POLICY BRIEF

TB BASELINE ASSESSMENT IN ZAMBIA
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The main objectives of the project are:

- To improve coverage and quality of TB control and occupational lung disease services;
- To strengthen capacity to manage the burden of TB and occupational diseases.
INTRODUCTION

Tuberculosis (TB) causes ill-health for approximately 10.4 million people each year globally, making it one of the top 10 causes of death worldwide. For the past 5 years in Zambia, TB has been the leading cause of death, ranking above HIV/AIDS. This is despite the fact that, with a timely diagnosis and correct treatment, most people who develop the disease can be cured.

The Southern Africa TB and Health Systems Support (SATBHSS) Project, supported by the World Bank, AUDA-NEPAD and ECSA-HC, is designed to respond to key constraints in the control of TB and other occupational lung diseases in Southern Africa by supporting the implementation of international good practices and to scale up promising interventions.

The main objectives of the project are:

- To improve coverage and quality of TB control and occupational lung disease services;
- To strengthen capacity to manage the burden of TB and occupational diseases.

The overall objective of the baseline assessment was to collect baseline information on the SATBHSS Project’s selected indicators that will be used to track progress against set targets during and at the end of the project. The baseline assessment also sought to fill existing data gaps by collecting data on selected indicators in the new National TB Strategic Plan (NSP) 2017-2021.
The Zambian government has put in place strategies to eliminate TB through the adoption of the WHO Stop TB Strategy (Ministry of Health, 2018). TB programmes are coordinated by the Ministry of Health through the NTLP that has structures which are integrated in the PHC service delivery system at national, provincial and district levels.

**29 deaths per 100,000 population in 2016**

When HIV is factored in, **74 deaths per 100,000 population**

Among household TB contacts identified, 81% were screened for TB in 2015, 88% in 2016 and 90% in 2017.

The provinces in Zambia with the highest TB prevalence: Copperbelt, Lusaka and Northern provinces (Ministry of Health, 2015).

**ZAMBIA STRATEGY FOR TACKLING TB**

The provinces in Zambia with the highest TB prevalence are Copperbelt, Lusaka and Northern provinces (Ministry of Health, 2015).
Zambia has over 1,500 public health facilities that offer TB services with 156 laboratories that have the capacity to perform quality assured TB microscopy. TB services, including diagnosis and management are offered free of charge in all public institutions.

Since January 2018, Zambia has introduced Gene Xpert (a test for TB for diagnosing TB through detecting the presence of the TB bacteria) as the initial test for all presumptive TB cases. This is likely to improve current detection rates and put the country on the path to eliminating TB.
THE LINK BETWEEN HIV AND TB

HIV and TB in Zambia share common epidemiological patterns, which present opportunities for joint programming. For example, the provinces with the highest HIV prevalence rates are also the provinces with the highest TB case notifications; and the age group with the highest HIV prevalence and TB notifications is adults aged 15-49 years.

TB/HIV collaborative activities have scored some of the most important achievements in Zambia. In 2015, 95% of TB patients were tested for HIV and Cotrimoxazole (CPT) was administered to 92% of those found positive. Similarly, 76% of HIV positive patients were put on Anti-retroviral Treatment (ART).

KEY FINDINGS

- **Offered TB Screening**: 96%
- **Most of these facilities were also based in the urban areas**: 95%
- **Government facilities**: 11%
- **Of Health facilities were offering TB treatment**: 91%
- **Health facilities did not offer any other TB services except basic screening at first appearance of a patient**: 58%
- **Were private health facilities**: 21%
- **The least offered TB service was nutritional support to patients with DR-TB with only 37% of health facilities providing this service.**
QUALITY OF TB SERVICES

- **84%** of health facilities reported having a laboratory that could perform TB tests while the rest did not. In terms of TB diagnostic procedures,

- **46%** of health facilities had a combination of both smear microscopy and Gene Xpert.

- **79%** of health facilities that provide TB services also have staff dedicated to TB service provision.

- **76%** of health facilities confirmed that their TB staff had received specialised training such as TB infection control, contacts and defaulter tracing, psychosocial counselling and other types of training.

- **59%** of health facilities that provided TB services had a designated TB corner.

- **45%** of health facilities had Gene Xpert as the only means of diagnosing TB cases, while 8% had smear microscopy as the only procedure.

- **34%** of health facilities in rural areas had a TB corner compared to 65% in urban areas.

* In rural areas only 59% dedicated staff had received specialised training to handle TB cases.
HEALTH FACILITY BASED TB INDICATORS

98% of all TB clients found with HIV were put on Cotrimoxazole Preventive Therapy (CPT) in 2015 and 97 per cent in both 2016 and 2017. Furthermore, the baseline study findings showed that high proportions of TB clients with HIV were put on ART. Those put-on ART accounted for 85% in 2015, 91% in 2016 and 92% in 2017.

Table 2: Total TB Case Notifications in the SATBHSS Project Areas

<table>
<thead>
<tr>
<th>Year</th>
<th>Passive Case Finding, n (%)</th>
<th>Active Case Finding, n (%)</th>
<th>Total</th>
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<tr>
<td>2015</td>
<td>16,133 (71%)</td>
<td>6,497 (29%)</td>
<td>22,630</td>
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<tr>
<td>2016</td>
<td>16,694 (70%)</td>
<td>7,008 (30%)</td>
<td>23,702</td>
</tr>
<tr>
<td>2017</td>
<td>16,691 (69%)</td>
<td>7,622 (31%)</td>
<td>24,313</td>
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63% of health facilities that offered TB services also conducted contact investigations and defaulter tracing. Since there are no official registers at facility level, it was found that health facilities maintained improvised registers that were kept by community health workers.

Table 3: HIV Collaborative activities

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2015, n (%)</th>
<th>2016, n (%)</th>
<th>2017, n (%)</th>
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<tr>
<td>Total notifications</td>
<td>22,630</td>
<td>23,702</td>
<td>24,313</td>
</tr>
<tr>
<td>TB clients tested for HIV</td>
<td>15,459 (68%)</td>
<td>17,654 (74%)</td>
<td>18,321 (75%)</td>
</tr>
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<td>TB clients tested for HIV who are HIV Positive</td>
<td>8,560 (55%)</td>
<td>9,032 (51%)</td>
<td>9,723 (53%)</td>
</tr>
<tr>
<td>TB clients who are HIV Positive initiated on CPT</td>
<td>8,841 (98%)</td>
<td>9,773 (97%)</td>
<td>9,926 (97%)</td>
</tr>
<tr>
<td>TB clients who are HIV Positive initiated on ART</td>
<td>7,254 (85%)</td>
<td>8,194 (91%)</td>
<td>8,938 (92%)</td>
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RESULTS FOR OCCUPATIONAL TB

The study established that Mines Safety Department (MSD) has not been able to conduct mine inspections to reach its annual targets. The study further identified lack of finances and workshop equipment and inadequate staff as constraints to conducting inspections. Furthermore, the department does not have adequate human resources, operating at 62% of the establishment.

PATIENT SATISFACTION STUDY

The satisfaction index score to have sputum results was 69% in rural areas compared to 70% in urban areas.

The score for the time it takes to have x-ray results was 77% in rural areas compared to 85% in urban areas.

Waiting time to receive treatment scored 79% in the rural areas compared to 82% in urban areas.

Satisfaction scores on the availability of TB drugs stood at 85% in rural areas compared to 88% in urban areas.
POLICY RECOMMENDATIONS

Based on the findings of this study the following are some of the key recommendations that will help accelerate the control and management of TB.

i. Strengthen TB screening for miners and close data gaps in mine employees. A good number of miners are being screened yearly. However, the system has a lot of loopholes whereby it is difficult to capture those who are not screened. This is because the total number of miners in the country is not known in the first place. Secondly, miners who are employed by contractors are difficult to capture as they do not have access to mine health facilities. While they are required to attend pre-employment screening, some of them tend to fake results in order not to be turned away from employment.

ii. Improve TB services in non-mining sectors of the economy. The study found that TB services are more coordinated in the mining sector compared to non-mining sectors. The MoLSS and the OSHF should ensure that non-mining workplaces are inspected regularly and those found with the risk of TB urged to follow the same procedures of taking care of controlling TB among workers as in the mines.

iii. Address specific legal requirements that may act as barriers to seeking care among TB patients in the mining sector. Current legislation by the Workers’ Compensation requires that miners found with TB should be laid off was found to be acting as a barrier to seeking care by miners for fear of losing their jobs. The NTLP, working with other stakeholders such as MoLSS and the Workers’ Compensation should find ways of addressing with TB in the mines without compromising health seeking behaviour among miners.

iv. Strengthen TB services provision for ex-miners. Once miners leave the mines it becomes very difficult for them to attend routine examination as some of them relocate to places that are hard to reach. Given that their economic circumstances change when out of employment, many of them fail to attend routine check-ups. The NTLP should engage closely with mining firms to ensure a system is put in place to continue reaching former miners.

v. Enhance mine inspections. Mine inspections are below target for the years reviewed. In order to strengthen TB surveillance system there is need to enhance the financial and human resource capacity of the MSD to be able to conduct inspections as required. Resources to the MSD should be commensurate to the rising mining activities in the country.
i. Strengthen community outreach activities to improve active case finding and contact tracing. Given the low occurrence of active case finding and non-optimal contact investigations the NTP should invest in revamping community outreach activities, by creating incentives for community workers who are working for free. Strengthening community outreach helps in the control of DR-TB by strengthening patient follow ups.

ii. Strengthen the M&E framework especially at the lower level for better management of TB data. Lower levels data management is done manually, while data management for community activities such as contact investigations are quite poor and lack proper and standardized registers with facilities having to use improvised ones. The NTLP should work towards digitalising data management to improve efficiency.

iii. Develop Standard Operating Procedures (SOPs) and algorithms for systematic screening and TB assessment of contacts in order to improve the management of contact tracing. Current contact tracing activities are performed without proper guidelines, there is also no established algorithm on how to screen and assess TB contacts. As a result each facility is following different processes convenient to them. Additionally standard registers for contacts do not exist. The NTP should urgently develop SOPs as well as define algorithms for assessing TB contacts.

iv. Strengthen the system of administering IPT to PLHIV who have latent TB infection. The system of administering IPT is generally weak, clear guidelines on how to manage PLHIV who test negative for TB must be provided. Poor record keeping regarding IPT was found, the NTLP should come up with a system of ensuring proper data management for IPT services.

v. Strengthen the provision of nutritional and psychosocial counseling support to DR-TB patients to accelerate treatment. Nutritional and psychosocial counseling services are limited to a few health facilities. This needs to be improved by ensuring all health facilities providing TB services initiate DR-TB patients on nutritional programs and start providing counseling.

vi. Strengthen data management in collaborations with stakeholders working outside the NTLP to accelerate TB detection. The reporting of TB indicators was not disaggregated to reflect the interventions and efforts of CBOs, CSOs and NGOs who operate outside the NTLP. This is an important weakness. To address it, the NTLP needs to revisit the TB M&E framework so it becomes possible for certain TB indicators to be easily attributed to the contribution of stakeholders. This way, it will possible to measure the efficiency and effectiveness of all support coming from outside the NTLP.

vii. Accelerate the renovation of TB laboratories in health facilities providing TB to improve TB detection. The NTLP should accelerate renovations of needy health facilities as a way of improving the efficiency and speed of TB detection in all health facilities. This is even more urgent for rural areas were needs are relatively higher.
i. Strengthen behaviour change communication activities to spread information about TB to vulnerable groups. For effective control of the disease, behaviour change communication programs should be rightly targeted at both sexes, but with more focus on urban populations and people in the age groups of 24-44.

ii. Shorten TB tests turnaround time especially in rural areas in order to encourage TB patients to go for TB tests without hesitation. Longer TB tests turnaround times for both sputum and X-ray results especially in rural areas. The overall turn-around time for TB tests are likely to improve with the introduction of geneXpert machines in a number of health facilities.

iii. Improve TB drug supplies to avoid stock-outs. A small portion of patients complained about the availability of TB drugs in some facilities. The NTLP should strengthen the system of monitoring to ensure procedures for ordering and stocking of drugs if strictly followed in all health facilities providing TB services.

iv. Strengthen support for TB treatment. A sufficient proportion of patients in both rural and urban areas complained of the lack of support during TB treatment. The NTLP should strengthen community outreach programs in all health facilities. by providing incentives for community workers.

v. Improve TB patient privacy by ensuring that every health facility has a dedicated TB corner: A number of health facilities without a dedicated TB corner compromises the privacy of patients who have had to mix with others. The NTLP should ensure that all health facilities providing TB services have built TB corners. This will not only improve privacy but will also help prevent and reduced stigma and discrimination against TB patients.

vi. Improve the quality of TB services by ensuring that services are administered by specially trained personnel. Some health facilities staff administering TB services was not specially trained. The NTLP should ensure that staff assigned to provide TB services are trained in specific topics such as TB infection control, contacts and defaulter tracing, psychosocial counselling and other types of training.
CONCLUSION

The study has raised important concerns regarding the nature of TB services in Zambia. The study has highlighted gaps in the system that may make it difficult for Zambia to achieve its intended objectives of eliminating TB by 2035 as expressed in the NSP. Importantly, the study took place in the SATBHSS Project areas which also have the greatest burden of TB for several of reasons including high population density, presence of mining activities and poor living standards. The findings of this report therefore can mirror the situation of TB services delivery at the national level and can be upscaled in the Southern African region.