



Annual Progress Report 2017

Southern Africa Tuberculosis
and Health Systems Support
(SATBHSS) Project



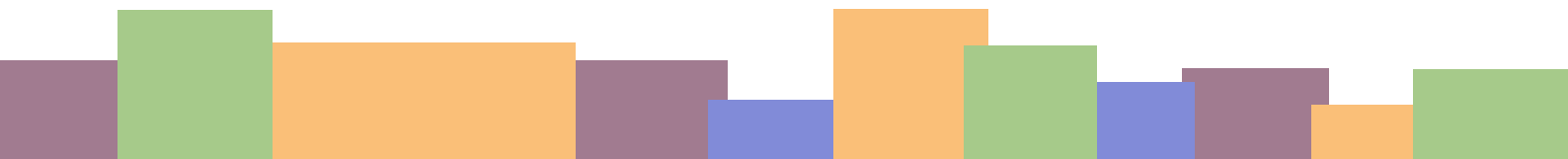


TABLE OF CONTENTS

- Project Overview 2**
- Section 1: Background and Executive Summary 3**
 - Project Introduction 3
- Section 2: Activity Implementation Progress..... 7**
 - 2.1. Component 1: Innovative Prevention, Detection, and Treatment of TB.....9
 - 2.2. Component 2: Regional Capacity for Disease Surveillance, Diagnostics, and Management of TB and Occupational Lung Diseases 16
 - 2.3. Component 3: Regional Learning and Innovation, and Project Management.....23
- Section 3: Crosscutting Issues And Forward Priorities 29**
 - 3.1. Procurement29
 - 3.2. Safeguards29
 - 3.3. Stakeholder participation and involvement30
- Section 4: Financial Management 32**
 - 4.1. Cash Flow Report and Financial Projections (Pipeline Burn-Rate)32
- Section 5: Project Performance Indicators 33**
 - Summary of Performance on Project Indicators33
- Section 6: Implementation Challenges And Lessons Learned..... 37**
 - 6.1. Implementation Challenges.....37
 - 6.2. Lesson learned39
- Section 7: Planned Activities for Next Quarter Including Upcoming Events 41**
 - 7.1. At regional Level41
 - NEPAD 2018 Work Plan.....41



PROJECT OVERVIEW

Program Name:	Southern Africa Tuberculosis and Health Systems Support Project			
Project Number:	P155658			
Reporting period (Start-End date)	January – June 2017			
Program Name:	The Southern Africa TB and Health Systems Support (SATBHSS) Project			
Donor	The World Bank			
Technical Coordination				
Countries	Lesotho	Malawi	Mozambique	Zambia
Geographic Coverage (Provinces/Districts)	Lesotho	Northern Region (Karonga; Rumph; Mzimba South & Mzimba North); Central Region (Lilongwe & Kasungu) Southern Region (Balaka; Blantyre & Nsanje)	Gaza, Maputo Province, Tete, Manica, Inhambane	Copperbelt Province: Ndola, Kitwe, Luanshya, Mufulira, Chingola and Chililabombwe North Western Province: Lumwana, Solwezi and Kansanshi Central Province: Kabwe, Kapirimposhi and Mkushillili Lusaka Province: Lusaka, Chilanga and Nampundwe Southern Province: Maamba
	Ministry of Mining, Ministry of Labour and Employment and Ministry of Justice and Correctional Services	Ministry of Labor & Department of Mines		Challenge TB under FHI360; CDC, WHO; CIRDDZ; ZATULET; Chamber of Mines
Major Partners Organizations	SADC, WHO, CDC, TB in the Mining Sector (TIMS) project, AUC			

SECTION 1:

Background and Executive Summary

Project Introduction

The Africa region has the highest TB incidence among the five WHO regions, estimated at 275/100 000, and particularly in the southern Africa region the burden is estimated at 591/100,000. In SADC region, TB has been recognized as cross-border public health issue and several efforts have been undertaken to tackle TB as a region. These efforts were clearly marked by the development, advocacy and support to implement regional frameworks for harmonized management of TB, MDR-TB, TB in children and adolescents and TB/HIV in SADC region.

TB in mining has been recognized as a major driver for TB in African region. African mines report the highest estimated TB incidence in the world, at 3,000-7,000 per 100,000 and yet 70% of occupational TB cases remain undiagnosed.^{1 2} In addition to their work and living conditions, mineworkers in Southern Africa are made more vulnerable to TB and MDR-TB by difficulties they face in accessing health services as a result of frequent migratory movements across borders, informal employment, and poor cross border health referral systems and harmonization of TB management guidelines.³

SATBHSS countries are listed amongst the 30 high burden countries for TB, TB/HIV and MDR-TB. TB incidence ranges from 193 in Malawi to 788 per 100,000 in Lesotho, with high TB/HIV co-infection rates, estimates range from 52% in Mozambique to 72% in Lesotho. The estimated number of MDR-TB cases ranged from to 440 cases in Malawi to 7300 cases in Mozambique. The number of cases detected was far below the estimated incidence, at 9% in Mozambique and Zambia (646 and 196 cases of MRD/RR laboratory confirmed cases) and 30% for Lesotho (332 cases MDR/RR laboratory confirmed). The universal DST coverage is far from being achieved in the four counties, less than 21% of new cases 60% of previously treated cases have access to a first line DST in the four countries. The gaps in MDR-TB management are also reflected in the treatment outcomes that ranged from 33% in Zambia to 63% in Lesotho.

The Southern Africa TB and Health Systems Support (SATBHSS) Project is a regional project covering four countries namely, Lesotho, Malawi, Mozambique and Zambia whose overall goal is to improve coverage and quality of key TB control and occupational lung disease services in targeted geographic areas of the participating countries; and strengthen regional capacity to manage the burden of TB and occupational diseases. The primary beneficiaries of the project will be TB-affected individuals and households. The project will target mining communities, high TB burden regions, high HIV/AIDS burden regions, transport corridors and cross-border areas of the four target countries. Mineworkers, ex-mineworkers, their families, labour-sending areas and health workers, including women, particularly in the small-scale mining sector will also directly benefit from the project.



1 World Health Organization. 2016. Global tuberculosis report 2016;
2 Dharmadhikari A, Smith J, et al. (2013); Aspiring to zero Tuberculosis deaths among southern Africa's miners: is there a way forward?; International Journal of Health Services; 43 (4); 651–664,
3 The World Bank. 2014. Benefits and costs of reducing Tuberculosis among Southern Africa's Mineworkers

The interventions will be implemented through three overarching components (i) Innovative Prevention, Detection, and Treatment of TB; (ii) Regional Capacity for Disease Surveillance, Diagnostics, and Management of TB and Occupational Lung Diseases; and (iii) Regional Learning and Innovation, and Project Management. Interventions will be implemented through a multi-sectorial approach, through the collaboration of three Ministries, namely, the Ministry of Health (through the National TB Control Program), Ministry of Labor and Ministry of Energy (through the department of mines).

The SATBHSS project has a wide coverage in country, and is expected to contribute to the attainment of country strategic goals. The project is country-wide in Lesotho, covers nine Districts across the three regions of Malawi, five provinces (out of 11 provinces) in Mozambique and 16 districts in five provinces (out of ten provinces in Zambia). The SATBHSS project regional launch was held in Maputo in December 2016, became effective in three countries and at ECSA-HC and NEPAD Agency. A summary of the launch proceedings is available [here](#).

Summary of key achievements

Regional level

- Trained 91 regionally in the areas of (i) Operation Research through the Union & University of Zambia (ii) Management of MDR-TB through the WHO collaborating centre & Rwanda MDR CoE (iii) WHO/AFRO/Strengthening Laboratory Quality Improvement Process Towards Accreditation (WHO/AFRO SLIPTA) through the African Society for Laboratory Medicine (ASLM) (iv) Laboratory mentorship and ISO 15189 implementation;
- Operationalized four of the five Regional Communities of Practice (CoPs)
- Conducted peer laboratory audits using the WHO/AFRO SLIPTA Framework in all four countries
- Conducted cholera response capacity building through table top simulation exercises and carried out joint cross-border response for cholera outbreak in Karonga District Malawi
- Established two Cross-border zones for joint surveillance action and operationalized them
- Cooperation agreement completed and already signed by two countries
- Mentorship offered to develop eight OR studies protocols by country teams
- Completed training needs assessment study in three of the four countries
- Provided Technical assistance to project countries in a number of project areas
- Prepared a communication strategy, communication materials and convened advocacy platforms for increased awareness of the SATBHSS project at the regional, continental and global level.

Countries' level

- Established structures for implementation of the project including the National Advisory Committee (Mozambique), National Technical Committees and Project Management Units
- With support of the regional organizations the countries prioritized research agenda and developed study protocols to be implemented within the countries (eight country specific studies)

- Developed concepts for establishment of Centres of Excellence (CoEs) in respective areas
- Development, training on and sensitization of documents, guidelines and training manuals related to innovative prevention, detection and Treatment of TB including (i) Development of a TB resource book for use in Primary Schools - Malawi; (ii) MDR TB management training - Malawi; (iii) Orienting health care workers in systematic TB screening-Zambia (vi) Sensitization of the Occupation Health and Safety Act - Zambia; (v) Work place health and safety committee guidelines – Zambia (vi) Review of the Mine Safety Regulations – Zambia
- Community sensitization meetings including; (i) Community Case Finding and Community Screening Campaigns for miners and their household contacts including children – Mozambique (ii) Mass radio and television publicity campaigns for TB screening
- Assisting miners and ex-miners by (i) Grouping of miners and former miners to improve knowledge and health seeking behavior among the mining population - Malawi (ii) Support Ex-Miners to form Cooperatives - Zambia
- Inspected mines and quarries were to enforce the Occupational Health Safety and Mines and Mines safety regulations (71 mines and quarries inspected in Malawi)
- Produced job aides and mentorship tool to build capacity for effective service delivery
- Human resource capacity with (i) 133 health workers trained in Zambia in different areas management of TB and occupational health; 46 trained in Strengthening Laboratory Management toward Accreditation (SLMTA) in Malawi
- Improved quality of diagnostics through External Quality Assurance of Microscopy and Expert site visits (88 site visits in Malawi)
- Initiation of baseline studies that are various implementation status across the four countries.

Summary of Performance on indicators

The following table provides a summary of indicators that recorded good performance at half year (more detailed summary of performance by country for each indicator is shown in section 5);

Indicator	Status
POI# 1. TB case notification in target geographic areas	Malawi, Zambia, Lesotho and Mozambique have met their mid-year performance (50%) their annual target
POI# 2. TB Treatment success rate in target geographic areas: All (i) New and (ii) Relapse TB cases (Percentage)	Zambia and Mozambique attained the 87% global target of Stop TB partnership
POI# 5. Direct beneficiaries surpassed their mid-year	Mozambique and Lesotho surpassed the annual target by mid-year on the number of beneficiaries served.
IOI# 1. Proportion of MDR-TB patients in target geographic areas benefitting from psychosocial OR nutritional support during the treatment period	Malawi, Lesotho and Mozambique surpassed their annual target at mid-year
IOI# 4. Percentage of HIV patients routinely screened for TB in targeted geographic areas	Malawi, Lesotho and Mozambique have met their mid-year performance (50%) their annual target

Disbursement summary

The overall total of \$20,319,814 (68.3%) has been disbursed against the overall (combined) total approved budget of \$31,977,586 for FY 2017. By end of the year, the overall expenditure stands at 8,361,568 (26% of the overall annual budget). The table below summarizes the twelve months financial summary per country/organization (more details are provided in section 4).

Table 1: Financial summary per country/organization for 2017 (year 1)

Country/Organization	Budget US\$	Disbursed US\$	Spent US\$	Expenditure against budget
ECSA-HC	2,449,249	2,456,268	2,029,986	83%
NEPAD	1,199,388	699,795.00	409,211	34%
Lesotho	3,887,871	1,831,423	816,295	21%
Malawi	7,209,120	3,481,805	2,932,257	41%
Mozambique	9,380,599	6,229,287	1,112,852	12%
Zambia	7,851,359	5,621,236	1,060,967	14%
Total	31,977,586	20,319,814	8,361,568	26%

Project implementation arrangements

The interventions in countries are implemented through three overarching components (i) Innovative Prevention, Detection, and Treatment of TB; (ii) Regional Capacity for Disease Surveillance, Diagnostics, and Management of TB and Occupational Lung Diseases; and (iii) Regional Learning and Innovation, and Project Management. At regional level, NEPAD Agency East, Central and Southern African Health Community (ECSA-HC) are collaborating to support the implementation of collaborative regional activities on the project focusing on the following:

ECSA_HC	NEPAD Agency
Sub-component 1.1: Enhancing TB case detection and treatment success	Sub-component 1.2: Rolling out a standardized package of occupational health services and mining safety standards
Sub-component 2.2: Strengthening diagnostic capacity and disease surveillance	Subcomponent 2.3: Strengthening mine health regulation;
Cross-cutting	
Sub-component 2.1: Improving quality and availability of human resources in the target areas	
Subcomponent 3.1: Operational research and knowledge sharing;	
Subcomponent 3.2: Centre of Excellence in TB and Occupational Lung Disease Control;	
Subcomponent 3.3: Regional coordination, policy advocacy and harmonization	

SECTION 2:

Activity Implementation Progress



During the 12 months of project implementation all four countries managed to establish the project implementation units through recruitments of most of the required positions. This delayed implementation in some countries. The following are the highlights of project implementation.

At regional level:

In the implementation of the regional work plans, approved by the Regional Advisory Committee and the World Bank, the following were the key achievements made in the implementation of the respective work-plans:

As part of the project implementation support, ECSA-HC in collaboration with the NEPAD Agency conducted initial visits to the four project countries to review their country work plans, identify and develop plans for technical assistance (TA). As a follow up to these visits, the following technical assistance was provided by regional organizations:

- **ECSA-HC:** (i) data analysis support to Zambia for the “Quality of care study” (ii) Finalisation of Centres of Excellence (COEs) concept note for Mozambique (iii) Development of a tool for client satisfaction survey tracking (iv) Establishment of and Line Drug Sensitivity Testing using Line Probe Assay test (v) Capacity building for laboratory-based surveillance.
- **NEPAD Agency:** TA was provided to Lesotho in the following areas (i) Training in OHS; (ii) Training ILO Chest X-ray classification; and (iii) Training and roll-out of HealthWISE (OHS for Health Workers) (iv) development of terms of reference (ToRs) for the production of communication strategy and IEC materials for mine workers; (v) TORs for engaging an expert to develop the National OHS programme; (vi) TORs for the National OHS profile; (vii) Review of the baseline assessment report for the SATBHSS project; and (viii) specification of inspection equipment.

Technical support was also provided to Mozambique in the (i) Specification of OHS inspection equipment; (ii) drafting of ToRs for developing guidelines/protocols for occupational health and mine inspection; and (iii) TOR for training of inspectors; and (iv) concept note for establishment of occupational health centres. Technical input has also been provided to Malawi and Zambia in the specification of OHS and mine inspection equipment. A regional guideline for specification of equipment for OHS and mine inspection was developed as a continuous guiding document for countries in the region.

In Lesotho, a number of activities were implemented including recruitment of key staff, procurement of a project vehicle, engagement of Health Focus to conduct the baseline survey, awarding for mobile digital X-rays for the prevalence survey, development of study proposals to be implemented in Lesotho and training of staff on Mining health and Safety course. The project team also conducted TB inter-ministerial sensitizations during the TB day week as part of advocacy for TB control activities. The concept note for the establishment of CoE on Community based TB Management was completed and received No Objection from the bank

In Malawi, substantive progress was achieved in the first 12 months of project implementation following the setup of systems required for smooth implementation during the 1st half of the year with progress towards achieving the annual target reported at 62%. This was despite challenges that included the quarter lag in implementation due to delays in disbursement of the initial tranche of funds from the Bank. To note also is that the planned activities related to the one stop shops were deliberately deferred to the second year of implementation so as to enable the country prepare thoroughly.

The period under review therefore saw a number of achievements being made across the three Project components. The following is the summary of progress during the reporting:

- **Innovative Prevention, Detection and Treatment of TB:** Some of the notable interventions that have been implemented, such as, community sensitization meetings on TB and occupational lung diseases; development of job aides and mentorship tools to assist health care workers in their day to day work; provision of supportive supervision to facilities to review progress and also provide on-site support as part of mentorship; review of sputum collection points mapping; establishing of new sputum collection points; conducting annual district open days; orienting health workers in systematic TB screening, among others.
- **Regional Capacity for Disease Surveillance, Diagnostics and Management of TB and Occupational Lung Diseases:** Some of the notable interventions that have been implemented under this component include external quality assessments of microscopy and expert sites; preparatory work on the procurement of X-ray and GeneXpert machines; delivery of digital x-ray machines; supporting transporting of appropriate samples to culture and drug susceptibility testing (C&DST) sites; refresher trainings for microscopists on External Quality Assurance among others.
- **Regional Learning and Innovation and Project Management:** Under this component interventions implemented include those aimed at enhancing and strengthening operations research and knowledge sharing; establishing centres of excellence in TB and occupational lung disease control; strengthen regional coordination, policy advocacy and harmonization.



In Mozambique, following the recommendations of the 1st RAC meeting, NAC (comprising of the three ministries) was established with clear Terms of References namely, reviewing and approving annual work plans, promoting multi-sectorial coordination between public institutions and provide political guidance. Following the approval of the workplan and no objection from the bank, NAC developed an annual workplan to guide implementation. The following is the summary of progress during the reporting:

- Development of an operational plan/implementation plan
- Preparation of terms of reference for consultancies, civil works and development of specifications for procurement
- World Bank implementation support mission

- Hiring of additional staff to strengthen human resources capacity under the project
- Preparation and finalization of the Concept Note for the Centres of Excellence for the Clinical Management of Drug-Resistant Tuberculosis
- Mass (radio and television) publicity campaign for TB screening
- Developed a web/cloud-based database/EMR to track all DR-TB patients.

In Zambia, the SATBHSS project started late compared to other three participating countries. The first quarter of the year was spent implanting preparatory activities. The following is the summary of progress during the reporting:

- Establishment of the Project Management Unit (PIU)
- Two National Technical Committee (NTC) meetings held
- Project launch in Kitwe on the Copperbelt on 30th March 2017
- Development of the Dust Control Manual
- Mapping exercise and registration of the Ex-Miners in the targeted provinces
- Mass (radio and television) sensitizations
- Review of Mine regulations
- Conducting with full participation of the three ministries and other key partners. The 2017 Annual Work Plan and Budget was presented and approved and no objection granted by the World Bank
- Procurement of office equipment, namely, six laptops, four Desktops, four Printers, three Scanners and two Copiers to support start-up for the staff recruited.

Countries also led and participated in a number of regional activities such as (a) convening the fora for Communities of Practice for Monitoring and Evaluation and Continuum of Care; (b) Laboratory and Surveillance (c) Continuum of Care (d) Training in Operational Research; (e) regional study on Training Needs Assessment for TB in Zambia, Lesotho and Malawi where the protocol was developed, approved, implemented and report produced in these countries.

2.1. Component 1: Innovative Prevention, Detection, and Treatment of TB

TB case detection is still low worldwide, in 2015 only 63 percent of all estimated incident TB cases were detected, lagging behind the 70% of case detection target of the Stop TB strategy. In SATBHSS countries TB case detection ranged from 38% in Mozambique to 56% in Zambia. Treatment success rates remained below the 87% target of Stop TB strategy in some countries, at 70% in Lesotho and 85% in Malawi.

The Sustainable Development Goals (SDGs), thus the “End TB strategy are far more ambitious than the MDGs and the Stop TB strategy. To end TB by 2035 targets are set at 95% reduction in TB incidence and deaths by 2035 and zero TB-affected households experiencing catastrophic costs as a result of TB disease by 2020. Ending TB in SATBHSS countries require an extraordinary level of innovation and efforts to find and successfully treat all the missing cases.



Sub Component 1.1: Enhancing TB case detection and treatment success

The region has two major milestones the project intended to build upon as a strategy of enhancing TB case detection especially on the migrant populations i.e. the (i) The SADC Declaration on TB in the Mining Sector, 2012, and (ii) Framework for the Harmonized Management of TB in the Mining Sector, 2014. The SADC member states adopted these to guide them in their TB control interventions and ECSA-HC in collaboration with other regional organizations namely NEPAD, SADC, CDC and TIMS is supporting the implementation of the declaration and the framework in the harmonization of TB management and cross-border referrals.

At regional level, under this sub-component, the following was achieved during the reporting period:

Implementation of harmonized TB treatment guidelines and cross-border TB cross-border referrals and continuum of care:

ECSA HC has procured and selected a constancy firm to conduct an assessment of the stage of implementation of harmonized TB management in SADC region. A rapid assessment of countries preparedness for cross-border TB management was conducted during the CoP on Continuum of Care which showed that countries are at different stages of implementation of the harmonized TB guidelines. Mozambique and Lesotho are at a comparative advantage as they benefit directly from the several initiatives to control TB in the mining sector in neighbouring South Africa. It was also noted that the TB diagnosis and treatment guidance in the regional harmonized frameworks are outdated and require revision.

Support the CoP on continuum of care to implement tools to facilitate cross-border referrals: To date, a number of cross-border referral tools have been developed by SADC including the electronic cross-border referral tool by TIMS. ECSA-HC has been in discussion with TIMS that following the piloting of the electronic cross-border referral tool in Lesotho and South Africa, the SATBHSS project will facilitate their scale up in the four project countries.

Provide technical assistance to mobilize communities and strengthen their linkage with care facilities to enhance active TB detection of key populations: Under this activity ECSA-HC provided support to the kingdom of Lesotho to develop the concept note for community TB care.

Build capacity in the management of MDR TB: ECSA-HC facilitated the training of six clinicians from Malawi, Mozambique and Zambia by the WHO collaborating centre on MDR-TB management in Latvia. The skills obtained are expected to help the countries to: (i) establish patient-centered approach for PMDT; (ii) establish structures at all levels for PMDT, including at community level and establishment of social protection services; (iii) improve laboratory diagnostic tests, with focus to molecular tests and inclusion of all recommended drugs in first and second line DST; (iv) improve individualized management of MDR-TB treatment to improve outcomes and reduce toxicity.

Learning exchanges for MDR-TB and PAL: Through the project ECSA-HC facilitated and exchange visit between the project countries the Rwanda PMDT centre of excellence to assist the countries to develop or improve the current MDR-TB training curricula including the training in Practical Approach to Lung Health (PAL).

At country level, several activities took place in order to increase case detection and treatment success rates. The following are the details of implementation at SATBHSS country level:

Lesotho

Engaged staff to manage the referral system for active miners: TEBA has been appointed to ensure that the three TEBA clinics targeting mine workers, ex-mine workers and their families are functional (Administrative and Human Resource management). TEBA clinics were operational from the 1st of August. In addition, a contract to the value of \$252,000 with ICAP for Technical assistance to the TEBA clinics was signed in October 2017 and ICAP resumed duties from November 2017 to provide TEBA with Technical Assistance. There are 39 staff members that are supported under TEBA with Salaries and administrative cost for the operations of the POCs.

Procured (nutritional) Therapeutic feeding commodities for TB patient: A contract has been finalized to procure (nutritional) Therapeutic feeding commodities for TB patients and delivery of the commodities will be done in the following year.

Malawi

Developing Job aides and mentorship tool and distribute to assist standardized support: On this activity, four types of aides specifically targeting Ministry of Labor Staff, Department of Mines staff, health facility staff & community health worker volunteers were developed and adopted for use by the Project. These materials provide information to be used in day to day work. The process will continue in the July to September quarter to have the materials printed and distributed.

Sensitized District Health Officers (DHO), District Health Management Team (DHMT), hospital in-charges on the intervention: A total of 369 members across the nine districts have been oriented against a planned total of 349 (Achievement -106%).

Reviewed the mapping for sputum collection and transportation: Against a planned total of 816 sputum collection points, a total of 430 points were mapped representing a 53% achievement rate. The mapping of sputum collection points will lead to revamping and supporting the collection points to in order to provide the communities with the necessary support in screening for TB.



Established groups of miners and former miners to improve knowledge and health-seeking behaviour among the mining population: The Project has managed to mobilise 40 such groups with a total of 2594 people reached and mobilized.

Develop, print and disseminate TB in mines specific behaviour change communication (BCC) materials: The project embarked on the production of posters and stickers carrying messages and corresponding graphics disseminating information on prevention and care messages related to TB and occupational lung diseases. These posters are in English, Chichewa and efforts are currently underway to have them translated into other languages like Tumbuka, Sena and Yao. The Project is also in the process of producing radio and television jingles and plays that will be aired in various key radio and television stations.

Development of a TB resource book for use in Primary Schools: This is part of the broad activity of integrating TB in the mines communication into school health programs. Under this activity, a resource book on TB to be used by teachers and various other people including youth club patrons has been produced. The book will go into print now and selected education officials including Primary Education Advisors and teachers themselves will undergo a training of trainer orientation to help in rolling out of the book.

Development and dissemination of TB in mines specific behavior change communication materials: They organized a media tour for the print and electronic media to the Project districts for them to meet the community members and other players involved in the Project activities. A private media firm was engaged to produce and air TV and radio documentaries with interviews of specialists from the implementing Ministries and departments and the community members themselves.

Advocacy activities on TB control and prevention: Annual district open days: seven of the planned 17 (41%) open days were held in 2017 where communities were provided with information related to TB prevention, detection and treatment through drama performances, songs and dance as another form of disseminating TB messages.

Orienting health care workers in systematic TB screening: The project supported the orientation of 315 out of the targeted 245 (129%) health care workers in systematic TB screening.

MDRTB management training: A total of 158 out of the planned 154 (108%) health care workers including nurses and clinical officers were oriented on management of MDR TB in 2017.



Mozambique

Pilot innovative sputum sample transport systems either with motorcycles or coolers:

A concept note was developed and received “no objection” from the World Bank to develop and implement a dual sample transportation system of a private courier and by health service staff provided with motorbikes and cooler boxes. An order for the motorbikes and cooler boxes has been processed and the procurement process to hire a courier is the evaluation stage of the proposals received.

Innovative Community Case Finding and Community Screening Campaigns for miners and their household contacts including children:

The activity will be implemented through a Community Based Organization and currently the procurement process is at the evaluation of the proposals received. Implementation is planned for 1st quarter of 2018.

Health Care Workers screening, using a mobile team: Consultations with health care workers in progress with an algorithm being developed by the NTP staff. The implementation shall begin by first quarter of 2018. Procurement of vehicles has been initiated.

Mass (radio and television) publicity campaign for TB screening: Four TV and radio shows have been aired in Portuguese and there are plans to translate these into the main local languages by the first quarter of 2018.

Developed a system to treat miners in Mozambique diagnosed with TB and/or HIV on either side of the border with South Africa:

The concept note was finalized and awaits endorsement by MoH. This activity will comprise TB screening at the Ministry of Labor offices at Ressano Garcia border district where Mozambican miners assigned to South Africa Mines renew their work contracts. It will also form a linkage for the diagnosed TB patients between South Africa and Mozambique.

Continuous Quality Improvement initiative programs: It will be monitored and improved by a clinical officer set at the provincial level (one in each of the southern priority provinces). They will join NTP province managers and will conduct oversight visits to the field, in every unit, during the first year and quarterly thereafter, reviewing TB registries, patient records and laboratories. In this period the project developed the terms of reference to launch the contest to hire the clinical officers

Zambia

Project Sensitization Activities: 100 participants from the SHEQ and Human Resource Managers of mining and quarries sectors were sensitized on the Occupation Health and Safety Act and the SATBHSS Project in 2017. One program was aired on the Radio and ZNBC television

Development of the Dust Control Manual: With the objective of adopting the “Elimination of Dust Hazards in the Mining Workplace Toolkit” the project in collaboration with the Ministry of Labour, Occupation Health and Safety Institute and Ministry of Mines and Mineral Development, developed the training manual to be used in training Health and Safety Committees and Representatives.

Support Ex-Miners to form Cooperatives: The project supported the creation of cooperatives for income generation and job creation for ex-miners in Kalumbila and Solwezi of North-Western province and in Chingola of Copperbelt province. 70 ex-miners were identified.

Development of the work place health and safety committee guidelines.

Study tour to South Africa (RSA) to familiarize with the South African Occupation Health and Safety Institute (OHSI), Compensation Board, Mine Hospital and NEPAD. The visiting team was composed of eleven (11) officers from OHSI, MMMD and MoH. The activity was undertaken during the last week of April 2017.

Sub-component 1.2: Rolling out a standardized package of occupational health services and mining safety standards in the project countries

Strengthening occupational health and safety standards in the mining sector activities were implemented aimed at reducing work-related hazards, improve working conditions to reduce the burden of TB and other occupational lung diseases associated with mining. During the reporting period priority was given on knowledge exchange, training and strengthening of the capacity of inspectorates to undertake mine health safety inspection and monitoring. Equipment for screening and diagnosis was procured and maintained.

At the regional level, the following was achieved:

Knowledge Exchange on Occupational Health and Safety was organised by the NEPAD Agency between the project countries and South Africa with the aim of facilitating learning. Following the knowledge exchange, countries were supported to conduct capacity gap assessments which informed development of plans for strengthening OHS capacity. Further knowledge exchange was also conducted between Zambia and Malawi, and Zambia and Mozambique.

The Community of Practice (CoP) on Mining, Regulation and Occupational Health was convened by the Government of Zambia and NEPAD Agency in collaboration partners. The CoP proved a multi-sectoral regional platform for exchanging knowledge and proposing models for strengthening OHS systems in the project countries. The main outputs of the CoP included (i) updated OHS equipment guideline; (ii) human resources capacity requirements for OHS and mine inspection identified; (iii) input provided on the regional and country plans for OHS baseline assessment; (iv) roadmap for domestication of existing regional and international standards for OHS.



A regional guideline for OHS equipment specifications was drafted by the NEPAD Agency with technical input from the National Institute for Occupational Health (NIOH) and the CoP on Mining, Regulation and Occupational Health. The guideline was developed in response to requests from countries for technical assistance in the specifications for OHS equipment. The guideline will be updated annually by the CoP and in collaboration with the CoE of OHS and partners to ensure it remains up to date and relevant.

Technical assistance was provided to countries on capacity building in different areas of OHS: Training was provided through a partnership established between the NEPAD Agency and NIOH including training of (i) 12 experts from Lesotho on an introductory course for OHS; and (ii) training ILO chest X-ray classification.

Rolling out Occupational Health for Health Workers (HealthWISE) was initiated with training of 19 health workers in Lesotho who will roll-out in eight hospitals in the country. The roll-out of HealthWISE is being supported under the partnership between ILO, NEPAD Agency and NIOH. The plan is to use lessons learned in Lesotho to roll out HealthWISE in the other project countries.

NEPAD Agency provided specific TA to project countries to support the rolling out a standardized package of occupational health services and mining safety standards. The TA included areas such as development of TORs for the development of inspection guidelines and establishment of occupational health centres.

Four experts were supported by the NEPAD Agency to participate in the Southern Africa Institute for Occupational Hygiene annual conference. This was aimed enhancing knowledge on occupational hygiene for the participants.

Lesotho

Procurement plans were developed and approved by the June 2017 to create capacity for the implementation activities under this component. The following were procured/achieved

- Two pirometers, two measurement scales, one dust machine, protective clothing for labour inspectors were (two freezer suits, eight pairs of boots and eight helmets), one projector for MOLE, two tables, two chairs, two desktops were purchased and distributed to the Occupational Health clinics in Mphahlele and Leribe.
- Consultant to update 2008 OSH profile which will inform OSH legislation. Activity to start in 2018.
- Development of the system for collection and analysis of data inclusive of training of trainers for the use of the system – OHASSIS has been identified as a database of interest which can be used for Occupational and Health safety information system including the mining sector.
- Consultation meeting with different stakeholders to formulate and review policies, guidelines and legislation pertaining to OSH and workmen's compensation conducted in September 2017. The social security draft bill was developed and it is yet to be tabled in parliament.
- Nine out of targeted 13 (69%) were inspected using the revised tool.
- Two public gatherings for advocacy on OSH conducted in Mphahlele and Mafeteng districts.
- Two inductions to migrant miners as they come for the services were conducted in the two districts of Leribe and Mafeteng.
- A joint educational session at Mines in RSA was conducted where mining houses were visited and the sessions were conducted with the management of the mining houses and the current miners.

Malawi

Regular joint inspections of mining institutions to ascertain adherence to mining health guidelines: Fourteen (14) inspection visits were undertaken covering 103 mines in 2017. These visits help in enforcing and assessing the level of compliance the Occupational Safety, Health and Welfare Act (OSHWA) (1997) and the Mines and Minerals Act (1981) - Mine (Safety) Regulations, Explosives Act, the Mine (Safety) Regulations and the Occupational Safety, Health and Welfare Act and other government regulations.



Figure 1: Workers drilling rock with no Personal Protective Equipment– the inspectors stopped the operations due to the safety risks of the workers

Consultative meeting for the review of the Mine Safety Regulations: *Experts* from the Department of Mines, Ministry of Justice, Ministry of Health, the Chamber of Mines and other key players met to review the mine safety regulations for the country to ensure their compliance an alignment with international best practice or ILO frameworks.

Occupational, Safety, Health and Welfare Act review meeting: A cross-section of experts from government and private sector met to reviewed the Occupational, safety, health and welfare act to ensure it aligns with standards and practices prevalent in other countries.

Occupational Health Information Technology system development consultation meeting: Key players from Mines, Labor and Ministry of Health met and came up with a roadmap to be implemented in the 2018 on how to improve record management systems for occupational safety and health.

Mozambique

Purchase and maintain equipment for mine health inspection: Equipment expected to be delivered by 1st Quarter 2018.

Develop Provincial Services for Occupational Health: Field visits to identify places for the establishment of the centres are currently being conducted. The findings are informing the specifications for diagnosis of the occupational lung diseases which are being integrated into the 2018 procurement plan.

In Zambia, the first year was a pre-preparatory phase of the project and therefore most technical activities will be implemented in 2018.

2.2. Component 2: Regional Capacity for Disease Surveillance, Diagnostics, and Management of TB and Occupational Lung Diseases

Sub Component 2.1: Improving quality and availability of human resources in the target areas

ECSA-HC in collaboration with the countries and other partners organized training activities for health personnel from the four project countries to build their capacities in a number of areas summarized in Table 1.

Table 1: Health professionals trained under various programs

Training program	Cadre trained	Numbers	Collaborating Partner
Advance MDR-TB management	Medical Officers	6	WHO Collaborating Centre in Latvia
Operational research skills	M&E and Clinical/ Medical officers, program management staff	16	The Union and University of Zambia
Laboratory Auditing using the WHO/AFRO SLIPTA* Process	Laboratory Professionals	27	African Society for Laboratory Medicine
Mentorship in Laboratory Quality Management Systems	Laboratory Professionals	22	African Society for Laboratory Medicine

*Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLIPTA)

Rapid training needs assessment for the countries in TB management

In order to respond to countries needs for training and capacity building, a training needs assessment was planned to be undertaken in the four countries (Lesotho, Malawi, Mozambique and Zambia) to assist countries during their work planning process to inform on the priority training activities to be implemented at the country level and regionally under the project. To date, ethics clearance, data collection, analysis and report writing has been undertaken in Zambia, Lesotho and Malawi. Data collection in Mozambique is still pending until ethics clearance is granted.

The next steps will involve compiling a regional report once data collection and report writing is undertaken for Mozambique. The findings are expected.



Training and Capacity building activities

Training in Operational Research/Implementation Research Skills

ECSA-HC in collaboration with The Union and The University of Zambia trained sixteen (16) country nominees and supported them to develop operational research proposals for implementation in line with the country priority research areas. Out of the eight proposals developed, three are already approved by both The Union and local ethics, five are approved by The Union ethics and are awaiting local ethics clearance in the respective countries. Table 2 summarizes the proposals developed by each country.

Table 2: Summary of development of research proposals by country

Name of the country	Research topic	Current status
Zambia	Incidence, pattern and treatment outcomes of patients with tuberculosis among miners and ex-miners, Zambia from 2010-2015-A retrospective cohort study.	Proposal development completed. Ethics approval obtained by both Union and in country. Data collection to begin in 2018
	Treatment outcomes for drug susceptible PTB among miners and non-miners on the Copperbelt province of Zambia.	Proposal development completed. Ethics approval obtained by both Union and in country. Data collection to begin in 2018
Malawi	Assessment of Tuberculosis prevention and care measures in mining industries of Malawi, 2017-A cross sectional study.	Proposal development completed. Approved by Union Ethics. Under ethics review in country.
	Prevalence of Pulmonary Tuberculosis and TB/HIV co-infection among miners in selected districts of Malawi in 2017.	Proposal development completed. Approved by Union Ethics. Under ethics review in country.
Mozambique	Timing of antiretroviral therapy in relation to anti-tubercular treatment and tuberculosis treatment outcomes in patients with HIV-TB co-infection in Chokwe district, Mozambique.	Proposal development completed. Approved by Union Ethics. Under ethics review in country.
	Notification of diagnosed TB cases from Xai-Xai Provincial Hospital to referral health facilities for DOT: are there leaks?	Proposal development completed. Approved by Union Ethics. Under ethics review in country.
Lesotho	Tuberculosis (TB) screening and isoniazid preventive therapy uptake among child contacts of bacteriologically-confirmed pulmonary TB patients in Lesotho.	Proposal development completed. Approved by Union Ethics. Under review by local ethics.
	Timing of anti-retroviral therapy and TB treatment outcomes in patients with TB/HIV in Quthing district in Lesotho.	Proposal development. Ethics approval by both Union and in country. Data collection completed. Data entry and analysis scheduled for Jan 2018.

Regional training of laboratory mentors in quality management systems (QMS) and ISO15189

In order to accelerate the laboratory quality systems improvement, the project plans to embed laboratory mentorship in the program to support the participating laboratories to contribute effectively to the TB management. Twenty-two (22) laboratorians were trained in the Regional Laboratory Mentorship and ISO 15189 Standards for accreditation. All 22 (100%) of the participants successfully completed the training by scoring at least 70% in the qualifying examination.



Post Training Follow Up

- (a) **Mentorship Plans:** Following the training, each country was to develop a laboratory mentorship plan as a laboratory and country level. All the four project countries submitted their country works plans which have been reviewed and feedback provided by ECSA-HC on their improvements before implementation. In addition, each laboratory represented in the training were to submit its mentorship plan. Laboratories from Lesotho (2/2) and Mozambique (2/3) have shared laboratory specific plans.
- (b) **Provision of Technical Assistance:** The Senior Laboratory Specialist provided onsite technical assistance to NTRL and Mafeteng Regional Laboratory in Lesotho where mentorship plans were reviewed and finalized and progress in closing gaps identified during baseline peer audits in May 2017 was reviewed and additional implementation assistance was offered.
- (c) **Collaboration with Supranational TB Reference Laboratory- Uganda:** The SATBHSS project met and discussed collaborations with SRL-Uganda to synergize their efforts in providing onsite technical assistance to laboratories targeted by both projects in the four countries, namely the NTRL laboratories. Results from the SATBHSS baseline audits and country visit schedules have been shared between the two to ensure visits are either synchronized and collaboration with the SRL to provide additional TA as some of the laboratories overlap with the Global fund supported laboratories.

Facilitate laboratory auditors regional training and certification of laboratory specialists

The training of auditors using the World Health Regional Office for Africa (WHO/AFRO) Strengthening Laboratory Quality Improvement Process Towards Accreditation (SLIPTA) program is well in line with WHO/AFRO regional efforts for strengthening laboratory systems and networks. ECSA collaborated with ASLM, the WHO/AFRO certified SLIPTA Auditor training institution to train 26 laboratorians working in TB Laboratories in the project countries. The auditors will be used for the SATBHSS yearly peer assessments as well as for in-country and regional needs.



Sub Component 2.2: Strengthening diagnostic capacity and disease surveillance

Annual joint regional (inter-country) peer assessment/audits (initial baseline) for SLIPTA

ECSA-HC coordinated Regional Peer assessments using the WHO/AFRO SLIPTA framework that provides for rating of laboratory performance using a 0-5-star scale. The team assessors from the four project countries was assisted by the well experienced ASLM certified auditors from the region and from a sister ECSA-HC project, the East Africa Public Health Laboratory Network (EAPHLN) as part of their continued mentoring and competency building for the trained auditors.

Twelve laboratories were audited across the four countries in which, one achieved four stars, three achieved three stars, two attained two stars, one attained one star and five received zero stars. Main recommendation from the audit were (1) initiate mentorship support to support the laboratories improvement (2) Set up a target to attain ISO 15189:2012 International accreditation within 12–24 months for the TB Reference Laboratories with tangible milestones in-between for the following laboratories at the start:

- University Teaching Hospital (UTH) Laboratory – TB Unit: Zambia **(4 Stars)**
- Chest Diseases Laboratory (CDL): Zambia **(3 Stars)**
- Tropical Diseases Research Centre (TDRC): Zambia **(3 Stars)**
- TB Reference Laboratory Nampula: Mozambique **(3 Stars)**

UTH submitted its application to Southern Africa Development Committee Accreditation Services (SADCAS) and expect to be assessed by Quarter 1 2018. TDRC have completed their application papers and are finalizing payment processes. CDL preferred to complete their current renovations before launching application for accreditation.

Cross-border Disease Surveillance and Response and Global Health Security

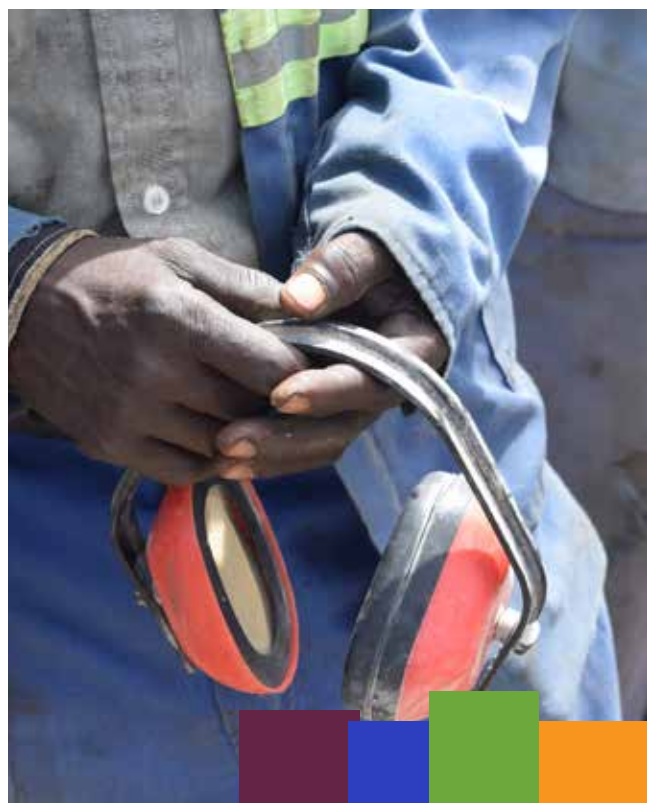
The project planned to use Communities of Practices to facilitate cross-border collaborations in disease outbreak management, establish cross-border committees between the participating countries, conduct table top and field simulation exercises on priority diseases identified by the countries and conducting of joint outbreak investigations of communicable diseases when they happen.

1st Regional CoP Laboratory and Surveillance Meeting was conducted in Maputo where participants from the four project countries plus their neighbouring countries of Tanzania and Swaziland and regional partners of WHO/AFRO, CDC and ASLM where (i) CoP Terms of Reference were adoption of the ii) Cross-Border Committee 2018 FY workplan was development (iii) Framework for Cross-Border Integrated Disease Surveillance and Response was development and adopted and (iv) Cross Border Zones between Project countries and their neighbours of Tanzania, Zimbabwe, Swaziland and South Africa were establishment.

Establishment and operationalization of Cross-border committees Two cross border Committees were operationalized i.e. the Mchinji (Malawi) and Chipata (Zambia) and the Thabo Mofutsanyane (South Africa), Leribe (Lesotho) and Butha Buthe (Lesotho) Cross-Border Committees. In both meetings (i) members of the Cross-Border Committee were elected (ii) Cross-Border Committee Terms of Reference were adopted (iii) Cross-Border Committee 2018 annual workplan was developed.

During the Thabo Mofutsanyane (South Africa), Leribe (Lesotho) and Butha Buthe (Lesotho) Cross-Border Committee meeting seven Cross-Border zones between South Africa and Lesotho were proposed and agreed upon. Lesotho committed to establishing two more in FY2018.

Table Top Simulation Exercise for Cholera was conducted during the Mchinji (Malawi) and Chipata (Zambia) cross-border committee meeting where areas of strength and weaknesses to the current Emergency Preparedness and Response plans for the two countries were identified. Both countries were in the process of developing these plans and the findings from the simulation will be incorporated in the draft plans.



Provide TA to countries to develop plans for scale up of new TB diagnostics and strengthening for DST

In collaboration with Supra Reference Laboratory – SRL Uganda the SATBHSS project organized and co-facilitated some two weeks competency-based training in 2nd Line Drug Sensitivity Testing (DST) using Line Probe Assay (LPA) Ndola, Zambia were 12 laboratory professionals from the three Reference Laboratories of UTH, CDL and TDRC were trained. Zambia is expected to initiate LPA which will allow the country to implementation the shorter DR TB regimen for MDR confirmed clients.

Laboratory-Based Surveillance training in Salima, Malawi

ECSA-HC supported two regional experts to co-facilitate in the Laboratory-Based Surveillance training in Salima, Malawi 25 health professionals (10 surveillance and environmental officers 15 laboratory staff) were trained in Integrated Disease Surveillance and Response (IDSR), International Health Regulations (IHR, 2005) and laboratory-based surveillance in line with the One-Health approach. Health professionals including non-laboratory professionals took part in the training. Two key recommendations were made following the training:

- Ensure all sensitization, planning meetings and training activities on surveillance and outbreak preparedness and response have One Health Approach representations (Surveillance, environmental, laboratory and clinicians, veterinary, wildlife).
- Identify laboratories to be strengthened to provide microbiology services (culture and DST) as well processing of environmental samples. This include equipment, reagents and supplies, drugs for DST and trained staff.
 - › An evaluation of readiness (facility, staffing, equipment, reagents) should be conducted. ECSA-HC had conducted a capacity assessment for microbiology in East Africa and the tools can be made available for assessment in Malawi.
 - › A program for sensitization of clinicians and other users of availability of services must be developed.

Joint outbreak investigations of communicable diseases

The project supported a joint outbreak investigation effort in Karonga district Malawi with a team of two epidemiologists from the neighbouring country, Tanzania taking part in the response. The team supported community engagement and intervention efforts in the three hot spots of Kishombe, Mchenjele and Nungwe as well as supported the laboratory with updating and applying SOPs for Cholera testing and DST.

At country level, the following are remarks of progress implementation:

Lesotho

Recruitments: The following Human Resource was engaged as the support to MOH NTP and NTRL: two field M&E officers, one M&E Officer, two Laboratory Technologists and one Data Clerk. They all commenced with the duties in the third quarter. Laboratory Mentor and Microbiologist were recruited for the NTRL and commenced duties 1st October 2017. The position of TB Technical officer was re-advertised.

Training and capacity building: Two refresher trainings for 44 Microscopists in smear and GeneXpert from the hospitals were conducted.

Mozambique

- A total of 21 laboratory staff trained in the use and management of the Xpert machines, laboratory quality management during five days in the province of Gaza.

- A web/cloud-based database/EMR to track all DR-TB patients (and eventually expand to all TB) was developed and training sessions conducted. Since the development of the Tacker, the MoH is now monitoring the usage of electronic registers by the district TB supervisors.
- Terms of reference for focused prevalence and incidence estimate in partnership with a non-governmental organization (NGO) or research partner over 1-year with dual purpose of also undertaking optimal case finding campaigns, patient screening, with focus on miners, prisoners and other vulnerable populations was concluded.

Zambia

- A total of 133 staff received different types of training including IPT, orientation in the TB Tools, orientation on the Training Manual on Management of Dust Hazards in the Workplace and in-service staff of OHSI staff in Audiometry and Spirometry in the Republic of South Africa (RSA) by OCSA.

Malawi

- **Orienting health workers in slide fixing:** A total of 19 health personnel out of a planned 20 were oriented on this skill.
- **Refresher training for Microscopists:** A total of 13 out of a target of 15 (87%) microscopists were trained on TB microscopy EQA.
- **Training in Strengthening Laboratory Management toward Accreditation (SLMTA):** 46 laboratory officers were trained over the three-workshop series covering the Northern, Central and Southern Region altogether.

Sub Component 2.2: Strengthening diagnostic capacity and disease surveillance

Lesotho

- National TB Laboratory EQA Guidelines Reviewed and finalized by the Laboratory Mentor and the Microbiologist reviewed during the fourth quarter.
- Ten laptops, ten bags and ten hard drives procured and delivered to NTRL.
- Quarterly supervisions on TB diagnosis including EQA and management.
- Cross Border Surveillance: (i) Nine desktops purchased and delivered to MOH Port health. Procurement for thermal scanner completed and delivery expected in 2018 (ii) Five park homes surveillance offices at the borders procured and sites visits were conducted to determine what other building requirements are needed before the installation (iii) Nine pull up sensitization banners were procured and been delivered to the port entries.
- Strengthening Diagnostic capacity – (i) TORs for the Civil Works for renovations of Leribe Laboratory were approved by the WB and procurement procedures will be finalised in 2018 (ii) Service contract for MGIT machine in NTRL for the value of \$21,000 was renewed with the supplier and the machine will be serviced for the whole year of 2018 (iii) Biosafety cabinet was procured in December 2017 but installation planned for 2018.



Malawi

External Quality Assurance of Microscopy and Expert sites: Districts undertook quarterly reviews for External Quality Assurance (EQA) of Microscopy and Xpert sites. A total of 88 sites were visited and underwent EQA during the period under review.

Mozambique

1. Procurement process of smear microscopy, Xpert and omni machines has begun.
2. All the units to be refurbished for **smear microscopy or Xpert points** were identified. The infrastructure department is conducting the technical assessment for initiation of civil works.
3. **Expand/Upgrade National Reference Laboratories and standardize LIS, add LPA capacity:** Technical assessment by the infrastructure department was done and the milestones defined for refurbishment. Two out of three tuberculosis reference laboratories will be refurbished and the ToRs for the consultant to conduct the renovations have been submitted to the bank for and received a no objection.

Zambia

No activities were implemented under the component during the period under review. However, six participants attended the SLIPTA Auditor training in Maputo, Mozambique facilitated by ECSA HC.

Subcomponent 2.3: Strengthening mine health regulation

Lesotho

Purchase of GIS equipment: The following equipment was purchased; two laptops for GIS, two GIS devices delivered and installed and MOM staff trained on the GIS equipment

Baseline study and Mapping exercise for mines; TORs for this study were developed and the study on mapping exercise (Baseline study) will be conducted in collaboration with NEPAD Agency. The procurement process to engage the consultant was completed including reviewing of submitted proposals. It is expected that the contracting will be done in 1st quarter 2018.

Mozambique

Terms of reference were developed, submitted to the bank and received No Objection for the following consultancies

- Review existing legislation in line with international best practices.
- Develop/update mine health inspection guidelines/protocol.
- Develop/update occupational health screening protocols.
- Develop/strengthen compensation systems and guidelines.

The proposals received are under review.

Zambia

Addressing re-hiring of former TB patients in the Mines – A memo was drafted and circulated to all relevant government Ministries for their review and input. The memo will be presented to the Cabinet and subsequently to parliament to approve a legislation/policy for re-hiring of former TB patients in the mines when certified fit to work.

Refurbishment of laboratory facilities – To perform molecular analysis in targeted facilities in Kitwe and Solwezi. An assessment of works was conducted and bill of quantities completed.

Developing and updating occupational health screening protocols – Through OHSI a workshop was conducted and draft screening protocols have been developed awaiting review and comments from stakeholders to enable the finalisation of the protocols.

Review of legislations – The Mines and Minerals (Environmental) Regulations, 1997 Statutory Instrument No.29 of 1997 was reviewed and proposed changes will be submitted to the Ministry of Justice.

2.3. Component 3: Regional Learning and Innovation, and Project Management

Sub-component 3.1: Operational research and Knowledge sharing

Coordination of implementation of regional studies

As agreed at the 1st RAC meeting, the regional bodies of ECSA-HC and NEPAD will coordinate these cross-cutting regional studies in terms of protocol development, common methodology, terms of reference and packaging the findings but with national leadership where implementation at the country level is concerned. Considerable progress has been made in kick starting all the six regional studies in collaboration with country co-investigators. The studies are summarized in Table 4.



Table 4: Summary of Regional Research studies by country

Study	Lead responsibility	Progress	Next steps
1. Out-of-pocket expenditure as a barrier to access to TB services in the region	ECSA-HC	<p>Concept note and TORs developed.</p> <p>No objection received from World Bank.</p> <p>EOI advertised on electronic media.</p> <p>One firm selected to lead the implementation of the study in the four countries.</p>	<p>Signing of contract with the firm.</p> <p>Engage countries to ensure participation of country co-investigators.</p> <p>Monitor study implementation in line with the TORs</p>
2. Cost-effectiveness/ Health impact of investing in TB control	ECSA-HC	<p>Proposal developed meeting held in Ndola from 24th to 28th July 2017. All the four countries and world Bank economists participated in the conceptualisation and proposal development.</p> <p>A follow up country mission undertaken to get input into the TORs/concept note for the study and to assess country capacity for the study. A recommendation was made to use a lead consultancy firm to work with the countries.</p> <p>Concept note and TORs developed and cleared by the Bank.</p> <p>Expression of interest advertised and six firms shortlisted to submit full proposals.</p>	<p>Select a lead regional firm to lead implementation in the four countries.</p> <p>Engage countries to ensure participation of country co-investigators.</p> <p>Monitor study implementation in line with the TORs</p>
3. Client satisfaction survey	ECSA-HC + Countries	<p>Prototype tools were developed for review by countries. All four countries adopted the shorter tool to be used in routine monitoring of client satisfaction survey. Additionally, countries agreed to incorporate the questions on the tool in the baseline surveys being planned in all the four countries.</p> <p>Countries supported to develop a narrative for how the client satisfaction tracking will be implemented routinely, including data management procedures.</p>	<p>The client satisfaction will be tracked as part of the reporting framework for the project.</p> <p>ECSA-HC will continue to provide TA to countries as the implement progresses.</p>
4. Baseline Study on Mine Health Regulation and Occupational Health and Safety Service in Southern Africa	NEPAD Agency	<p>Country focal points nominated and participated in the selection process.</p> <p>Shortlisting of potential firms to conduct the study was finalised and received a No Objection from World Bank.</p> <p>Technical and financial proposals received from the shortlisted firms.</p>	<p>Evaluation of the received technical and financial proposals.</p> <p>Selection of a firm to conduct the study and signing of contract.</p> <p>Monitor study implementation.</p>
5. Study on private sector engagement in TB control	NEPAD Agency	<p>TORs finalised and received No Objection from the World Bank.</p> <p>Expression of interest advertised and applications received.</p> <p>Potential Individual Consultant identified and negotiations initiated.</p>	<p>Finalise negotiations and signing of contract.</p> <p>Monitor study implementation.</p>

ECSA and NEPAD HC is actively engaging countries using the various models for implementation to ensure that scope of each study addresses the needs of each and that studies are implemented timely.

Countries' Operational Research studies

Lesotho

Operational Research studies: The following were approved by the bank

- Timing of anti-retroviral therapy and TB treatment outcomes in patients with TB/HIV in Leribe district, Lesotho

Status: The proposal has been approved and data collection will start in the next quarter.

- Tuberculosis (TB) screening and Isoniazid preventive therapy (IPT) uptake among child contacts of bacteriologically-confirmed pulmonary TB (PTB) patients in Maseru Lesotho

Status: The proposal is still with the Ethics Committee for approval.



Training needs assessment: Coordinated regionally by ECSA-HC, data collection and validation workshop completed. The validation workshop recommended that detailed analysis of the results be conducted and produce the report that will be used by the country to inform the planning of the training for health care workers on TB management.

Malawi

Baseline study: Conducted and report submitted to the bank. The report produced by the contracted firm; Centre for Social Research of the University of Malawi, Chancellor College, was reviewed internally by all stakeholders.

Operational Research studies: Two research proposals were developed following the regional meeting of the Research and M&E Community of Practice (CoP) and the regional OR training

- Prevalence of Pulmonary Tuberculosis and TB/HIV co-infection among miners in selected districts of Malawi in 2017; and
- Assessment of Tuberculosis prevention and care measures in Mining Industries in Malawi.

Status: The two proposals have since been given clearance by the National Health Sciences Research Committee (NHSRC) and await clearance by the Ethics Committee.

Mozambique

Operational Research studies: The two protocols developed under the ECSA_HC/UNION training were submitted to for ethics clearance.

- Timing of antiretroviral therapy in relation to anti-tubercular treatment and tuberculosis treatment outcomes in patients with HIV-TB co-infection in Chokwe district.
- Notification of Diagnosed TB cases from Xai-Xai Provincial Hospital to referral health facilities for DOT: are there leaks?

Terms of Reference have been developed for other four in-country studies

- Landscape Analysis of TB, Occupational and Environmental Health.
- In-depth epidemiological analysis as defined in partnership with the World Bank: Focus on mining and TB sector.
- Service Readiness Assessment of key TB sites in Southern priority intervention sites to identify infrastructure and other needs, possibly begin DQA activities.
- Study with CISM to collaborate on WHO multi-country study of catastrophic costs for TB patients.

Zambia

Operational Research studies: Two (2) operational research studies protocols developed and approved by ethics committee (i) Quality of Care and (ii) Assessment of TB on the Copperbelt and North Western provinces.

Status: Data collection complete and reports being finalized.

Study Visit to South Africa: Ten staff from the three key ministries participated in a study visit to South Africa to learn more on Occupational Health and Safety and MDR TB Management. Lessons from the visit were integrated in the developed concept for Centre of Excellence on Occupation Health for Zambia and equipment to support enhancing occupation health in Mines and other industries.

Participation in the 48th Union Conference and other key conferences to share the work done at the country/regional level

ECSA-HC organized a joint session of SATBHSS, EAPHLN project and the Global Fund Laboratory project at the 48th Union World Conference on lung Health, entitled Strengthening Health Systems, to support management and control of TB burden in Eastern and Southern Africa region. The workshop brought together multi-sectorial experts including public health experts, policy makers, mining and labour to discuss collaborative efforts to combat the TB burden in Sub Saharan Africa. At the workshop, the experts discussed:- (i) the current efforts of building laboratory capacity to contribute to control of TB and other infectious diseases in East, Central and Southern Africa; (ii) innovative approaches to cross border management of TB and other infectious diseases; (iii) the value of harmonized guidelines and strategies for TB and occupational health; and (iv) current research efforts to inform management and control of the TB burden.

SATBHSS project webportal

As part of information sharing between the countries and the international community, in collaboration with the NEPAD Agency developed a project website through consultation with the country teams who provided content for the website. The country teams will be expected to continuously update the portal with contents following training of countries' ICT and communication focal points.

Sub Component 3.2: Centres of Excellence in TB and Occupational lung disease control

Operationalization of Communities of Practice

Communities of Practice (CoP) are regional working groups comprised of technical experts in the respective areas from each of the countries and will be responsible for setting regional priorities for implementation. The SATBHSS project coordinated the establishment of Communities of Practice (CoP) comprised of technical experts in the respective areas from each of the countries. ECSA and NEPAD were responsible for facilitating operationalization of the CoPs by co-facilitating with the respective country leading each CoP and contribute to setting the meeting agenda, coordinating and facilitating technical discussions with the countries.

Below is a summary of the achievements and key outputs

CoP	Key Outputs
Research and M&E	<ul style="list-style-type: none"> Identified country research priorities for the first 18 months Developed a research implementation framework covering Undertook capacity building on the results framework for the SATBHSSP reporting Developed and adopted a project reporting tools and Clients' satisfaction survey tools All COP members trained in research ethics using existing online platforms. Identified research and M&E capacity building needs which
Continuum of Care	<ul style="list-style-type: none"> Drafted a rapid situation analysis of the implementation of harmonization of TB management in the mining sector and cross-border referrals Developed a two-year roadmap for the implementation of harmonized management of TB in the mining sector in SATBHSS countries Identified mechanism of collaboration with relevant non-SATBHSS project countries Reviewed a Co-operation agreement to facilitate cross-border collaboration
Laboratory and Surveillance	<ul style="list-style-type: none"> Developed and adopted a Cross-Border Committee 2018 FY work plan Customized and adopted the Framework for Cross-Border Integrated Disease Surveillance and Response, for SATBHSS Project and Established Cross Border Zones between Project countries and their neighbours of Tanzania, Zimbabwe, Swaziland and South Africa
Mining, Regulation and Occupational Health	<ul style="list-style-type: none"> Spearheaded identification of human resources capacity requirements for OHS and mine inspection Reviewed the OHS equipment guidelines that countries have used for specifications Provided input in the design of regional and country plans for OHS baseline assessment Provided input into country roadmaps for strengthening mine safety and OHS capacity Reviewed at existing regional and international standards for OHS and agreed on a roadmap for domestication Facilitated technical visits to the CoE on OHS and a cement factory in Ndola

Establishment of Centres-of-excellence

Lesotho

CoE in Community based TB: Concept note was developed through the support of ECSA-HC and NEPAD and received No Objection from the World Bank. ToRs for the CBO/NGO were developed, finalized and advertisement for the service providers to undertake this job was done. Contracting of the firm is expected in 2018.

Malawi

CoE on Community TB and integrated disease surveillance CoE: Concept note was developed and received No Objection from the World Bank. Implementation will continue in 2018.

Mozambique

CoE for Management of Drug-Resistant Tuberculosis: The content for project design by the consultancy were developed and approved by the bank. Proposals by firms currently under review.

Zambia

CoE on Occupational Health: Concept note developed and received No Objection from the Bank. Procurement of state of the art diagnostic and screening equipment and recruitment of a Data Manager and an Occupational Health Physician/Officer has been initiated. Implementation will continue in 2018.

Sub Component 3.3: Regional coordination, policy advocacy and harmonization

Project Coordination

At regional level

As part of program Management, the Project Coordination Unit at **ECSA-HC** was set up and fully staffed by February 2017. The unit comprises of the Project Manager/Accounting officer as the Director General, the Project Coordinator, Senior Public Health Specialist, Senior TB Control Specialist, Senior Laboratory Specialist, Finance Officer, M&E Specialist and Medical Epidemiologist. The unit is also supported on a need basis by other experts from the ECSA-HC secretariat drawing from the pool of experts in the organization.

Regional Advisory Committee: In collaboration with the Government of Mozambique and Malawi facilitated the convening of the 1st and 2nd Regional Advisory Committee (RAC) meetings in December 2016 and June 2017, respectively.

NEPAD agency also supported the development and dissemination of communication materials including e-alerts, project videos and podcast, infographics, brochures. Three quarterly newsletters were produced published to disseminate information to a wider stakeholder audience.

Furthermore, two papers were published in the Africa Health Journal and Huffington Post. Media and communication focal points were also trained on the project which led to enhanced media coverage on TV, Radio and Print. The NEPAD Agency and ECSA-HC have also worked together in the development of the project knowledge portal and country sub – portals which will be launched in 2018. TA has been provided to Lesotho and Mozambique in the development of terms of reference for engaging experts to support communication.

A number of advocacy platform were utilised to reach out to policy makers. These include (i) SADC Ministers of Health Meeting convened in South Africa in November 2017; (ii) African Ministers of Health and Parliamentary Apex meeting during the Global Ministerial Conference on TB; and (iii) UN Africa week commemoration.

Lesotho, Malawi, Mozambique and Zambia, successfully engaged and facilitated the implementation of regional coordination coordinated by NEPAD Agency and ECSA-HC, namely the participation in RAC, World TB say at AU, and in the coordination of regional studies (training needs assessment and other regional studies coordination), communities of practice, regional trainings and laboratory auditing, amongst others.

All four countries also managed to finalise the Project Implementation Manual (PIM); establish the Project Coordination Units (though recruitment is yet to be completed in some countries), establish the National Technical Committees (NTC). Mozambique and Zambia managed to make an official launch of the project. In Zambia, the meeting was officiated by Ministers of Health and Labour with more than 100 attendees.

SECTION 3:

Crosscutting Issues And Forward Priorities

3.1. Procurement

At regional level

ECSA-HC was able to hire technical teams to support in the project implementation with a recruited team comprised of Senior Public Health Specialist, Senior TB Control Specialist, Senior Laboratory Specialist and a Finance Officer. The project also procured (i) office equipment for the project staff (laptop computers, docking stations, desktop computers) (ii) project motor vehicle (ii) processing of recruitment of consultancy firms to carry out various assignments including regional studies are in the final stages. Consultancy for development of project website was completed.

The **NEPAD agency** finalised procurement of the principal policy specialist and OHS specialist who are supporting implementation of the project at the PIU. Procurement of the consultant to undertake the regional baseline study on mine health regulation and OHS service in Southern Africa was initiated. The initial progress on engaging the consultant was slow due to the complex nature of the regional study which required input from multi-sectoral stakeholders as well as procurement challenges. Progress in the last quarter of the year was substantial and the procurement will be finalised in the first quarter of 2018. The consultant for the regional study on opportunities for private sector participation on TB control was identified in the last quarter of 2017. However, the negotiations and contracting will be finalised in the first quarter of 2018.

3.2. Safeguards

Environmental Compliance

Lesotho

Training of Healthcare workers in ten districts on Environmental Health and Waste Management and 23 healthcare workers on Health wise was conducted. The implementation of the action plans that were developed during the trainings will be executed in the following year.

Malawi

The Project is guided by two key documents which it continued to make use of; the Environmental and Social Management Framework (ESMF) and the Infection Control and Waste Management Plan (ICWMP). These two documents were duly approved by both the government and the World Bank and the Environmental Health section within the Ministry helped in offering guidance in the usage of these documents.

Mozambique

The terms of reference to hire an environment specialist has been finalized and approved by the Ministry of Health and The World Bank. Candidate selection is in progress.

Zambia

The environmental and social management framework was developed and approved by the Bank.

Social safeguards

Malawi

The Project has an approved project screening tool for environmental assessment that it adopted for use since laboratory refurbishment and construction works, as well as waste management activities will be primarily confined to within the existing hospital building premises and within existing government hospital infrastructure. This is in line with the World Bank ten environmental safeguards policies. To this effect Malawi triggered the Environmental Assessment (OP/BP 4.01). It is due to this fact that the ESMF has been prepared for screening project activities and sites.

Preparation processes for the recruitment of an Environmental and Social Safeguards Specialist were completed and it is anticipated that the position will be filled during the first quarter of the 2018 fiscal year.

Lesotho, Mozambique and Zambia

There are no activities that were implemented under this area in the reporting period.

3.3. Stakeholder participation and involvement

At regional level

The following are the stakeholders engaged at regional level in the project implementation:

1. **Regional Economic Organization:** i.e. SADC: A partnership on policy harmonisation and advocacy has been initiated for facilitating reforms in OHS and mine health inspection. The SADC secretariat will also play a fundamental role in advocacy for greater commitment on tackling TB in the region.
2. **International Health Partners and Regional Projects:** World Health Organisation (WHO), Centres for Disease Control and Prevention (CDC), TB in the Mines Project (TIMS), The Union, African Society for Laboratory Medicine (ASLM) and Supra-National Reference Laboratory (SRL), Uganda. Engaged as a technical partner to provide technical support on provision of TB and other occupational lung disease services. Other included *International Labour Organisation (ILO)*: A partnership focused on supporting countries in strengthening their systems for OHS and mine health regulation through domestication of international standards and best practices; *Southern Africa Trust*: A partnership focused on communication, education and advocacy targeting grassroots and key populations such as miners, ex-miners, their families and mining communities.
3. **Academic Institutions:** The University of Zambia.
4. **Bilateral governments:** The Government of South Africa: Engaged government departments and technical institutions to support capacity strengthening in OHS; The Government of Brazil: experts from the government of Brazil supported providing advise on the CoE establishment through their participation in the RAC activities.

At country level

In Mozambique, the Government is engaging with the relevant Ministries of Health, Finance, Labor and Mining, regional organizations, NGOs, private sector, academia, civil society, other donors, etc in the implementation of the project. There is active involvement of the Ministries of Labour and Mining at all the stages of the process. As implementation progresses, more entities will be involved.

In Lesotho, NTC is the local governance structure for this project which approves the work plan before submission to the Bank. In the reporting period NTC convened and approved the annual work plan and budget for the second year of the project. Quarterly progress reports in the project implementation were also reviewed by the NTC members before they are submitted to RAC for final approval. There is representation of the line Ministries and NGOs (Ex Miners Association and Migrant Workers Association) and private sector (TEBA limited).

Malawi has engaged and collaborated with a wide spectrum of stakeholders including Government, regional organizations, NGOs, private sector, academia, civil society, and other donors. Within government there has been constant consultations with the Ministry of Finance through the Debt and Aid, Accountant General and other offices on finance related matters. As for Regional Organizations, much support has been offered by the East, Central and Southern Africa Health Commission (ECSA-HC) and the New Economic Partnership for African Development (NEPAD).

These two Organizations have provided the much needed support on region wide Project related issues like facilitating regional dialogue and efforts to harmonize systems and standards for TB management; Coordinate specialized technical input like laboratory mentorship; Promoting networking & knowledge sharing through the various Community of Practices (CoP); Supporting countries to develop and roll-out cross border activities like cross-border surveillance, epidemic preparedness plans and simulations; Supporting the strengthening of policy level reforms and political level commitment to tackling TB; Harmonization of regulatory framework, guidelines for mine health inspections, standards for dust exposure in collaboration with SADC and key partners; and Domestication of harmonized regional regulatory framework.

Support has also been obtained from NGOs working in the field of TB in the country, these include Challenge TB, Development Aid from People to People (DAPP), Project Hope, Partners in Hope (PIH), Action Aid and numerous others who have participated in several consultation meetings and constructively shaped the interventions. On the development partner side, Centres for Disease Control (CDC), United States Agency for International Development (USAID), the World Health Organization (WHO) and the United Nations Children Fund (UNICEF) have also provided the necessary insights into program implementation in the various TB forums where they have been engaged.

At community level, the Project has been warmly received through the community leadership that is continuously engaged. The mining community has also been actively engaged leading to the provision of some good insights on a number of issues at the centre of mining operations and how these relate to the general well-being of the workforce.

In Zambia, during the period under review, the project enjoyed good participation of key stakeholders in its few activities undertaken. These included the key three government ministries of Health, Labour and Mines at national and provincial levels and Ministry of Finance. Others are Chamber of Mines and Mining Companies; University of Zambia, School of Public Health as a member of the NTC and in research; Copperbelt University, Tropical Disease Research Center (TDRC) as member of the NTC and in research; University Teaching Hospital in MDR-TB capacity building and CoP; CDC Zambia, WHO, Global Fund, TIMS project, CIRAZ, FHI360, Jhpiego and ZATULET as a civil society participating in Communities of Practice; Ex-Miners Association; Mines Trade Union and the media.

SECTION 4:

Financial Management

4.1. Cash Flow Report and Financial Projections (Pipeline Burn-Rate)

During the reporting period **ECSA-HC** through the project received funding of \$2,456,268 in total from the four countries to support implementation of regional activities planned for year one. This disbursed amount represents 100% of the total budget for 2017 work plan. The expenditure to December 2017 was at \$2,029,986 which is 83% of the disbursed amount and 83% of 2017 annual work plan budget.

NEPAD Agency through the project received funding of \$ 699,795 in total from the four countries to support the implementation of regional activities planned for year one. This disbursed amount represents 58% of the total budget for year one work plan. The expenditure by December 2017 was at \$ 409 211.35 which is 58% of the disbursed amount and 34% of 2017 annual work plan budget (\$1199388.18).

For Lesotho, A total budget of \$3,887,871 was approved under the annual work plan FY 2017. To date, a disbursement of \$1,831,423 has been made, which includes the USD 418, 315 previously disbursed for project preparatory activities in the previous FY 2016. \$816,295 was spent by December 2017, a spending rate of 45% against disbursement at a burn rate of 21% against the annual approved budget.

For Malawi, A total budget of \$7,209,120 was approved under the annual work plan for 2017. Total of \$3,481,805 disbursement was made during the year. \$2,932,257 was spent by December 2017, a spending rate of 84% against disbursement at a burn rate of 41% against the annual approved budget.

For Mozambique, A total budget of \$9,380,599 was approved under the annual work plan for FY 2017. To date, a disbursement of \$6,229,287 has been made. The expenditure to December 2017 was at \$ 1,112,852 which is 18 % of the disbursed amount and 12% of 2017 annual work plan budget.

For Zambia, A total budget of \$7,851,359.00 was approved for the annual work plan for FY 2017. A disbursement of \$5,621,236 has been made to date. The expenditure to December 2017 was at \$ 1,060,967 which is 19% of the disbursed amount and 14% of 2017 annual work plan budget.

SECTION 5:

Project Performance Indicators

Summary of Performance on Project Indicators

The following table provides a summary of indicators that recorded good performance for the First Year 2017 (more detailed summary of performance by country for each indicator is shown in section below):

Indicator	Status
POI# 1. TB case notification in target geographic areas	Zambia and Mozambique have met their annual targets for 2017
POI# 2. TB Treatment success rate in target geographic areas: All (i) New and (ii) Relapse TB cases (Percentage)	Three countries have attained the global target of Stop TB partnership with treatment success rate of > 85% (Malawi 87%, Zambia 87% and Mozambique 90.2%)
POI# 5. Direct beneficiaries	Malawi, Lesotho, Mozambique and Zambia surpassed the annual target for 2017 on the number of beneficiaries served.
IOI# 1. Proportion of MDR-TB patients in target geographic areas benefitting from psychosocial OR nutritional support during the treatment period	Malawi, Zambia, Lesotho and Mozambique have surpassed their annual for 2017
IOI# 4. Percentage of HIV patients routinely screened for TB in targeted geographic areas	Malawi and Zambia have surpassed their annual target for 2017
IOI# 11. Number of health personnel receiving training (number)	Malawi, Zambia, Lesotho and Mozambique have surpassed their annual target for 2017

SATBHSS-Project results framework cumulative summary report for January 1st to December 31st 2017.

	Malawi		Lesotho		Zambia		Mozambique	
	Target 2017	Achievements	Target 2017	Achievements	Target 2017	Achievements	Target 2017	Achievements
Project Outcome Indicators (POI)								
POI# 1. TB case notification in target geographic areas	13,130	9,102	10135	7,967	26,114	32,374	41,261	50,338
POI# 2. TB Treatment success rate in target geographic areas: All (i) New and (ii) Relapse TB cases (Percentage)	85%	87%	86%	79%	88%	87%	87%	90.2%
POI# 3. TB cases identified through active TB case finding (screening) among TB vulnerable population in target geographic areas (Number)	2,500	685	7,500	4,637	8,000	2,555	825	1,516
POI# 4. Project supported laboratories compliant with regionally harmonized SOPs for surveillance of MDR-TB	24	NA	3	NA	23	NA	15	NA
POI# 5. Direct beneficiaries (Number), and the share of females among them (percentage) - (all diseases within health facilities including TB).	33,130	39,308	28,000	846,231 (52%)	35,290	60,728	713,745	20,444,525 (55%)
Intermediate Outcome Indicators (POI)								
IOI# 1. Proportion of MDR-TB patients in target geographic areas benefitting from psychosocial OR nutritional support during the treatment period	15%	100%	95%	100%		100%	20%	100%
IOI# 2. Proportion of miners eligible for compensation due to occupational diseases actually receiving it			10%	54%		1.3%	10%	0
IOI# 3. Proportion of TB patients satisfied with TB services as per patient exit surveys or "drop box" feedback in target geographic areas	50%	95.8%	65%	NA	60%	NA	50%	NA
IOI# 4. Percentage of HIV patients routinely screened for TB in targeted geographic areas in the four participating countries	98%	99%	95%	62%	93%	100%	90%	73.7%

	Malawi		Lesotho		Zambia		Mozambique	
	Target	Achievements	Target	Achievements	Target	Achievements	Target	Achievements
	2017		2017		2017		2017	
IOI# 5. Proportion of health facilities with TB smear microscopy	32%	39%	30%	14%	30%	31%	29%	25%
IOI# 6. Outbreaks for infectious diseases for which cross-border investigation undertaken (number)	1	1	2	0	1	0	1	0
IOI# 7. Health facilities renovated and/or equipped (number)	10		8	2	8	0	10	
IOI# 9. Number of targeted labs rated two stars and above in SLIPTA assessment	2	1	3	1	1	3	1	2
IOI# 10. Proportion of mines inspected at least twice a year for compliance with national mine health regulations	20%	74%	70%	69%	20%		20%	24%
IOI# 11. Number of health personnel receiving training (number)	595	675	128	320	600	138	840	630
IOI#13. Number of miners and ex-miners successfully referred and screened for TB and occupational health services between participating countries and within participating countries				30,153		38,661		3,038
IOI# 15. Regional operational research studies commissioned and findings, lessons learnt disseminated effectively through national and regional platforms	1		1	0	1		1	0

Data was not available for the following indicators by 1st first year - **Project Outcome Indicators:** POI# 4. Project supported laboratories compliant with regionally harmonized SOPs for surveillance of MDR-TB. **Intermediate Outcome indicators:** IOI# 2. Proportion of miners eligible for compensation due to occupational diseases actually receiving it (missing data from Malawi and Zambia); IOI# 3. Proportion of TB patients satisfied with TB services as per patient exit surveys or "drop box" feedback in target geographic areas. Only Malawi has completed the assessment, **clients satisfaction survey is on-going in the other countries;** IOI# 7. Health facilities renovated and/or equipped (number); IOI#8.

Number of countries scaling up Electronic Health Systems for TB case management or laboratory management (number); IOI# 10. Proportion of mines inspected at least twice a year for compliance with national mine health regulations (data is missing for Zambia only); IOI# 12. Number of countries in which new legislation or amendment to existing mine health and safety legislation are drafted; IOI#13. Number of miners and ex-miners successfully referred and screened for TB and occupational health services between participating countries and within participating countries (Only Baseline data is missing for all the countries); IOI# 14. Availability of harmonized clinical protocols for occupational health in compliance with International best practices; IOI# 15. Regional operational research studies commissioned and findings, lessons learnt disseminated effectively through national and regional platforms.



SECTION 6:

Implementation Challenges And Lessons Learned

6.1 Implementation Challenges

At regional level, most of the challenges experiences in the quarter were on setting up systems for facilitating implementation. Specifically there were two main challenges:

- (i) *Communication amongst different coordination and implementing entities:* There were some challenges in maintaining regular linkage and communication amongst all the partners implementing different components of the project. This led to conflicting dates for events and sometimes having limited information as to what each of the implementing and coordinating entities at the regional and national level are doing. Efforts were made to convene calls with countries and ECSA-HC on a regular basis and as required to overcome this challenge. However there is still need to strengthen linkage and communication amongst all the entities on the project. During the second year, it will therefore be fundamental to have scheduled quarterly calls where countries, regional organisation and the World Bank will discuss planned activities, implementation progress and challenges encountered.
- (ii) *Procurement challenges in Year 1:* One of the challenges experiences in 2017 was procurement of two consultancies to undertake the regional baseline study on OHS and mine dust control, and private sector involvement in TB control. This was mainly due to the complexity of the studies which required extensive input from stakeholders on the ToRs as well as lack of a dedicated procurement expert to handle the study within the NEPAD Agency. The Agency thus appointed a procurement expert in October 2017 specifically dedicated to support the SATBHSS project activities. This has enabled the Agency to expedite most of the pending procurement.

At country level

Lesotho

During the reporting period there are several challenges that were encountered by SATBHSS in implementing some of the planned activities in the work plan. The following are some of the challenges that were encountered:

- Delay in engagement of the procurement specialist, after the death of the first one. The position was filled only in May 2017. This denotes that some of the procurement activities were not implemented on time as most of the activities in this reporting period were around the procurement of goods and services.
- The initial approved procurement plan was not aligned to the work plan, therefore some of the activities could not be implemented before they were approved in the procurement plan. This was approved in June 2017.
- Delays in Procurement of the X-rays. These being the highly specialized X-rays, the specifications were a bit complex to find and it took the team longer time to finalise them.

- Lack of human Resource has resulted in the postponement of timelines in implementation of some activities.
- There were delays in developing the Terms of references for various consultancies and through the support of NEPAD and ECSA these will be finalized and engage the consultants in Q1 2018.
- Engagement of the Public Health Advisor – There were delays in engaging the Public Health advisor due to some changes in the Terms of References. These have been finalized and Approved by the World Bank. Recruitment will be finalized in the next quarter.
- Delays in getting TORs from the respective programs or Ministries.
- Delay by ICAP to sign the contract.



Malawi

- Systematic TB screening yield low than expected. A **proposed solution** to this is ensuring that the health care providers stick to the guidance to screen all patients who present to the facility.
- MDR TB follow up still problematic as patients are reportedly not availing themselves to health facilities for set review appointments. Health workers also not accessing resources for supporting the MDR TB patients. A **Proposed Solution to this is** working with Health workers on how to trace MDR TB patient and encourage districts to access support to be provided to MDR TB patients.
- Competing priorities leading to project activities being affected. Time limited activities like the Measles Rubella campaign drained staff that would have otherwise accelerated implementation of project activities. A **Proposed Solution to this is** to encourage health care workers to properly plan activities as well as lobby for timely release of staff to Project activities.
- Incomplete reporting by implementers leading to challenges on tracking accomplishments on Project indicators. A **Proposed Solution to this is** to Continually and actively engaging TB Officers and facility management imparting on them M&E skills.
- The long processes taken to have the funds transferred from the Bank to the Project account affected the smooth take off of the project. This led to a quarter lag in implementation of activities. A **Proposed Solution to this is** reviewing the implementation plan and making the necessary changes that will accommodate implementation of activities that were not implemented in 2017.

Mozambique

Some of the main challenges included:

- Delay in the disbursement of funds for the Year 2017;
- Harmonization of Ministry of Health (MISAU) internal rules with those of the World Bank;
- Delay in hiring human resources (Procurement, TB and Occupational Health specialists);

Zambia

As can be noted from the narrative above, the implementation of the project in Zambia was officially to start on 1st April 2017 which was way behind schedule because the following challenges;

- Delayed recruitment of project staff.
- The re-organisation/restructuring at Ministry of Health.
- Delayed completion of the development of project documents including the annual work plan for approval.
- Delayed release of funds as the first funding never came through during the first half of the year.
- Ambiguities inherent in the Project Implementation Manual (PIM). To that effect, the PIM has been revised awaiting feedback from the World Bank for the issuance of No Objection.

6.2. Lesson learned

- **The need for alignment of calendar of events:** One of the lessons learnt in 2017 was the need for alignment of calendar of events at the regional and national level to ensure effective participation by all stakeholders. In the first year, one of the challenges in organising regional meetings was late confirmations and sometime cancellation of meetings due to conflicting dates. This led to implementation delays. Efforts will hence be made to develop a consolidated annual calendar of events with both national, regional and global events that will be updated quarterly.
- **Systematic approach to technical assistance:** Year one provided a good learning experience on provision of TA to project countries using a demand driven approach. The first quarter was dedicated to agreeing with countries on their needs for TA which led to the development of a TA plan. However, there was no specific system for monitoring the implementation of the agreed TA plan with more proactive countries having more engagement and support than others. In year two, these lessons will be utilised to develop a more comprehensive TA plan with the project countries which will include mechanism for tracking progress.

Lesotho

The involvement of the senior Management in the project plays a critical part for their success. The support of the Senior Management from The Ministry of Health assisted in ensuring that some of the activities are implemented as planned. During the reporting period there was a briefing meeting held for Senior Management to brief them about the work of the project. The three NTC meetings were chaired by both the Principal Secretary and Deputy Principal Secretary when the principal Secretary was out of the country. The current Principal Secretary have strong buy-in of the project in ensuring that implementation of activities are done.



The absence of the procurement specialist delayed the implementation of some of the activities. This has some implication on the procurement of some of equipment and services that were planned in this reporting period. Some of the activities in the work plan that was approved in January by NTC and the Bank were not included in the old procurement plans that was submitted in the initial stage, this delayed implementation of some of the activities because they had to be approved by the Bank first.

Malawi

- Building proper support structures around an initiative can be a better way to achieving project goals. The mine inspections coupled with orientation of volunteers around mines engaged in sputum collection has shown some signs that there is willingness among the miners to start sending sputum samples for screening.
- Active engagement of community leadership and other social leaders including religious leaders and other people of influence is a sure way of ensuring smooth project implementation at the community level. The revamping of sputum collection points was made easy as the communities through their leadership already knew people with some knowledge but lacked the necessary support.
- Re-enforcing system support through job aides and other manuals to address technical inadequacy and improving documentation is necessary for smooth implementation of activities.

Zambia

The lessons learned during the period includes the following:

- Delayed recruitment of project staff does negatively affect project implementation as required actions cannot be done on time relying of main stream staff with other competing demands on their schedules. Therefore, if implementation has to be effective in second half of the year a full project team ought to be put in place immediately.
- The restructuring at the Ministry of Health meant leadership changes which slowed decision making and completion of necessary documents development. Stable and consistency leadership especially in the lead agency is key to meeting project objectives and timelines.
- Transparent and full involvement of the key implementation agencies in project processes makes it easy to get political support whenever needed as demonstrated by the presence of three government Ministries during the launch of the project. This has been demonstrated also in the development of the Cabinet Memo on rehiring former TB patients in the mines where participation of the staff from the three line ministries has been very good.
- Delayed release of funds and start-up of implementation tends to raise doubts about the project and can be very frustrating to partners and staff at lower levels within the Ministries. A lot re-assuring has had to be done specially to partners outside government main stream.



SECTION 7:

Planned Activities for Next Quarter Including Upcoming Events

7.1. At regional Level

See Annexes.

ECSCA 2018 Work Plan

NEPAD 2018 Work Plan

Success stories

SATBHSSP Operational Research Training: A collaboration between international and local expertise opens new frontiers for the conduct of research and south-south collaboration.

ECSCA-HC facilitated a training programme in operational research for staff from SATBHSSP countries. The aim of the training was to strengthen the capacity of the program management staff to conduct operational research so as to guide the implementation of TB/occupational health programs. The participants included staff from the ministries of health (NTP, M&E, laboratory, provincial level and program management). The different skills mix and level of prior experience to research methods among participants proved to be an asset for the designing of operational research relevant to each of the country context. The mixed country expertise will also ensure that there are spill over effects to the country beyond the TB program.

The facilitators for the OR training came from both The Union SORT IT course and a Southern African WHO TDR accredited training centre (The University of Zambia). The facilitators were paired and twinned to each set of country participants so as to ensure that there was a mix of mentors and country trainees to work on each concept note. This collaboration among mentors and trainees provided a platform for knowledge exchange that the SATBHSS project presents. Within one week, high quality research protocols were developed (2 per country). This model of training contributed to capacity building for OR, created platform for mentorship among regional and international agencies and gave the country participants world class support.

The expertise at ECSCA-HC and local country further peer reviewed the developed proposals to ensure that the products were of high technical quality but also responsive to the country priority research agenda for the TB program. As testament to this, all the proposals were approved by the country program managers to be in line with the information needs for improving TB programs in each of the countries. The networks created from this training programme will not only lead to quality operational research being conducted within the SATBHSSP but has also created partnerships for research development. This is also in line with the mandate of ECSCA-HC as a regional intergovernmental agency to foster collaborations in health.

The countries are now moving ahead with the implementation of the research activities and the outputs from these findings promises to generate locally acceptable information for programmatic and policy decision making in tuberculosis and TB/HIV collaborative activities.

“The course had practical relevance to TB program activities” – feedback from one of the participants.

E-health application improves patient management in a community TB intervention - Malawi

The TB case management has over the years been facing a lot of challenges despite the Malawi government and donors’ effort. Existing systems are mainly manual and failing to adequately address patient management (follow up, tracking of patient for diagnosis and patient management in general). Community detection effort also experience a long turnaround time and difficulties of tracing samples and patients in the referral cascade

The National TB Programme, with funding from the World Bank through the Southern Africa TB Health Systems Support Programme has developed the e-Health intervention for community systems with an aim of improving TB patient tracking and management. The system has been implemented in two health centers and it is expected to be scaled up in 18 more health centers. The system is web-based and has a mobile application which is being used for patient registration by the community volunteers.



Fig 1: Mobile application for e-health and a community volunteer demonstrating the system to World Bank team

The system uses barcodes that are linked to the patient’s data to ensure that there is no mix-up in samples and a sample can be easily identified simply by scanning the barcode. Community volunteers are at the heart of the innovation as they are the ones who identify presumptive TB cases and transport samples to the nearest facility . Once a presumptive case has submitted his or her sputum the volunteers send the information to the facility before the sample is received at diagnostic facility.

Once the samples are tested, the patient gets an SMS notification informing him that his results are ready. Patients also get reminders about when he is due for the next medication. If a patient is lost to follow up for treatment, the system sends alerts to the patient as well as system user by placing the patient on the lost to follow up list. This has greatly improved patient follow up.



Fig 2: TB e-Health web dashboard

Since the implementation of the system as shown in fig 2 above, 433 samples have been collected in the two health centers, 306 samples have been tested out of which 29 are TB patients. This information is online and NTP as well as district management can make decisions quicker than when they were using manual system.

Capacity building efforts yield improved treatment outcome - Malawi

In 2016, the treatment outcome of TB patients was at 81 %, falling short of the 85% national target. The unfavorable outcomes were death, not evaluated patients and treatment failures. Peripheral facilities were the least performers. High staff turnover, reliance on frontline health workers and expansion of TB registration sites were some of the factors affecting performance in these facilities. The program followed a multi-pronged approach to address these challenges. Training was one of the key intervention. Training on clinical management, case detection and lab service were provided to health care workers. Xpert service was expanded to cover high risk and prioritized groups. In addition to this, the program intensified on the mentorship and follow up supervision activity. The activity focused on the clinical management of patients, documentation and reporting. Resources were also available to trace interrupters and lost to follow up patients. Facilities were encouraged to review death of TB patient and identify actionable cause of deaths.

In quarter four of 2016, the treatment success rate for new and relapse Tuberculosis cases in project districts was at 81.7%. The treatment success rate increased to 86.5% by quarter 4 of 2017. This improvement can be attributed to the intensified capacity building interventions. Since the Southern Africa Health System Strengthening project began in 2017, the health system was strengthened through provision of X-ray, microscopes and more than 400 health workers have been trained on TB in project districts.

Small scale quarry aggregators adopt use of masks

The use of personal protective equipment by artisanal and small-scale miners remains a big dream in the local setup. This could be attributed to the lack of knowledge on the dangers of the dust produced from crushing the stones and the seemingly exorbitant prices for the equipment. However, the coming in of the Southern Africa TB & Health Systems Support Project in Mzimba North seems to be breaking this anomaly. A grouping of artisanal and small scale miners at Sonda has successfully managed to procure masks as a starting point in conforming to good mining practices. This is a result of the orientation that the Project is having with such groups in the district.

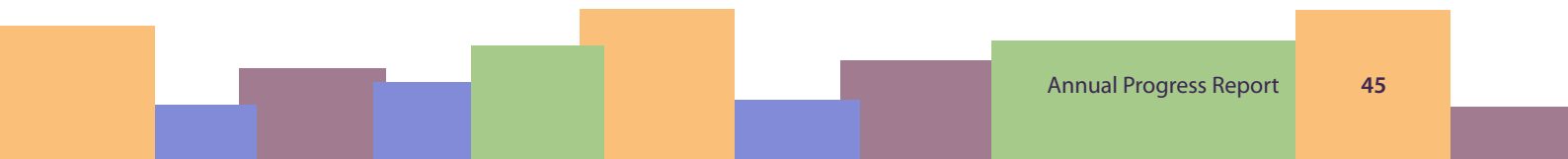
The group says that after being oriented by the Project staff on the benefits of using PPE's decided to start saving. They have since bought the masks and are using them when crushing the stones. A dedicated committee member has been elected to ensure that masks are used at all times when they are working.

Establishment of a multisectoral platform to approach TB and Occupational Diseases - Mozambique

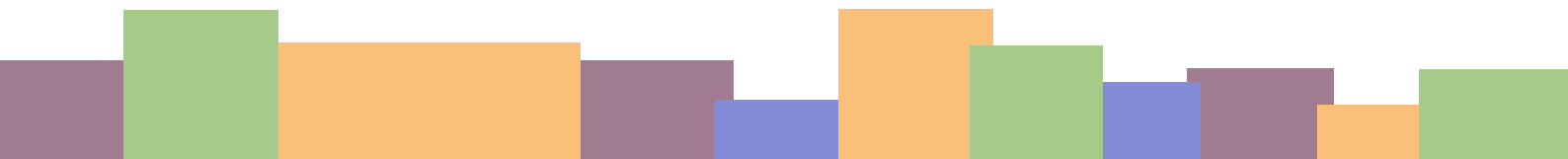
The NTP has developed in partnership with the Ministry of labor the It comprises Ministry of Finance, Ministry of Mines, Civil Society and Parliament representative.

Development of a comprehensive package comprising screening for TB, HIV, DM, HBP and pulmonary occupational diseases at MITESS's border office. The concept note was finalized, actually pending the endorsement by MoH. It will comprise the TB screening at the Labor Ministry delegation located at Ressano Garcia (a border district) were Mozambican miners assigned to South Africa Mines renew their work contracts. Additionally, it will link the diagnosed TB patients to the care services whether in South Africa or in Mozambique. For the following year we expect the screening of almost 27,000 of mine workers.









New Partnership for Africa's Development (NEPAD) Agency contact information

230, 15th Road, Randjespark, Midrand

Johannesburg, South Africa

Telephone: +27 (0) 11 256 3600

Email: info@nepad.org

www.nepad.org

East Central and Southern Africa Health Community (ECSA-HC) contact information

157, Olorien, Njiro Road, P.O. Box 1009

Arusha, Tanzania

Telephone: +255 (27) 254 9362/5/6

Email: regsec@ecsa.or.tz or info@ecsa.or.tz

www.ecsahc.org

