

PASTB The Patient Support Foundation to End TB
PCDC Provincial Centre for Disease Control

PLHIV People living with HIV

PPE Personal protective equipment

PPM Public-Private Mix
PWID People who inject drugs
PWUD People who use drugs

SCDI Centre for Supporting Community Development Initiatives

SES Socioeconomic status STP Stop TB Partnership

TB Tuberculosis

TPT TB preventive therapy
UN The United Nations

VSTP Vietnam Stop TB Partnership WHO World Health Organization

INTRODUCTION

This needs assessment has been developed as an effort to contribute to epidemic control, specifically by providing insight into areas in Viet Nam's national TB program and TB-related policies that could be strengthened. Funded by the Global Fund, this needs assessment was commissioned by Viet Nam's National TB Program and carried out by the Center for Supporting Community Development Initiatives (SCDI) with technical assistance from Stop TB Partnership (STP).

Through this assessment, Viet Nam aims to address the persisting TB cases in line with the Global Fund (GF) vision of accelerating of its TB program to achieve the 2030 TB targets, which have been adversely impacted by the COVID-19 pandemic. Acknowledging that there are certain factors that affect one's vulnerability to TB and to inequitable treatment, this needs assessment will assess the aforementioned factors and potential opportunities to strengthen the TB response.

QUALITATIVE DATA COLLECTION

METHODOLOGY

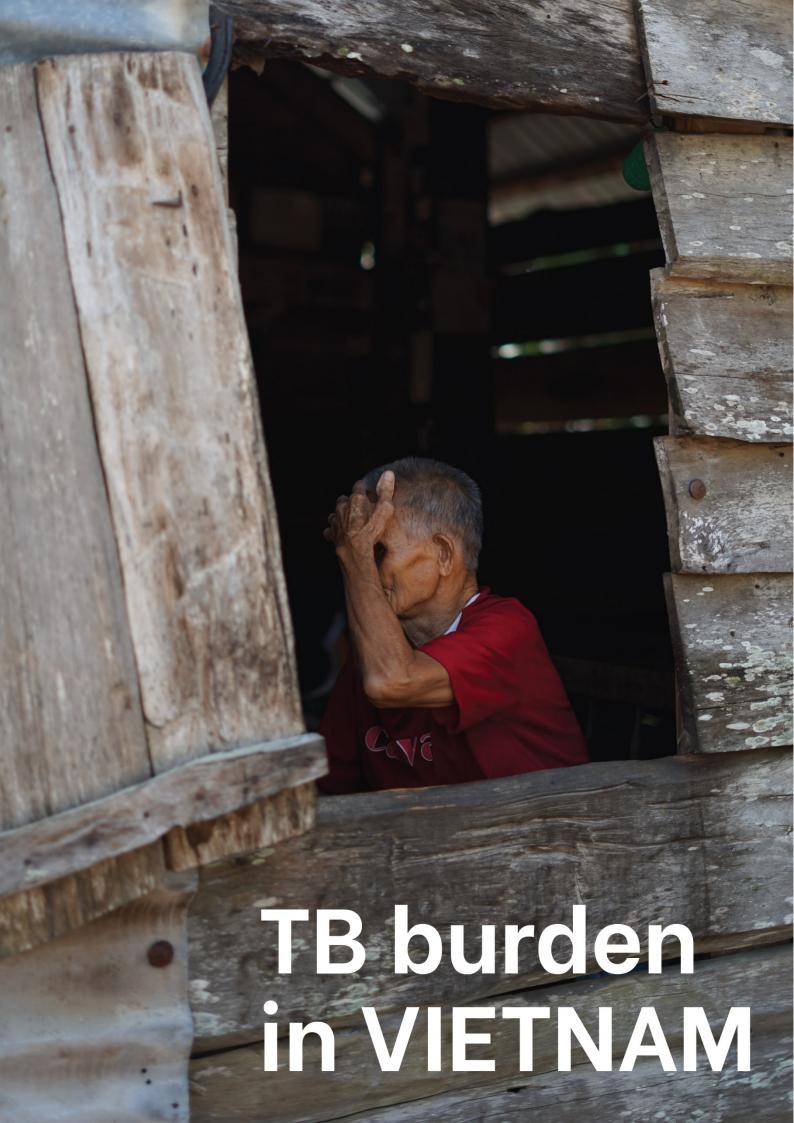
To ensure the specificity and accuracy of the needs assessment, data is obtained through primary and secondary sources. This took the form of data from the National TB Program (NTP), in-depth interviews and focus group discussions (FGD) for the primary source, which were analyzed and supported by secondary sources as listed in the bibliography section. A total of 6 focus group discussions and 41 in-depth interviews were conducted, with the respondents ranging from TB program implementers, health workers, community members, key and vulnerable populations (KVP), and more. In addition to the aforementioned sources, this needs assessment also assessed policy documents, guidelines, and additional documents.

LIMITATION

Due to the novelty of several topics, such as TB-related stigma, there are limited resources that fully assessed the effectiveness of subgroup-specific stigma and stigma reduction interventions. Existing primary data used are only disaggregated by age and gender, not by key population (KP), hence providing little insight into accessibility of TB services by KP groups.

Following the outbreak of the COVID-19 pandemic, including the fourth wave (April 7, 2021), data collection and reporting for 2021 was delayed. Hence for the purpose of this needs assessment, the 2021 data will be compared to the data of approximately 10-month from the previous years.





BACKGROUND

TB BURDEN IN VIETNAM

Located at the heart of southeast Asia, Viet Nam is home to an estimated 98 million citizens. The country is considered as a high TB and DR-TB burden country, though it has made tremendous efforts to address new casefinding over the last few years, which contributed to a decrease incidence rate by 11%.

Data from the National TB Program (NTP) reveals that from 2019-2021 there has been an estimated 2,000 incidence number found annually, with the males making up double to triple the amount of cases as women (Appendix 2). As seen from the following chart, Đông Nam Bộ region has the highest number of cases at 30,427, closely followed by Đồng bằng sông Cửu Long (25,728 cases) and Đồng bằng sông Hồng (17,724 cases). Among the ±98 million citizens, 169,000 developed TB in 2021 and 14,000 people died due to infectious disease.²

In the same year, Nguyen et al. (2020) conducted a TB prevalence survey that showed 7.7% of the respondents (n=87,207) screened TB-positive, though each was followed up with additional testing.

Due to the distinctive nature of each region and province, progress of TB programs differ across the nation. Data from NTP shows that there are huge differences between provinces when it comes to TB notification rate, ranging from 17 to 235/100,000 population. Regional differences are also pronounced, seeing much higher rate in the South than in the rest of the country, but even within regions, provinces showed significant different rates, pointing to rooms for improvement. There are correlations between general notification rate with notification rate among children (moderate), and the older people (very strong). Provinces do well in notification in general would do better in finding TB cases among children and older people.

Missing Cases

According to the Global TB Report, in 2019, total TB incidence is estimated to be 170,000 new cases with an estimated rate 176/100,000 population; the total of notified cases in the same year was around 102,000 with the notification rate of 106/100,000 population (WHO, 2020). Nearly 40% of new and relapsed TB cases were missed. The prevalence survey in 2018 estimated bacterially confirmed pulmonary TB prevalence to be 322 per 100,000 population, with only 14% of TB patients identified in the survey having been on treatment while the others did not accessed any TB care (Nguyen et al., 2020). Although having different epidemiological meanings, these 2

¹ Prime Minister. Decision to approve the National Strategy for Prevention and Control of TB to 2020 with a vision to 2030. Decision 374/QDD-TTg. 17 March 2014.

² https://dashboards.stoptb.org/country-profile.html

sources of data both indicate to that a significant proportion of TB patients are being missed.

The outbreak of the COVID-19 pandemic further dampened the situation and progress towards achieving epidemic control in Viet Nam. In 2021, while the total TB incidence estimated to be 172,000 cases as reported in the Global TB Report (2021) by WHO, the notification number was estimated at 77,000 whilst the missing cases reached 56% of the total incidence. The same missing cases is also an issue with multidrug resistant TB (MDR-TB), with WHO estimating that due to the increase over the years, there were 8,400 cases of MDR-TB in Vietnam in 2019. NTP reported that in 2017 only 41.5% of the estimated MDR-TB cases were diagnosed and treated, among these only 52.6% successfully treated and 15.8% having completed their treatment, that means over 70% of MDR-TB cases are not under control, either for not being found or having failed to complete the treatment. For a country with high burden MDR-TB, this is a cause for concern, added with the effects of the COVID-19 pandemic. Highland and mountainous provinces have a high number of missing cases, up to 80% of estimated incidence. These provinces have limited available TB services with many barriers for people to access services.

EXISTING SYSTEMS

The National TB Program

The National TB Program is based on a government's vertical structure of TB facilities (TB centers, TB hospitals) existing at national and provincial level. At district level, there are TB teams at district health centers. At commune level, a commune health center's staff is designated to manage TB program.

The Decision 374/QD-TTg dated 17 March 2014 spells out the National Strategy for TB Prevention and Control, at national level with the Ministry of Health being the focal governmental structure for the implementation of the TB Strategy. At provincial levels, People's Committees are in charge of establishing Steering Committees for TB Prevention and Control. In practice, National TB Program is managed by the National TB and Pulmonary Diseases hospital while provincial programs are managed by designated provincial level facilities; in most provinces, it is a provincial level hospital that treats TB, in a few provinces, it is the provincial Center for Disease Control. It is notable that facilities that manage TB programs, at national or provincial level have been upgraded to TB Hospital, with more beds and equipment, and to handle a larger scope of lung diseases.

Since 2006, the government started to pilot the so-called "hospital financial autonomy" policy. In 2021, government's decree 60/ND-CP/2021 made it clear that all public hospitals should be financially autonomous. This would mean hospitals are responsible for their financial balance sheet; the government will no longer directly subsidize hospital expenses. Because of that, hospitals will rely on fees from services, whether to be paid out-of-pocket by patients or by a third party such as health insurance or a donor.

To create more opportunities for staff's professional development and attract more diverse patients to bring better income to hospitals, there has been a movement to change the name of hospitals that treat TB from "TB hospital" to "TB & Pulmonary Diseases hospital" and to "Lung hospital". The national center of the National TB Program – The National TB Hospital is now known as National Lung Hospital. In the same trend, many provincial TB hospitals have become Provincial Lung Hospitals. These hospitals expand their scope of services and invest in other health concerns, such as prevalent non-communicable illness (e.g. COPD, asthma or lung cancer), which bring much more lucrative revenues. This movement is also an acknowledgement of the widespread stigma against TB and eventual diversion of the attention and resources for TB programs within those hospitals. Although there are still TB departments/wards that treat TB patients and the Technical Supervisory Unit that oversees TB activities at lower level of the health system, TB is no longer the only focus and not even a major business of some hospitals. TB program is losing its dedicated bodies and, as such, its integrity is affected.

The southeast Asian country has adopted several ways to accelerate its NTP, as captured in the 2020 Step Up for TB report. One such method is by exchanging smear microscopy with Xpert MTB/RIF, and allowing chest X-ray to be used as pre-screening should resources be scarce. ³ Through the TB REACH campaign, the Stop TB Partnership was also actively involved to ensure that the chest x-ray are accessible throughout the nation, knowing that access to health services or technology in certain areas are difficult. This aim was successfully carried out through SWEEP-TB, a project that funded mobile TB testing including chest x-rays, in partnership with Interactive Research and Development Vietnam (IRD), Friends for International Tuberculosis Relief (FIT) and authorities or stakeholders at the provincial level.

By 2020, Viet Nam had 126 facilities that offer Xpert MTB/rifampicin (RIF), Truenat, TB-LAMP testing, and/or other RMD.⁴ The RMD was required as the primary test for TB for at-risk groups and children. Specific for PLHIV, TB-LAM was expected to be implemented in the coming year(s). The drug susceptibility testing (DST) was already in place by that year with a total uptake of 44%.⁵ National policies were already in support of the use of universal DST, RIF-resistance testing for TB-confirmed cases and follow-up testing for RIF-resistant TB. Several components that may be vital to integrate in the national policies is RIF and INH resistance testing for new ontreatment patients.

Though relatively rare, drug-resistant TB (DR-TB) cases present more challenges for both patient and health providers. Additional measures need to be taken to successfully treat DR-TB patients. Hence, it may prove vital to integrate routine testing of the patient's sputum throughout the course of the DR-TB treatment into national policies. As of 2020, Viet Nam has yet to adopt the 2019 guidelines on DR-TB, as laid out by the World Health Organization (WHO). Though shorter DR-TB

⁵ Step up for TB – Dashboard – Diagnosing TB, pg. 50

³ Step Up for TB, 20

⁴ Ibid.

⁶ Step up for TB – Dashboard – Diagnosing TB, pg. 53

regimen have been integrated in national policies, DR-TB treatment options such as longer or modified shorter all-oral regimen have yet to be adopted as well.

Overall, funding for TB program is mostly from external donors, with the most predominant funding originating from the Global Fund. In 2021, government's funding for TB accounted for only 10% of the funding managed at national level and which is almost exclusively used for the procurement of first-line TB drugs. Meanwhile at the provincial level, funding for TB services derives from national program and local government allocations, which varies between provinces and tend to only be accessible later in the year. At the district and community levels, there are government-salaried staff to carry regular services but almost no funding for other activities such as communication or active case finding. As health insurance now covers first line TB drugs and all essential diagnostics and monitoring tests, with the Global Fund providing enough GeneXpert machines, current government-salaried staff can provide facility-based TB diagnosis and treatment. Therefore, funding from the Global Fund could be used for activities other than facility-based diagnosis and treatment.

In 2018, Viet Nam experience a change in the TB health system, particularly in the TB control unit. ⁷ Following the Prime Minister Decision no.1745/QD-TTg date 4/12/2019, a National Committee was formed to aid the country in realizing epidemic control.⁸ Their duties include to conduct research and develop national strategies for the program, as well as to assist the Prime Minister in overseeing and coordinating with relevant stakeholders to strengthen the NTP. Another strategy taken to accelerate treatment outcomes and epidemic control, the NTP has emphasized the importance of private sector engagement in the fight against TB. Using the public-private mix (PPM) model, the collaboration has shared efforts in TB control program and presented new opportunities that would otherwise be difficult to achieve without multi-sectoral efforts.

As reiterated by the MOH in the Year-End Report Review of National TB Control Program (2020), the NTP experienced several challenges in the implementation of the PPM model. One such challenge is the lack of (financial) support provided to health workers from private health facilities for recording and reporting cases to the NTP system.⁹

2020-2021 TB PROGRAM

Since the COVID-19 pandemic in 2020, Viet Nam saw a drastic shift in both the implementation and performance of its TB program. The sporadic nature of the pandemic caused sudden changes in health services, such as but not limited to the reallocation of health workers to COVID-19 response and the shortage of supplies or delay in procurement for TB medicine, PPE, and equipment.¹⁰ In addition, another

⁷ Year End Report Review of NTP Performance in 2018 (pg. 11)

⁸ Year End Report Review of NTP Performance in 2020 (pg. 71)

⁹ Year End Report Review of NTP Performance in 2020 (pg. 10)

¹⁰Year End Report Review of NTP Performance in 2020 (pg. 6)

concern was the sharp decrease in visits to health facilities caused by lockdown and isolation during the pandemic, as well as fear of contracting COVID-19.

Although the country faced several challenges carrying out TB program during the pandemic, most of the targets set for 2020 were still met, indicating that Viet Nam is still on track to realizing TB control by 2030. Some of the most profound achievements are listed below:

- Maintained and expanded TB control network, in which 76% of the provinces have established specialized TB facilities, such as Lung hospitals, TB and pulmonary disease hospitals. The remaining provinces, barring Phu Yen that uses its own TB control model, have integrated into the Provincial Centre for Disease Control (PCDC);
- 2. Protected 100% of the target populations;
- Detected over 100% of new and relapsed TB cases and achieved over 91.7% of treatment success in both instances, with treatment success differing per province.¹¹

Aside from services provided by the health facilities and the NTP, other forms of activities also played a key role in maintaining TB control during the pandemic. Examples include meetings, parades, and media appearances by the Vietnam Stop TB Partnership (VSTP) and the Patient Support Foundation to End TB (PASTB) campaign that raised nearly VND 1.3 billion in support of TB program.

Among the list of challenges faced by the country, perhaps the most apparent one is the lingering effects the pandemic has had on the NTP. In its 2021 plan, the NTP has highlighted several areas that has been heavily affected by the pandemic and that requires immediate attention, as listed below:

- 1. Persisting high TB and MDR-TB burden
- 2. Supply chain management of drugs and equipment, including PPE, were slowed
- 3. Healthcare system
 - a. Public-private mix (PPM) could be maximized by providing support for health workers in private sectors to conduct recording and reporting into the NTP system
 - b. Efforts to conduct prevention and test for pediatric cases needs to be accelerated and standardized throughout the provinces
 - Hospitals faced multiple challenges due to the financial autonomy model, such as debt and decreased patient visits during the pandemic
 - d. The gap between provinces with specialized facilities and those without them caused differences in achievement and heightened burden per province
- 4. Specific case management
 - a. Programmatic management of drug-resistant TB (PMDT): treatment enrolment only increased by 1% (cumulative 75%) from 2019 and success rate was at 71%

¹¹ Year End Report Review of NTP Performance in 2020 (pg. 9)

b. TB program for prisoners faced persisting and new challenges

Since this reform towards a new type of health financing (financial autonomy), the country has seen a shift in the provisions of health services, including in the TB sector. It was found that following the move towards financial autonomy, like other countries that have adopted this approach, the largest portion of health financing source comes from out-of-pocket (OOP).¹² Several achievements that were attained following the health reform are significant growth in hospital revenues, surge in investments in health facilities and equipment, expansion of services provided, reduction of costs, and more.¹³ Meanwhile, other factors such as efficiency, costs of medicine, and disparity between one health facility to another are some of the challenges that need to be addressed to strengthen the healthcare system in Viet Nam, especially following the 2020 national TB program evaluation.

Pursuant of international laws, Viet Nam has also made significant efforts to fulfill prisoners' rights to healthcare. One such method is by providing periodic screening for 120,000 prisoners in 54 prisons across 44 provinces/cities.¹⁴

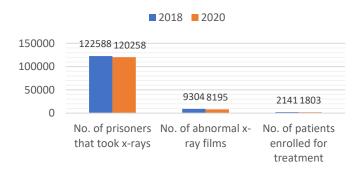


Figure 1. TB Screening and Treatment among Prisoners (2018 & 2020)¹⁵

In 2020, the aforementioned screening activities only began mid-year, with follow-up activities expected to be conducted in 2021. Nevertheless, there were only slim differences in performance of screening and treatment enrollment for prisoners in 2020 compared to 2018.

The program, which was a fruitful partnership between the National Lung Hospital, the Police Department, Department of Health – Ministry of Public Security, and provincial/district-level TB control units, faced several challenges. Similar to the screening activities held in 2018, the program was mostly held outdoors and exposed prisoners to heat and discomfort. Following the pandemic, though, other issues also arose such as the inability for prisoners to get x-ray in prisons without (functioning) x-ray machines as well as delayed implementation in the central regions, partly caused by the oncoming flood. It was also reported that aspects such as human

¹⁴ Ministry of Health – The National Tuberculosis Control Program, Year-End Report Review of National TB Control Program in 2020 (pg. 33)

 $^{^{12}}$ World Bank, Lessons for Hospital Autonomy Implementation in Vietnam From International Experience (pg. 25)

¹³ Ibid.

 $^{^{15}}$ Ministry of Health – The National Tuberculosis Control Program, Year-End Report Review of National TB Control Program in 2018 and 2020

resources and their capacity to use TB detection and treatment equipment need to be increased.

In addition to screening and treatment, the NTP also held several training activities in collaboration with Department C10 – Ministry of Public Security. A total of 120 health workers in prisons in Ninh Binh, Nghe An, and Can Tho provinces were trained to detect, diagnose, and treat TB and MDR-TB, while peer educators for prisoners were also trained on similar materials.

Primary Focus of the 2021 TB Program and Its Implementation

Upon evaluating its performance in 2020, the following year, the NTP declared its primary objective and focus for its upcoming TB program. The annual review revealed successes and challenges faced by the NTP during the COVID-19 pandemic and became the basis for the reorientation and maintenance of its activities in 2021. The primary goal of the NTP by 2025 remains as follows:

- 1. To maximize the detection and treatment of TB in community to prevent TB transmission; and,
- 2. To strengthen the detection and treatment of latent TB to prevent infections from becoming TB. 16

In addition to the acceleration of the reduction of TB/MDR-TB incidence and mortality as well as catastrophic costs incurred by affected families, additional series of activities have also been made to address specific concerns. This includes strengthening MDR-TB case management, research activities, supply-chain management, NTP activities, information management, TB-HIV program, pediatric cases, latent TB, TB control network development, active case detection, PPM and PAL, laboratory system, ACSM, and plan development. The NTP not only aims to strengthen existing national/provincial health systems, but also its partnership with relevant stakeholders.

However, in April 2021, following the development of the NTP target and report (March 2021), the fourth wave of the COVID-19 pandemic hit Viet Nam and drastically affected its TB program operations. One such impact, which has been mentioned in the "Limitation" section of this document, was the missing and/or delayed reporting from the district- and province-levels. ¹⁷ For the purpose of this report, and per NTP method, the achievements of TB program in 2021 will be compared to 10-month achievements of 2020.

	TB wi	th bacterial e	evidence	TB without	Extra- pulmonary TB	Unknown	Total
Year	New	New Relansed	Re- treatment	bacterial evidence		prehistory	
10 months 2021	34,908	3,317	749	10,997	12,967	60	62,998

 $^{^{16}}$ Ministry of Health - The National Tuberculosis Control Program, Year-End Report Review of National TB Control Program in 2020, pg. 76

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¹⁷ Final Report Activities of the Tuberculosis Program 2021, NTP (pg. 14)

%	55.41	5.27	1.19	17.46	20.58	0.10	100
10 months 2020	43,893	3,924	999	16,551	16,956	45	82,368
%	53.29	4.76	1.21	20.09	20.59	0.05	100
Quantity Comparison	-8,985	-607	-250	-5,554	-3.989	15	-19,370
Rate Comparison %	2.12	0.50	-0.02	-2.64	0.00	0.04	0.00
Ratio/Quantity Comparison %	-20.47	-15.47	-25.03	-33.56	-23.53	33.33	-23.52

Table 1. Detection of TB patients in the first 10 months of 2020-2021¹⁸

No. of		Treatment results						
Ye	ear	patient assess- ments	Cured	Treat- ment complet- ion	Deceased	Failed	Unable to monitor	No assess- ments
9 months	No. of patients	41,437	35,102	2,989	1,186	316	981	863
of 2020	%	100	84.7	7.2	2.9	0.8	2.4	2.1
9 months	No. of patients	43,123	36,800	2,673	1,217	359	1,148	926
of 2019	%	100	85.3	6.2	2.8	0.8	2.7	2.1
	ntity arison	-1,686	-1,698	316	-31	-43	-167	-63
	mparison %)	0	-0.6	1	0.1	0	-0.3	0
	Quantity rison (%)	-3.91	-4.61	11.82	-2.55	-11.98	-14.55	-6.80

Table 2. Treatment for TB patients with new and relapsed bacterial evidence 19

On a national level, detection and treatment of TB patients fell sharply in 2021, which is partly due to the effects of the fourth wave. Similar to previous years, there are differences in TB program achievement across the different provinces, all of which can be seen in the table summary below:

SCALE/ PROVINCE	DESCRIPTION NOTE: CASE DETECTION DATA USED IS FOR 10 MONTHS OF 2020 AND 2021	CHALLENGES
NATIONAL	Case DETECTION Case detection fell sharply in comparison to the previous year (Table 1) The number of new TB patients with bacterial evidence decreased by 20.47% from 2020, whereas the total number of TB patients with	 Social isolation and restriction, which lasted longer than in 2020, proved to be a challenge in case detection and treatment TB detection rate fell from 84.33/100,000 population (2020) to 62.61/100,000 The number of patients access health services were significantly

¹⁸ Ibid.

¹⁹ Ibid.

bacterial evidence decreased by reduced, with some facilities 20.16% (9,842) facing a reduction of up to 50% • The number of TB patients without bacterial evidence fell even more drastically at 33.56% (5,554) • Case detection efforts for both new and relapsed patients (with or without bacterial evidence) in 2021 reached an estimated 50-52% of the annual target SOUTHERN CASE DETECTION Experienced the sharpest Detection of TB patients decreased decrease in TB detection rate due by 26% from 2020, with the most to the region experiencing the rapid decrease being attributed to highest number of patients the cases without bacterial treated for COVID-19. This reoriented the health workers' evidence (-35.62%) • The number of pulmonary TB focus to COVID-19 protocols. patients with bacteriological • The detection of new cases also decreased rapidly, especially in evidence decreased by 23.96%, which is the most decrease Binh Duong (35.2%), Tay Ninh experienced by any of the three (30%), and Can Tho (27.1%) regions provinces, among others. • The ratio of TB patients with bacterial evidence to total patients detected is 68.01%, which is the highest across the three regions • Compared to 2020, the ratio of patients without bacterial evidence to number of patients detected decreased by 35.62% • Number of admissions of TB patients fell compared to 2020 CENTRAL CASE DETECTION • The Central region saw a 24.51% decrease in case detection • Within the 10-month periods, the compared to 2020. number of TB patients with • Quang Ngai (38.3%), Quang Binh bacterial evidence decreased by (36%), and Phu Yen (33.1%) 1,008 cases whereas those without provinces saw a significant bacterial evidence decreased by reduction in the ratio of new and relapsed cases with bacterial • Similarly, the number of new evidence to total patients pulmonary cases with bacterial • Nearly 40% of targeted new cases evidence decreased by nearly 21% were detected and nearly 45% of (959 cases) whilst extrapulmonary the entire detection target was cases decreased by 364. • Number of admissions of TB patients did not decrease as much as the Southern and Northern regions • The Central region had the highest male/female ratio of new and relapsed patients (2.74:1) NORTHERN CASE DETECTION • Some of the provinces that faced the most prominent decrease in • At 53.93%, the rate of TB patients the number of new and relapsing with bacterial evidence is still the TB patients with bacteriological lowest in the Northern region, evidence include Bac Giang (41.4%), Hung Yen (39.9%), Ha though it did decrease by 11% compared to the previous year. The Nam (38.2%), etc. decrease in the number of cases

- was significant among TB patients without bacterial evidence (-30.47%) than among new TB patients with bacterial evidence (-10.6%).
- The ratio of TB patients without bacterial evidence to total patients was at 23.88%, but decreased by 4.19% (2,207) from 2020
- The Northern region had the highest proportion of extrapulmonary TB (22.18%) over total patients, akin to findings from 2020. Extrapulmonary TB cases did decrease by 1,096 cases from 2020.
- Number of admissions of TB patients fell compared to 2020

 The Northern region reached an estimated 50% of its target for 2021 in terms of case detection

Table 3. Summary of TB program per province²⁰



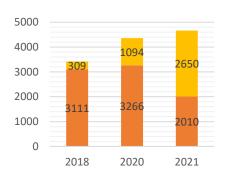


Figure 3. Admission of MDR-TB patients

Due to the challenges faced during the COVID-19 pandemic, there was a sharp decrease of the number of admissions of MDR-TB patients in 2021, which as shown in figure 3 was recorded in the last 10 months.

²⁰ Ibid.

LAWS, GOVERNANCE AND SYSTEMS

The legal and institutional framework of a nation is tightly linked to its ability to implement health programs effectively. As such, similar to the rest of the world, Viet Nam looks to international laws and guidelines as the foundation for its TB program.

INTERNATIONAL LAWS AND GUIDELINES

Ensuring health equity among key and vulnerable populations (KVP) is vital in healthcare programs such as TB. The International Covenant on Economic, Social, and Cultural Rights (ICESCR), 1966, mandates UN member states to adhere to several human rights concerns. Some of the integral rights that nationals and, to an extent non-nationals, have the right to are the right to self-determination, non-discrimination, equal opportunity and treatment, and more. ²¹ In relation to health programs, Article 12 delves into health rights that one is entitled to, including the right to enjoy the "highest attainable standard of physical and mental health." The ICESCR mandates State Parties to fulfill this through several means, including those related to infectious diseases, namely:

- (b) The improvement of all aspects of environmental and industrial hygiene;
- (c) The prevention, treatment and control of epidemic, endemic, occupational and other diseases;
- (d) The creation of conditions that would assure to all medical service and medical attention in the event of sickness (Article 12.2).

In accordance with this Convention, people affected by TB and KVP have the right to gain equitable treatment, which should be made widely accessible, especially in the event of sickness. This indicates that health facilities or providers should have ample logistics and readiness to test and treat TB patients. Recognizing that TB transmission is also caused by poor ventilation and other environmental factors, it can also be drawn that the same Convention highlights the importance of work environment and safety as part of TB prevention. The same right to quality healthcare and equitable treatment, including the safeguarding of the environments, also goes for specific KVP such as but not limited to prisoners.

As part of its commitment to provide equal rights to prisoners, Viet Nam has signed and ratified **The Convention against Torture and Other Cruel, Inhuman or Degrading Treatment (1984)** in 2013 and 2015, respectively. Pursuant of Article 16, Member States are required to prevent "acts of cruel, inhuman or degrading treatment or punishment which do not amount to torture as defined in article I," which alludes that prisoners have the right to equitable treatment, both in the non-discriminatory social norm and in the healthcare aspect.²² As referenced both here and in **The United**

²¹ The International Covenant on Economic, Social, and Cultural Rights (ICESCR), 1966

²² "For the purposes of this Convention, the term "torture" means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed

Nations Standard Minimum Rules for the Treatment of Prisoners, prisoners must be given fair treatment, equitable healthcare of the same quality as healthcare services provided to society, and acceptable living environments. Whilst these factors retain their dignity, they are also integral to both prevention and treatment of TB, especially seeing as TB transmission is highly prevalent in prison settings.

Health-care services should be organized in close relationship to the general public health administration and in a way that ensures **continuity of treatment and care**, including for HIV, tuberculosis and other infectious diseases, as well as for drug dependence

- The UN Standard Minimum Rules for the Treatment of Prisoners, Rule 24(2)

EXISTING LEGAL FRAMEWORKS IN VIETNAM

In support of its commitment to end TB by 2030, Viet Nam has several national laws and policy practices that are aligned with international laws and standards. The foundation of its fight against TB rely on the UN SDG goals, specifically goals number 3 (good health and well-being), 5 (gender equality), 10 (reduced inequalities), and 16 (peace, justice and strong institutions).

Under Article 3 of Law number 03/2007/QH12 dated 21/11/2007, TB is defined as a highly infectious disease that can cause death (Group B). However, as stated in Article 5(4), the care, support, and treatment (CST) for people with pulmonary TB is not specifically described, which may pose as a challenge in the standardization of CST for TB programs across provinces or health facilities. Similar to other diseases classified under Group B, treatment for TB is also not compulsory by law.²³ At the moment, Article 66 on the Law on Medical Examination and Treatment only mandates treatment for infectious diseases under Group A.

The cost of test and treatment for TB and DR-TB patients, among others, is covered in dedicated health facilities, as stated in the Law on Health Insurance and the Circular no. 04/2016/TT-BYT (dated February 26, 2016 on prescribing tuberculosis diagnosis and treatment, and payment for covered healthcare services provided to people with tuberculosis). These TB service providers encompass facilities from the communal, district-, provincial, and central-level. TB patients and suspect patients accessing services outside of these allocated health facilities will be transferred to the nearest available health facility.

In addition to their right to accessing and receiving equitable health services, people with TB also have the right to confidentiality, which protects their health status and prevents potential stigma and discrimination against them. ²⁴ Furthermore, the

or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions." (Article 1, The Convention against Torture and Other Cruel, Inhuman or Degrading Treatment)

²³ Law No. 40/2009/QH12 dated on Nov. 23, 2009 Law on medical examination and treatment (Article 66)

²⁴ Law No. 40/2009/QH12 dated on Nov. 23, 2009 Law on medical examination and treatment (Article 3)

current policies in Viet Nam also protects their right to be free from stigma and discrimination, although it does not state strategies to reduce stigma and discrimination.²⁵ Under the same law, people with TB and their family members are also entitled to information on TB prevention and control (Article 10), the standards of which are outlined in the next article, which states:

Requirements for information, education and communication on TB prevention and control: Accurate, clear, easy to understand, practical and timely; Appropriate to the target audience, cultural traditions, ethnic groups, social ethics, religions, beliefs and customs.²⁶

It is here that the government and policy makers recognize differences in backgrounds and culture across the country and urges public service providers and relevant stakeholders including those in the healthcare sector to cater to this diverse pool. People with TB and KVP, just like the rest of society, are also given autonomy to choose medical examination and treatment.²⁷

Additional support for specific KVP is provided through various laws. One such example can be found in Article 29(2) of law number 03/2007/QH12 (dated 21/11/2007), where vaccines and TB equipment are compulsory and free of charge for children and pregnant women.

To ensure that its people can access health services, Viet Nam has taken positive steps towards providing universal health coverage (UHC). Its implementation today is largely based on the Law on Social Health Insurance (2014), which provides a list of those eligible exempt from paying for social health insurance, namely those of low socioeconomic households. The responsibility for ensuring their ability to access examination and treatment befalls on several parties. In Article 22 (5), it is stated that "...the insured living in island communes or islands districts who go to the hospitals different from the registered hospital shall be paid for their medical examination and treatment expenditures at the commune hospitals, their inpatient treatment costs at the provincial and central hospital by the health insurance fund according to the benefit levels prescribed in Clause 1 (Law No. 46/2014/QH13 dated June 13, 2014 on Social Health Insurance)." Similarly, the country also provides other forms of support such as monthly allowance for children and people living with HIV (PLHIV), for example.²⁸

Adjustments to Legal Framework Post-COVID-19 Outbreak

In response to the COVID-19 outbreak and the continuously changing situation in Viet Nam, the government issued several changes that would aid in TB control efforts.

 $^{^{25}}$ Law number 03/2007/QH12 dated 21/11/2007 on prevention and control of infectious diseases (Article 8)

 $^{^{26}}$ Law number 03/2007/QH12 dated 21/11/2007 on prevention and control of infectious diseases (Article 11)

 $^{^{27}}$ Law No. 40/2009/QH12 dated on Nov. 23, 2009 Law on medical examination and treatment (Section 1. Rights of Patients, Article 10)

²⁸ Decree No. 136/2013/ND-CP stipulating social support policies for social protection subjects dated October 21, 2013

- The Directive No. 07/BYT-CT dated July 15, 2021, which was issued by the Minister of Health, mandates TB examination and treatment to be covered by the Department of Health Insurance (HI).²⁹
 - This was shortly followed by the Official Letter No. 6636/BYT-CV (August 14, 2021), which pushes for the consolidation of the organization of TB examination and treatment, all of which to be covered by HI.
 - The Official Letter No. 2079/BVPTU-DAPCL (September 6, 2021) of the Director of the National Lung Hospital which outlines the evaluation for TB treatment models at the province level and monitoring health facilities to meet the conditions for examination and treatment covered by HI

Social Contracting and Role of Communities

The importance of community role in TB control program has been mentioned in several policies, including the decision No. 374/QD-TTg dated March 17, 2014 of the Prime Minister approving the National strategy on TB prevention and control to 2020 and vision to 2030 (Article 1.1.c). The clause provides a solution for acceleration of TB prevention and treatment programs, namely to "encourage participation of the community and social organizations to support TB patients to use examination and treatment services." With existing international guidelines, it is integral that national policies on TB are made with the targeted beneficiaries in mind. Although the current TB guidelines is regularly updated in accordance with international guidelines, it also has no mention of the role of communities and strategies to reduce stigma and discrimination.

As of 2021, there were still no social contracting with government funds in Viet Nam, which affects accessibility of TB services in regions with limited resources (e.g. provincial or district health facilities). ³⁰ Should social contracting be made available, NGOs could play a vital role in the acceleration of epidemic control and improvement of services.

Policy and Governance Analysis

In 2021, the Stop TB Partnership with the support of USAID released its Governance of TB Programmes report, where high TB-burden countries were analyzed based on various factors. In terms of its legal framework, Viet Nam already showed exemplary practices, such as the integration of TB notification as a requisite in the national policies, which also entails routine monitoring of its progress. ³¹ Furthermore, policies surrounding social protection and human rights for TB are partially in place. In addition to social health insurance, people with TB in Viet Nam are provided other forms of social protection, be it in the form of socioeconomic, psychosocial, health

²⁹ 2021 report, pg. 57

 $^{^{\}rm 30}\,$ Governance of TB Programmes, pg. 15

³¹ Governance of TB Programmes, 24

(nutrition), or other support. By law, people with TB are also entitled to rights to privacy, confidentiality, and equality (non-discrimination), as proven by the policy on the inclusion of human rights in national modules or guidelines. However, it is important to note that gender-related policies have yet to recognize or include genders other than male and female. This is partly due to the fact that gender equality law has not been revised since 2006. At the moment, only the following articles/clauses from Law on Gender Equality are in place:

- Article 3. Where an international treaty to which the Socialist Republic of Vietnam is one of the signatories contains provisions that differ from those of this law, the provisions set out in that international treaty shall be applied;
- Article 4. The gender equality goals are to eliminate gender discrimination, to create equal opportunities for man and woman in socio-economic development and human resources development in order to reach substantial equality between man and woman, and to establish and enhance cooperation and mutual assistance between man and woman in all fields of social and family life; and,
- Clause 5. Measure to promote gender equality is the measure aimed at ensuring substantial gender equality, set forth by the state authorities in cases there remains considerable imparity between man and woman concerning the positions, roles, conditions, and opportunities for man and woman to bring into play all their capacities and to enjoy the achievement of the development where the application of equal regulations for man and woman cannot remove this imparity. The measure to promote gender equality is to be implemented for a certain period of time and shall end when the gender equality goals have been achieved.³²

At the other end of the spectrum, more could be done to strengthen other areas of the policies, such as the inclusion of free DR-TB medicines in Viet Nam's essential medicines list. Another aspect that should be addressed in the national policies is TB-related stigma. Though external factors such as the healthcare system or logistics available do affect end-beneficiaries' ability to access TB services, it is also commonly known that experience and/or fear of TB-related stigma and discrimination decreases one's inclination to seek test or treatment. As such, it is important to tackle the issue throughout multiple layers, starting at the above-site level (policies) to the site-level (health facility practices or community interventions).

The 2020 Step Up for TB Report provided an overview of Viet Nam's TB-related policies, separated into five categories, which are diagnosis, treatment, models of care, prevention, and procurement.³³ A wide variety of indicators were used to determine the score for each category. For example, the diagnosis component analyzed policies related to RMD, urinary TB LAM, DST, and treatment monitoring. The results of this scoring system indicated that Viet Nam's policies on TB treatment (50%), closely followed by TB diagnosis (44%) and procurement (43%), was the one that met international standards or guidelines the most. Meanwhile at just above

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³² Law No 73/2006/QH 11 on Gender Equality

³³ Step up for TB – Dashboard – Diagnosing TB, pg. 49-63

20% each, the report indicates that Viet Nam's policies surrounding TB models of care and prevention requires further attention.

During several in-depth interviews with key respondents, it was revealed that there is still a need to strengthen accessibility of the health services through the legal aspect, which leaves the country at a 21% uptake of TPT by 2020.

LITERATURE REVIEW

PROVISIONS OF TB SERVICES

The WHO has long developed a guideline that outlines minimum standard of care and approaches to TB services. Aside from the WHO guideline, there are several frameworks that are widely used by nations in the implementation or evaluation of their health programs, one of the famous ones being the AAAQ framework.

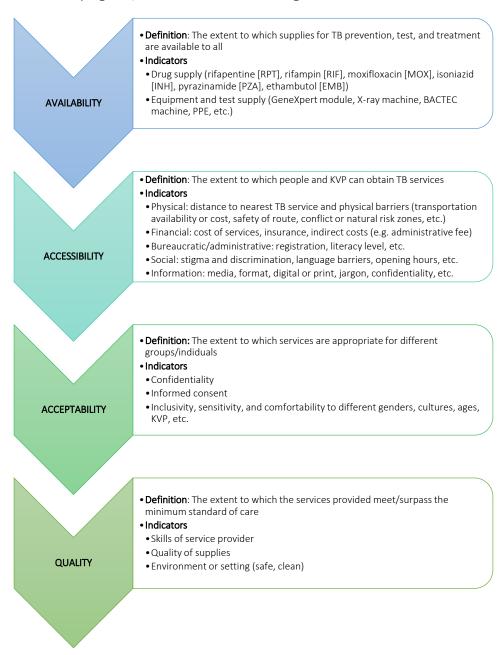


Figure 1. AAAQ Framework (UNICEF)

Conceptualized by the WHO, the following framework presents four aspects to health services that determines the success of a health program. This framework challenges the antiquated belief that service delivery should take a one-way top-down approach,

by incorporating humanistic aspects. One widely used framework that promotes person-centered services is the human rights approach to TB framework.

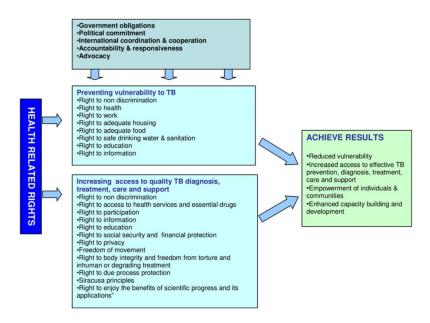


Figure 2. Human rights approach to TB framework³⁴

As depicted in the figure above, there are two main health-related rights, namely to prevent vulnerability to TB and to increase access to quality TB diagnosis, treatment, care, and support. By conducting multi-sectoral and multi-stakeholder collaborations to help fulfill the rights of people with TB under these two categories, epidemic control can be achieved.

The burden of TB management and control does not fully rest on the public health sector and government counterparts. It is also vital for other sectors, such as the private sector, to contribute and to be accountable for the program.

Public interest towards private healthcare providers, including private clinics, in the TB program remains high. Some of the most common reasons for patient preference to access private health services compared to public as their primary choice is due to the privacy and comfortability.³⁵ The growing interest to access private services and the scarcity of public health facilities that provide TB services are clear indications of the big opportunity of public-private mix (PPM). Endorsed by the WHO, PPM is an integrated approach to TB care and prevention that combines the efforts of both public and private sectors. A literature review of PPM pilot projects in India for TB control suggests that PPM can improve aspects of the healthcare sector that would otherwise be difficult to achieve, which in this case was the increase of case notification.³⁶

³⁴ Stop TB Partnership (2020) Assessing TB Stigma

³⁵ Long et al (1999)

³⁶ Dewan et al.

KEY AND VULNERABLE POPULATIONS

As with other communicable diseases, there are several groups or demographics that are vulnerable to TB or the effects of TB on their lives, such as its catastrophic cost. There are several factors commonly known to determine one's vulnerability to TB, namely socioeconomic, biological, and environmental factors.³⁷

The Stop TB Partnership has named several key and vulnerable populations that should get special considerations or attention in the development and implementation of TB programs worldwide. These groups include prisoners, PLHIV, migrants/refugees/tribal populations, PWUD, health workers, children, people with diabetes, the urban poor, elderly, and miners.³⁸

Prisoners

TB is highly prevalent among incarcerated people, including prisoners. A study by Coninx et al. (2000) shows that globally, prisoners are at high risk of TB. The rate of case notification of all forms of TB in prisons, as seen across eight different locations globally in the 90s, range from 2.4% to 7.2% (per 100,000), with an average of 5.3%.³⁹

In addition to the high prevalence of TB among prisoners, the closed setting of a prison requires NTPs to pay close attention to strategies to prevent and treat TB cases in prisons. ⁴⁰ This is due to the fact that prisoners' access to TB test and treatment are limited in comparison to those not incarcerated from society.

Notification rate among prisoners was at 1,642 per 100,000 in 2019. Over the years, the rate has been slightly reduced as the rate among general population mildly declined, but consistently around 15 times more than of the general population. Studies in other countries have shown that incarceration was associated with TB in urban populations. A study in Brazil found as many as 54% of Mycobacterium tuberculosis strains were related to strains from persons in prisons. TB control in prisons is critical for reducing disease prevalence. Annual TB screening is performed in all prisons of Vietnam and patients got their treatment if positive. However, treatment arrangements differ between prisons and depending on existing facility. Ex-prisoners report TB patients staying in their cell shared with 50 – 60 other inmates for the entire course of treatment. In addition to that, transition of TB patients between prison and community is not always smooth. Instability in their post-prison lives and lack of support from local TB program led to treatment discontinuation in many, including in people with XDR-TB.

Many ex-prisoners are poor, ID-less, unregistered. That is on top of their vulnerability to TB. The assessment team met a number of ex-prisoners who have MDR or XDR-TB being refused of treatment in TB hospitals since they didn't have ID paper or not

³⁷ EquiTB

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³⁹ Coninx et al. (2000), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117551/

⁴⁰ Coninx et al. (2000), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117551/

having money for cash deposit. Stigma and discrimination against ex-prisoners make it difficult for them to remake their ID, register for their residency or access charitable or social welfare programs.

People living with HIV. Even with relatively high level of ARV coverage among people living with HIV (PLHIV), TB remains the leading cause of death among people living with HIV in Vietnam. WHO estimates that TB incidence among PLHIV in 2019 was 5,500 people. For a population of 230,000 PLHIV, the TB incidence rate among this population is about 2,400 per 100,000 or almost 14 times higher than that of the general population. Low coverage of TPT - TB Preventive Therapy (39% among people who newly enrolled in HIV care in 2018) could partly explain the high incidence rate of TB among this population.

Although 86% of new and relapse TB patients know their HIV status and 93% of PLHIV who had newly diagnosed or relapse TB were on ARV, treatment success rate among TB/HIV patients was only 79% among PLHIV compared to 92% among HIV-negative patients. TB among PLHIV, which represents only 3,3% of all TB patients in Vietnam have a disproportionately high mortality with an estimate of 2,000 deaths, compared to 9,800 for all HIV-negative patients, or 60 times difference. It is estimated that for every 3 TB patients who are HIV positive, at least one person would die. Although PLHIV are supposed to be screened annually for TB, quality of service appears to be uneven according to patients that we interviewed. In addition to that, challenges in diagnosis of TB among PLHIV, many PLHIV enter TB care late, lead to high mortality rate.

Ethnic minority people. With a few exceptions, provinces with higher ethnic minority population distribution see lower notification rate despite high rates shown in some surveys. In a Central Highland district, one community screening campaign in 2020 of 650 people in Chu Se district of Gia Lai province saw the number of TB cases increased over 50% in comparison to the previous year. In Lak district of Daklak province, a screening campaign in 2020 saw the number of notified cases increased 3 times compared to the year before. These demonstrated the severe lack of access to services in these areas and the need for community-based active case finding.

Undocumented (migrants...). People without citizen's ID card don't have access to any public program, including public hospital. Many TB hospitals refuse ID-less people. People not locally registered (e.g. mobile and poor migrants) are not considered for programs implemented by local agencies, including TB screening, and TB services at district and commune level. Many of them opt for self-treatment or cheap private services. Most of them are poor and live hand-to-mouth, forgo treatment or drop-out of treatment is not uncommon. In addition to being vulnerable to TB infection, migrants who are TB positive also showed poorer treatment

outcomes than residents.⁴¹ There are several factors that may have affected this, such as difficulty in seeking treatment due to lack of documentation or health insurance, language barriers that may inhibit one from understanding the procedures to get TB treatment, or their frequent travels, among others. Predictors of poor treatment adherence among migrants include co-infection with HIV, older age, and prior TB infection. In comparison, treatment adherence were assumed to be good among migrants with direct or easy access, by distance and administration, to TB services such as DOTS.

People who use drugs. TB screening among people who use drugs in drug rehabilitation centers and among methadone patients demonstrated that TB burden among this population is more than 10 times higher than in the general population, at 1,180 per 100,000 in 2019. DRIVE study on 3,500 people who use drugs in Hai Phong found that incidence rate of TB could be at 10 – 30 times higher than that of the general population, and TB account for 22% of deaths among DRIVE participants. Crude mortality rate among study participants were 1,9% among HIV-negative and 4,3% among HIV-positive PWID, 3 to 7 times higher than 0,63% in the general population. TB is accounted for one-third of deaths among HIV-positive and 8% among HIV-negative participants. People who use drugs have higher TB infection rate, including MDR TB infection rate, there are less likely to access treatment, more likely to experience treatment failure, face more stigma and discrimination in TB services. However, when supported by CBOs, people who use drugs have good treatment uptake and completion rate.

Children. WHO estimated that, in 2019, there were around 8,000 TB cases among children with only 1,677 cases notified. Children accounted for only 1.6% of total notified cases, ranging from 0.2 to 3.9% among 63 provinces. As many as 80% of TB cases among children were missed. Lack of engagement of pediatric services, limitation in contact screening and slow pick-up in latent TB treatment among children are among the reasons.

People who have existing conditions, including diabetes. WHO estimates that TB cases that in Vietnam are also prevalent among people with malnutrition (29,000 cases), with alcohol use disorder (18,000 cases) and 4,200 with diabetes (4,200 cases) with no formal collaboration with programs in charge of these diseases. Similarly, collaborations between TB and geriatric, mental health and reproductive health programs are not established.

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⁴¹ Vo, L.N.Q., Codlin, A.J., Forse, R.J. et al. Tuberculosis among economic migrants: a cross-sectional study of the risk of poor treatment outcomes and impact of a treatment adherence intervention among temporary residents in an urban district in Ho Chi Minh City, Viet Nam. BMC Infect Dis 20, 134 (2020). https://doi.org/10.1186/s12879-020-4865-7

Poor people. Once diagnosed with TB, TB-related drugs and monitoring tests are free in facilities designated by the National TB Program. But everything else is not free; clinical consultations and tests before TB diagnosis are not free. Medications in support of TB treatment are not free. Evaluations of TB-related clinical conditions (liver, eyes, cardiovascular, diabetic...) are not free. Those are in addition to transportation, food and accommodation costs for the patient and the accompanying family members, and in addition to their income lost.

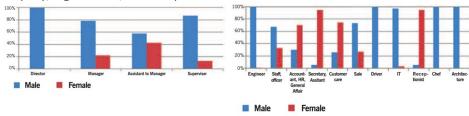
The lucky poor who have an official poor or near-poor household book will have social health insurance fully cover essential medical services. Others who have regular health insurance still need to have money for co-payment. The unlucky ones who have no insurance would have to bear all those costs.

Furthermore, since most poor people with early TB symptom such as fever and cough would self-medicate or visit private practitioners to have easy access to medical care, many of the poor people would have spent most of their saving (if any) for these services, until it is obvious that their condition is not improved.

Older people. In general TB prevalence among older people (65 and plus) is more than double of general population (689 vs 322). However, there are large disparities between provinces, in some provinces this rate among the older people is lower than for the general population. Lack of information, resources, transportation and care are among the reasons that prevent the older people accessing TB care.

GENDER DISPARITY

Gender plays a huge factor in TB programs, as it indicates the disproportionate effect TB has on different genders. The male to female ratio of TB cases worldwide in 2021 was recorded at an approximate 2:1, which was significantly less than the 4:1 ratio found in the national prevalence survey. The high TB incidence among men is partly caused by their dominance in the workforce, which expose them to a higher possibility on contracting TB. According to ILO (2015), gender and perspective of gender roles strongly affect one's employability and position in a company/organization, for example.



Figures 3 and 4. Job position and title based on gender⁴³

Economic empowerment for women and promotion of gender equality in the workforce remains a challenge, all of which impacts one's inclination or ability to access health services. Due to this explicitly or implicitly assumed gender roles, men's occupation also enables them to financially access TB treatment, unlike women who are at a more socioeconomic disadvantage. Specifically in Viet Nam, women still make up for a large portion of unpaid, lower paid, or informal workforce.⁴⁴

Current studies and policies worldwide focus on TB among men and women. TB among transgender or gender minorities lack research globally and requires further attention. ⁴⁵ This is especially urgent for gender minorities that face heightened burden due to other factors such as social inclusion or exclusion, SES, other health conditions such as HIV or diabetes, etc. However, current available research and programs show that TB does disproportionately affects gender minorities due to socioeconomic and other non-health third factors. In 1998-2000, the TB Control Program of the Baltimore City Health Department (BCHD) in the US conducted contact tracing from four TB-positive individuals belonging to a transgender community, some of whom also tested HIV positive. ⁴⁶ The contact tracing activity reveals the correlation between KVP and vulnerability to TB. Their backgrounds, KVP, and housing/occupation are also key determinants of their ability to access quality TB services. Not only are they at high risk of TB, the BCHD recognized that traditional

⁴⁴ https://www.ilo.org/hanoi/Areasofwork/equality-and-discrimination/lang-en/index.htm

⁴² https://www.who.int/news-room/fact-sheets/detail/tuberculosis

⁴³ ILC

⁴⁵ Poteat et al. (2017), Epidemiology of HIV, Sexually Transmitted Infections, Viral Hepatitis, and Tuberculosis Among Incarcerated Transgender People: A Case of Limited Data

⁴⁶ https://www.cdc.gov/mmwr/preview/mmwrhtml/mm4915a1.htm

public health means will not be as effective for this KVP group, which may be true for gender minorities in other geographic locations as well.

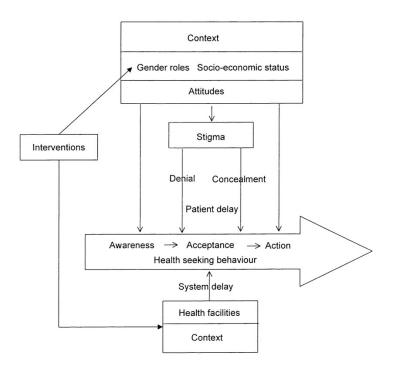


Figure 5. Contextual influences on TB-related health seeking behavior⁴⁷

In a study by Johansson et al (2000)., it was found that several contextual factors affect health seeking behavior related to TB, which include family structure and gender roles. Men might delay, deny, or conceal TB diagnosis due to fear of loss or income or financial stability. On the other hand, women's dependence on their husband causes them to fear rejection from their spouse or society should they be diagnosed with TB. Women are also found to be more sensitive to implied behaviors of health workers and treated more inferiorly when seeking test or treatment.

According to several studies, there is no significant difference in the time it takes for men or women to seek out TB services. 48 49 However, women were found to have visited a higher number of healthcare providers compared to men (1.7 and 1.5 providers, P=0.02), but this might have been due to the providers themselves. Though the reason remains unclear, it was shown that the time it takes for women get their diagnosis is slightly longer than men, which indicates that health workers need to be more gender-sensitive whilst providing care.

⁴⁷ Johansson et al. (2000)

⁴⁸ Long et al. (1999)

⁴⁹ Hoa et al. (2011)





PRIMARY FINDINGS

OVERVIEW: ACCESS TO CARE

Over the last few years, Viet Nam's health sector has flourished and has become more equipped in handling TB cases. At the moment, the doctor to patient ratio in Viet Nam could be improved, especially the TB specialists. During an interview, a respondent revealed that patient counselling is still limited due to the limited number of health workers in TB health care centers.

"Only saying that I had TB, giving me some medicines then telling me to take it at the same time every day. That's all"

Respondent 24, Hai Phong

Currently, symptomatic patients tend to have to go through several layers of professionals before arriving at the TB center. For example, they may first go to the pharmacy to obtain over the counter medication, choose to go to the provincial or central hospital when their symptoms do not dissipate, then go to the TB healthcare center.

"When I started to have some symptoms, I looked for reasons and treatment on internet. I was not better. I went to hospitals (top hospitals in Hanoi). They did many tests for looking for other diseases but TB. At that moment, if they had a doubt and done some TB test, I would not have to wait for months for TB treatment. I think anyone with symptoms should be tested for TB"

Respondent 34 Hanoi

With regards to costs, not all active screening is currently covered by the health insurance scheme. As expressed by respondents during the in-depth interview, at such a high cost, local authorities would need to closely coordinate with the relevant healthcare system to ensure that end-beneficiaries can still access the service. This is further dampened by the fact that it may take several appointments with general practitioners and specialists before reaching the TB diagnosis, something that those of low SES may not have the privilege of.

Should one be diagnosed with TB and require inpatient treatment, they are required to pay a deposit fee, something that not all can afford. As for the medication itself, though anti-TB drugs are covered by health insurance, other adjuvant drugs are not.

"having social health insurance or not, TB patients still have to pay for deposit before admitted for TB treatment... They don't have daily meals properly where can they get 1M for advance payment"

Respondent 1, Hai Duong

"I did not have to pay for TB medicine. My doctor told me that TB medicine harm my liver a lot and I should take some medicine to help my liver. He prescript it for me. Social health insurance does not cover this so I have to pay for it"

Respondent 15, Hai Phong

Though there are already primary health care centers available, with some offering TB test and treatment, several end-beneficiaries still seek out test and/or treatment from private health centers. This might be due to their trust in the latter or the convenience they receive in private facilities, even though end-beneficiaries would most likely need to pay higher fees.

PRIORITY POPULATIONS

Data on the prevalence and impact of TB on each KVP is not available as the national data is not disaggregated by KVP. However, based on the findings and performance of its KVP-specific programs, supported by secondary sources, one can induce the characteristics of the high-risk groups in Viet Nam that requires urgent attention.

For its 2022 program, the NTP has given an emphasis on the expansion and implementation of TB services for high-risk groups. These groups include prisoners and those in detention camps, people taking Methdol in the community, the elderly, mental patients, people living in social protection centers, people with diabetes, and workers in high-risk industrial zones, among others. ⁵⁰ Prisoners, people living in social protection centers, and workers are highly vulnerable to TB due to their environment and/or socioeconomic factors. Others such as PLHIV, people with diabetes, and the elderly, for example, are vulnerable to TB due to biological factors.

Of course, it is also important to address health workers' vulnerability to contracting TB, which the NTP hopes to reduce by provisions of PPE.⁵¹ The same approach is taken by Department of Health and Department C10, Ministry of Public Security, that understand the importance of protecting prison officers from TB transmission as well.⁵²⁵³

⁵² 2021 report, pg. 68

⁵⁰ 2021 report, pg. 88

⁵¹ 2021 report

⁵³ 2021 report, pg. 70

There are several groups that are most vulnerable to TB infection, which include people living with HIV (PLHIV), people who use drugs (PWUD), prisoners, elderly, and people with existing medical conditions, among others. The general key and vulnerable populations (KVP) for TB come from low SES, which correlates to their perception of healthcare. Due to their inability to afford healthcare services and unwillingness to miss work for appointments, health is not their primary concern, making them less likely to seek TB test or treatment. Their unwillingness or inability to seek TB services, in turn, may increases the rate of TB infections in the nation. As described by 3 out of 17 key respondents during the in-depth interviews, it is also not uncommon for TB patients to somewhat self-diagnose and seek the most accessible treatment albeit being ineffective. For example, TB patients may opt to buy medicine at the pharmacy when showing symptoms and will only seek professional help when their condition worsens.

Aside from the general demographic, several KVP groups do not have identification and face heightened difficulties in accessing TB services. Since personal identification is required to buy health insurance, those without it are unable to register for one and will be more likely to opt out of test or treatment due to the high fees.

Due to the fact that health facilities and TB centers are limited in each province, those who reside far from a health facility have difficulty accessing (additional) appointments. This may be due to the high transportation costs and the timeconsuming nature or frequency of visits, among others.

With regards to the existing policies, it was recently found that there were still several groups ineligible for TB preventive treatment (TPT). This includes health care workers, miners or people with silicosis, migrants, people with diabetes, and those undergoing dialysis. 54 The exclusion of these groups will prove detrimental in ensuring TB control. As an example, a study by Vo et al. revealed that treatment outcomes among migrants are poorer than permanent residents, which strongly suggests a need for strengthened monitoring/tracing and treatment continuity among the vulnerable group.55

Prisoners

The COVID-19 pandemic has not only affected the supply-chain and service delivery aspects of TB services, but also exposed specific populations/KVP to inequitable treatment.

In 2021, the NTP revealed that TB screening for prisoners in 26 out of 54 prisons have not been implemented due to challenges that arose after the COVID-19 outbreak.⁵⁶ Additionally due to social distancing and travel restriction, officers and soldiers had

⁵⁴ Step Up for TB Report (2020), pg. 60

⁵⁵ Vo, L.N.Q., Codlin, A.J., Forse, R.J. et al. Tuberculosis among economic migrants: a cross-sectional study of the risk of poor treatment outcomes and impact of a treatment adherence intervention among temporary residents in an urban district in Ho Chi Minh City, Viet Nam. BMC Infect Dis 20, 134 (2020). https://doi.org/10.1186/s12879-020-4865-7

⁵⁶ Final Report: Activities of the Tuberculosis Program 2021, pg. 39

to stay in the unit. Pre-entry TB screening for prisoners were also postponed, similar to screening for Methadone users, elderly, chronic mental patients, workers, and miners.

There are six prisons that have conducted TB testing among prisoners whose reports have been captured in the preliminary results by the NTP, namely Ninh Khanh Prison, Ngoc Ly Prison, Tan Lap Prison, Phu Son 4 Prison, Prison No. 3, and Prison No.6. The data shows that the rate of abnormal film among prisoners who took X-rays range from 5% to 11.6%, with 100% of TB- and MDR-TB- positive patients enrolled for treatment.

Stigma and Discrimination among KVP

During the FGD and in-depth interview sessions, nearly half of the respondents claimed that stigma and discrimination is prevalent among certain KVP although their treatment differ slightly. In addition to getting little to no care, PWUD are often stigmatized by their own families and society. Similarly, homeless people with TB are also ostracized from society.

Aside from society's perception towards PWUD and homeless people in general, they face heightened stigma and discrimination when or if they access health services such as TB services.

GENDER AND TB

The effects of the COVID-19 pandemic were felt disproportionately across different KVP as well as genders. In the first 10 months of 2021, it was noted that the male/female ratio of new and relapsed patients was 2.45:1, which showed a decrease compared to the previous years. ⁵⁷ At 2.74:1, the male/female ratio of TB patients in the Central region was highest among the three regions, whilst the other two regions had an estimate 2.5:1. There are several possible causes that could have resulted this outcome. Whilst it is

2:58 2:56 2:55 2:54 2:47 2:44 2:41 2:38 2019 2020 2021

Figure 6. Distribution of new and relapsed TB patients by sex

possible that TB transmission among men have decreased, it may also imply that case detection among men is not optimal, especially among certain KVP such as prisoners and migrants. Though the reported cases do show a higher prevalence among men, women are also affected by TB in other aspects.

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⁵⁷ NTP 2021, pg. 22

During a series of FGD and in-depth interviews with health workers, CBO members, and TB patients, it was revealed that there were differences in perception regarding gender roles and its correlation with TB (Appendix 2). Out of 4 FGD and 13 interview sessions, respondents from four sessions resounded a belief that women are more attuned to their and their family's health whilst six sessions revealed another common belief that women had better treatment adherence, partly due to their health seeking behavior. Similar to the discovery made by Johansson et al., few respondents believe that men's hesitance to seek test or treatment are due to the financial aspect, which might be due to the pressure that they have to take on the role of breadwinner. However, unprecedentedly, only one medical staff out of all the respondents during the 17 sessions assume that men are more likely to access health services than women due to their financial ability to do so, be it due to better income, occupation, higher job opportunities, etc. Although this might imply that the majority of the respondents do not believe that one's occupation determines their willingness and/or ability to access health services, this finding may also imply that regardless of their ability to afford health services, men do not access health services as much as women. The latter of the two logics, which remains a possibility, may be caused by their inability/unwillingness to miss work,

It is important to note that the existing policies in Viet Nam only address the two normative genders, namely males and females, with regards to TB program. As of now, there is not enough primary data to provide in-depth analysis of the effects of TB among other genders, such as transwomen, transmen, non-binary individuals, and more. However, this is not to say that explicit and implicit gender roles, as well as other related factors such as SES and employability, do not impact these groups. Therefore, it is critical to collect data and disaggregate them based on not only biological sex but also gender identity and expression.

INVOLVEMENT OF TB SURVIVORS AND KVP IN THE NTP

To maximize its TB program performance, Viet Nam continues to involve TB survivors and KVP in the implementation of its TB program.

Farmer's Union

For the past 11 years, the Global Fund Project for TB Prevention – Vietnam Farmers' Union Farmer's has long contributed to TB management and control in the country. In 2020, it was reported that the dropout rate significantly decreased whilst the treatment success rate increased following the implementation of the Farmer's Association Model. 58

During the COVID-19 pandemic, the Farmer's Union faced several challenges that hindered its activities but managed to soar in other aspects. In 2021, activities were carried out across 17 provinces and cities in several forms, namely:

• 51 models on "Farmers' TB Prevention" (district-level);

⁵⁸ 2020 Report, p. 49

- 330 models on "Latent TB Management" (commune-level); and,
- 5 models on "Application of M-Health in TB Treatment."

The three models had specific purposes of its own, with the first on "Farmers' TB Prevention" being to reduce risk of TB infection among farmers. Similar to other high-risk groups, the Union recognizes the importance of increasing farmers' knowledge on prevention seeing as they are vulnerable to TB due to their workplace, living conditions, and/or geographical mobility. Capacity building is also given to families and close contacts of TB patients through the "Latent TB Management" model. It is here that Union members encourage them to screen for LTB and to seek treatment, if needed.

Whilst the first two models were efficient in increasing one's knowledge on TB prevention and management, the "Application of M-Health in TB Treatment" model was equally as fruitful. Following its activation in 5 districts/2 provinces last year, an estimated 150 received support messages that aided patients in adhering to treatment and preventing further transmission. Information is also provided to families as part of the Union's effort in ensuring psychosocial support of TB patients, which could boost treatment adherence.

Trainings were also conducted for members of Vietnam Farmers' Union as part of its prevention efforts. The Union has also conducted early detection of patients with TB/LTB and conducted media campaigns to public raise awareness and eliminate TB-related stigma. The latter was conducted through partnerships with VTV1, Rural News, New Rural Magazine, and more.

Indicators*	2020	2021	% Change (2020-2021)
Number of people consulted and provided with information and knowledge on TB prevention	128,545	81,252	-37%
Number of TB suspects mobilized for medical examination.	16,018	9,598	-40%
Number of visits to patients at home.	1,236	13,500	992%
Number of new TB cases.	1,526	1,092	-28%
Number of TB AFB (+) cases	824	983	19%
Number of TB cases under DOTS treatment.	1,569	1,134	-28%
Number of extra-pulmonary TB cases.	231	109	-53%
Number of TB/HIV cases.	27	48	78%
Number of drug-resistant TB cases.	77	60	-22%
Number of deaths from TB.	10	2	-80%

*Indicators are taken from the 2021 NTP report, all of which are similar to the 2020 indicators

Table 4. Achievement of the 2020-2021 Farmer's Union TB Activities^{59 60}

The successes of the Farmers' Union project have won the trust of stakeholders such as local authorities, health sector, and communities. The additional human resource also enabled for improved monitoring of TB prevention and management activities.

The vast network and rapport that the Union has built cover gaps in the TB program that would otherwise be difficult to track. Seeing as TB vulnerability is driven by

⁶⁰ 2021 report, p. 59

⁵⁹ 2020 report, p. 49

socioeconomic factors as well, the Union utilizes its resources to aid poor patients to seek treatment and still maintain their livelihoods or financial aid.

Prisoners

In 2021, the NTP has provided specialized training that involved prisoners who survived TB and qualified or skilled prisoners, as depicted in the following table. The same method was used in the previous year.

Target audience	Description
Administrators of Phu Son 4 prison, Vinh Quang camp, and Quyet Tien prison (Unit staff and soldiers)	Three courses on TB detection, diagnosis, treatment and management following release from prison and re-entry to society
Ninh Khanh prison, Yen Ha camp, and Hong Ca camp (Unit staff and soldiers)	Three courses on TB prevention and control
3. Inmates at 51 prison subdivisions	Peer communication and education session

Table 5. Training for prison settings

The resource persons, which in this case are prisoners who survived TB and qualified or skilled inmates, are then given the responsibility to aid in the screening of potential TB cases at their respective prisons as well as to ensure that inmates adhere to their TB treatment. This not only improves monitoring of TB case prevention and management in the aforementioned prisons, but also improves communication with the peer prisoners.

DISCUSSION

Over the past two years, Viet Nam has made significant progress towards fulfilling its target of epidemic control by 2030. Although several aspects of the TB program could not be maximized during the COVID-19 pandemic (e.g. delayed procurement, understaffed health facilities, etc.), most targets set by 2020 were still met by the NTP and significant contribution by partners such as the Stop TB Partnership and GF subgrantees showed continued support and promise towards the fulfilment of this objective. However, in 2021, the fourth wave hit Viet Nam and instilled adverse impacts. In response, many activities under the NTP including specific activities for high-risk populations were halted. The shortage in human resources and the shift to COVID-19 response also meant that recording and reporting of cases, as well as achievements by partners and stakeholders who contribute in the NTP, were significantly delayed.

As seen in both primary and secondary sources, there are several aspects of the TB control program that remains a priority, such strategies needed to address TB and missing cases among KVP. Involvement and sensitization of stakeholders both from within the healthcare sector and outside, one of which is the private sector, is another factor that needs to be strengthened in the upcoming program. Aside from these main concerns, however, the breakout of COVID-19 also emphasized factors in the current system that needs to be strengthened, such as but not limited to the supply-chain management of drugs and equipment, human resources at health facilities, and disparity between one health facility's and/or province's quality and capacity to the next.

PRIORITY POPULATIONS

The current national policies and health services are inclusive of prioritized populations, but there remains to be several groups that require more support, namely:

- 1. Homeless people with TB
- 2. PWUD
- 3. Disabled people
- 4. Labor exporters
- 5. Ethnic minority groups
- 6. Elderly

These groups either do not have health insurance or compulsory documentation such as medical records, do not prioritize their health, or are unable to access TB services without additional support. For cases such as theirs, as well as the general people with TB, community-friendly and person-centered services become integral in improving treatment uptake, adherence and receptibility. TB services should be catered to the community's needs, something that could be improved through Community Systems Strengthening (CSS) efforts and meaningful involvement of the community. This could be done by involving KVP, CSOs, and TB community in the

development of national strategic plans, program reviews, and discussions with policymakers and relevant stakeholders.

In addition to KVP, gender also plays a key role in determining prevalence of TB and treatment success. As seen from both primary and secondary data, the disparity between perception, access and treatment adherence among different genders were interesting to note. To quote examples during the in-depth interviews, there was a shared belief by few respondents (1 respondent from a CBO and 4 health workers) that women cared about their health and their family's health more than men, which may correlate with the belief that they have better treatment adherence. An interesting finding was that only one out of 17 participants in the interview claimed that men make higher income compared to women hence their ability to access health services are better.

STIGMA AND DISCRIMINATION

Not only do KVP and end-beneficiaries face systematic barriers in accessing TB test and medicine, TB-related stigma and discrimination is still prominent worldwide. Hence, it is important to address the issue in multiple layers and to do so continuously. TB-related stigma and discrimination is often found in communities or settings that have low TB literacy, for example in families that have never been exposed to the issue or in non-TB polyclinics at health facilities. TB patients (and their families) reported isolation, avoidance, denial of services. Many TB patients report being isolated in the family, prevented from seeing their children, or even being abandoned. If being known as having TB, many patients reported being reallocated at work place or losing job. People whose work involve direct contact with other people such as customer service, restaurant staff, and sex workers are torn between the fear of guilt for infecting the others with the fear of losing their job and their income.

Stigma, however, could also be internalized by the person with TB themselves. TB patients also carry psychological, emotional, social and economic burdens that take some time to accept. Because of that, it is understandable that many of them deny their potential TB infection and try to delay until they experience dire symptoms. People with TB who are employed, primarily by companies/organizations/institutions that provide private health insurance, tend to not use social health insurance for their TB treatment because they fear that their employers may know about their diagnosis. They also often choose private clinics for the treatment, for fear of disclosure as most private clinics do not register their TB patients in the public database.

Although stigma may persist among all TB patients, it is vital to identify subgroups within that demographic, to identify heightened stigma or discrimination faced by different subgroups. Though literature on TB-related stigma is limited, there are signs that there are differences in perception of TB and TB-related stigma among men and women. According to Courtwright & Turner (2010), internalized stigma among women include fear that TB diagnosis will exclude them from society and will hamper their marriage prospects.

In addition to gender-related issues, people living with HIV (PLHIV) and people who use drugs (PWUD) with TB often face stigma or discrimination from their families or close communities, as seen in the in-depth interview results. Another subgroup that faces heightened stigma and discrimination are homeless people with TB who tend to be shunned by society.

COMMUNITY INVOLVEMENT

The involvement of survivors and KVP in TB programs have proven to be an effective method to address existing challenges in the TB prevention and management among specific groups. One such activity is the involvement of prisoners who survived TB in several provinces. As seen in the AAAQ framework, there are many contextual factors that affect one's health seeking behaviors. The inclusion of survivors and KVP contribute to the "appropriateness" factor. For example, the jargon used by a fellow inmate or peer educator in a prison will be more relatable to prisoners that (are suspected to) have TB. The peer educator's involvement or stance in the prison also increases the other prisoners' trust towards them, hence increasing their motivation to seek test or adhere to their treatment.

RECOMMENDATIONS

In response to the findings from the needs assessment, there are four proposed recommendations that could be used to address the existing gaps/barriers to Viet Nam's TB response, namely:

I. To invest in strengthening community system that engages with populations vulnerable to TB to find missing cases and support treatment.

There are many factors that inhibit one from accessing TB test and treatment, most of which cannot be addressed with one-pronged solutions. Nevertheless, one of the aspects that could significantly address each concern is through community-friendly communication, which could be accomplished by investing in strengthening community systems. In accordance with the GF Community Systems Strengthening framework, CSS could be done by strengthening the following areas. The CSS framework should be adopted to complement existing mechanisms, such as but not limited to existing legal and health frameworks.

- Enabling environment and advocacy
- Community networks, linkages, partnerships, and coordination
- Resources and capacity building
- Community activities and service delivery
- Organizational and leadership strengthening
- Monitoring and evaluation and planning.

It may also be crucial to conduct community-led monitoring (CLM) across the different districts/provinces in Viet Nam, as means to gain community perspective on the current health services and on their needs that may have not been met. In recent years, CLM has proven as a successful platform to effectively strengthen health facilities to provide more person-centered services. Exemplars of CLM programs can be seen in South Africa's HIV programs.

II. To support networks of TB survivors who then can support TB patients and TB suspects in tackling stigma and discrimination.

As reiterated by Courtwright & Turner (2010), there should be a systematic way to reduce TB-related stigma. It is first important to characterize the stigma and to identify the subgroups within the TB patient demographic that face heightened stigma, be it external or internal. Once the identification process has been done, a tool to measure the aforementioned stigma would also be useful to determine the next course of action. This could take the form of continued community led monitoring and/or surveys to seek baseline of measurable stigma and discrimination against TB patients and people affected by TB, such as but not limited to families of people with TB.

Interventions for internal and external stigma should differ among these sub-groups, which can also be accomplished with the help of a community support network. This network can be developed from the existing VCTB (see section 6 on Community System). The network will provide information and timely personalized support to prevent and overcome self-stigma and stigma and tackle discrimination.

Last but not least, there should be legal systems in place for people with TB who experience stigma. Legal and administrative remedies need to be understood and available for people affected by TB who suffer stigma and discrimination. Community network on TB should work on this in collaboration with legal institutions and lawyers.

III. To engage with National and Local Committees to End TB, and support their roles in TB response such as policy dialogues and consultations with community, social organizations and service providers, oversight activities to TB programs and activities, policy development in order to get enabling policy and needed investment for TB responses at all levels.

In order to capture their voice and provide more person-centered care, it is vital to increase KVP and end-beneficiaries' capacity in this regard as well, which can be done through socialization or capacity-building activities.

From the legal perspective, although there are existing frameworks in Viet Nam that can accelerate the epidemic control, there are several gaps that should be addressed to maximize its progress. In recent years, there have been many literature/reports that could help shed light on which areas could be strengthened in Viet Nam's national TB-related policies. Factors such as the roles of community, social contracting, and gender equality (including for genders outside of male and female) need to be addressed in policy dialogues. Fulfilling health equity and rights of KVP and people of all genders is detrimental and will contribute to the acceleration of TB control in Viet Nam.

IV. To organize gender sensitization activities for TB policy makers and program managers as well as implementers.

Gender plays an integral factor in TB programs, as it affects health service accessibility, perception of the disease, stigma and discrimination, and more. Gender-disaggregated data, along with KVP disaggregated data if available, should be used to navigate the direction of the NTP. Sensitization on gender-inclusive and gender-attuned TB services among different stakeholders, such as policymakers, program managers, peer outreach workers and social workers at TB hospitals should be conducted. Specific to health workers, it is vital to sensitize TB staff at all levels so that they are sensitive to patients of different genders and help to empower patients to

overcome gender stereotype that affect their TB service seeking behaviors and care. Additional activities may include gender empowerment interventions for people affected by TB and their families, support group discussions for male patients to encourage self-care and support group discussions spouse and/or family members of female patients to instruct care.

In addition to sensitization activities, public awareness on gender issues in TB should also be raised. One such method is by highlighting harmful practices caused by gender stereotype such as drinking and smoking among men or the perception of women as the primary (and better) caregivers. It is vital for such campaigns to provide accurate information about transmission and how to prevent it in the family, and the treatment process.

CONCLUSION

There are already several healthcare and legal mechanisms that are in favor of advancing TB service uptake in Viet Nam, though there are several aspects that could be maximized to further maximize TB control efforts. From the legal standpoint, Viet Nam's current policies are in favor of international laws on rights of people with TB. However, several aspects of the existing policies could be more specified, such as the management of stigma and discrimination cases and the inclusion of non-male/female genders in the law on gender equality. Additionally, the targeted KVP should be expanded in the strategic plan and policies, seeing as the current one is limited to some groups (PLHIV, persons in direct contact with the source of infection, especially children, people with chronic diseases, people with drug, alcohol, or tobacco addiction, and people on long-term immunosuppressive drugs) but leaves little attention to others (homeless people, migrants, ethnic minorities, elders, etc.). Although its objectives and activities have addressed most concerns, the National strategic plan on TB have also yet to include the role of communities in TB program.

It is also important to recognize that end-beneficiaries or key and vulnerable populations may not have the same capacity or literacy level to understand legal or healthcare jargons or frameworks unlike professionals in those fields. Even with the existence of patients' rights to clear information, the issue was still captured during the in-depth interviews in several sections, including the people's knowledge in relevant policies and their health literacy. Other than information, there are several barriers that increases end-beneficiaries' reluctance or inability to seek TB treatment, most of which will need to be addressed to strengthen efforts for epidemic control. Upon analyzing the demographic of TB patients in Viet Nam, it becomes evident that SES plays a huge factor in determining one's ability to access test/treatment and to adhere by it. Factors such as distance to health facility, ability to afford (multiple) appointments and treatment, ability to come to health facility without other conflicting schedules or priorities (e.g. work or assumed family roles), and other social aspects need to be considered before further developing strategies to maximize the TB service uptake in Viet Nam. Furthermore, due to the subjectivity and prismatic nature of each district/province, it would be more effective to cater said strategies to each area, the details of which will be discussed in the Recommendations section. Of course, last but not least, their health literacy and perception of the urgency of TB also play huge roles in determining one's initial willingness to seek test and treatment as well as their adherence to treatment. This was repetitively brought up during the in-depth interviews, where for example 8 (47%) respondents stated that side effects of the treatment will reduce or entirely diminish the patient's working capacity, a consideration that working patients will definitely take into account prior to committing to treatment.

 61 Decision 1314/QD-BYT Guidelines for diagnosis, treatment and prevention of TB - Quyết định 1314/QĐ-BYT Hướng dẫn chẩn đoán, điều trị và dự phòng bệnh lao

In addition to the in-depth interviews and internal reviews of national policies, the Step Up for TB Report (2020) could also be used as tool to navigate future NTP development. The analysis of the five components (diagnosis, treatment, models of care, prevention, and procurement) reveals that while each of the component in the national policies could be further strengthened, more attention should be given to models of care and prevention (Step Up for TB). Though treatment initiation and decentralization showed partial progress, the main areas of concern for the models of care component involve integration of person-centered care and social support in the national TB-related policies. Though person-centered care is difficult to standardize due to the subjectivity of each district/province and patient, a guideline or minimum standard should be set. To ensure that person-centered care has been implemented even in regions or sites with limited resources, it may be beneficial to seek end-beneficiaries' perception on TB services as well to seek and to meet the local community's needs. Although the current policies enable patients of low socioeconomic status (SES) to access said services, the administrative or procedural requirements to access free or affordable TB services should be further simplified. Another component that could be opportune is partnership with the private sector, which as identified by the NTP in the 2020 program evaluation, required further support in recording and reporting, among others. By urging for a more active role from the private sector through the PPM mechanism, accessibility and uptake of TB services will be heightened. Their involvement, however, is not the only type of innovation that will prove essential in the strengthening of TB programs in Viet Nam. It is also with the help of the National TB Committee and local communities, through CSS or CLM, that the current health sector can capture community needs and see a sharp increase in testing and treatment uptakes, even among missing cases.

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APPENDIX I. ANALYSIS BY AAAQ FRAMEWORK

COMPONENT	DESCRIPTION	Source(s)
AVAILABILITY	 According to the 2020 Year End Report (NTP), Viet Nam experienced a stockout of 1st line drugs from 2016 to 2019, with varying degrees. More would have been procured in 2020 with the help of additional funds, but it was expected that there would be another stockout from July 2021 should approval of the NTP budget plan is delayed. Following the outbreak of the fourth wave (April 7, 2021), there were additional concerns such as reduced visits to health facilities and delayed procurement. It was reported that there was still a lack of first-line drugs and there is a high risk of drug expiry for the next year. The latter was resulted from the reduced rate of DR-TB patient admissions. Disbursement rate for second-line drugs was slower in comparison to previous years. The shift in situation following the fourth wave caused Viet Nam to have to consider the situation for the next quantification round, which will prove difficult for second-line drugs especially seeing as they have short shelf life. The procedure for the drug procurement during the COVID-19 pandemic was simplified following the issuance of Circular No. 13/2021/TT-BYT (Article 11) of the MOH dated September 16, 2021, which exempts the procurement of medical equipment and drugs for COVID-19 prevention and control from having to apply for MOH import licenses. To mitigate potential delays due to the impact of COVID-19 on international supply chain, the NTP has issued an early order for drugs sourced from international suppliers. Drugs purchased from the health insurance fund have been allocated for 822 health facilities (across 705 districts), which implies that the winning pharmaceutical company would have to ensure that the supply chain runs smoothly. Concurrently, there is a need for a software to aid the statistical reporting of drugs procured by the health insurance fund and a need to increase the number of human resources for the supply chain activities. In 2021, X-ray vehicles in	NTP REPORT 2020, 2021
ACCESSIBILITY	PHYSICAL	
	 Prisoners in several prisons that do not have (functioning) X-ray machines could not get screened at other facilities/prisons due to the social distancing/restrictions imposed during the COVID-19 pandemic Those who tested TB-positive in the 6 prisons that have conducted testing activities were enrolled to treatment. However, the same could not be said for other prisons due to the lack of data and delayed testing activities in 2021. FINANCIAL 	

	 The cost of test and treatment for TB and DR-TB, among others, is covered in dedicated health facilities 	
	As relayed by respondents in the FGD and in-depth interviews, the administrative procedure for funded TB services is long and complicated, which seems to pose a challenge especially for patients of low SES	
	 Delay, denial, and concealment of TB diagnosis is not uncommon among TB patients and society. Heightened stigma and discrimination is faced by socially-disadvantaged, stigmatized, or excluded KVP, such as PWUD and homeless people living with TB. 	FGD and in-depth interview (Appendix 2)
	Information	Law number
	 The government has set a policy in place to promote the spread of TB-related information that will fit and be understood by different target groups Explanation or information on TB-related policies and program could be better catered to target groups. This is to address the belief that people still do not know of TB policies, as stated by 	03/2007/QH12 dated 21/11/2007 on prevention and control of infectious diseases (Article 8)
	respondents from the FGD and in-depth interview.	FGD and in-depth interview (Appendix 2)
ACCEPTABILITY	 CONFIDENTIALITY Patients have the right to confidentiality, be it on health status, private information in medical records, etc. (Law No. 40/2009/QH12 dated on Nov. 23, 2009 Law on medical examination and treatment, Article 3.2. and Section 1. Rights of Patients, Article 8.1.) 	
	INFORMED CONSENT	
	 By law, patients have the right to obtain full information, explanation and counselling on their disease status, including results and risks of test and treatment (Section 1. Rights of Patients, Article 10.1) and the right to obtain their health history (Article 11) In relation to the clauses above, patients have the right to choice in medical examination and treatment (Article 10) 	
	 Cultural Sensitivity The importance of cultural sensitivity is recognized by law, as seen in Law number 03/2007/QH12 dated 21/11/2007 on prevention and control of infectious diseases, which states that people with TB, people suspected of having TB, TB carriers, and family members have the right to information, education, and communication (IEC) on TB prevention and control (Article 10.2). As follows, the IEC provided must take into account several factors, including appropriateness for target audience, cultural traditions, ethnic groups, social ethics, religions, beliefs, and customs (Article 11). 	Law number 03/2007/QH12 dated 21/11/2007 on prevention and control of infectious diseases - Luật Phòng, Chống bệnh truyền nhiễm số 03/2007/QH12 ban hành năm 21/11/2007
QUALITY	SKILLS OF HEALTH WORKERS	
	The skills of health workers in prisons could be further improved SUPPLIES	
	 Several X-ray machines in health facilities and prisons have malfunctioned and procurement of new ones have been delayed due to the pandemic 	

ENVIRONMENT OR SETTING	Final reports 2018
 Prisons in Viet Nam are susceptible to drastic weather or 	and 2020
disasters, such as extreme heat and floods, which either hinder	
the implementation of TB services or expose inmates to	
uncomfortable conditions	

APPENDIX II. FGD & IN-DEPTH INTERVIEW: SUMMARY OF FINDINGS

SCDI conducted interviews with three groups: Health staff of district TB health care centers; members of CBO supporting TB patients in provinces; TB patients in provinces (including PLHIV, people who have been released from prison, the homeless, drug addiction treated patients). A total of 17 interviews, including 4 group discussions and 13 in-depth interviews shared the difficulties faced by medical system, TB patients and their families as follows:

About policies:

- 1. There are policies to support poor patients, but accessing these Funds requires complicated procedures. (7/17 interviews mentioned, including 1 by medical staff; 3 by CBO; 2 by patient).
- 2. Difficulties in the transition to health insurance payment (2/17 interviews mentioned, including 2 by medical staff).
- 3. Policy on PPM is in place, but the actual connection between the public-private health system is not clear. (1/17 interviews mentioned, including 1 by medical staff).
- 4. The people do not understand the policies to support TB patients. (2/17 interviews mentioned including 2 by CBO).

About active screening:

- 1. Screening costs are expensive, requiring close coordination of local authorities and the entire health system. (1/17 mentioned interviews included 1 by medical staff).
- 2. The people's knowledge about health is still limited, so it takes a long time for the media to mobilize them to participate in the screening event. (3/17 interviews mentioned including 3 by health workers).

Access to examination and diagnosis services:

- 1. TB patients are poor, therefore health is not their concern. (7/17 interviews mentioned, including 3 by patients, 3 by CBOs, 1 by medical staff).
- 2. TB patients have subjective psychology. When they cough and spit, they go to the pharmacy to buy medicine. Not until the symptoms worse that they go to the doctor. (3/17 interviews mentioned, including 1 by medical staff, 2 by CBOs).
- 3. Patients who don't have identification cannot buy health insurance. (3/17 interviews mentioned, including 2 by patients, 1 by medical staff).
- 4. TB patients don't have money and don't want to spend a working day to go to the doctor. (2/17 interviews mentioned, including 2 by medical staff).
- 5. In order to diagnose TB, patients have to go around a circle before reaching the right TB-specialist health care center, which costs a lot of money: From the pharmacy → Provincial Hospital/Central Hospital → reaches the district TB health care center. (4/17 interviews mentioned, including 3 by medical staff and 1 by patients).
- 6. Patients have to return to the health care facility at least 2 times for a definitive diagnosis of TB. But many patients live far away making the transportation costs high. → Hesitation of going to the health care center (6/17 interviews mentioned include 4 by medical staff, 1 by CBO, 1 by patients).
- 7. Patients are afraid of being stigmatized and self-stigmatized. (1/17 interviews mentioned, including 1 by medical staff).
- 8. Patient counseling is still limited due to the small staff of the district TB health care centers. (1/17 interviews mentioned, including 1 by medical staff).

During treatment process:

1. In addition to TB, patients bear the economic burden of many other underlying diseases that are not covered by health insurance. (3/17 interviews mentioned include 3 articles by patient).

- 2. Some patients have health insurance but still receive private treatment services due to their distrust of the primary health care facilities → Expensive private treatment costs. (3/17 interviews mentioned, including 1 by CBO; 2 by medical staff).
- 3. When patients are inpatient treatment they have to have a deposit but the patient has no money for the deposit. (5/17 interviews mentioned, including 1 by CBO; 4 by patients).
- 4. Anti-TB drugs are covered by health insurance but other adjuvant drugs must be purchased from outside. (11/17 interviews mentioned, including 5 by patients; 2 by CBOs; 4 by medical staff).
- 5. Side effects of anti-TB drugs causing reduction or loss of working capacity. (8/17 interviews mentioned, including 5 by patients, 3 by CBOs).
- 6. TB patients who are on Methadone facing drug interactions and have to increase the dose of Methadone. (4/17 interviews mentioned, including 2 by medical staff; 2 by CBOs).
- 7. Many patients don't have a means of transport, therefore have to ask someone to carry them to get medicine. (1/17 interviews mentioned, including 1 by patient)
- 8. TB patients who use drugs, have HIV, homeless, or constantly migrating are those that are difficult to manage and quit treatment easily. (10/17 interviews mentioned, including 7 by medical staff; 3 by CBOs).
- 9. Some patients who have been treated for a period of time see no symptoms, so they quit treatment by themselves. (1/17 interviews mentioned, including 1 by patient).

Groups with few opportunities to access screening services and treatment support:

- 1. The homeless (no family, doesn't care about health, doesn't have health insurance,...);
- 2. Drug users (do not prefer interacting with local health workers, never take the initiative in terms of health);
- 3. Disabled people, amputation, glass bone, spinal injury accident,...;
- 4. Labor exporters who return to Vietnam do not bring medical records so they can not continue to receive treatment;
- 5. Ethnic minority;
- 6. The elderly who are not cared for by their children.

Differences between genders:

- 1. Women care more about their health and family's. (4/17 interviews mentioned, including 1 by CBO; 3 by medical staff)
- 2. Females have better adherence to treatment. (6/17 interviews mentioned, including 2 by CBOs; 4 by medical staff)
- 3. Men put the burden of money on their health. (2/17 interviews mentioned, including 1 by medical staff).
- 4. Men have better income than women, so they are more likely to access health services than women. (1/17 interviews mentioned, including 1 by medical staff).

Stigma and Discrimination:

For TB patients with HIV/drug use who are stigmatized by their families and society, they receive little attention and care. For TB patients who are homeless, people are often shunned. These groups that go to the doctor are often looked at, talked about, and avoided. (7/17 interviews mentioned, including 3 by CBOs; 2 by patients; 2 by medical staff).

APPENDIX III. FGD & In-DEPTH INTERVIEW: LIST OF GUIDING QUESTIONS

- 1. Comment on the implementation of commitments, policies.
- 2. Describe service-seeking pathway of a TB suspect.
- 3. Describe pathway of people who participate in an active case finding project.
- 4. List expenses for diagnosis, treatment and sources of payment (basing on patient's pathways).
- **5.** Describe a "typical" TB patient age, sex, social economic characteristic, ethnic background, places of living, status of health insurance.
- **6.** Name groups that have high risk of getting TB.
- **7.** List people who have less opportunities in access to screening, diagnosis, treatment, treatment adherence support, nutrition support.
- 8. Who are the patients are more likely to be stigmatized by health workers and others patients?
- 9. Who are the patients considered "challenging" for staff? Reason? (Probe: Patient's attitudes; Adherence; Success rate; Ability to pay; Staff's reluctance to accept due to social perception...).
- **10.** Challenges to access, diagnosis, treatment, care for patients who are:
 - People who use drugs;
 - Sex workers;
 - o MSM;
 - Transgender;
 - o People living with HIV.
- **11.** Describe the differences between female and male patients.
- 12. Understanding about sexual orientations and gender identities.
- 13. Understanding about rights of people at high risk of TB and TB patients.
- **14.** Experiences on working with community support groups.



