SOUTHERN AFRICA

TB AND HEALTH SYSTEMS SUPPORT (SATBHSS) PROJECT

REGIONAL 2019 ANNUAL REPORT Brief
PROJECT NO: P155658
BACKGROUND

Globally, an estimated 10.0 million people fell ill with TB in 2018 (WHO TB Global report). There were an estimated 1.2 million TB deaths among HIV-negative people in 2018 (a 27% reduction since 2000), and an additional 251,000 TB deaths among HIV-positive people.

The burden of drug-resistant TB is of major concern at global, regional and country level. In 2018, 3.4% of new TB cases and 18% of previously treated cases had MDR/RR-TB. A total of 7.0 million new cases (70%) of TB were notified in 2018.

Geographically, most TB cases in 2018 were in the World Health Organisation (WHO) regions of South-East Asia (44%) and Africa (24%). Africa has the highest burden of TB per 100 thousand populations amongst all regions.

The burden of TB has been a problem of global concern for a long time, and global development goals and TB strategies have placed TB elimination, as a public health problem, at the core of their goals.

Despite reductions in global TB deaths, TB remains among the top five causes of death in Sub-Saharan TB are located in this region.

The rise in TB cases in Southern Africa has been largely driven by the HIV epidemic, but mining is also a major contributing factor with 33% of new TB cases in Sub-Saharan Africa attributed to this sector1.

The four SATBHSS project countries are listed amongst the 30 high-burden countries for TB, TB/HIV and/or MDR-TB in 2019. All project countries except Mozambique met the MDG target to halt and reverse TB incidence.

TB incidence remains high, and ranges from 181 in Malawi to 611 per 100,000 in Lesotho, with high TB/HIV co-infection rates in all countries. The burden of MDR-TB cases amongst both new and previously treated cases is on the rise in all project countries.

The SATBHSS project has significantly contributed to strengthen efforts to end TB in the project countries, and additional efforts are required to attain the end TB targets.

Building upon three years' achievements of establishing linkages with stakeholders for strengthening cross-border TB and disease surveillance, capacity in DS and MDR-TB and detection and management, including psychosocial support to MDR-TB patients, and TB diagnosis capacity.

ECSA-HC will further strengthen these through improvement of regional coordination and collaboration.

---

KEY SUCCESSES AND ACHIEVEMENTS

The MTR for the SATBHSS project recently conducted, highlighted remarkable advances in the regional support for strengthening efforts towards ending TB in the project countries, which will serve as foundation for the following stages of the project implementation.

The support was conducted through direct implementation of regional activities such as the studies and cross-border activities, but more emphasis was put on technical assistance provided to the countries in support of the respective investment plans. The above-mentioned technical assistance includes:

**Enhancing TB case detection and treatment success**

A number of interventions aimed enhancing TB case detection and improving TB treatment outcomes were implemented. These included:

i) **Strengthening harmonisation of regional protocols and cross-border collaboration for TB care**: (a) completed an assessment of the stage of domestication of harmonised framework on TB management; (b) facilitated dialogue to develop action plan to optimise implementation of the recommendations of the assessment within the CoP on continuum of care; (c) a roadmap was developed to implement the recommendations including tools, dissemination to key stakeholders and training of trainers;

(ii) **capacity building of experts** through regional and global centres of excellence for TB and PMDT, for strategies for finding missing cases, MDR-TB management with focus on introducing new treatment regimens ad patient support;
(iii) Technical support enhanced TB case detection in general and in key populations; (a) facilitated knowledge sharing on implementation of Practical Approach to Lung Health (PAL), community based TB case finding, and sputum transport with 13 experts supported; (b) trained 25 central level and frontline workers on TB detection and management in correctional facilities; (c) facilitated knowledge exchange and training on integrated TB screening for healthcare workers - wellness model in Zimbabwe covering 16 participants;

(iv) Strengthening quality of TB care for key populations; (a) assessed and supported development and implementation quality improvement interventions in clinics for miners, ex-miners and families and provided technical assistance to develop performance based funding framework for CBO hired for tracking and tracing in Lesotho; provided training of 30 country experts on continuous quality improvement on TB care and 27 experts on data use to improve quality of TB care and facility based mentorship for quality improvement;

(v) supported implementation of TB infection strategies in health settings and control and of TB in high-risk groups including correctional facilities including development of guidelines, SoPs and tools for recording and reporting for healthcare workers screening; developing guidelines for TB control in correctional facilities in Lesotho and guidelines, policy SoPs and checklists for TB infection control; trained over 150 experts through technical assistance within countries on TB infection control and conducted facility mentorship for risk assessment and implementation of TB infection control in health facilities. Technical assistance was also provided to develop rollout plans for infection control and HCW screening. Technical assistance for development of infection TB risk assessment checklists and dashboards in ongoing to enhance the program further.

Rolling out a standardised package of occupational health services and mining safety standards across the four countries
The AUDA-NEPAD supported project countries to (i) strengthen the capacity of public sector agencies in mine health and safety inspection; and (ii) initiate the roll out occupational health services database and electronic record systems. In this regard, inspectors were trained focusing on dust management. Occupational hygiene experts were also trained with the view to improve occupational hygiene practices in the project countries. The trained experts were also provided with guiding documents for conducting mine inspection and ensuring compliance with the view to improve the quality of inspections. Zambia and Lesotho were supported to develop guidance documents for the rolling out of occupational health services database and electronic record systems. This was implemented in collaboration with the National Institute for Occupation Health (NIOH) of South Africa which will provide technical support in the adaptation and implementation of Occupational Health and Safety Information System (OHASIS).

Improving quality and availability of human resources in the target areas
As part of continued local capacity building, ECSA-HC supported several training and capacity building support to enhance country’s capacity to implement the major activities within the countries in order to achieve the set goals in various aspects.
training activities prioritised and carried out in year three were as following, in which a total of 455 participants have been trained so far (cumulatively) at regional level. About 1,357 trainees were trained in the following areas covering all the countries in most of the training (certification as African Society for Laboratory Medicine –ASLM Step Wise Laboratory Quality Improvement Process Toward Accreditation (SLIPTA) auditors, Laboratory Quality Management System (LQMS) Mentors, LQMS and ISO Standards, Second Drug Sensitivity Testing (DST) using Line Probe Assay (LPA) Threats Hazards Identification and Risk Assessment (THIRA); Laboratory based surveillance, Event-based Surveillance (EBS), infection control and healthcare workers screening.

The project contributed immensely to capacity-building in the field of OHS in the four participating countries. Inspectors, doctors, nurses and occupational hygiene professionals were trained. AUDA-NEPAD played a key role in this initiative that saw nine inspectors being trained in the use of respirable airborne gravimetric sampling equipment. A further 60 inspectors were trained in an in-country OHS inspectors’ training programme in Mozambique and Malawi. They acquired skills regarding the basic principles of inspections and risk assessment.

22 occupational hygiene professionals were trained on the measurement of hazardous chemical substances, including risk assessment. After the training, participants sat for an international exam administered by the British Occupational Hygiene Society (BOHS) under the International Occupational Hygiene Association (IOHA); 60% of participants passed the exam.

24 medical doctors and occupational health nurses were trained on basic occupational health principles, with a focus on medical surveillance and compensation. The training was organised to facilitate capacity development in occupational health skills in medical surveillance and compensation principles for miners and ex-miners. The training was done in collaboration with the Compensation Commissioner for Occupational Diseases (CCOD), under the South African Medical Bureau for Occupational Diseases (MBOD).

**Strengthening diagnostic capacity and disease surveillance**

As part of strengthening cross-border surveillance and emergency preparedness and response, the project supported and or provided technical assistance in a number of areas to ensure enhanced capacity of preparedness and response.

(i) **Cross-border disease surveillance and response** - To date, the project has established 12 of the 26 identified cross-border zones between the 4 project countries and their neighbours that are not in the SATBSS project of South Africa, DRC, Tanzania and Zimbabwe. The innovation of cross-border zoning and establishment of committees has provided a platform for enhanced cross-border collaboration between districts of neighbouring countries through establishment of formal and informal communication channels, implementation of joint work plans and joint outbreak investigations among others;
(ii) **capacity enhancement on preparedness and response.** ECSA-HC has conducted capacity building of zonal members through trainings like Threats and Hazards Identification and Risk Assessment (THIRA), donning and doffing and table top simulations and inspections of port health and Ebola Treatment Units;

(iii) **Simulation exercises:** following the declaration of the DRC Ebola outbreak as a threat of international concern, countries have enhanced their preparedness. To test the level of preparedness, ECSA-HC supported the planning, execution and after-action review of Field Simulation Exercise in Lesotho and Malawi where detailed action plans were developed from the observations and recommendations. Five table-top simulation exercises were conducted using the cross-border zone platform to test emergency preparedness and response plans based on the various risks for various diseases including Ebola, Cholera, Rabies, Listeriosis and countries like Zambia and Malawi utilized some of the findings to revise their preparedness plans. This also assisted to improve inter-agency collaborations in preparedness and response.

**Laboratory Systems Improvements**

ECSA-HC contributed to building capacity of project countries to implement laboratory system strengthening and quality management systems towards accreditation through training and certification of the remaining six laboratorians (cumulative total of 20 since 2017) as ASLM SLIPTA certified auditors. The project has increasingly started utilising these project trained assessors for its annual peer SLIPTA audits. To date, all 13 laboratories from the 4 project countries have attained the project target of two stars. Two of the project laboratories from Zambia have attained ISO 15189 Accreditation with five more earmarked for accreditation in 2020. In addition, ECSA-HC provided technical assistance in development of structured mentorship guidelines for Malawi and an accreditation roadmap for Lesotho. Support was provided to the countries to implement laboratory-based disease surveillance to increase the capacity for early detection. Zambia was supported to roll out second line DST using line Probe Assays (LPA). The project also supported the National TB Reference Laboratory – Mozambique process of attaining Supra Reference Laboratory (SRL) status, which will strengthen its capacity to support the TB network in Mozambique and the region (including Lusophone countries).

**Operational research knowledge sharing and programme management**

Under the SATBHSS project, a number of regional studies were approved for regional implementation and coordination. These studies are cross cutting among the participating project countries, and it was envisaged that a common methodology be adopted to ensure cross country learning. While the coordination is at regional level, data and findings will be owned by the respective countries as stipulated in
the Subsidiary Agreements between the countries and the regional organisations. The following are some of the findings and updates from the studies implemented:

(i) Cost benefit analysis and health impact study of investing in TB control - Lesotho, found evidence of improvement in all four key intervention variables and a wide range of productivity losses for TB patients. The mining facilities reported very small impacts from TB and other occupational lung diseases. The benefit-cost ratio was highly favourable, with up to $9.02 in economic benefits for every dollar invested. Malawi data revealed substantial productivity loss among TB patients throughout the episode of illness and a reduction in the number of days between onset of TB symptoms and receiving a TB diagnosis. However, there was mixed evidence associated with SATBHSSP: improvement in three key intervention variables, worsening in an additional three intervention variables, and no change in one intervention variable. Combining all outcomes, the overall benefit-cost ratio was -0.07. Mozambique data showed that SATBHSSP was associated with favourable changes on all of the health impact measures available. However, none of these changes was statistically significant. For Zambia, data from key informants suggested productivity losses peaked during the intensive phase of drug-sensitive TB (DS-TB) and multi-drug resistant-TB (MDR-TB) treatment, compared to pre-diagnosis or continuation phases. The health impact assessment found statistically significant effects on two outcome variables which, ironically, acted in opposite directions. Rates of TB/HIV (Rates of TB detection in HIV-positive persons) deteriorated significantly, while rates of TB detection overall improved significantly in SATBHSSP districts compared to control districts. Results on other health impact outcomes were mixed in direction and not statistically significant. The benefit-cost analysis was favourable overall, yielding $2.00 gained per dollar invested.

(ii) Regional out of pocket study as a barrier to access TB services in the region: Lesotho has completed the study and the final report has been submitted to the regional consultant for the regional analysis and comparison with the other participating countries. They have also managed to prepare policy briefs based on the outcome of the study. The overall out-of-pocket expenditure for the treatment of a single episode TB was M3391 (~US$ 260), which is significant when comparing to the minimum monthly wage of a domestic worker which starts at M624 (US$48) or a factory worker who earns approximately M2000 (US$153) per month. The OOPE for MDR-TB is greater at a total cost of M47,053 (US$3,619) which comprises mainly of direct non-medical costs of M44,894 (US$3,453). The study found that the health system in Lesotho has been successful in keeping the direct medical cost for diagnosis and treatment of TB low. However, the non-medical and indirect costs are the cause of driving a sizable proportion of individuals into the ‘medical poverty trap’. Nearly a quarter of individuals resorted to coping strategies to deal with the associated financial stresses from TB. Approximately 21% borrowed money to cover costs incurred during TB treatment while 5% sold their personal property to finance the cost incurred during TB treatment. Those with MDRTB are hardest hit by the financial implications, with 80% reporting receiving support – mainly in the form of food from family. Malawi completed data analysis and submitted a draft report for review; however, they are required to submit a data set to the regional consultant so that it can be included for the regional review and analysis. Mozambique is at final stages of negotiation with the consultant to do the work, while Zambia is still looking
for the consultant to do the work, this is due to the challenges faced after failing to engage the selected firm in the previous process after conducting due diligence;

(iii) **Review of implementation of harmonisation of TB management guidelines:** Data collection has been completed in all the countries and a draft roadmap to implement the recommendations.

(iv) **Study on Opportunities for Private Sector Participation in TB Control:**
The study on opportunities for private sector participation in TB control was finalised. The study was aimed at (i) assessing the level of engagement of private sector, NGO’s, Faith Based clinics and hospitals, and public-private collaboration in SADC countries on TB control; (ii) identifying opportunities, risks, challenges and key strategic priorities to further expand private sector support to TB prevention and care; and (iii) recommending on the development of a regional strategy for private sector engagement in TB control based on identified opportunities and lessons learnt. The results of the study noted that private sector engagement in the four countries is still at infancy stage with different models being used in the four project countries. It was further noted that engagement with faith-based organisations is stronger compared to for-profit private sector. Some of the key challenges noted by the study included weak regulations and enforcement capacity; limited capacity for engagement, monitoring and evaluation; and inadequate incentives and enablers. The study recommended the need for governments to strengthen regulatory environment to facilitate effective engagement of the private sector. It further recommended that governments and partners should increase financial and technical support to National TB programmes for development/updating, implementation and monitoring PPM action plans.
(v) Baseline Study on Mine Health Regulation and Occupational Health and Safety Services in Southern Africa

The baseline study was finalised, and reports are under review. Preliminary results indicate that most legal framework on OHS in the project are fragmented and inadequate. The silica dust controls in the study mines focused on respiratory protective devices (RPDs) as the primary control measure, however, the selection of the RPDs was not informed by a proper risk assessment. The protection factors and approval of the RPDs were not specified, poorly maintained and not frequently used. Table one provides a summary of findings on respirable crystalline silica dust time-weighted average concentrations.

Centres of Excellence in TB and Occupational Lung Disease Control

Countries prioritised establishment of CoEs as follows:

- Lesotho - CoE in Community based TB Care
- Malawi - Community TB and Integrated Disease Surveillance
- Mozambique - Management of Drug-Resistant Tuberculosis and Paediatric TB Management
- Zambia – Occupational Health and Safety

Regional coordination, policy advocacy, and harmonisation

In order to offer effective regional coordination, a Project Coordination Unit (PCU) was set up and fully staffed by February 2017 at ECSA-HC. The unit comprises of the Project Manager/Accounting officer as the Director General, the Project Coordinator, Senior TB Control Specialist, Senior Laboratory Specialist, Senior Public Health Specialist, Finance Officer, M&E Specialist and Medical Epidemiologist.

Financial management

During the reporting period ECSA-HC through the project received funding of $2,466,148 in total from the four countries to support implementation of regional activities planned for 2019. This disbursed amount represents 93% of the total budget for 2019 work plan. The expenditure to December 2019 was at $1,708,883 which is 69% of the disbursed amount and 64% of 2019 annual work plan budget (2,657,796).