

JOINT REGIONAL ADVISORY COMMITTEE MEETING FOR THE SOUTHERN AFRICA TUBERCULOSIS HEALTH SYSTEMS SUPPORT AND STRENGTHENING PANDEMIC PREPAREDNESS PROJECTS

17TH -18TH OCTOBER 2023
LIVINGSTONE, ZAMBIA





PROF YOSWA MBULALINA DAMBISYA
DIRECTOR GENERAL OF ECSA-HC

MESSAGE FROM DIRECTOR GENERAL OF EAST CENTRAL AND SOUTHERN AFRICA- HEALTH COMMUNITY

I am honored to welcome you all to the Joint Regional Advisory Committee for the Southern Africa TB Health Systems Support SATBHSS and Strengthening Pandemic Preparedness SPP projects which marks the 10th Regional Advisory Committee for the SATBHSS and last meeting for both projects. We gather here not only as representatives from different corners of our region but as implementers, policy decision makers, funders, advocates and front-line warriors in the battle against one of humanity's oldest and most persistent adversaries – tuberculosis.

The global village and our region continue to face health emergencies of epidemic and pandemic proportion. TB, Cholera, Polio, measles and Covid-19 recently. TB, as we all know, remains a formidable and legacy global health and regional challenge. It claims the lives of over a million people each year, disproportionately affecting vulnerable populations and straining healthcare systems around the region. Not only does TB affect the health of a population but also has negative impact on economic fundamentals at individual, family and the national levels at large. This year's RAC meeting is not about dwelling on the challenges but celebrating the achievements and outlining the sustainability plans of the two regional projects the SATBHSS and the SPP. Further, it's about fostering collaboration, sharing innovation and amplifying our resolve as we collectively seek to overcome the existential gaps and challenges.

Once again, I welcome you all to the regional advisory committee meeting and wishing each one of us a memorable interactions in this final and closing RAC.

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MEETING INFORMATION FOR PARTICIPANTS

WELCOME

The East, Central and Southern Africa Health Community welcomes you to the 10th RAC Meeting to be held from 16th to 18th November 2013. Participants are expected to arrive on 14th October 23 for the Regional CoPs and for the RAC on 16th October respectively and all participants depart on 19th October 2023.

VENUE & ACCOMMODATION

The meeting will be held at Radisson Blu in is Livingstone 10101, Zambia. ECSA-HC has booked accommodation for all the participants and shall cover the costs of the accommodation for all the participants supported by ECSA-HC.

AIRPORT SHUTTLE ARRANGEMENTS

ECSA-HC will organize for airport pick up to and from the Hotel. Please contact Mr. Stephen Biduda; sbiduda@ecsahc.org WhatsApp #+255 768 279 720 and Ms. Christine Mhanusi (doid@ecsahc.org) and WhatsApp # +255 754 594 313 in case of any enquiries

VISA/OTHER TRAVEL ARRANGEMENTS

For most EAC and SADC countries a visa is not required for entering Zambia,

However, it is advisable to contact the nearest Zambia Embassy to confirm the requirements for your country. All participants entering Zambia should be in possession of a Yellow Fever vaccination certificate.

OBSERVATION OF COVID-19 CONTROL PROTOCOLS

The Covid-19 guidelines of Zambia shall apply during the meeting.

CURRENCY

The monetary unit is the Zambian Kwacha at the latest exchange rate, 1 US Dollar = 21.13 Kwacha. Credit/Debit cards are normally accepted by most hotels, banks, restaurants and tourist shops.

WEATHER AND CLOTHING

The current maximum day-time temperature 25°C and night-time temperature 28°C. Light clothing are recommended.

PERDIEM/M&IE

For all the participants supported by ECSA-HC. Per Diem rates prescribed in the PIM shall be applied. ECSA-HC will also refund costs for travel insurance, Visa fee and transport expenses to the airport.

TYPE OF ADAPTOR FOR ZAMBIA

You will need a type G adaptor in Zambia.



Finally

We wish you a pleasant flight and stay in the beautiful Republic of Zambia

ECSA Contact information

Director General

ECSA Health Community

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**SOUTHERN AFRICA TB AND HEALTH SYSTEMS SUPPORT (SATBHSS) PROJECT
&
STRENGTHENING PANDEMIC PREPAREDNESS IN ECSA REGION (SPP) PROJECT**

**Joint Communities of Practice (CoPs) Meeting
15 & 16 October 2023**

AGENDA

TIME	TOPIC	PRESENTER (TIME)	CHAIR & RAPPORTEUR
Day 1			
15/10/2023			
08:00 – 08:30	Registration	ECSA-HC	ECSA-HC
08:30 – 08:45	Introductions	All	
8:45 – 9:15	Opening Remarks: 1. ECSA-HC 2. AUDA-NEPAD 3. Country Heads of Delegations: <ul style="list-style-type: none"> • Lesotho • Malawi • Mozambique • Rwanda • Tanzania • Zambia 	Prof. Yoswa (5 min) AUDA NEPAD (5 min) Lesotho (5 min) Malawi (5 min) Mozambique (5 min) Rwanda (5 min) Tanzania (5 min) Zambia (5 min)	
09:15 – 09:25	Meeting objectives and adoption of agenda	Dr Martin	
SESSION 1: REGIONAL AND NATIONAL PROGRESS ON CONTINUUM OF TB CARE AND MANAGEMENT			
09:25 – 10:30	SATBHSS Project's accomplishments, lessons learned and challenges to TB care and management. Highlights from all project countries -Main achievements -What worked well -Lessons learned -Opportunities A sustainable regional approach in Improving the TB services: An experience from Malawi and Zambia in implementation of the Quality Improvement star rating intervention. Round table: Sustainability strategies for Regional and Country TB interventions, recommendations and future initiatives after the closure of the SATBHSS project Plenary discussions and recommendations	Malawi - Chair of CoP TB Continuum of care (15 min) ECSA-HC (10 min) SATBHSS project countries to answer questions from the moderator (30 min) SATBHSS countries to answer questions from participants (20 min)	ECSA-HC
10:30 – 11:00	Health Break and Networking	All	

TIME	TOPIC	PRESENTER (TIME)	CHAIR & RAPPORTEUR
SESSION 2: REGIONAL AND NATIONAL PROGRESS ON LABORATORY SYSTEMS STRENGTHENING			
11:00 – 12:00	SATBHSS and SPP Project's accomplishments, lessons learned and challenges to strengthen laboratory systems and networks country and regional level. Highlights from all project countries: -Main achievements -What worked well -Lessons learned -Opportunities Round table: Sustainability strategies, next steps and future initiatives after the closure of the SATBHSS and SPP project Plenary discussions and recommendations	Mozambique - Chair of CoP Laboratory (15 min) SATBHSS and SPP countries to answer questions from the moderator (30 min) SATBHSS countries to answer questions from participants (20 min)	ECSA-HC
SESSION 3: REGIONAL AND NATIONAL PROGRESS ON SURVEILLANCE, PREPAREDNESS AND RESPONSE TO PUBLIC HEALTH PRIORITIES			
12:00 – 13:00	SATBHSS and SPP Project's accomplishments, lessons learned and challenges on surveillance, preparedness and response to public health priorities at country and regional level. Highlights from all project countries: <ul style="list-style-type: none"> • Main achievements • What worked well • Lessons learned • Opportunities 	Mozambique - Chair of CoP Surveillance (15 min)	ECSA-HC
	Round table: Sustainability strategies, next steps and future initiatives after the closure of the SATBHSS and SPP project	SATBHSS and SPP countries to answer questions from the moderator (30 min)	
	Plenary discussions and recommendations	SATBHSS and SPP countries to answer questions from participants (20 min)	
13:00 – 14:00	Group photo and lunch break	All	
SESSION 4: REGIONAL AND NATIONAL PROGRESS ON ANTIMICROBIAL RESISTANCE SURVEILLANCE AND STEWARDSHIP FOR COMBATTING AMR			
14:00 – 15:00	SPP Project's accomplishments, lessons learned and challenges on implementing AMR Surveillance, Antimicrobial Stewardship and Data utilization at country and regional level. Highlights from all project countries: <ul style="list-style-type: none"> • Main achievements • What worked well • Lessons learned • Opportunities 	Zambia- Chair of the CoP (15 min)	ECSA-HC
	Plenary discussions and recommendations: Sustainability strategies, next steps and future initiatives after the closure of the project	Countries to answer questions from participants (30 min)	

TIME	TOPIC	PRESENTER (TIME)	CHAIR & RAPPORTEUR
SESSION 5: REGIONAL COMMUNITY OF PRACTICE ON MINE HEALTH REGULATIONS AND OHS			
15:00-16:00	SATBHSS Project's accomplishments, lessons learned and challenges to strengthen laboratory systems and networks country and regional level. Highlights from each country: -Main achievements -What worked well -Lessons learned -Opportunities	Zambia - Chair of CoP on OHS All project countries (10min each)	AUDA-NEPAD
	Plenary discussions and recommendations	SATBHSS countries to answer questions from participants (30 min)	
16:00 – 16:30	Health Break and Adjourn	All	
Day 2			
16/10/2023			
SESSION 6: REGIONAL AND NATIONAL PROGRESS ON M&E AND RESEARCH INITIATIVES			
8:30 – 10:00	SATBHSS Project's accomplishments, lessons learned and challenges on surveillance, preparedness and response to public health priorities at country and regional level. Highlights from all project countries: -Main achievements -What worked well -Lessons learned -Opportunities Presentation of the Regional TB Out of Pocket Expenditure study results and lesson learnt from the regional analysis of the study	Lesotho – Chair of the CoP on M&E and Research Initiatives (20 min) ECSA-HC-(10 min)	ECSA-HC
10:00-10:30	Overall performance of the SATBHSS project results framework	Regional SATBHSS M&E (15 min)	ECSA-HC
	Round table: Sustainability strategies, next steps and future initiatives after the closure of the SATBHSS project	SATBHSS countries to answer questions from the moderator (30 min)	
	Plenary discussions and recommendations	SATBHSS countries to answer questions from participants (10 min)	
	Group work: Summary of recommendations and deliberations per thematic areas to be shared during the RAC	Chairs of CoP's	
10:30-11:00	Health Break & Networking	All	
11:00 - 12:30	Presentations of the recommendations from the group work and plenary discussion	Chair of the 5 groups (15 min)	
12:30 – 12:45	Way forward	ECSA-HC	

TIME	TOPIC	PRESENTER (TIME)	CHAIR & RAPPORTEUR
12:45 – 13:30	Closure: acknowledgments and appreciation	<ul style="list-style-type: none"> • Lesotho (5 min), • Malawi (5 min), • Mozambique (5 min), • Rwanda (5 min), • Tanzania (5 min), • Zambia (5 min) • ECSA-HC (5 min) • AUDA-NEPAD (5min) 	
13:30 – 14:30	Lunch break	All	
14:30 – 16:30	Groups works independently to clean up the recommendations and deliberations	All	
16:30	Administrative issues and adjourn	All	

TIME	AGENDA	PRESENTER	SESSION CHAIR
ARRIVAL OF RAC DELEGATES – MONDAY 16th OCT 2023			
TUESDAY 17th OCT 2023			
08:45 – 09:00	Arrival and registration of delegates	ECSA-HC	
SESSION 1: OPENING CEREMONY AND MEETING OBJECTIVES			
8:30 - 09:00	Welcoming remarks by Zambia		Zambia
09:00 – 9:30	Welcoming remarks	ECSA-HC, Director General Moderator Hon Silvia T. Masebo	
	Opening High-level RoundTable session (Ministers/PSs, Partners, representatives of regional organizations) – Key high-level opening statements followed by guided discussions)		
	Keynote address by Hon Minister of Health of Zambia		
09:30 – 09:40	Meeting objectives and adoption of the agenda	ECSA-HC/AUDA-NEPAD	

SESSION 2: SHOWCASING SATHSS PROJECT ACHIEVEMENTS/IMPACT IN THE REGION			
09:40 – 11:00	Key achievements and lessons learned during the life of the project and sustainability plans (focusing on results) –		Zambia, Mozambique,
11:00 – 11:30	Group Photo, Health break and networking		
11:30-12:30	Key achievements and lessons learned during the life of the project and sustainability plans (focusing on results)		Malawi, Lesotho
12:30-13:00	Discussions and Key take-aways		
13:00-14:00	Lunch Break		
	Lunch break side meeting: World Bank & Malawi		
SHOWCASING SATHSS PROJECT ACHIEVEMENTS/IMPACT IN THE REGION			
14:00 - 15:00	Key achievements and lessons learned during the life of the project and sustainability plan (focusing on results) – summaries from the internal preliminary ICRs		AUDA-NEPAD & ECSA-HC
15:00 - 16:00	Bank Perspective on the project and value addition of the regional approach to the project interventions and programming: -		World Bank Dr Chakaya
	<ul style="list-style-type: none"> • Round table discussions (Panelists: World Bank, countries, regional organizations, partners) – 30 minutes • Audience engagement through a live poll on the topic 		
	Key messages from the discussions: Looking into the future and how to sustain the gains at country and regional level – 15 minutes		Dr Chakaya
16:00– 16:15	Health Break		World Bank (Dr Ramesh)
16:15 - 16:45	Overview of MPA project		
16:45	Day 1 Closure and Health Break		
18:00 – 17:00	Dinner side meeting: World Bank and Mozambique	Dinner side meeting: World Bank and MPA countries, ECSA-HC and IGAD	World Bank

SATBHSS -PROJECT SUMMARY

BACKGROUND

Tuberculosis (TB) remains a global health crisis. The Southern Africa contributes significantly to the global burden of TB despite significant progress in its diagnosis, treatment, and prevention. Mining activities is a significant contributor to the burden of TB in Southern Africa. Due to Mining activities, Southern Africa is faced with a double public health crisis of TB and Occupational Lung Disease. The COVID-19 pandemic has further exacerbated the TB situation, with disruptions to healthcare systems, reduced access to services, and interruptions in the supply chain for TB drugs and diagnostics. The World Bank following the request from 04-member states of ECSA-HC, Malawi, Mozambique and Lesotho and Zambia funded the Southern Africa TB Health Systems Support (SATBHSS) Project. The Project goals and objectives are aligned to the global and the participating countries national TB strategic focus and are as follows.

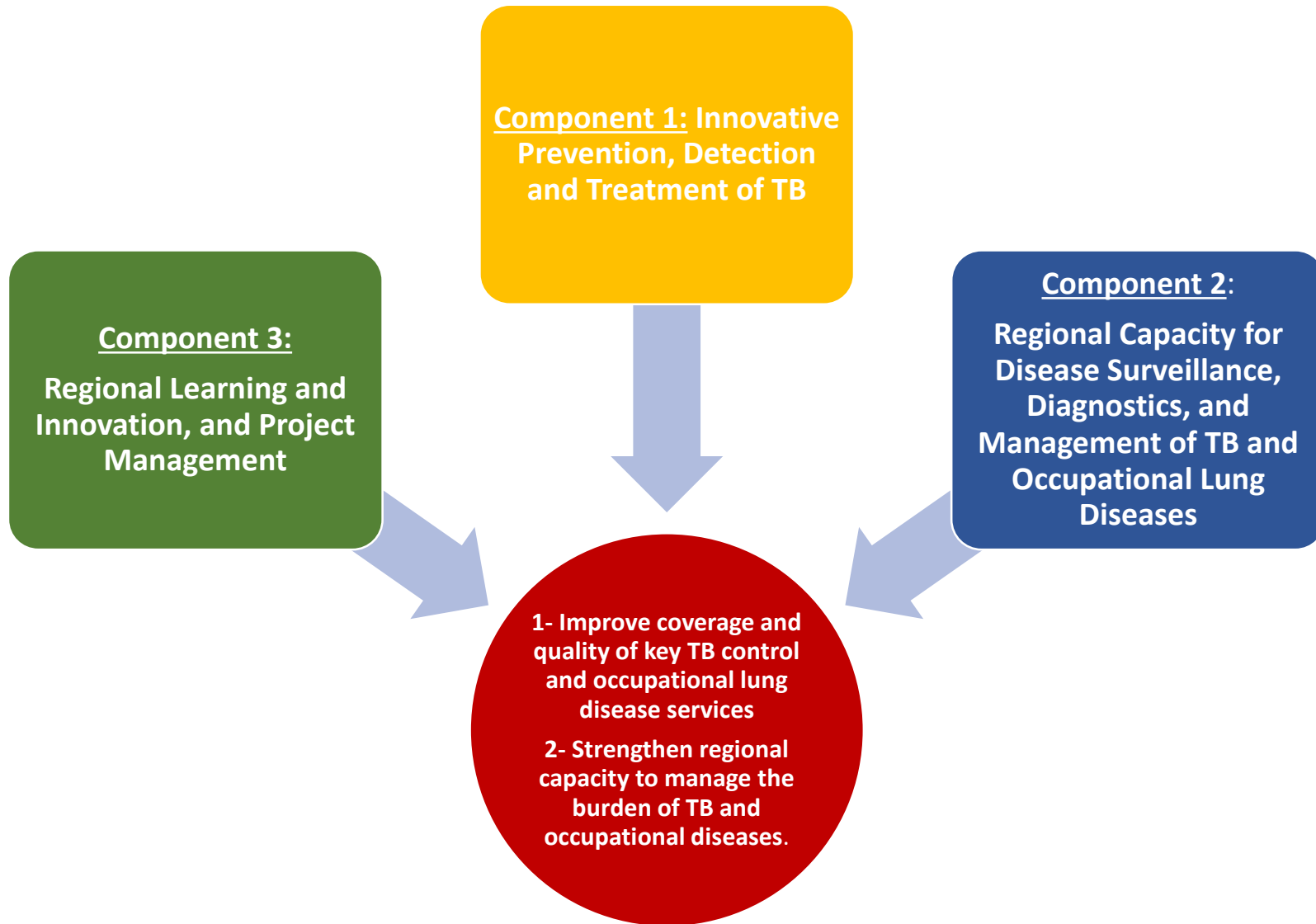
PROJECT DEVELOPMENT OBJECTIVES

The overall objectives of the project are to:

- i Improve coverage and quality of TB control and occupational lung disease services in targeted geographic areas of the participating countries; and
- ii Strengthen regional capacity to manage the burden of TB and occupational diseases. B. Project Beneficiaries.

The primary beneficiaries of the project: Were TB-affected individuals and households. The project targeted mining communities, high TB burden regions, high HIV/AIDS burden regions, transport corridors, and cross-border areas of the four target countries. Miners, ex-miners, their families, labor-sending areas, and health workers are/were direct beneficiaries. The project did directly benefit women, particularly in the small-scale mining sector. The SATBHSS project has been under implementation for 7 years starting in 2017, with 2 years of no cost extension. The project closes on 31st December 2023.

FIGURE 1: SATBHSS COMPONENTS



KEY ACHIEVEMENTS

FIGURE 2: SUMMARY OF ACHIVEMENTS UNDER THE SATBHSS PROJECT

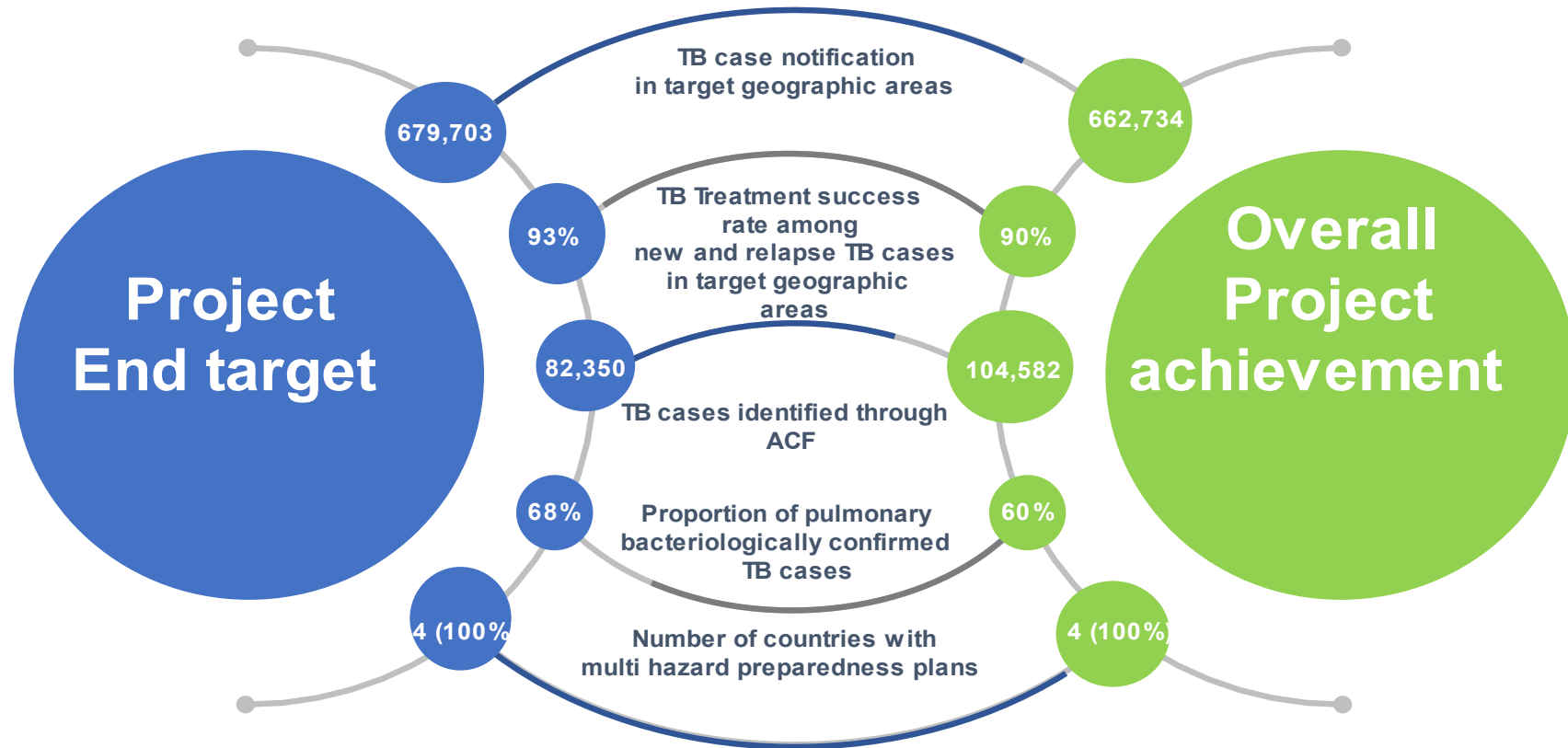
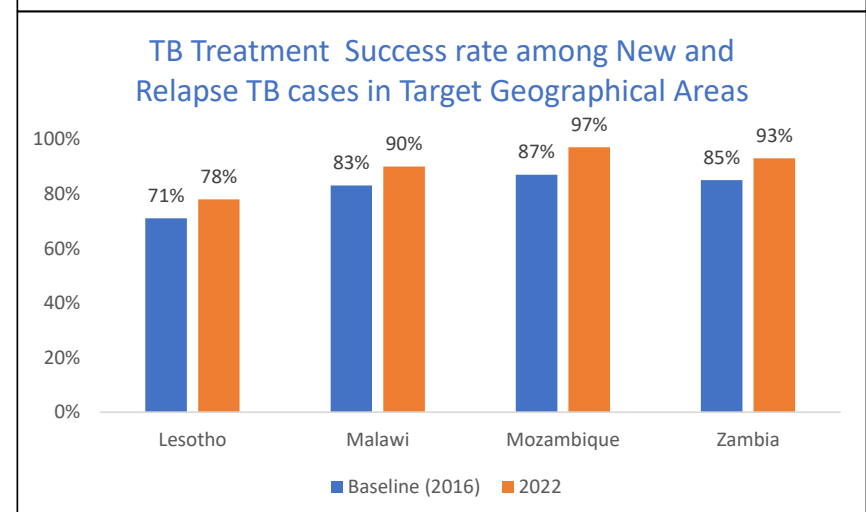
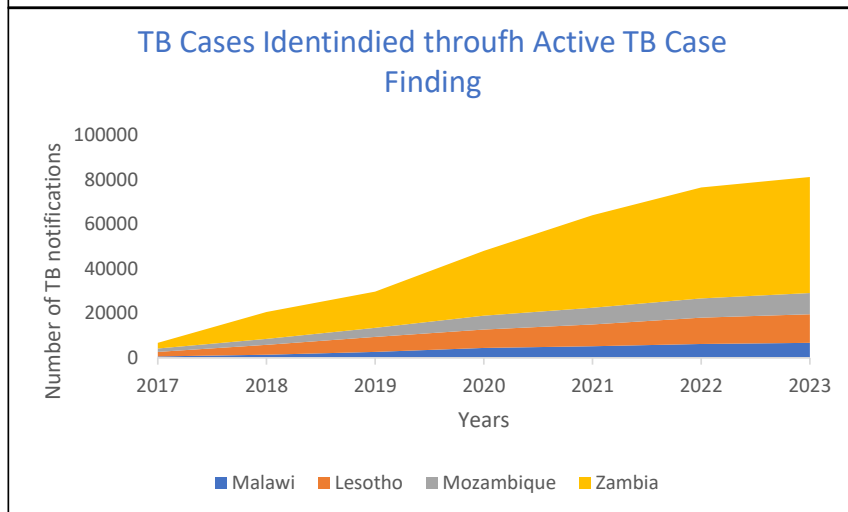
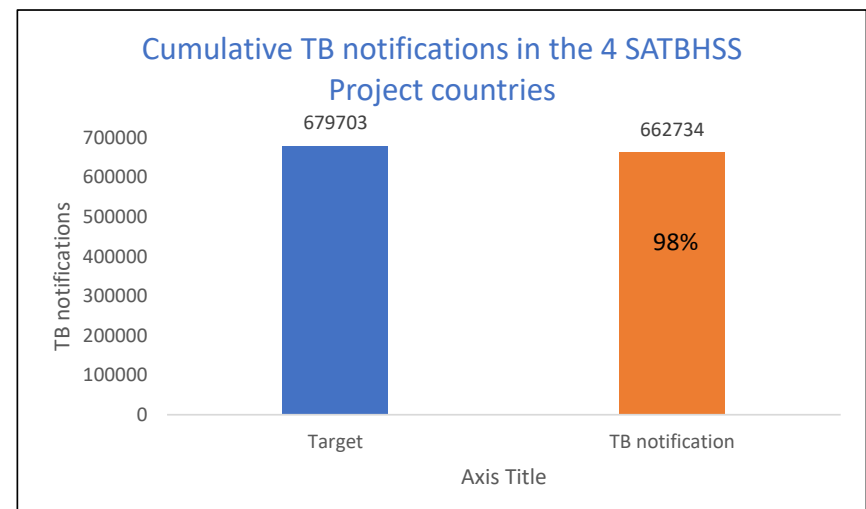
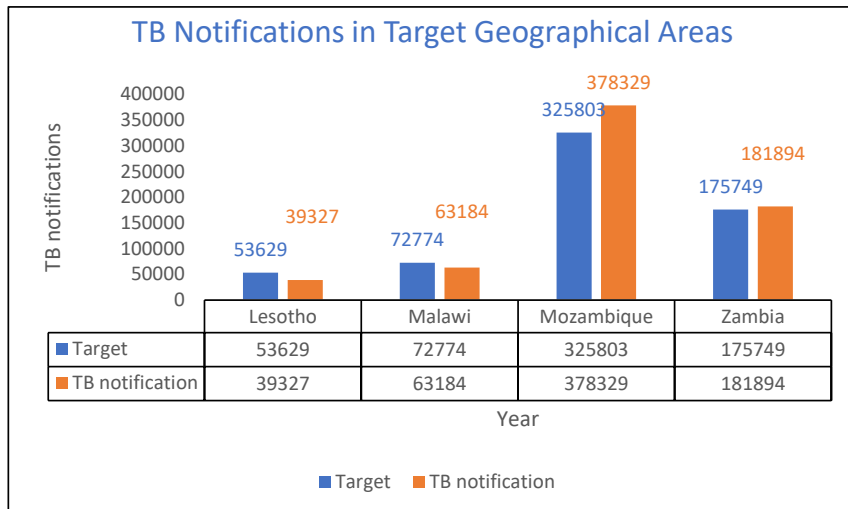


FIGURE 3: ACHIEVEMENTS BY THE RESPECTIVE SATBHSS PROJECT COUNTRIES

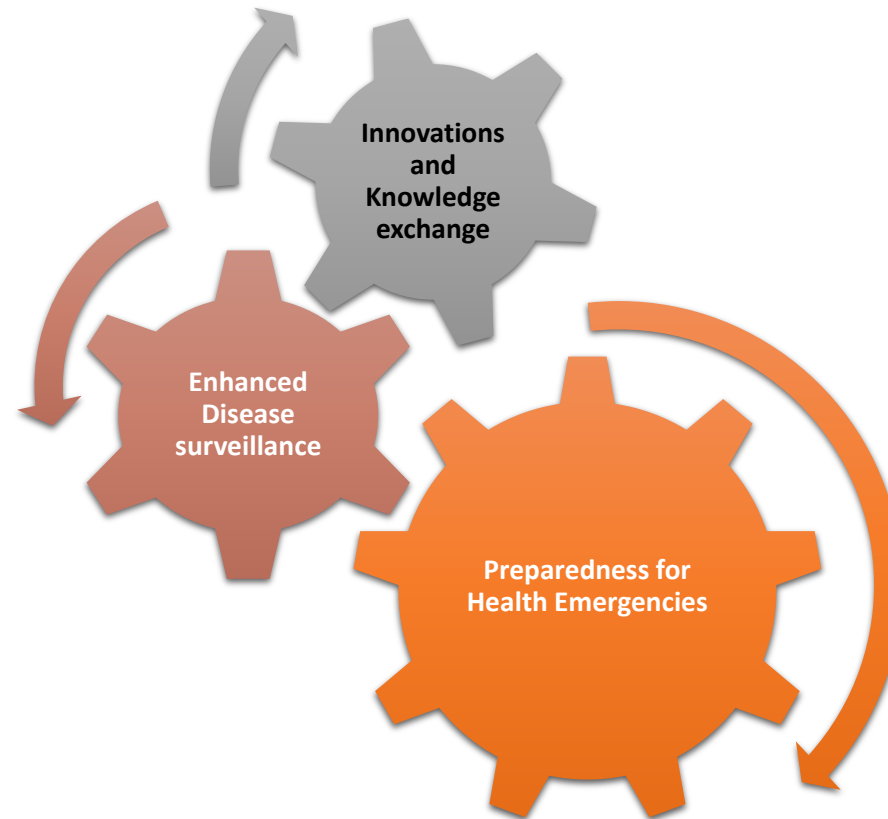


STRENGTHENING PANDEMIC PREPAREDNESS IN THE EAST, CENTRAL AND SOUTHERN HEALTH COMMUNITY (SPP PROJECT)

BACKGROUND

The World Bank under the Health Emergency Preparedness and Response Umbrella Program (HEPR Program) trust-fund program provided support to ECSA-HC to implement a regional project, the Strengthening Pandemic Preparedness for Eastern and Southern Africa. The project covers five countries namely, Malawi, Mozambique, Rwanda, Tanzania and Zambia and is aimed at supporting these countries to strengthen their systems disease surveillance and health emergencies preparedness and create more effective cross-border surveillance and response networks. The implementation is done through three mutually inter-linked components focusing on:

FIGURE 4: SPP COMPONENTS



Under these thematic areas the project supports the countries in the three components on key areas including:

- i Strengthening early warning and surveillance systems, including Indicator and Event based surveillance systems, cross-border surveillance and combatting antimicrobial resistance (AMR);
- ii Preparing for health emergencies by developing multi-hazard and disease contingency plans and risk assessments, and updating national action plans; and
- iii Strengthening systems and leveraging innovation through online surveillance and e-learning platforms. To further impact, ECSA-HC is leveraging structures established under the World Bank-funded Southern Africa TB and Health Systems Support project, including the Regional Advisory Committee and communities of practice (CoPs).

Figure 5 provides a detailed illustration of the project components and technical thematic areas.

FIGURE 5: PROVIDES AN ILLUSTRATION OF THE PROJECT COMPONENTS AND TECHNICAL THEMATIC AREAS.

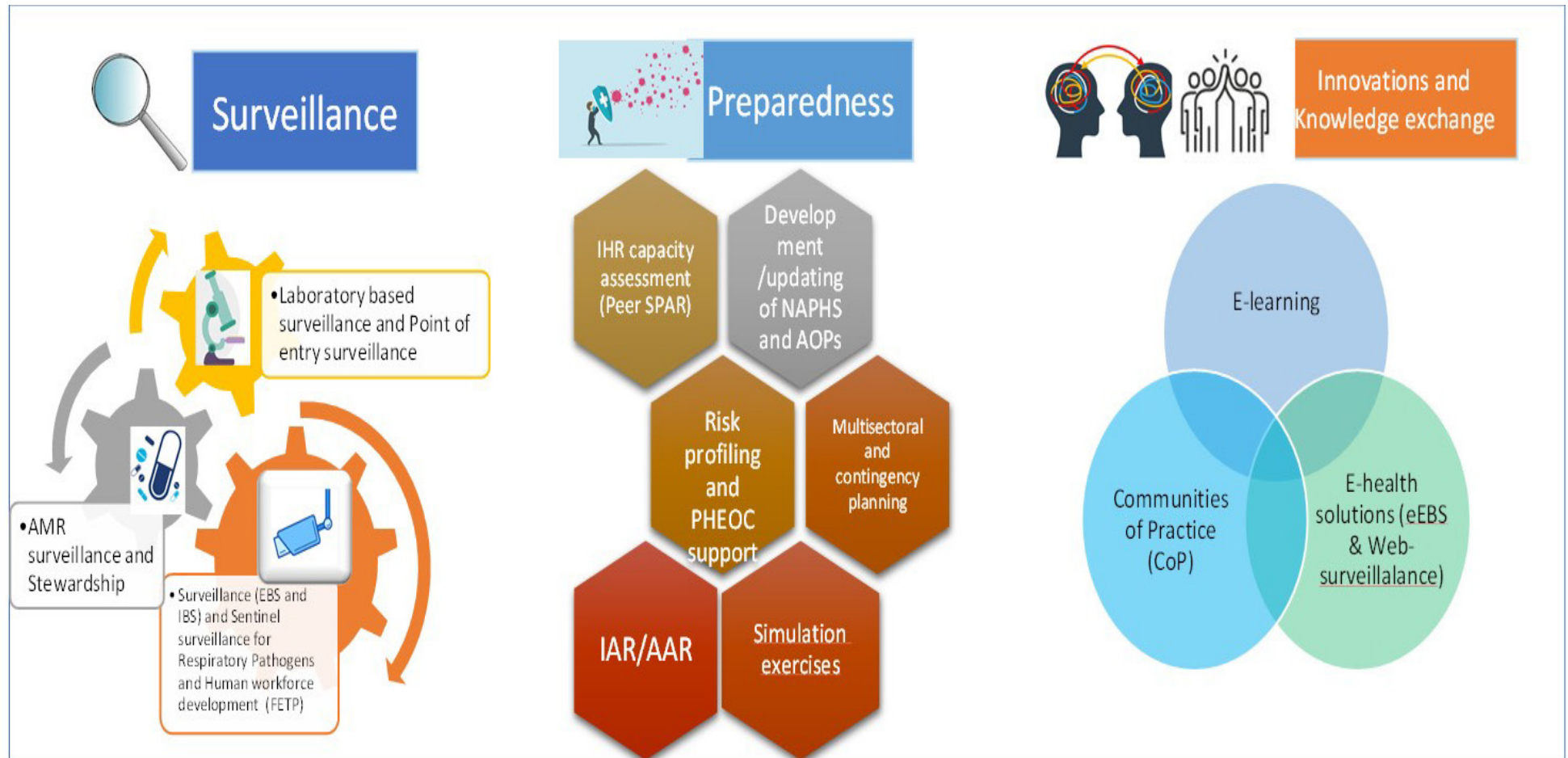


FIGURE 6: SUMMARY OF ACHIEVEMENTS UNDER SPP

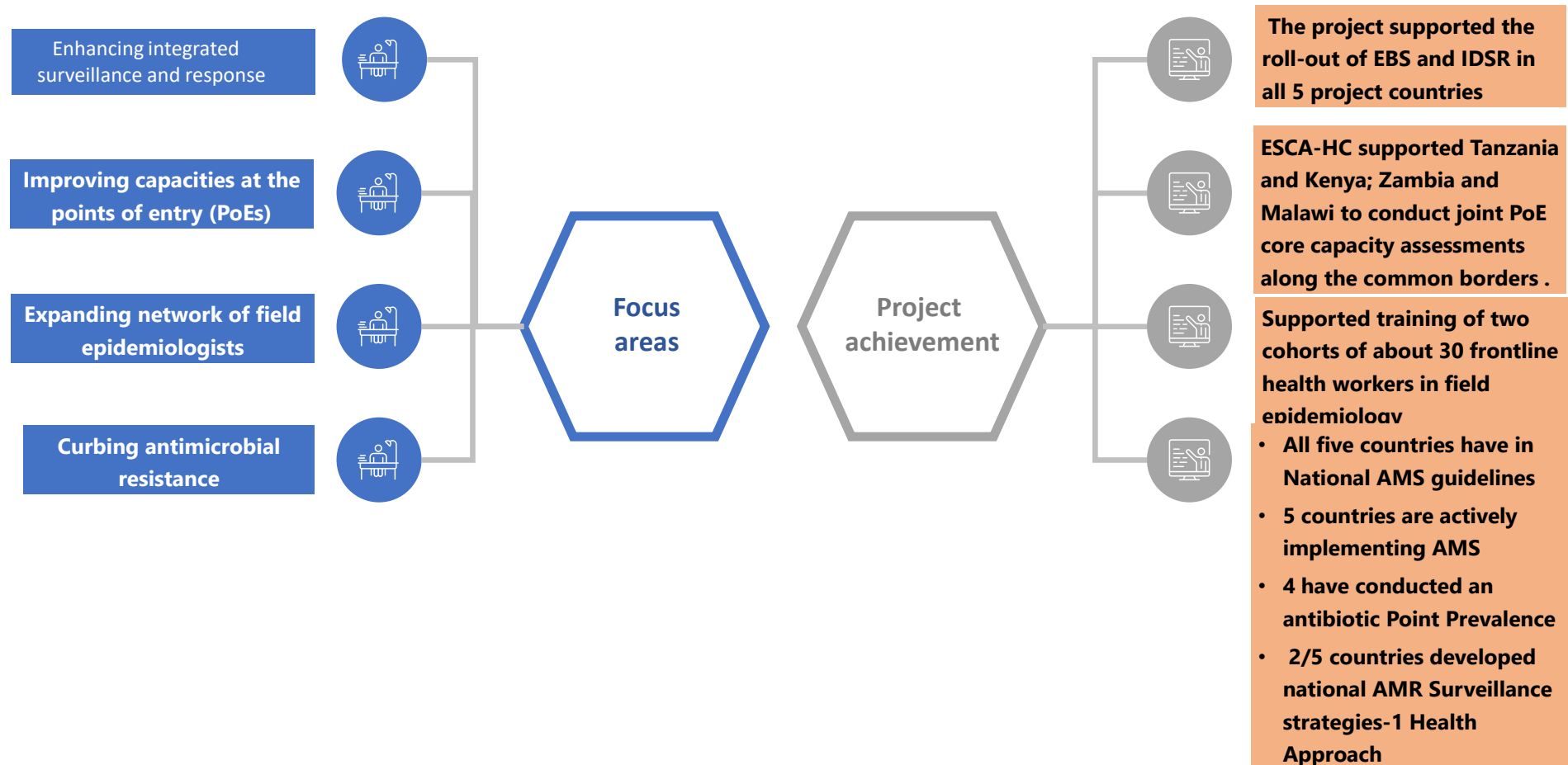


FIGURE 7: SUMMARY OF ACHIEVEMENTS UNDER SPP



The project supported the development of the multi-hazard plans for all the 5 project countries



Trained 1943 staff from all the project countries in 3rd Edition of IDSR pandemic preparedness and response, EBS, AMR



Successfully developed E-learning Training Modules on AMR/AMS, EBS, IPC and enrolled 186 trainees in these Courses

NTP/SATBHSS LESOTHO COUNTRY TEAM



DR LLANG MAAMA is a qualified Medical Doctor and a Public Health Practitioner for over 15 years with master's in international public health (MIPH) obtained from Sydney University School of public Health. She serves the Ministry of Health Lesotho as the National TB and Leprosy Programme Manager.



MS. 'MATHABO NTAI is the Project Coordinator for the Southern Africa Tuberculosis and Health System Strengthening Project in the Kingdom of Lesotho. She is also managing other two World Bank supported projects – Lesotho Covid-19 Emergency Preparedness and Response Project and the Lesotho Nutrition and Health System Strengthening Project under the Ministry of Health, Lesotho. Ms. Ntai has over 20 years' experience managing health projects in Lesotho including the Global Fund grants. She has Master of Science in Epidemiology, Master of Business Administrator in Health Care Management, Post-graduate diploma in Health Economics, Bachelor of Science in Physiotherapy and Bachelor of Science in Biology and Chemistry. She has led numerous initiatives and studies under the three projects including the Out-of-Pocket expenditure for TB study and Mortality and its predictors among drug-resistant tuberculosis patients in Lesotho, 2007-2018.



DR. MAYEMA MAYEMA ANATOLE is a public health professional, specialised in TB and HIV.

He serves as a program officer within the NTLP in Lesotho. Dr. Mayema holds a Bachelor of Surgery and Medicine (MBCChB), a Postgraduate Diploma in HIV Management, and a master's degree in public health, SONDALO End TB strategy and the vision of TB elimination and JICA Ending TB and Response to Health Emergency-Innovation in Health System Development.



THATO RALETING LETSIE is the lead Monitoring and Evaluation Officer in the National TB and leprosy Programme, whose role is to coordinate and lead the Monitoring and Evaluation department of the National TB and leprosy Programme. Thato holds a postgraduate diploma in Monitoring and Evaluation from the University of Stellenbosch and a bachelors degree in Computer Science and Statistics from the National University of Lesotho. Thato has over 10 years' experience in monitoring and evaluation of TB Programme with vast experience partaking in TB programme policy documents e,g National Strategic plans, M&E plans, recording and reporting tools, guidelines and standard operating procedures. Thato possess over 10 years' experience in data management, developing M&E systems, targets setting, for both National and subnational levels. Thato has participated in several TB researches by participating in data collection, cleaning, data analysis and report writing. In addition, she has partaken in TB epidemiological reviews and external and internal TB Programme

reviews exercises. Among her greatest achievement has been to spearheaded the TB data for action concept in Lesotho, which has yielded great improvement in TB case detection cascade across several health facilities in Lesotho.



NTSWAKI ZWANE is currently engaged as an Occupational Safety and Health (OSH) Specialist on the SATBHSS Project, dedicated to enhancing OSH compliance in both large- and small-scale mining operations. Her thirst for knowledge led her to pursue a Bachelor of Technology in Environmental Health, a foundation that would set the stage for her remarkable career. Ntswaki further honed her expertise through specialized certifications including SAMTRAC for Mining, Examine and Make Safe for Mines and Quarries, and Total Quality Management Systems. Ntswaki's journey in the field of Safety, Health, and Environmental (SHE) began as a trainee at the Lesotho Brewing Company. Her dedication and proficiency quickly propelled her into roles of increasing responsibility, from District Health Inspector in the Ministry of Health to Safety Officer at Letseng Diamonds, a prominent diamond mining company. With a keen focus on excellence, Ntswaki achieved significant milestones throughout her career. She played a pivotal role in the implementation of NOSA 5 star SHE systems, earning Lesotho Brewing Company its initial 3 Star rating. At

Letseng Diamonds, her contributions were instrumental in attaining the prestigious 5-star recognition. Her expertise extended to LSP Construction, where she became the first to introduce SHEQ management systems, further solidifying her reputation as an industry leader. Her passion for continuous improvement and her unwavering commitment to occupational safety and health have left an indelible mark on the industries she's been a part of.



MR. TUMANE MAHLOANE is a Monitoring and Evaluation Specialist under the SATBHSS project in Lesotho. He is also a chair of the Community Of Practice on M&E and Research for the SATBHSS project. Mr. Mahloane is the former Monitoring and Evaluation Manager, Global Fund Coordinating Unit under the Ministry of Finance (Principal Recipient) and was responsible for steering and aligning Monitoring and Evaluation activities of the Global Fund to fight AIDS, Tuberculosis and Malaria and the national priorities in both TB and HIV/AIDS. He holds bachelor degree in Economics, Postgraduate Diploma Monitoring and Evaluation of Health Programmes, Post graduate Diploma in Health Economics. He has been leading various initiatives such as the peer to peer DQA in the four countries implementing the project with technical support from ECSA-HC. He cherishes continuous development and upskilling himself by pursuing various short courses and currently pursuing MPHIL Health System and Services Research.

NTLEP MALAWI TEAM



DR JAMES MPUNGA is a public health specialist with more than 15 years in decision-making positions at all levels of the health sector in Malawi. Currently serving as Program Manager for the National TB and Leprosy Elimination Program, he has stirred the SATBHSSP as Project Coordinator since the project inception in 2016.



KUZANI NIGEL MAX MBENDERA is a medical doctor by training and currently the deputy program manager of the national tuberculosis and leprosy elimination program. Dr Mbendera has particular interest in active case finding, diagnostic performance and placement in a health system. Prior to his time in the Tuberculosis and Leprosy elimination program he was the district medical officer for Mzimba and Lilongwe districts, the largest geographical and populated districts respectively.



LEVI LWANDA is currently working as Monitoring & Evaluation Specialist for the SATBHSS Project in Malawi, a position he has held since Project inception. He has previously worked in the field of M&E in such program areas like HIV & AIDS; sustainable livelihoods and rural development; and disaster risk reduction.



MR. FRANCIS MUWALO is Information Technology Specialist for the SATBHSS Project in Malawi, a project that is being implemented in Malawi, Mozambique, Lesotho and Zambia. Mr. Muwalo has a Bachelor of Science Degree in Computer Science and Mathematics and a Master of Science degree in Strategic Management. He is a Microsoft Certified Professional and also has a certificate in Project Management. Mr. Muwalo has supported the project in implementing the TB E-Health System and also in the design and implementation of the radiology viewer station system currently in use in various facilities across Malawi. He was instrumental in establishing the IT infrastructure for the project.



DICKENS CHIMATIRO is a Monitoring and Evaluation Professional with more than 10 years' demonstrated experience in Monitoring and Evaluation, Surveillance, Surveys, Operational Research, and quality improvement experience in the context of TB and HIV. Dickens is currently working with National TB and Leprosy Elimination program in Malawi as Monitoring and Evaluation Officer. He is responsible for supporting all the Monitoring and Evaluation functions of the program. Dickens has supported the development of various initiatives aimed at strengthening Monitoring, Evaluation, and data management systems at national level. The poster demonstrates the application of quality improvement program to address observed challenges in the delivery of TB services.



MADALITSO MMANGA is an Environmental Health Officer and Sanitation Specialist with over a decade of experience working on TB/HIV programs in Malawi. He works with the Ministry of Health under the National TB and Leprosy Elimination Program (NTLEP). He is currently working as the National Coordinator, of Active TB Case Finding responsible for project intervention that uses Mobile diagnostic units for screening of active TB in high-risk populations. The project intervention has funding from the Government, World Bank SATBHSSP and Global Fund. The poster presentation will focus on Malawi's National NTLEP's most innovative approach for active TB case finding that targets Key and High-risk populations. It will provide some highlights on the targeted active TB screening by use of Mobile Diagnostic Units (MDUs) and how it has impacted positively in terms of case detection in Malawi. With the lessons learnt and experiences from the implementation approach, the program recommends that targeted screening has the potential to improve the gap in finding the missing TB cases and it can be considered for scaling up within the region.



YAMIKANI MURONYA is a specialist in environmental and social safeguards working on the SATBHSS project for Malawi's ministry of health. Before taking on this position, he worked on learning and development responsibilities with Illovo Sugar Malawi and G4S Security Services, SHEQ training on a Rail construction project with VALE, and skills development programs with the TEVET Authority. Yamikani Muronya holds a Project Management Professional (PMP) certification from the Project Management Institute (PMI). He also has a Bachelor of Science in Environmental Health (B.Sc. EH) and a Master of Science in Management Studies. In 2021 he authored the Illovo Sugar Malawi Plc Sexual Harassment Policy and championed its roll out.



DR. YOTAM MGONJETSII MOYO MBBS(Mw); DOH (UCT); MPhil OH (UCT) is an Occupational Health Specialist supporting implementation of SATBHSSP in Malawi. He is also part of the Regional Expert Advisory Panel for Malawi, Zambia, Mozambique and Lesotho. He is a recognized regional OSH trainer for SATBHSSP. Dr. Y. Moyo spearheaded the establishment of integrated public service occupational health package in Malawi which is one of the pioneer countries to take that approach in efforts to boost access to basic occupational health services in the region. His work in less than 24 months has tremendously improved occupational lung disease screening, diagnosis, management and reporting among key populations in Malawi. He has led a number of research initiatives related to occupational lung disease and health systems within and outside the project.

MOZAMBIQUE SPP TEAM



BACHIR MACUÁCUA holds a degree in Medicine from the Eduardo Mondlane University (Mozambique), a Master of Public Health from University of Essex (United Kingdom) and is currently attending a Master of Science Program in Health Economics at the James Lind Institute of Geneva. He is Member of the Royal Society of Public Health of London and the International Union Against Tuberculosis and Lung Diseases. He has considerable experience in HIV & TB programmatic management. He is currently serving as Technical Advisor at the National Tuberculosis Control Program, Ministry of Health of Mozambique for 6 years. He is interested in Health System Strengthening, Health Economics and Epidemiology.



DR VÂNIA CHONGO-FARUK is specialist in Occupational Health based in Maputo, Mozambique. She is currently serving as the Head of the National Occupational Health Program at the Mozambican Ministry of Health (MISAU).

Dr Chongo-Faruk holds a medical degree from Eduardo Mondlane University in Maputo, Mozambique, and a Masters in Occupational Health from the University of Cape Town, South Africa, where she also attended a MMed training in Occupational Medicine.

Her particular interest is in occupational health and safety and occupational health equity, the driving factors to achieve Quality, Equity and Access for all workers in the workplace.

Dr Chongo-Faruk believes that training of medical professionals in the assessment of occupational diseases is one of the key enablers in achieving appropriate care for workers in Africa.



DR. VIDA MAKUNDI MMBAGA (MD, MPH, MSc. Epi) is a Medical Doctor trained in Public Health and Epidemiology, currently working with the Ministry of Health Tanzania as Assistant Director for Epidemiology and Disease Control Section. Her main area is Epidemiological Surveillance, Preparedness and Response to Public Health Emergencies. She is responsible for the coordination, supervision, monitoring, and evaluation of the surveillance activities in the unit whereby she has gained a lot of experiences in prevention and control for communicable and noncommunicable diseases, including field epidemiology and integrated disease surveillance and response; management in global public health and health systems strengthening. Dr Vida has spearheaded several initiatives that include resource mobilization for various disease programs, coordination of the international cross border collaborative preparedness and response activities including joint outbreak investigations, After Action

Reviews and simulation exercises under regional collaborations with EAC, SADC and ECSA HC. Vida is coordinating the implementation of International Health Regulation (2005) to build the IHR core capacities and the development of the National Action Plan for Health Security for the prevention, detection and response to public health threats. She is the member of the National Task force for Public Health Emergences where she serves as the chair for the Public Health surveillance pillar. Before joining the Ministry, Dr. Vida had worked with Deloitte under USAID funded project as Senior Technical Officer overseeing HIV care and Treatment in Iringa Region Tanzania. Prior to this role she also worked with Unilever Tea Tanzania as the head of Preventive services in the company medical department coordinating HIV prevention program at workplace, occupational health services and safety at workplace programs.

NTLP/SATBHSS, ZAMBIAN, COUNTRY TEAM



DR MUBANGA ANGEL is currently the Program Manager for the National TB and Leprosy Program in Zambia. He worked as a District Health Director for Rufunsa District in Zambia leading in primary health care provision and policy implementation before he joined the National TB and Leprosy Program. He has a Bachelor of Human Biology (BSc HB), a Bachelor of Surgery and Medicine (MBCChB), a Master's degree in Biochemistry and a Master's degree in Public Health.

Dr Mubanga has supported multiple initiatives to scale up primary health care programs interventions including TB. He has supported a number of TB interventions including TB case finding, TB prevention and quality improvement activities at community, district and national levels. He has participated and led in a number of research and evaluation works under the District and National Level projects for TB, HIV, Malaria and Maternal and child Health programs.



DR. FWASA SINGOGO is the SATBHSS Project Coordinator in Zambia promoting a multi sector approach to tuberculosis and Occupational Lung Diseases control through the Ministries of Health, Mines, Labour and the Occupational Health and Safety Institute. Dr. Singogo has a Bachelor of Human Biology (BSc HB); Bachelor of Surgery and Medicine (MBCChB); a Master's in public Health (MPH) and Diploma in Sexual and Reproductive Health (DSRH). Dr. Singogo has over twenty years of experience in managing projects of different scales under various local and international organisations and funders focusing on various aspects of the health sector. In the past Seven years, Dr. Singogo has coordinated the implementation of the World Bank supported SATBHSS Project in Zambia that has greatly contributed to the implementation of a number of initiatives and successes in the Tuberculosis and Occupational Lung Diseases control and management in Zambia.



CLARA CHOLA KASAPO is a TB Liaison Officer currently working with the National TB and Leprosy Programme Ministry of Health Zambia as Monitoring and Evaluation Officer and Research Focal Person. A nurse by profession, has Bachelor Degree in Public Health and Masters in Public Health and Operational Research. A Public Health Professional with over 15 years in infectious diseases, grant writing and has solid appreciation of current global health trends and donor landscapes. Passionate about linking research with implementation of program to offer service to the communities. Has professional experience in programmatic Management of Tuberculosis, program planning, monitoring and Evaluation and Operational Research.



DR. KINGSLEY NGOSA is an Occupational Health specialist and Deputy Director at Occupational Health and Safety Institute in Kitwe, Zambia. He is the Team Lead for the regional SATBHSS Project at the Institute. Dr. Ngosa has a Bachelor of Human Biology (BSc HB), Bachelor of Surgery and Medicine (MBChB) and Masters of Medical Science in Occupational Health (MMedSc OH) with more than 8 years' experience as a specialist. He is a member of REAP, Centre of Excellence in OHS, has orientation in ILO International Classification of radiographs of pneumoconiosis, conducted a study on the risk of PTB in underground copper miners in Zambia and supported the baseline silicosis study in Zambia.



ENG. JACKSON KING KAFWANKA is a Chief Inspector of Environment at Mines Safety Department in the Ministry of Mines and Minerals Development, also representing the Ministry as a support person on SATBHSS Project. Eng. Kafwanka has a Bachelor of Engineering (BEng.) in Environmental Engineering, Masters in Environmental Risk Assessment and Remediation, and Professional Diploma in Programme Planning, Monitoring and Evaluation. Eng. Kafwanka has worked extensively with other members in conducting need assessment on preventive measures (Primary, Secondary and Tertiary measures) required to limit worker's exposure to dust in the work places. Many works undertaken in the project include, risk assessment, legislative reviews, work place surveys, formulation of work place tools for qualitative and quantitative data collection to inform decision-making. He has been a key resource person on data capturing and management

on occupational safety and health for the project. Further, he has enforced applicable legislation on OSH to build capacity in the mining sector for effective OSH implementation.



MR. WILLIAM MWANZA is the SATBHSS Project, Zambia's Administrative Assistant since 2017. He has been directly involved in the implementation of the project's development objectives and the realization of the annual work plans as per the project implementation manual and project appraisal document. Been working in close collaboration with ECSA, AUDA-NEPAD, Aurum Institute, Partners/Stakeholders, Government Ministries, Civil Society Organisations and the World Bank He holds a Master of Science (MSc) Degree in Project Management; Bachelor of Commerce Degree (BCom) in Tourism & Hospitality Management; Post-Graduate Diploma (PGDip) in International Relations & Politics (Diplomatic Studies), an Associate Degree in Religious Studies (Theological Studies); Diploma in Business Management & Administration; Diploma in Human Resource & Personnel Management; Diploma in Tourism & Travel Agency Management; Diploma in Insurance Principles & Practice; Diploma in International Business &

Trade (Import & Export Management); Diploma in Teaching Skills for Educators; Trade Certificate in Hotel Grading and currently pursuing a Master of Arts (MA) Degree in Peace & Conflict Studies – Human Security & Development. Has full membership with the Institute of Professional Managers & Administrators, United Kingdom; Zambia Institute of Human Resource Management; Insurance Institute of Zambia and also Institute of Hospitality in Zambia



DR. JOSEPH YAMWEKA CHIZIMU is a medical doctor with a Masters of Public Health, a PhD in Infectious Diseases and a Post Graduate Certificate in Zoonosis Control. He is the Antimicrobial Resistance Coordinator and National Focal Point for Zambia based at the Zambia National Public Health. He coordinates and provides technical support to the implementation of National Action Plan on antimicrobial Resistance. Prior to the current position, he served as the District Health Director for over 7 years in the Ministry of Health. His expertise includes public health, antimicrobial resistance and infectious diseases, One Health, and molecular epidemiology. He has authored and co-authored over 20 publications in peer reviewed journals on antimicrobial resistance and infectious diseases.

SPP, ZAMBIAN, COUNTRY TEAM



DR. PAUL MSANZYA ZULU is an Infectious Diseases Specialist at the Zambia National Public Health Institute (ZNPPI) working under the emergency preparedness and response (EPR) cluster as infectious disease specialist, national covid-19 incident manager. He holds a master's degree in internal medicine and infectious diseases as well as post graduate diplomas in tropical medicine and pandemics response. He actively facilitates the implementation of clinical care in outbreak response and implementation of evidence-based disease prevention strategies to ensure early identification, control and prevention of disease outbreaks in Zambia. He coordinates and supports operational and clinical research to generate evidence for clinical management, control of infectious diseases as well as epidemiology of infectious diseases including the strengthening of International Health Regulations among others. He is a Fleming Fund Fellow – Human Health for Antimicrobial Resistance Surveillance and led the Zambian team for its successful Pandemic Fund submission. His interests are in HIV,

Malaria, Tuberculosis, Zoonotics and Neglected Tropical Diseases like Trypanosomiasis, Schistosomiasis and emerging infections of pandemic potential.



HUMBERTO COSSA is a medical doctor and a public health expert with more than 38 years of work experience ranging from clinical medicine and surgery, public health, health planning, management and implementation of health programs, and teaching. He worked for the Government for more than 20 years; first cumulatively serving as Provincial Chief-Medical Officer, Director of the Provincial Hospital, and Provincial Director for Health in Zambezia Province during the armed conflict (1984-1991); second as National Director for Planning and Cooperation in central level Ministry of Health (1994-2004) where he accumulated extensive experience in management of large-scale health sector investment programs and donor coordination. He led the dialogue with key development partners in the health sector based on the Sector Wide Approach (SWAp) to programming that culminated with the adoption of the first code of conduct and the creation of the first Common Funding Pool of the sector (PROSAUDE). Humberto joined

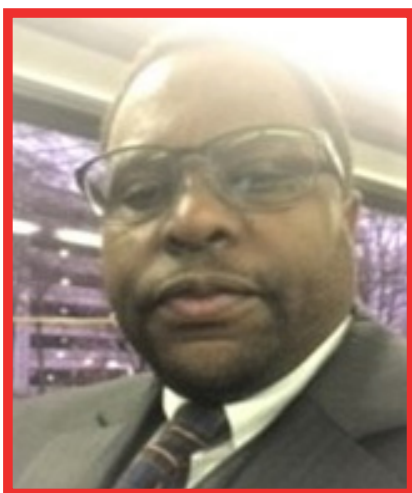
the World Bank in July 2004 in the Country Office of Mozambique as Senior Health Specialist mapped to the Health, Nutrition, and Population (HNP) Global Practice. In this position he leads the HNP portfolio in Mozambique and the policy dialogue with Government and partners. He also led two projects in Angola, one in Guinea-Bissau and co-led another in São Tome and Príncipe. In addition, he co-led analytical work in the areas of Public Expenditure Review in the health sector, and Demographic Dividend that have helped shape the health financing strategy and informed new Bank funded operations in health and social protection.



PETER OKWERO is an MD with training in health management and health economics. He is currently a Senior Health Specialist at the World Bank in the Kenya Country Office. He has had a long and an illustrious career in the Bank spanning over 20 years working in many countries on various projects and analytics. He has excellent project management operational skills in addition to technical skills in a broad range of HNP program related and health systems strengthening areas.



KAVITA WATSA is Senior Operations Officer for Health, East & Southern Africa at the World Bank, based in Washington, D.C. Her focus areas include Development Policy Operations (DPOs), multisectoral or regional operations with an emphasis on human capital development, and analytical work on human resources for health. She has recently served as Task Team Leader (TTL) for the third programmatic Rwanda Human Capital for Inclusive Growth DPO and is a co-TTL for the SATBHSSP. Before her current position, she was part of the World Bank's Human Capital Project team, focusing on global strategy and country engagement. Prior to that, she worked on external affairs and corporate relations in the office of the World Bank's Human Development Vice President, in the Education Global Practice, in the Africa Human Development department, and in the Development Economics department. Kavita has a Master's in International Public Policy from the Johns Hopkins School of Advanced International Studies



NOEL CHISAKA is a physician and trained in public health, applied field epidemiology, epidemiology of infectious diseases, and programme management. He has over 25 years' experience in public health management and policy, disease control programming, health system strengthening, international health development, design, and implementation of operational research for policy development. Through his work at country, regional and global levels, he has contributed to the support for strengthening of National Health Security, control of malaria, planning control of major epidemic diseases such as COVID-19, Ebola, Lassa, TB HIV/AIDS, and yellow fever. Supported the work on non-communicable diseases (NCD) and mental health (MH), nutrition and maternal and child health interventions and integration of services at community level and primary health care design and operationalization. He has worked in fragile conflict and violent countries supporting development programmes in health using innovative performance based contracting and implementation approaches.

In global health development, he has contributed to policy dialogue, strategy development, design of programmes and project implementation, including monitoring and evaluation. He has led country missions on global health development and programme implementation support. In addition, he has extensive experience working with different stakeholders at all levels, both bilateral and multilateral entities.



JOHN BOSCO MAKUMBA, Senior Operations Officer, World Bank. John has worked for the World Bank since September 2008, initially as a consultant, and later as an Operations Officer in Health Nutrition and Population (HNP) Global Practice of the Africa Region. His main areas of focus have included supply chain management, procurement, and governance reforms in the health sector. John has led analytical work on reforming and improving supply chain of essential medicines and supplies in Zambia and provided operational support to the Ministry of Health to strengthen governance, supply chain and procurement systems. More recently, John became a Co-Task Team Leader for various HNP operations in Zambia Zimbabwe, Malawi, Lesotho, and Mozambique, focusing on Health Systems Strengthening, Results Based Financing, HIV/AIDS, Malaria, TB, Investment in Early Years and Productivity. Currently, John leads/co-leads the implementation of COVID-19 Response operations in Zambia and Malawi, and the Africa CDC Investment Financing Project in Zambia.

John holds an MBA from Heriot-Watt University (UK), BA Degree (Economics and Demography) from the University of Zambia and a Graduate Diploma from the Chartered Institute of Purchasing and Supplies (CIPS-UK).



LIYING (ANNIE) LIANG has over seven years of experience working in the public, private, and humanitarian sectors, as well as field experience coordinating community surveys in Eastern Africa. She joined the World Bank in 2017 as part of the World Bank Group Analyst Program for young professionals working in development and has worked across the World Bank's full range of analytical and investment products, providing both technical and operational support in the Eastern and Southern Africa region. Prior to joining the World Bank, she worked for Médecins Sans Frontières/ Doctors without Borders (MSF), where she provided strategic advisory support to MSF's Campaign for Access to Essential Medicines during the height of the Ebola epidemic in West Africa, and later was directly responsible for

coordinating the scale-up of telemedicine to over 60 countries (>400 field sites) where MSF has operations. Annie started off her career as a neglected disease researcher, before moving into humanitarian then international development sectors. Annie has a Master's Degree in Epidemiology - Global Health Emphasis from the University of Toronto, and a Bachelor's degree in Pharmacology and International Development Studies from McGill University (Canada).



MR. NORMAN KHOZA is an occupational hygiene professional born in South Africa with more than 19 years of experience in occupational health and safety in Southern Africa, specifically on government, research institutions, consulting, parastatal, and international organization in Africa. Senior Programme Officer: OHS Specialist AUDA-NEPAD (African Union Development Agency-New Partnership for Africa's Development Agency). Leading the health team under the Human Capital Division, coordination the OHS, TB and Private Sector Engagement in Health. He holds a master's in public health: Occupational and Environmental Health. He is the past president of the Southern African Institute of Occupational Hygiene (SAIOH). He is a technical member of the RSA National Department of Employment and Labour's Noise Induced Hearing Loss Regulations review Technical Working Group Appointed by the Chief Inspector and has been SATBHSS Project Coordinator under AUDA-NEPAD since 2017 to

date. Currently living in Johannesburg (RSA) with his (ONE) lovely wife Luceth and his three boys Dzunisani, Mikhenso and Kanimamba Khoza.



PROF YOSWA M DAMBISYA is a Medical Graduate of Makerere University, Uganda and a Clinical Pharmacologist (Chinese University of Hong Kong). He is the Director General of the East, Central and Southern Africa Health Community (ECSCA-HC) since August 2014. Prior to joining ECSCA-HC, he was a Senior Professor in the Faculty of Health Sciences, University of Limpopo, South Africa, and a Visiting Professor at Management & Science University, Malaysia. He also previously worked at the University of Transkei Medical School in South Africa, the National University of Singapore and Ahmadu Bello University in Nigeria. His research interests include health systems and policy, education of health professionals, pain, natural products and rational drug utilization. As Director General, ECSCA Health Community, Prof Dambisya is the CEO and head of the nine-member state inter-governmental organisation. He is charged with providing overall leadership and guidance to the various technical programme areas and projects towards the realisation of the mandate of the organisation which is fostering regional cooperation for better health outcomes in the region. Prof Dambisya has an abiding interest in the training of health

professionals, Equity in Health, Equitable Access to Health Care, and sound Health Systems for the effective delivery of health services, in the spirit of Leaving No One Behind. He has been part of the SATBHSS and SPP projects from inception, implementation to date.



MR. SIBUSISO SIBANDZE is the Director of Operations and Institutional Development. He is responsible for ensuring that operational systems at ECSA-HC enable departments to function effectively and efficiently in compliance with the tenets of good corporate governance.

He also provides the necessary operational support for the implementation of the annual work plans and strategic plan of the organization towards achieving annual work targets. Mr. Sibandze holds the degrees of Master of Science in Economics and Health Economics from the University of Sheffield, U.K. and Bachelor of Arts in Social Sciences (majoring in Economics and Statistics) from the University of Eswatini. He has over 20 years experience in Administration, Monitoring and Evaluation, Health Planning, Economics, Research, Health Systems and Services Development and Project Planning and Implementation. Mr. Sibandze has also undertaken several consultancies with Government, UN Agencies and NGOs in the field of costing, strategic planning, policy analysis, governance, and program/project evaluation. My contribution to SATBHSS and SPP projects in addition to providing operational support towards the

conceptualization (governance components) and implementation of the projects I have directly contributed towards drafting of manuscripts, TB OOP study and supporting the development of annual workplans including performance review.



DR MARTIN MATU is a Laboratory and a public health professional with wealth of experience in management of health programs, diagnostics strengthening, disease surveillance and outbreaks management, training and capacity building, quality systems and systems strengthening spanning over 20 years. Dr Matu holds a Doctor of Philosophy (PhD) degree in Public Health, Masters in Business Administration (MBA), and Master of Science degree in Biotechnology and Molecular Biology and basic training in Medical Laboratory Sciences. He is currently the Director of Programs and the Project Coordinator of two World Bank funded Projects, the Southern Africa TB and Health Systems Support (SATBHSS) Project and the Strengthening Pandemic Preparedness (SPP) for Eastern and Southern Africa Project based at the East Central & Southern Africa Health Community (ECSA-HC) that serves as the Regional Coordinating Organization (RCO) for the Bank projects. He previously coordinated a 10-year regional World Bank operation, the

East Africa Public Health Laboratory Networking project (EAPHLN) Project that ended in 2020 and a Regional Project for Cancer Registries project for East Africa. In his role, Dr Matu is responsible for providing oversight to the various technical clusters in the organization and coordinating the the regional implementation of the said Bank projects whose focus is to strengthen systems for public health, diagnostic, disease surveillance & outbreak management, training and capacity building, TB, and occupational lung diseases management, and facilitating knowledge exchange among the regional experts involved in the various projects. Dr Matu previously held senior positions at the Amref Health Africa, the University of Nairobi, and the Kenya Medical Research Institute (KEMRI). He has successfully supervised over 50 MBA students from ESAMI and authored several publications in peer reviewed journals.



MS. LILLIANNE BRENDA NJUBA is the Director of Finance overseeing the functioning of the Finance Department at the ECSA-HC. Ms. Njuba is a Fellow of the Association of Chartered Certified Accountants (ACCA) UK, and holds a Master of Business Administration with a Specialty in Strategic Planning from the Edinburgh Business School, Heriot Watt University UK.

Ms. Njuba joined the team at ECSA with a wealth of experience spanning over 20 years in development finance, Public financial management, Auditing, and risk management, working with the World Bank, the European Union and the African Union. She has also worked in various countries such as Ethiopia, Uganda, Kenya, Rwanda, South Sudan and Tanzania. She supports the efforts of the organization to mobilize resources and efficient use of these resources. She provides strategic direction and leadership to the finance team and is responsible for the preparation of institutional budgets, execution and reporting.

She ensures that the organization effectively and efficiently utilizes its resources, and at all times maintains a sound financial management system. She provides leadership on the implementation of financial policies and procedures of the organization



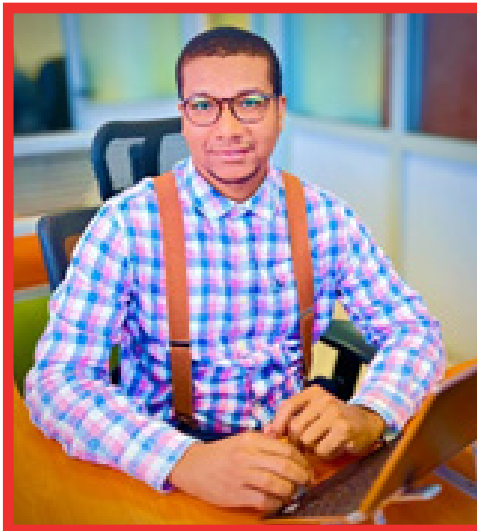
DR. MOHAMED ALLY MOHAMED is the Senior Public Health Specialist for the World Bank funded Southern African TB and Health Systems Support (SATBHSS) Project. He is leading research, evaluation and human resources for health interventions under the project at the regional level. He is also responsible for guiding participating countries and NEPAD to re-package research in order to ensure that learning and uptake are widely disseminated at national and international levels. He is also taking a lead in Emergency Preparedness Surveillance and response activities in the SPP project. Dr Mohamed has a wealth of experience for over 15 years in Epidemiology, Emergency preparedness, Disease Surveillance, Research and Quality assurance. He is a medical epidemiologist, received Doctor of Medicine and Master of Public Health degrees from the University of Dar es salaam, Tanzania. He has also received Msc. in Applied Epidemiology from Jomo Kenyatta University of Agriculture in Nairobi Kenya.



DR VISHNU CYNWELL MAHAMBA is a public health expert, working with ECSA-HC as a senior TB control advisor supporting implementation of the World Bank funded SATBHSS project. He works closely with project countries in strengthening the TB response aiming at improving the TB care and management. Dr Vishnu previously worked with UNICEF Tanzania country office as a health specialist supporting the country on emergency preparedness. Prior to engagement with UNICEF, he worked as a country representative/director for KNCV Tuberculosis Foundation in Tanzania. Dr Vishnu contributed to a successful implementation of the USAID funded Challenge TB project in Tanzania. His vast experience of more than 15 years covers international health development programs and management, quality improvement interventions and expert on global and country-specific technical areas in TB control in diverse settings. Currently he serves as a member of TB/HIV USAIDs Global Health Technical Assistant and Missions support. Dr Vishnu holds a Doctor of Medicine degree with an M.A. in Health policy, planning and management.



DR. PATRICK SAILI LUNGU is a Senior TB Control Specialist currently under the SATBHSS project, supporting Malawi, Mozambique, Lesotho and Zambia. He is the immediate past Program Manager for the National TB and Leprosy Program in Zambia. Dr Lungu has a Bachelor of Human Biology (BSc HB), a master's degree in Internal Medicine, and a Bachelor of Surgery and Medicine (MBCbB), Fellowship in Quality Clinical Governance (QGC), Dr Lungu is the founding Co-Chair of the Global Contact Investigation Advisory Group. Co-Chair of the ECSA-HC DR TB collaborative platform. Dr Lungu has supported multiple novel initiatives to scale up primary and secondary TB prevention measures, TB case finding, quality improvement interventions at national and in the region. He has led a number of research and evaluation works under the SATBHSS project which includes the inventory and the Out-of-pocket studies for Zambia.



DR KHALIDE AZAM is a Senior Laboratory Specialist based at ECSA-HC. He leads the component 2 on Regional Capacity for Disease Surveillance, Diagnostics, and Management of TB and Occupational Lung Diseases under the SATBHSS Project and all Laboratory Strengthening Initiatives under the ECSASPP Project. His experience covers TB Diagnostics and Treatment Monitoring; Drug Resistant TB, Laboratory Quality Management Systems, Biorisk Management, Epidemiology, Public Health Responses and Research. Since 2021 he is a Member of WHO Advisory Group on Tuberculosis Diagnostics and Laboratory Strengthening at Global TB Program, WHO Geneva. Previously he managed the National TB Reference Laboratory in Mozambique for 9 years before becoming Consultant and Technical Advisor in Mozambique for the American Society of Microbiology and University of Maryland, Baltimore, respectively. Dr Azam holds a Master degree in Field Epidemiology and Laboratory (FELTP – Mozambique) and PhD in Medical Research – International Health (Ludwig Maximilians University of Munich, Germany). He is fluent in Portuguese and English.



EVELYN WESANGULA is a passionate pharmacist with an Msc. In Tropical and Infectious Diseases. Evelyn currently works with the East Central and Southern Africa Health Community (ECSA- HC) based in Arusha, Tanzania, as a senior AMR Control Specialist, strengthening the implementation of Infection Prevention Control , Antimicrobial Stewardship Programs and AMR Surveillance programs in the region. She previously worked at the MOH in Kenya as the National AMR focal point. She has supported the World Health Organization in developing AMS guidance documents supporting implementation of NAPs. She serves on the AU Task force on AMR, Technical Advisory Group of the UK-Fleming Fund and is Chatham House Africa Public Health Leaders Fellow, Fleming Fund Policy Fellow and an International Ambassador of the Society of Hospital Epidemiology of America.



DR. BENEDICT ANDREA PIUS MUSHI (BDS, MSc) is the Senior Monitoring and Evaluation Specialist for the World Bank Funded Projects, the Southern Africa TB and Health Systems Support Project and ECSA-Strengthening Pandemic Preparedness Project and the former East Africa Public Health Laboratory Networking Project. Dr. Mushi holds a Doctor of Dental Surgery Degree, from the University of Dar es Salaam, Master of Science in Health Monitoring and Evaluation from Jimma University Ethiopia, and Certificate in Project Management from Galilee International Management Institute, Israel. Dr. Mushi joined the ECSA-HC with a wealth of experience in public health, project management, monitoring and evaluation acquired over years of work in HIV clinical care, and on collaborative TB/HIV Program in Ethiopia. In this role he has successfully liaised with Country M&E Specialists and supported project participating countries to establish the M&E systems and protocols required for reporting and tracking the project performance. He has also promoted a harmonized M&E approach

across the participating project countries, by working closely and providing leadership and guidance to the Country M&E Specialists.



AYEBARE TIMOTHY is currently a senior systems design officer and has over 8 years of experience as a seasoned software engineer and technology strategist, specializing in cutting-edge areas such as AI & Machine Learning, Data Science, Cybersecurity, Cloud Computing, and Business Process Automation. Utilizing his extensive consulting experience with governments and intergovernmental organizations, as well as his roles in international ICT leadership, he has spearheaded complex multinational initiatives. His ability to translate technical complexities into understandable narratives has made him invaluable to a diverse range of stakeholders. Beyond his technical skills in Health, Business, and Aviation Information Systems, Timothy is also a demonstrated leader. He excels in transforming high-stakes environments through a combination of innovative thinking and creativity.

KEY MESSAGES FROM THE POSTERS

The posters below bring together highlights of the interventions implemented under the SATBHSS/SPP projects in the area of TB control and management; laboratory strengthening, Occupational Health and Safety; pandemic preparedness and response; and antimicrobial resistance. The posters summarises the background to the intervention, how the intervention was carried out, outcomes of the interventions, results of the studies, key lessons learnt, provides key recommendations arising from the observations for policy considerations. Below are the key highlights from the posters:

- The posters showcase the impact of the different models of community TB case findings. The posters shows that community case finding as an integral approach in finding the missing TB cases and contributes substantially to the country level efforts to enhance TB coverage.
- We also observe that close review of data, and an innovation of TB Situation room galvanizes country efforts and is essential in fostering collective response towards intended goals
- To large extent, we learn of how the SATBHSS project interventions were integrated in the entire TB programing in all the project countries.
- The papers demonstrate that regional capacity has been built in the sphere of SLIPTA and various laboratory approaches to molecular TB diagnosis which includes techniques in Line Probe Assay and rebuilt capacity in Leprosy diagnosis and maintaince of laboratory equipment.
- The results shows that the two projects have contributed immensely to human capital development in strategic areas of pandemic preparedness and response and the broader TB management.
- In the area of cross-border TB management, the papers point out how critical and essential cross border collaboration between countries is in the continuum of TB care an in achieving national and regional goals.
- In the area of occupational health and safety we note from the posters how occupational health and safety approaches have been enhanced under the umbrella of the SATHBSS project.
- The posters highlights the advances being made at country and regional level regarding the integration of antimicrobial resistance surveillane antimicrobial stewardship activities.
- A poster from Tanzania shows key Steps in the Preparation and Performance of the Joint External Evaluation. This is vital in information and experience sharing with other countries.
- Further, the Kingdom of Lesotho shares the critical steps in institutionalising of the Grievance Redress Mechanism within the Ministry of Health. Last but not the least, we learn of a successful and robust implementation of a wellness center exclusively for health care workers that has integrated TB screening with NCDS.

Note that the achievements shared in the posters cannot exclusively be attributed to SATBHSS and SPP projects but shows how the projects directly or indirectly contributed to achieving the above results and outcomes by working collaboratively with other partners under the arms of the Ministries of Health, Ministries responsible for Labour affairs and Ministries responsible for mining.

SATBHSS LESOTHO



End-Term Joint Review of the TB NSP 2018-2022 and National AIDS strategic plan 2018/19 -2022/23 Authors: L. Maama et. al



Why joint review

Lesotho has been implementing the National TB strategy 2018-2022 coordinated by the National TB and Leprosy Programme (NtLP), while the HIV/AIDS Directorate has been implementing the National AIDS strategic plan 2018/19 - 2022/23 which has undergone a mid-term review. Lesotho has one of the highest dual HIV and TB prevalence's in the world, with both diseases contributing significantly to the overall national mortality rates the country undertook programme review to assess the progress made in implementing HIV and TB programmes, identify challenges to programmatic implementation and possible solutions that will shape the joint National strategic Plans for HIV and TB.

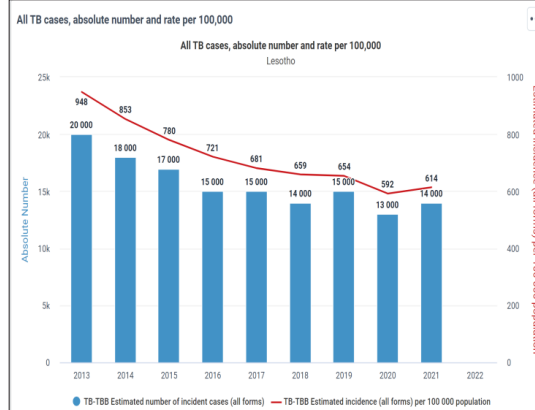
Modes of intervention/implementation

- The review methods included data collection through desk review of strategic documents,
- interviews with key informants using semi-structured questionnaires, and direct observations at purposively selected health facilities across all the tiers of the health system covering both public and private entities, facilities in rural and urban settings spanning across all the ten districts.
- Brief and debrief to MOH leadership where key findings and recommendations are shared.



Key results/outputs/outcomes:

- The country has in the last five years strived to meet its targets as set in the NSP 2017 to 2022.
- huge task in the control of TB and HIV co-infection to meet the targets of the End TB Strategy and goals as set by the United Nations.
- treatment coverage ranged from 55% to 32% from 2008 to 2021
- The estimated TB incidence in 2021 was 614 (CI: 382-900) per 100 000, which is a 21% change in incidence compared to 2015. This implies that Lesotho is one of the countries that achieved the 2020 End TB strategy milestone on reducing TB incidence by 20% compared to 2015 baseline.
- However, the 614 is still above the NSP 2018-2022 target of 420 per 100,000.



Key lessons learned

- There is a further need for the Ministry of Health to review the policy on cost expenditure incurred by the TB/HIV co-infected patient at all levels of care in order to mitigate the catastrophic cost
- NtLP has to expedite implementation of basic programmatic activities such as guidelines revision, routine supervision at central and district level.
- Decentralise MDR-TB services and improve capacity to manage MDR-TB patients with confidence
- Need to improve Private Sector engagement in TB Control activities

Conclusion

There is a clear need for the MoH to finalize the development of the Multi-stakeholder Accountability Framework (MAF) which will provide opportunities for active involvement of other sectors in the fight against TB, find the missing TB patients, TPT scale up and address the social protection for Drug Susceptible TB in order to achieve the in-country and global goal to end TB

Recommendations

- Clear targets should be set at facility level for granular site management to measure performance and
- avoid commodity stock-out.
- DHMTs to conduct fresh trainings and re-orientations for staff on the new National ART & TB guidelines and make these guidelines readily available at all facilities.
- DHMTs should conduct targeted community interventions including current and ex-miners, and their household contacts.



Finding the Missing TB Patients in Partnership with the VHW Cooperatives Leribe District June 2019 –March 2021 Authors: P. Ntena, L. Maama & M.Masia



Finding the Missing TB Patients

Lesotho is participating in the regional Southern Africa Tuberculosis Health System Strengthening (SATBHSS) Project to implement Centre of Excellence (CoE) in Community TB Care

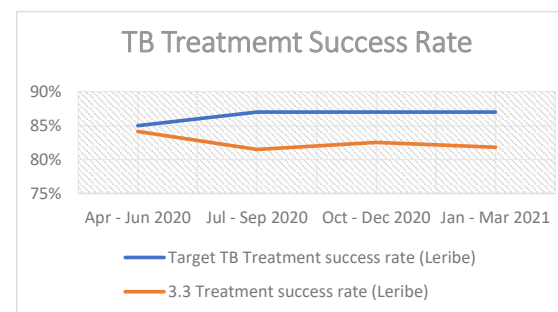
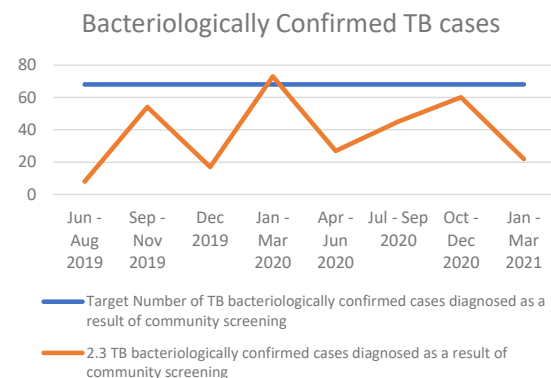
- To improve TB case finding through establishment of Community TB Care model and capacity building of key affected populations, their families and underserved communities in the hard to reach areas.
- To improve country TB case notification rate from 55% and 76% success rate for all forms of TB in 2018 to 90% respectively as per the 2018-2022 TB NSP.

Modes of intervention/implementation

- Establishment of VHWs Cooperatives with incentivized indicators (70% incentives to the Cooperative, 30% to individual VHW).
- Working within the existing Local Government structures to conduct Community mobilization, TB awareness and infection control
- Innovative active TB screening; Door to door 4 symptom screening by VHW & Mobile clinic screening campaigns with Digital X-ray
- Sputum referrals and linkage to care; establishment of community sputum collection points, transportation by Riders for Health
- Patient treatment /follow-up/support and contact tracing; DOT support and TPT initiation.

Key results/outputs/outcomes:

- Each of the 28 facilities in Leribe district established and registered a VHW Cooperative.



Key lessons learned

- Organization of VHWs into cooperatives enabled efficient management of work and resources.
- Collaboration with the Ministry of Small Business Development, Cooperatives and Marketing ensured sustainability of the economic aspect of VHWs cooperatives.
- Covid-19 lockdown reversed gains made at the start of implementation
- Community interventions and participation increase access to services by communities

Conclusion

- Village Health Workers are key in assisting the country to find the missing TB patients early thus averting poor outcomes associated with late presentation to the facilities.
- Working with and within the existing community structures enhances participation.
- Taking services closer to the communities reduces costs to the communities
- Combining 4 symptom screening with digital x-ray screening improves sensitivity of screening

Recommendations

- Strengthen integrated community TB interventions thus providing holistic approach to service provision and achieving Universal Health Care Coverage



Contribution of private-for-profit facilities in TB case detection:

Authors: P. Sello, M.Khetheng & L. Maama

Key results/outputs/outcomes:



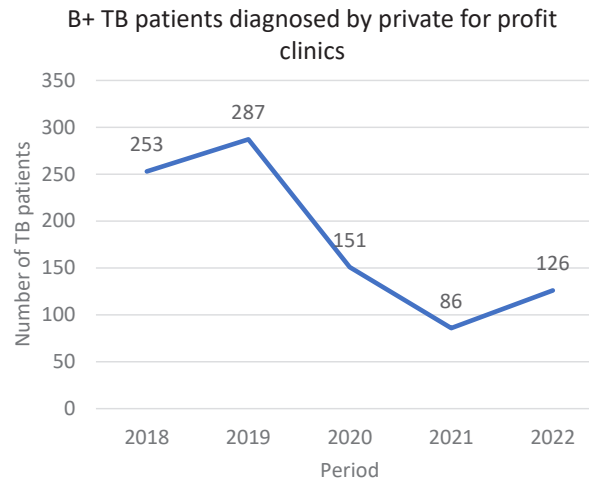
Introduction

Lesotho is facing a massive challenge of finding the missing TB cases. Treatment coverage for 2019 was 51% against the NTLTP target of 90%. The treatment coverage reduced further since the onset of COVID -19 to as low as 33% in 2021. A significant number of these missing TB cases are thought to be diagnosed and treated by the private clinics but they are not reported to the NTLTP. Like all other facilities Ensuring access to early diagnosis and treatment and expanding private provider engagement is required to close the gap of missing TB patients, To close this gap the NTLTP involved the private sector clinics in activities that are aimed at improving TB cases detection such as TB data review meetings, supportive supervision and RDQA.

Mode of intervention

Involvement of Private clinics in NTLTP activities such as:

1. TB data review meetings (applying the concept of TBdata4Action and making sense of TB data and the PDSA cycle model).
 - ⌚ Peer to peer data review exercises
 - ⌚ Extraction of facility data from the DHIS2 and comparison with source document
 - ⌚ Data tabulation and analysis to identify problems/aps in TB care cascade as compared to the national targets
 - ⌚ Root cause analysis to identify cause of problems
 - ⌚ Developed action plans with innovative interventions to improve quality of data and increase TB case detection
2. Regular supportive supervision from their respective district teams and NTLTP on the recording of TB tools and reporting of quarterly reports.
3. RDQA exercises



Source: DHIS2

Though not all individual private facilities showed improvement in detecting bacteriologically confirmed TB patients, there is in general a significant improvement in the number of bacteriologically confirmed (B+) TB patients diagnosed by the private-for-profit facilities from 86 patients in 2021 to 126 patients in 2022.

Key lessons learned:

Private facilities have the capacity to detect presumptive TB patients and treat patients with TB when supported by the NTLTP. The improvement in TB case detection by the private facilities following TB data review meetings and supportive supervision and other interventions is not different from the overall performance of the country.



Conclusion and recommendation

Continuous engagement of private sector in data review meetings and supportive supervision and close monitoring by the district teams and NTLTP are key to improve data quality and close the gap of finding missing TB patients in Lesotho. There is need to strengthen collaboration between NTLTP and private providers to allow all patients to have access to quality care.

- Involve private providers in all NTLTP activities
- Provide private with TB recording and reporting tools

Occupational health and safety improvement ; A Case for the Kingdom of Lesotho

Background

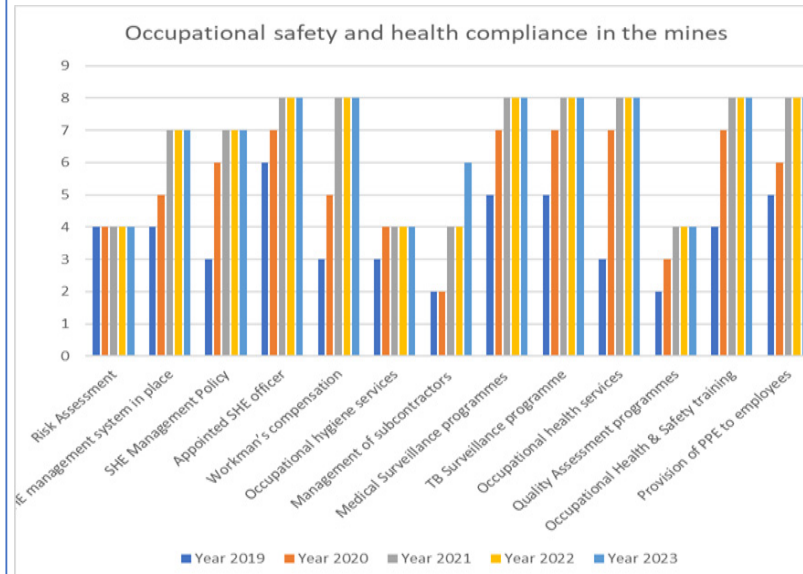
- A Baseline assessment was conducted for the SATBHSS project, which assessed the functionality of systems for the prevention and management of occupational lung diseases including TB in Lesotho – revealed occupational health matters were addressed in labor code order 1992, Public health order of 1981 and mine safety act of 1981.
- Inspectorates (labor health and mining not capacitated to efficiently and effectively execute their inspection mandates.
- Inspectorates under-resourced to achieve annual inspection target.

Approach

- Integrated inspection in the mining sector (ministry of labor, environment, health and mining).
- Inspection done using the regional inspection tool designed by AUDA NEPAD.
- Conduct two inspections on each mine in a year.
- Focus area 1; Responsibilities – Risk Assessments, Occupational Health, Occupational Hygiene and Medical surveillance ,
- Focus area 2; Compliance to silica dust exposure,
- Focus Area 3; TB screening, tracing and treatment.

Outcome

- Based on the eight (8) full – time operational mines.
- Major areas of improvement were realized, in these areas; provision of occupational health services, provision PPE, TB and Medical surveillance, availability of workman's compensation insurance as well as appointment of safety and health officers, where all the mines were found to be compliant in these areas.
- However there still a need of improvement on these areas; Comprehensive Baseline Risk assessment, occupational hygiene
- In 2019 47.1% of mines were compliant as compared to compliance level of 84.6% in 2023. (see attachment)



Key lessons learnt

- Mines tend to be more re-active than preventative.
- Contractors not well managed and regulated at the mines.
- OSH strategies and requirements not taken into consideration during planning phase of works.
- Enforcement of compliance is delayed in the mines.
- Lack of experience and knowledgeable OSH professionals in small scale mines.
- Non availability of baseline risk assessments in small mines (quarries and sandstone).
- Knowledge transfer not translated into action.

Conclusion

- Enforcement in the mines must not be delayed.

Policy Consideration

- Ministry of labor and mining must fast track the enactment of revised legal frameworks.
- Strengthening OHS data collection data management is required



TB DATA FOR ACTION

Introduction

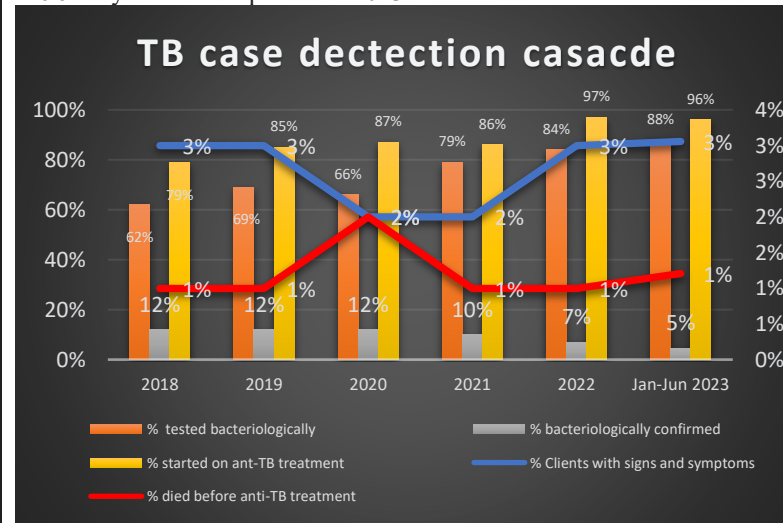
In 2020 an estimated 14 000 (8 600-20 000) people fell ill with TB in Lesotho placing the country as one having the highest TB incidence rate, of 650/100 000 (402-956) populations, in the world (WHO Global TB report, 2021). The country is facing a massive challenge of missing TB cases, the treatment coverage for 2020 was 33% as only 4624 cases of TB were notified

Modes of intervention/implementation

In 2021 the TB data for action concept was used to drive the agenda of TB data use at district and facility level to improve TB case detection cascade indicators in the pursuit to improve the overall national TB case detection rate to the desired level. During district TB data review meetings, Health facility and district staff analyse their respective TB data and apply and quality improvement concepts to strengthen the quality of patient care, improve quality of data and improve performance of TB case detection cascade indicators.

Key results/outputs/outcomes

There is significant recovery from the covid-19 pandemic as the proportion of presumptive clients increased from 2% in 2020 to 3% by end of 2nd quarter of 2023. Similarly, the proportion of presumptive clients tested bacteriologically increased from 79% in 2020 to 88% by end of the 2nd quarter of 2023. The positivity rate was maintained within the acceptable range across the years. The proportion of bacteriologically confirmed people with TB initiated on anti-TB treatment improved from 87% in 2022 to 96% by end of 2nd quarter of 2023.



Key lessons learned

Implementing the TB data For Action concept assist in identifying gaps in health services provision and ensures that provision of health services is aligned with the guidelines.

Use of TB data improves the quality of data in the TB recording and reporting system promptly, increases knowledge among implementers on programme principles, epidemiology and surveillance and improve commodity management.

Conclusion

Regular review and analysis of TB data by service providers enables identification of gaps within the TB cascade and prompt interventions are implemented to address the gaps and improve key performance indicators.

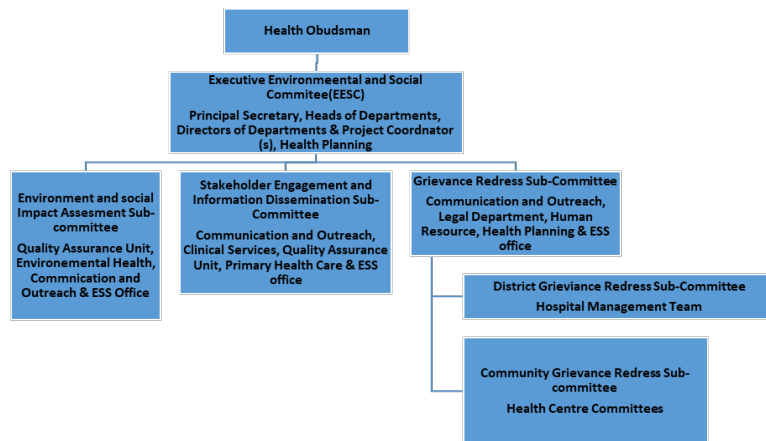
Policy recommendations

There is a need to maintain the culture of use of TB data through the TB data for action concept at all levels to ensure that Programme policy decision are data and evidence driven and improve TB service provision

Institutionalization of the Grievance Redress Mechanism within the Ministry of Health: Kingdom of Lesotho

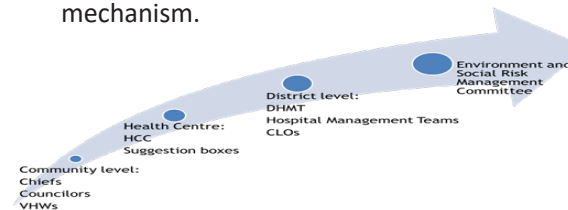
Background

- A functional grievance redress policy is a prerequisite as per the ESF mandate.
- Establishment of the GRM was meant to help improve the Environment and Social performance of the project.
- GRMs may be project or organization specific or cross-cutting. SATBHSS GRM was cross-cutting.
- This led to MoH establishment of an Environment and Social Risk Management Committee (ESRMC) in consisting of three sub-committees as thus:



Approach

- Developed a GRM action plan.
- Developed a GRM facilitator's guide.
- Digitized GRM on ODK application
- Conducted FGDs with communities and participated in monthly community leaders.
- Trained GR sub-committee and stakeholders on grievance handling, feedback and referral mechanism.



Key results

- **April 2022-** received 15 grievances . 80% were resolved on time.
- **September 2023-** received 18 grievances. Received 18 grievances. 100% resolved on time

Key lessons learnt

- Information dissemination and disclosure play a pivotal role in ensuring quality service delivery.
- A GRM system helps build rapport with clients.
- A source of reliable data.

Conclusion

- Establishment of the ESRMC is a sustainable remedial plan to addressing issues that could impede implementation

Recommendation

Development of a financing plan; strengthen institutional arrangements

Ministry of Health Staff Wellness program: Comprehensive Best Practice at Maluti hospital

Background

- ❑ An employee wellness program is one aspect of employee wellbeing.
- ❑ Employee well-being is an employee's holistic state of physical, emotional, and mental health. It is an employee's experience of satisfaction, engagement, and optimal resulting in provision of quality health service.
- ❑ SATBHSS project introduced the wellness clinics as a way of tackling TB prevention and case finding among the 18 hospitals in Lesotho. Maluti hospital embraced the concept and so far implements the best model in the country.

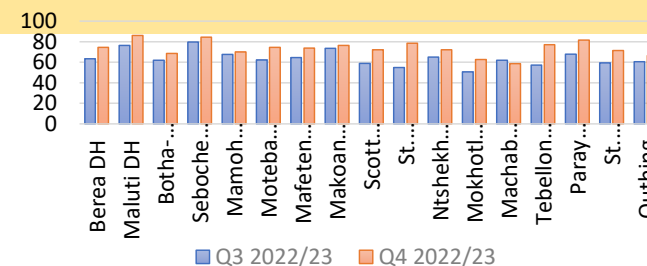
Approach

- ❑ Dedicated space for confidential staff consulting space and a dedicated staff for the clinic.
- ❑ An oversight committee led by the human resources director.
- ❑ Comprehensive services provided to Maluti hospital staff including routine screening for infectious diseases such as TB, NCDs and provision of prophylaxis, curative services, mental health services, health promotion activities such as aerobics classes, Fun walks and picnics, medical surveillance

Outcomes

- ❑ Reduction of staff absenteeism decreased by 15% since the inception of the program due to decrease in sick days among workers.
- ❑ Increased TB cases - **(2.5) times higher than in the general population**; identified early and identification of high risk areas regarding infections transmission leading to mitigating measures such as creating better ventilated waiting areas.
- ❑ Identifying COVID-19 cases and preventing further transmissions during COVID-19 pandemic.
- ❑ Maluti is one of the hospitals with high quality of service score (~83%, March 2023: Figure1)

Figure 1: Quality of service scores for hospitals in Lesotho, March 2023



Key lessons learnt

- ❑ Provision of friendly health services such as specialized consultations builds confidence and motivates the HCWs to seek more services confidently.
- ❑ Frequent health education sessions to HCW increase the uptake of the particular intervention such screening of diseases, an observation made during COVID-19 pandemic.
- ❑ Increased trend of NCDs among the HCW calls for more interventions of life style changes and more health promotion activities at workplace.
- ❑ Continuum of care such as curative psychological support and follow up via telephone calls and rehabilitation services are crucial for success of staff wellness model.
- ❑ Buy-in from the top management results in success of the wellness centre performance and overall quality of health service.

Conclusion

- ❑ Staff Wellness Program improves employees' morale, increases productivity, and reduces absenteeism and health costs

SATBHSS MALAWI

Improve referral from community TB intervention by strengthening sputum collection points and house-to-house TB screening in Malawi

Introduction

Nearly 50% of TB cases are missed. (2014 TB Prevalence Survey)

TB diagnostic access is a limitation related to infrastructure challenge.

NTLEP strengthened the community system to improve access

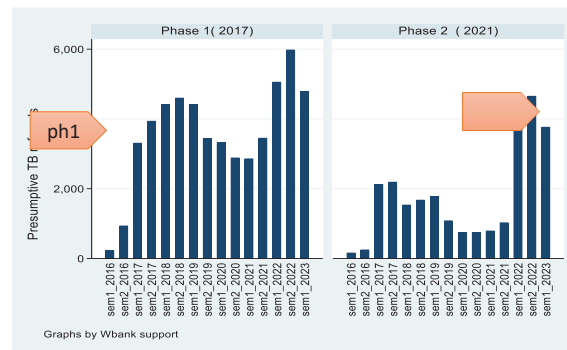
Modes of intervention

- Training of volunteers
- Provided enablers to volunteers
- Strengthened the community supervision mechanisms
- Volunteers provided health education on the identification of TB signs and symptoms
- Volunteers facilitate sample collection and transportation to diagnostic facilities.
- Link TB patients to effective care & treatment

Key results

More than 70% of the community referrals from project districts

- Presumptive TB referrals increased after implementation
- A total 2243 TB cases were diagnosed and treated from community referrals.
- Presumptive referral in phase 1 districts sustained and substantially increased in phase 2 districts



Key lessons learned:

- Improved awareness about Tuberculosis at community level
- Community engagement in TB care and prevention improved patient referrals
- Improved on limitation-related diagnostic access at the primary point of contact

Conclusion:

- Interventions towards community TB interventions improve access
- Provision of enablers to volunteers need to be sustained to maintain this results.

NTLEP 2023

Title of the Presentation: Quality improvement intervention, Lessons learned from Machinga and Mangochi-Malawi

Introduction
 Suboptimal treatment outcomes was a notable challenge in Mangochi and Machinga districts.
 In 2020, Mangochi & Machinga reported a treatment success rate of 73% and 75% respectively & death rate of 13 % & 17% respectively.
 Nationally, treatment success rate was 89% and deathrate was 8%.
 QI program was identified as the intervention to improve treatment outcomes in the two districts.

Modes of intervention

- In 2021, the program implemented QI program targeting 6 health facilities
- Baseline assessment was conducted
- Capacity building to health care workers on QI tools
- Quality improvement tools were developed
- Virtual review meetings were organized
- Progress review meeting was conducted
- Action plan was developed by facility teams to improve outcomes.

Key results

- **Mangochi and Machinga** districts registered improved treatment success rate of 84% and 80% in 2021 cohort
- Death rate in the two districts was reduced by 3% & 4% respectively
- The rate of not evaluated TB patients was reduced from 14% in Mangochi district to 4% in 2021.

QI Results

	Machinga	Mangochi
Treatment Success rate		
2020	75%	73%
2021	80%	84%
Deathrate		
2020	17%	13%
2021	13%	10%
Not Evaluated Rate		
2020	2%	14%
2021	2%	4%

Key lessons learned:

- Involvement of facilities multidisciplinary team in addressing challenges in TB management is key to success
- Facility tailored interventions yield results
- Early follow of treatment interrupters improves final treatment outcome
- Improved quality of patient management in medical wards in a systematic way improves outcome

Conclusion:

- Use of quality improvement tools and data for decision making improves key program outcomes.
- Greater involvement of management contributes to achievement

NTLEP 2023

Enhancing Community TB interventions through the use of TEST (The Enhanced System for Testing) In Malawi

Introduction

- Malawi misses almost 50% of the prevalent cases (2014 National TB prevalence survey).
- This is compounded by limited infrastructure to support screening, diagnosis, and care at the community level.
- This scenario presents an opportunity for introducing and scaling up innovative ways of catching the missing cases so as to successfully meet national and global targets on ending TB.

Modes of intervention

- Information management system utilized by Health care workers and Community Volunteers for patient management..
- Trained Health Care Workers and Volunteers on TEST.
- The system has been placed in 7 Mobile Diagnostic Units, 240 Community Sputum Collection Points, 62 facilities across 15 districts

Key results

- Improved patient management, monitoring and coordination of care (2,910 TB clients full records)
- The intervention aids early detection of cases, 62.7% of clients eventually diagnosed with TB had results within 48 hours.
 - 40 % of presumptive clients tested, had results within 48 hours.
 - 52,497 presumptive clients captured in the system.
 - Including a break down of unexamined samples and their location.



Key lessons learned:

- The collection of individualized patient data enabled tracking of TAT, while also facilitating other important functions e.g. defaulter tracking and treatment outcomes monitoring.
- Barcodes helps in uniquely identifying patients and eliminating duplicates
- Barcodes as a substitute for “globally’ acceptable standards are suboptimal and lead to problems.
- The adoption, proliferation and use of technology is possible; can be used by all ages regardless of literacy levels
- Potential to catalyse the triangulation and availability of individual client data but requires a unifying mechanism across databases e.g. NID
- Dashboards helped facilities to make necessary decisions for improvements

Conclusion:

- System has exhibited greater potential for scaling up. However, there are budgetary considerations that can cause sustainability challenges for countries like Malawi.

NTLEP 2023

BUILDING CAPACITY FOR ANTIMICROBIAL RESISTANCE SURVEILLANCE AND ANTIMICROBIAL STEWARDSHIP: ANTIBIOTIC RESISTANCE PATTERN OF BLOOD STREAM PATHOGENS ISOLATED IN MALAWI AS PART OF AMR ROUTINE SURVEILLANCE

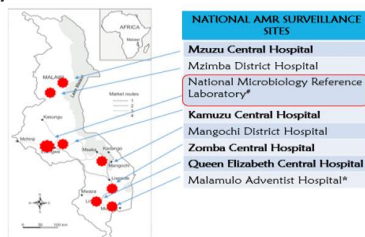


Alinafe Kawerama¹, Harry Milala¹, Watipaso Kasambara², Collins Mitambo¹,
Ministry of Health, National AMR Coordinating Centre, Malawi
Africa Society for Laboratory Medicine

Corresponding Author: Dr Collins Mitambo (collins.mitambo@health.gov.mw)

Introduction

Antimicrobial resistance (AMR) poses a significant threat to public health in Malawi. The impact of AMR on human health in Malawi result in higher mortality rates.



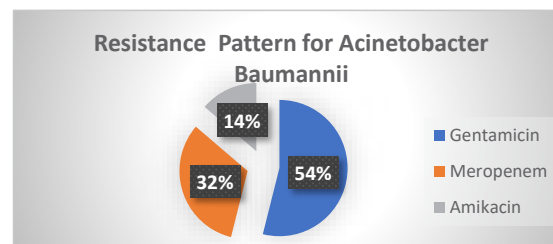
8 Human Health facilities do culture and Antibiotic sensitivity testing (AST). This project systematically demonstrates the resistance pattern of the commonly used antibiotics against the WHO blood stream priority pathogens isolated.

Modes of intervention

AST data from 8 Human Health facilities on Positive Blood cultures processed from January 2021 to June 2023 was analyzed using WHONET software. Resistance trends on commonly used antibiotics were recorded.

Key results (Resistance Pattern):

- **121 *Eschericia Coli***: 75% (Ampicilin), 77% (Ceftriaxone), 79% (Cefotaxime), 73% (Cefipime) and 94% (Trimethoprim-Sulfamethoxazole).
- **102 *Klebsiella Pneumonia***: 89% (Trimethoprim- Sulfamethoxazole) 84% (Ceftazidime and 62% (Ciprofloxacin)



Total samples: 704

- Blood cultures had *Salmonella Species* which was 14% resistant to Ciprofloxacin and 8% resistant to Ceftazidime.
- **285 *Staphylococcus Aureus***, 42% resistant to Cefoxitin, **AN INDICATOR FOR MRSA**

Key lessons learned:

- ✓ Building capacity in antimicrobial surveillance result in understanding the trends of resistance in Malawi.
- ✓ Establishment of AMS Committees has enhanced AMR surveillance data generation and use



Conclusion:

- Inappropriate use of antibiotics are one of the primary drivers of Antimicrobial resistance.
- Utilization of AST results by AMS Committees is key in combating the AMR burden as it guides evidence based prescribing practices essential in antibiotics preservation.

SATBHSS MOZAMBIQUE

The yield of community-based TB services targeting migrant populations in the Southern of Mozambique, 2022.

Macuacua, B¹; Manhiça, I.¹Nhampalele, E²; Smiles, L²; José, B.¹
¹Ministry of Health, Mozambique. ²International Organization for Migration, Mozambique

Introduction of the interventions:

Compared to the general population, migrant groups have a greater prevalence of TB. Key risk factors include high mobility, social vulnerability and limited access to healthcare services.

Besides, Mozambican miners employed in South Africa, plantation laborers, casual cross-border travelers, and irregular migrants have all entered the migration pattern in recent decades.

Modes of intervention/implementation:

As part of the need to fulfill the 90-90-90 targets of the End TB Strategy, MISAU and IOM devised a set of TB control interventions, among migrants, that comprised:

- Community engagement
- Mapping
- Screening for TB symptoms
- Referral of presumptive cases to TB testing (molecular or smear test)
- Linkage to TB services in Mozambique or South Africa

Location: Southern of Mozambique (mine labor sending area and active cyclical migration to and from South Africa)

Key results/outputs/outcomes:

Fig 1. Cascade of TB screening among migrant populations in Gaza e Inhambane

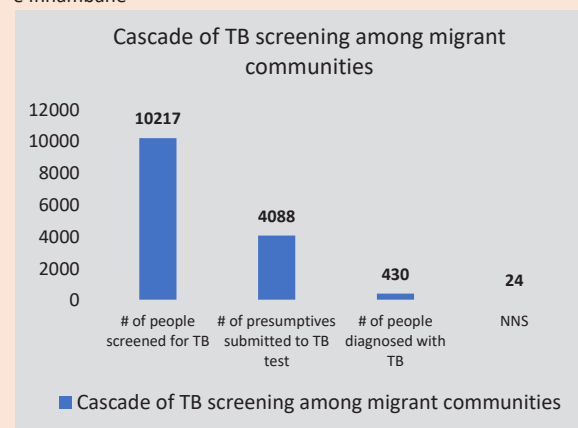


Table 1. Cascade of TB screening by groups of migrant population

	#Miners	#Ex-miners	#Migrant Populations	General Population	P-value
# Screened for TB, n	68	1731	1440	6978	
# Presumptives, n	29	932	667	2460	<0.00001
# Diagnosed for TB n(%)	6 (9)	124 (7)	76 (5)	224 (3)	<0.00001
NNS	11	14	19	31	

P-value for Pearson Chi-square test

Key lessons learned:

There is a considerable burden of TB among migrant populations, particularly cyclic migration to and from South Africa.

TB control interventions among migrant populations, beyond miners, are likely to narrow the gap of missing people and the effort needed to find people with TB appears to be less than that of general population interventions.



Conclusion:

The SATBHSSP contributes significantly to improving TB services coverage among miners and former miners. The extension of coverage towards other migrant populations highlights the need to review policies and programmatic interventions to target migrant populations, seasonal workers such as agricultural workers and other hard-to-reach to ensure that no one is left behind toward ending TB by 2030.



“Cough officer screening” - Improving the health system’s response against TB in clinical settings in Mozambique, 2020-22.

José, B.¹, Macuacua, B¹; Machava, R¹; Manhiça, I.¹

¹Ministry of Health, Mozambique.

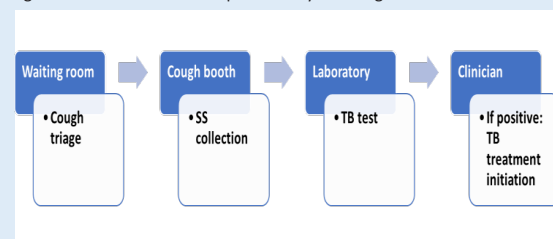
Introduction of the interventions:

Mozambique is one of the 30 countries most affected by the TB epidemic. Healthcare workers and clients are highly exposed to TB at health facility levels.

An initiative aimed to increase Tuberculosis control in clinical settings is improving the health system’s response capacity to the disease.

Modes of intervention/implementation: Cough Officer approach is a fast-track approach to effectively respond against TB in healthcare settings. To ensure proper clinical follow-up and lower the risk of new infections among patients and healthcare professionals, the Cough Officers are trained to recognize suspected cases at the point of access to health services.

Fig 1. The flow of the service provided by the cough officer



Key results/outputs/outcomes:

Fig 2. The trend of the coverage of HFs implementing the Fast Track with Cough Officers, 2020-23

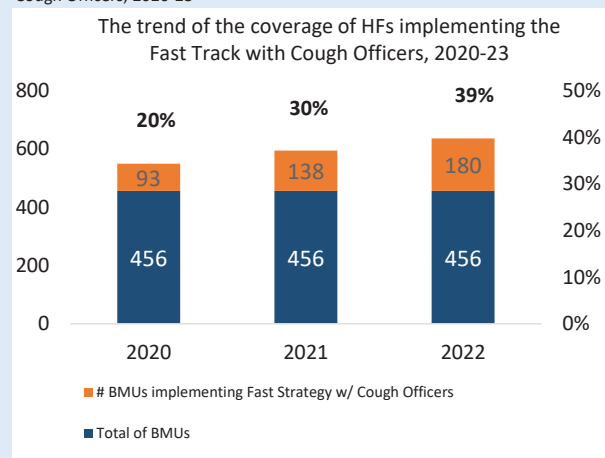


Table 1. The contribution of the cough officer towards notification

Year	Total of TB patients identified at HF level	#TB patients, identified at HF, referred by Cough Officers	Contribution (%)
2020	20,704	1,932	9%
2021	39,695	6,021	15%
2022	38,224	8,143	21%
Total	98,623	16,096	16%

Key lessons learned:

- Cough officer screening is a feasible approach to find missing people with TB
- In addition, the approach helps spread vital information to patients, which is especially critical given Mozambique's poor level of health literacy.
- This approach should be combined with availability of TB lab services to enhance efficiency.



Conclusion:

- Cough officer screening enhances the capacity to find missing people with TB in clinical settings. Scale-up is recommended as a key intervention for infection prevention and control.



Expanding Access to Occupational Health Services and Compensation for Mozambican Mineworkers Working in South-Africa

1. Ministry of Health - Mozambique. 2. International Organization for Migration

Vânia Chongo Faruk¹, Lilly Smines²

10th Regional Advisory Committee (RAC) SATBHSS Project and the Strengthening Pandemic Preparedness (SPP) project 17th and 18th October 2023, Livingstone, Zambia

Introduction

The main aim of the SATBHSS project was to improve coverage and quality of key Tuberculosis (TB) control and occupational health services and strengthen regional capacity to manage the burden of TB and Occupational Lung Diseases (OLDs) in the Southern African. Occupational health had remained largely unnoticed in the extractive industry in Mozambique.

Under this project, in collaboration with IOM, the Ministry of Health operationalized three occupational health centers (OHCs) in Southern Mozambique (main sending region of mineworkers to SA in the country), to conduct occupational health screening for miners and ex-miners, involved in the South African mining industry, and their communities.

Intervention

During this project 1 more OHC was installed in the southern region and the 3 became operational (2 in Gaza Province from December 2021 and 1 on the Ressano Garcia border with SA, from August 2020).

- Around 35000 active and ex-miners were screened for TB and OLDs (silicosis and other pneumoconiosis, cancers, etc.), Noise Induced Hearing Loss, HIV and some Non-Communicable Diseases, and referred for definitive diagnosis and/or treatment when/where appropriate.
- For the cases diagnosed with occupational diseases, claims are submitted for compensation at the Medical Bureau for Occupational Diseases/Compensation Commissioner for Occupational Diseases (MBOD/CCOD) in SA.

Results

- Between August 2020 and March 2023 a total of 35 3083 active and ex-miners received an occupational health screen, including chest x-rays (CXRs) at the 3 OHCs. Of these, 42 cases of TB were bacteriologically confirmed.
- During a 12-month period, of 11 629 with a digital CXR, 9 678 (83%) were normal and 1 951 (17%) with had images compatible with OLDs and TB. The most common pathologies were Silicosis 45%, Silica-TB 17%, TB sequelae (20%) and active TB (16%) (table 1).
- From May 2022 until September 2023, a total of 1 093 BMEs were submitted to the MBOD, of which 690 (63%) were certified and 108 (16%) certified eligible for compensation. A total of 211 claims were submitted for compensation, of which 102 have been paid (49%) (table 2).
- The total amount paid in compensations is over 300 000 USD.

Table 1. Health Screening Provided for Active and Ex-Miners from August 2022 – 2023

	Total
Nr. of miners who had a CXR	11 629
Nr. of normal CXR	9678 (83%)
Nr. CXR compatible with OLDs	1 951 (17%)
Silicosis	886 (45%)
Silica-TB	339 (17%)
TB Sequela	398 (20%)
Asbestosis	5 (0.3%)
Pleural thickening	6 (0.3%)
Nr. of CXR compatible with active TB	317 (16%)

Table 2. Compensation paid to Mozambican beneficiaries from May 2022 September 2023

	BME submitted	BMEs certified	Claims eligible for compensation	Claims submitted*	Claims paid
2022	234	143	15	11	8
2023	859	547	93	200	94
Total	1093	690	108	211	102

*Claims submitted to CCOD include BME certifications eligible for compensation identified on CCMS (submitted during TIMS or other)



An OHC doctor reviewing a miner's CXR (2023)



OHC CXR room (digital XR machine with Cad4tb)

Key lessons learned

- Capacity building is crucial to provide health screening specifically designed for this vulnerable population group.
- Installing the occupational health centers strategically in the region where the specific population is located or transit (boarder) is a great approach to screen such large numbers of active and ex-miners (improves access to the services).
- Multisectoral coordination, especially between the MoH and MoL brought a new perspective for screening and compensation processes.
- Permanent engagement with MBOD/CCOD, through multisectoral and one-on-one workshops, virtual meetings and case discussion also contributed to make the compensation less delayed.
- Involvement of community health workers and miners associations in mobilizing this population to adhere the services had a remarkable contribution to the achievements.

Conclusion

The occupational health screening services that have been provided through this project, is of great importance and impact, for the well-being of the Mozambican active and ex-miners involved in the South African mining industry benefiting also their communities; this population is periodically and holistically screened (for TB, OLDs, NIHL, HIV and some NCDs), ensuring post-employment health care (including the recommended lifelong medical surveillance in line with their exposure to silica dust in the mining sector).

The other positive is the fact that the OHCs submit compensation claims for the eligible cases of occupational diseases and refer for continuum of care those who need.

However, challenges exist to sustain all these achievements and expand further these services to the domestic mining sector, including the artisanal and small-scale mining and these must be addressed accordingly within the health system budgeting process. Additionally, although the compensation process with MBOD/CCOD has improved lately, it should be thought to expedite it further and ensure transparency.



SATBHSS ZAMBIA

Title of the Presentation: Clearly state the intervention and area of the project

Authors: Dr Angel Mubanga and E Mushota Kabaso

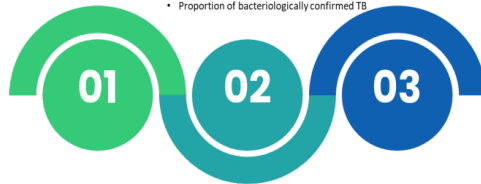
Background

The Covid-19 pandemic had greatly affected TB service delivery across the globe. Zambia was not spared by the negative impact of the pandemic on TB case finding initially. However, the Ministry of Health through the National TB program had to swiftly recover from this and sustained a good performance in KPI through out the pandemic era by introduction of the **TB situation Room** Virtual platform. We therefore, share with you our experience from Zambia on the role of the TBSR in sustaining good TB performance.

The Process

Data Visualization

- Analysis of specific metrics of importance
 - Proportion of paediatric notifications
 - Proportion of DR TB
 - Proportion of bacteriologically confirmed TB



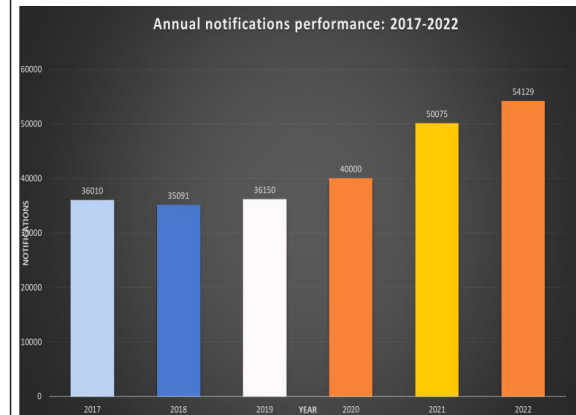
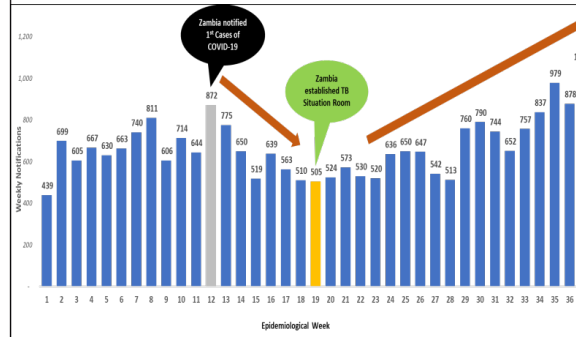
Data Management

- Data collected on a simple **weekly** template
- TB treatment and diagnostic facilities in all districts
- Data quality is assured in the back and forth between health facility/district/National levels

The TB Situation Room Meeting

- Weekly virtual meeting held every Thursday at 2:00pm
- **Participants include:**
 - Provincial, district and facility staff
 - NTLP staff,
 - TB cooperating and implementing partners
 - Civil society

Key results/outputs/outcomes:



Key lessons learned:

Enabled NTLP to

- Showcase high performing facilities/districts/provinces
- Share initiatives/activities yielding positive results
- Share activities done differently
- Replicate positive initiatives/activities elsewhere
- Low-performing facilities/districts/provinces encouraged to catch up and contribute to national targets in the process
- Monitor drugs and commodity stocks

Conclusion:

Real time decision making is possible in a public healthcare program such as TB. **Routine monitoring** of KPIs is crucial in achieving Case Finding targets, notifications and ensuring quality of service delivery

Policy consideration:

NTLPs should introduce a form of **routine surveillance** to monitor KPIs and crucial aspects of TB programs

FACTORS THAT AFFECT EX-MINERS' ACCESS TO OCCUPATIONAL HEALTH SERVICES IN ZAMBIA: :

Introduction of the interventions:

Zambia continues to experience challenges in providing Occupational Health Services (OHS) to ex-miners due to a lack of accurate data on number and location of ex-miners. This situation is because no study has been undertaken to quantify the number of ex-miners and their areas in Zambia. Therefore, this study aims to investigate factors that affect ex-miners' access to occupational health services in Zambia.

Modes of implementation: The study targeted ex-miners in six provinces. It employed a mixed-methods approach in collecting primary data.

Key results/outputs/outcomes:

- The total number of ex-miners that were mapped in the six provinces was 14,997.
- The average age of ex-miners was 60.7 years.
- 42.4% attended regular medical tests. Of these, 75% reported to have their routine medical examinations at government hospitals, 20% at government rural health centres while only 5% went to private hospitals.
- The proportion of ex-miners diagnosed with silicosis was 1.5% compared to 12.1% for those diagnosed with TB upon exiting the mines. 30% of ex-miners with silicosis and TB were being compensated.

- On social security benefits, 5.7% were benefiting as at the time of the mapping exercise in 2021.
- However, the small number of ex-miners who attended routine medical examinations was due to:
 - lack of information,
 - lived far away from the screening districts and/or facilities
 - failure to receive the results after the screening
 - lack of transport and accommodation costs to undertake medical examinations.
 - limited availability and access to primary care doctors
 - faulty referral system and gaps in follow-up and contact tracing.
- Inadequate skilled personnel in health facilities to provide specialised services such as laboratory and radiography services;
- lack of equipment for certain conditions like for silicosis and other diagnostic tests ;
- Lack of correct reagents to conduct the required tests;
- Inaccurate statistics of ex-miners in the country;
- Lack of information about periodical medical check-ups

Conclusion: Ex-miners are required to attend routine medical examinations every year however only a small portion attended regular medical tests. Factors such as lack of logistics (transport and lodging) and long distances to health facilities especially in rural areas played a major role in preventing access to health facilities.

Recommendations:

- Government should find alternative ways of empowering this group through Constituency Development Fund and Social Cash Transfer.
- There is need for relevant stakeholders to strengthen sensitisation of ex- miners on the importance of having routine medical check-ups.
- Revise the claim that is given as compensation to suit the currently standard of living.
- Strengthening the ex-miners' associations meetings to ensure that there is dissemination of information.
- To achieve delivery of quality health services to all people at all levels including promotive, preventive, curative, rehabilitative and palliative care, there is need to have skilled health workers in all the health facilities.

Title: Prevalence of Silicosis among ex-miners in Zambia 2019 – 2020

Fwasa Singogo; Kingsley Ngosa; Marion Kambanji; Patrick Lungu

Introduction

Mine workers in Zambia are exposed to high levels of silica dust as a result of which they are at risk of developing silicosis, which is a preventable, but a progressive fibrotic pneumoconiosis. Both Silicosis and Tuberculosis are compensable lung diseases in Zambia. The incidence of Tuberculosis is noted to be high among Silicosis patients. However, the true burden of silicosis in Zambia among ex-miners is not known and hence the study to determine the prevalence of silicosis in ex-miners in the Zambian population.

Methodology

A descriptive cross-sectional study was undertaken to determine the prevalence of silicosis in ex-miners attending OHSI as part of their routine annual surveillance. Of the selected 496 Zambian ex-miners' chest radiographs taken over the period 10 Oct 2019 to 11 Sep 2020, only 472 were used for evaluation. Chest radiographs were read using the International Labour Organisation (ILO) classification for Pneumoconioses by two readers. The findings were digitally linked to the available anonymised socio-demographic data on the ex-miners. Their personal and work data were extracted, linked to the CXR findings and prepared for analysis. The data were re-anonymised, cleaned, checked, converted to Stata format, analysed and reported on.

Key results:

Of the 496 CXRs, only 472 were analyzable. The mean age was 62.2 years with the median of 62.8 (IQR 57.1 - 67.6), and the mean length of service was 23.6 years with a median of 25.4 years (IQR 18.3 - 30.4). Abnormalities were identified on 303 CXRs (64%) with the largest categories being cardiomegaly (19.3%), hyperinflation (18.4%), and tuberculosis (16.5%). There were Pneumoconiosis small nodules of $\geq 1/0$ in 8.3%, and silico-tuberculosis was present in 4.0%.

CXR Finding	Number	Prevalence %	95% CI	
Any abnormality	303	64.2	59.7-68.5	
Cardiomegaly	91	19.3	15.8-23.1	
Hyperinflation of lungs	87	18.4	15.0-22.2	
Tuberculosis	78	16.5	13.3-20.2	
Pneumoconiosis small nodules	39	8.3	5.9-11.1	
	23	4.9		
	Major category 1	15		3.2
	Major category 2	1		0.2
	Major category 3			
Silico-tuberculosis	19	4.0	2.4-6.2	

In multivariate analysis, cardiomegaly was related to both age and length of service, and there was no significant relationship between tuberculosis or Pneumoconiosis with age or length of service. TB and Pneumoconiosis were strongly associated, but unrelated to length of service and to age.

Key lessons learned:

Silicosis prevalence among ex-miners is high and related to length of service in the mines among ex-miners in Zambia and so is tuberculosis. Therefore, risk based medical surveillance is key in detecting silicosis and tuberculosis early among miners. The incidental findings of cardiomegaly and hyperinflation of lungs raises the need for holistic and comprehensive medical screening of miners.

Conclusion:

The study has shown that Silicosis prevalence among ex-miners is high and related to length of service in the mines. The incidental finding of cardiomegaly of 19.3% among ex-miners needs further investigation. Therefore, it is recommended that primary Occupation Health and Safety surveillance and preventive measures be strengthened in the mines to reduce exposure of miners to silica dust. There is also need to undertake a prospective prevalence silicosis study with a much larger sample size among both current miners and ex-miners with more patient-related data.

Recognition:

Dr JM teWater Naude
Andrew Titterton

Introduction of the interventions:

Health care workers (HCWs) are among the groups classified as high-risk populations for tuberculosis (TB) due to continuous exposure to TB at work.

Although annual health screening is already a requirement for HCWs in Zambia, there was no systematic enforcement of this requirement. Therefore, we sought to determine the burden of TB among health care workers (HCWs) during the period 2018-2019

Modes of intervention:

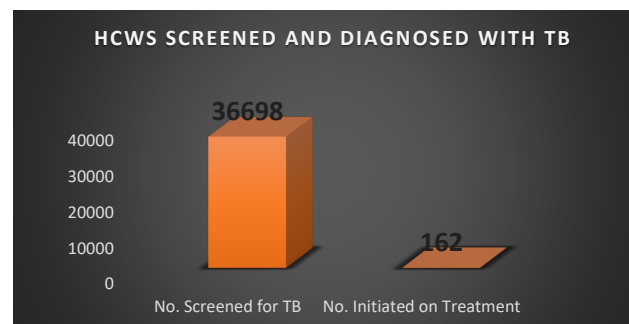
TB symptomatic screening was conducted in health facilities across the country.

HCWs with symptoms were offered X-ray and asked to submit sputum for examination using Xpert/MTB/RIF test and smear microscopy



Key results/outputs/outcomes:

Of the 36,698 HCWs screened, 162 were diagnosed with TB. Of the 162 HCWs diagnosed with TB, 159 (98%) and 3 (2%) were categorized as having susceptible TB and drug resistant TB respectively. From 2018–2019, the proportions of HCWs screened each year were 36% and 64% respectively.



Key lessons learned:

- Early TB case detection and routine screening among HCW is useful as a prevention strategy to help reduce nosocomial transmission in areas with both low and high TB incidence
- Accurate and timely diagnosis of TB disease is essential to ensure proper patient care and appropriate public health response.

Recommendations

1. Enforce the existing policy on HCWs TB screening at entry into the service and bi-annual screening during tenure of employment.
2. TB investigation should be performed promptly in an environment that assures confidentiality to ensure proper patient care and appropriate public health response.

Policy Consideration

Health service workplaces develop and strengthen existing infection control programmes, especially with respect to TB and HIV infection control, and collaborate with workplace health and safety programmes to ensure a safer work environment.

INNOVATIVE APPROACH TO STRENGTHENING SYSTEMS THAT LIMITS DUST EXPOSURE TO WORKERS IN ZAMBIAN MINES AND RELATED INDUSTRIES

(Kafwanka et al)

Introduction

TB has been a leading cause of death among both miners and ex-miners especially among those with HIV and OLDs. Mines Safety Department was tasked to implement activities that can help in eliminating TB in Zambia by ensuring mining and related operations limits the exposure of workers to activities that causes pneumoconiosis and various occupational lung disease. Key specific objectives were to;

- Ensure prevention of the production of inhalable dust at source.
- Ensure prevention of hazardous work design and conduct of activities
- Ensure primary, secondary and tertiary control measures are adequate and effective.
- Raise awareness on workplace safety, health and environmental protection
- Enforce compliance with OSH laws in mining and related operations

Intervention

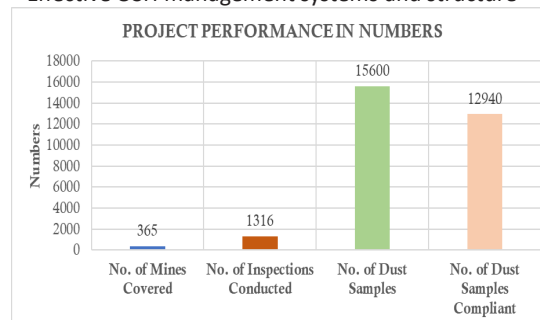
1. Baseline environmental situation of the project area (Primary, Secondary and Tertiary Controls)
2. Risk Assessment to enable evidence-based medical surveillance and development of effective SOPs
3. Mapping and identifying the components of mines
4. Identifying dust sampling points and homogenous exposure groups
5. Development and testing of inspection tools
6. Design & development of data management system
7. Institution capacity building

8. Workplace Safety and Health Inspections
9. Mine Compliance Audits to promote organised mines development and ensure compliance to OSH
10. Dust Sampling to ascertain the effectiveness of dust control measures
11. Legislative review to enhance OSH laws and aligning to international best practices
12. Stakeholder engagement to promote orderly and safe conduct of mining activities

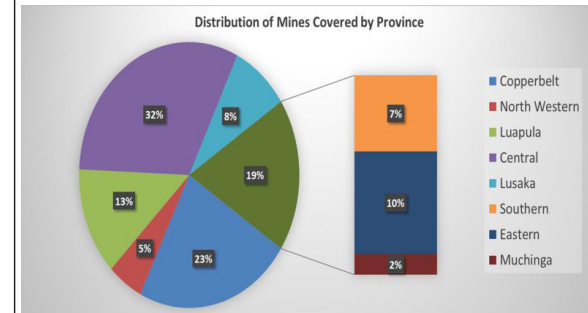
Key results

Inspection coverage of mines beyond traditional mining hub.

- Improved compliance in dust control and medical monitoring
- Broader provision of Occupational Health and Safety services (Satellite OSHI Bureaus opened).
- Effective OSH management systems and structure



Average Percentage Compliance on Dust Sampling (%) - 82.95 %



Key lessons learned:

Dust control and monitoring mechanisms essential.

- Holistic framework for OSHE management.
- Further review of legislation necessary to streamline enforcement mechanism for Artisanal and Small-Scale Mines (ASM).
- Stakeholder engagement , training & knowledge sharing among partners.
- Data management and information sharing

Conclusion:

Improved OSH management systems that promotes leadership, presence of preventive measures at all levels are key in reducing or minimizing the exposure of workers to dust. Further, adequate stakeholder engagement and management with prudent resource allocation builds trust in project players to meet the set objectives.

SATBHSS Project a catalyst for occupational health services

Improved diagnostic capacity and skills development in diagnosis of occupational lung diseases to address regional capacity for disease surveillance, diagnostics, and management of TB and occupational lung diseases

Introduction of the interventions:

The Centre of excellence was using analog x-ray equipment which were outdated. The poor image quality affected the classification of abnormalities of occupational lung diseases on chest radiographs

The other challenge was the low proficiency in the classification of chest radiographs of pneumoconiosis using internationally standardized methods among key medical staff
Limited access to OHS services

Modes of intervention/implementation:

1. Digitalisation of the x-ray department was conducted resulting in replacement of old analog x-ray equipment with the Modern digital x-ray equipment.
2. Improving skills in ILO classification of chest radiographs of pneumoconiosis (ILOICRP) was conducted for doctors and radiologists



Training of doctors and radiologist in ILOICRPs at COE-OHS-Zambia

3. Decentralisation of OHS services

Results

1. Old analog x-ray equipment replaced with new digital x-ray equipment



Old x-ray equipment



New fixed digital x-ray equipment and mobile equipment

2. Training of local doctors in ILOICRP at COE-OHS-From **Zero to 10** doctors trained at COE- OHS from 2018 to 2022
3. Opening of 2 more OHS Centres (Solwezi and Lusaka) and enhanced outreach services



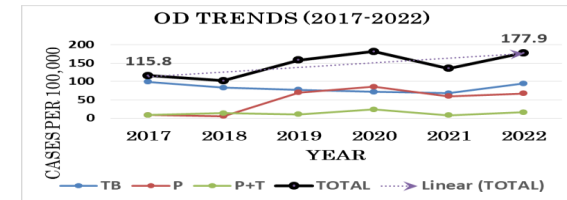
Solwezi OHS Centre



Mobile track

Outcomes

1. Increased cases of occupational lung diseases- 115.8/100,000 in 2018 to 177.9/100,000 in 2022



2. Reduced contact time at x-ray department from **2hrs to 2minutes**
3. Improved service delivery- reports timely issued from **2 days to 6-7 hours**
4. Purchase of boxes of x-ray films reduced from 995 in 2019 to 142 in 2022 (**85.7%**)
5. Purchase of x-ray film developer and fixer concentrates reduced from 22litres per box in 2019 to 8 litres per box in 2022 (**63.6%**)
6. Decentralisation of OHS services

Key lessons learned:

- Skills development in ILOICRP coupled with the use modern digital x-ray equipment with good quality improves the management of OLDs
- The waiting time at the x-ray department reduces with the use of digital x-ray equipment due to efficient image production compared with analog x-ray equipment .
- Decentralisation of OHS services improved access to OHS services

Conclusion:

The use of modern x-ray equipment , improved skills development in the ILOICRP and increasing access to OHS services improved diagnosis of occupational lung diseases and service delivery. This contributed to achieving the SATBHSS project objective of strengthen national capacity to manage the burden of TB and occupational diseases.

Recommendation

To continue investing in diagnostic and OHS human resource capacity in the management of occupational lung diseases.

Regional learning and innovation, and project management Best practices and lessons learned from the CoE-OHS

Introduction of the interventions:

1. Before the introduction of the Centre of excellence- Occupational Health and Safety (COE-OHS), which consists of Occupational Health and Safety Institute, Mine Safety Department, Occupational Safety and Health Services Department and Workers' Compensation Fund Control Board, OHS implementing agencies were operating as separate entities. This brought duplication of roles and operations of the Institutions leading to inefficiency
2. Institutions were using out of date equipment leading to poor OHS service delivery
3. There was low proficiency in the classification of chest radiographs of pneumoconioses using internationally standardized methods among key medical staff
4. Uncoordinated inspections of workplaces

Modes of intervention/implementation:

1. OHS implementing agencies to work as a consortium under COE-OHS to provide primary, secondary and tertiary OHS services not only in Zambia but the in region
2. Equipping of COE-OSH with modern equipment
3. Improving skills in ILO classification of radiographs of pneumoconioses (ILOICRP) for doctors and radiologist, and analytical skills in occupational hygiene
4. Integrated workplace inspections introduced
5. Enhancing collaborations with stakeholders such as AUDA-NEPAD, Academia for ILOICRP and industrial hygiene skills development

Results

1. OHS skills development (in collaboration with stakeholders)

Staff category	No.
Inspectors trained in Risk Assessment, OHS system Audit and regulatory frameworks	17
Inspectors trained in occupational hygiene	15
Personnel trained to enhance inspections	70
Local and international doctors trained on ILOICRP	150
Radiologist trained	1

2. Replacement of Old x-ray equipment with new modern x-ray equipment



3. Procurement of new equipment for workplace exposure assessments



Outcomes

1. Joint inspections conducted in **365** mines
2. Reduction of fatal accidents from **22** to **14** from 2015 to 2022, and reportable incidents from 78 to 53 in the similar years
3. Overall, dust compliance was at **82.7%**
4. Overall, the CoE recorded a **56.6%** increase in the detection of occupational TB and Silicosis (2017 to 2022)

Key lessons learned:

- Working together (COE-OHS) improved efficiency in the provision of OHS services and minimised duplication of efforts.
- Enhanced collaborations with stakeholders helps to improve OHS skills and management of occupational lung diseases.
- Enhance inspections improve compliance to OHS laws

Conclusion:

Each implementing agency under the COE-OHS provide a complimentary role to the centre which has lead to the centre achieving its objectives of providing OHS services not only to the country but the region as whole.

Recommendation

To continue collaborating with the academia to for continued human resource development and to implement the sustainability plan for continued operation of the COE-OHS beyond the SATBHSS project.

ECSA-HC

Restoring the laboratory capacity for accurate diagnosis of Leprosy: A strategic approach to enhance surveillance, prevention and control

Khalide Azam, Cheila Hamido*, Benedict Mushi, Evelyne Wesangula, Mohamed Mohamed, James Mpunga*, Angel Mubanga* and Martin Matu

*On behalf of country team (Mozambique, Malawi and Zambia)

INTRODUCTION

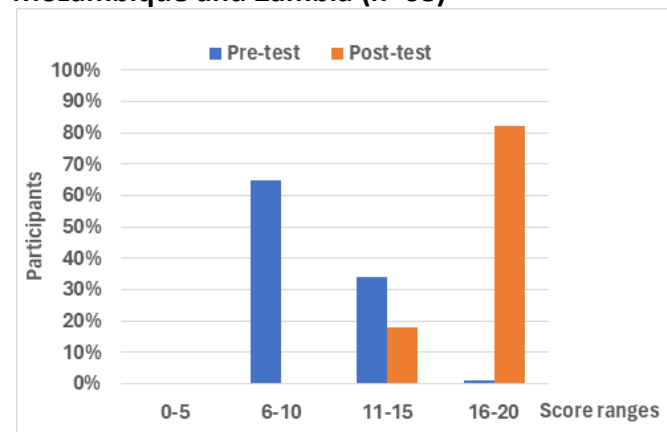
Leprosy is one of the neglected tropical diseases of public health concern. The slit-skin smear is a laboratory method for diagnosis of the disease, but currently there is lack of capacity and limited or dwindling expertise for it. ECSA-HC through the SATBHSS Project funded by the World Bank support Malawi, Mozambique and Zambia to restore the capacity for accurate diagnosis of leprosy enhancing surveillance, prevention and control of the disease.

METHODS

- **Approach:** 5-days training
- **Participants:** 68 health professionals (laboratory technicians and clinicians)
- **Assay:** slit-skin smear microscopy using Zielh Neelsen staining
- **Evaluation:** pre and post-test (range 0-20 scores)
- **Period of training:** August 2022 (Mozambique), September 2022 (Malawi) and February 2023 (Zambia)

RESULTS

Pooled training performance in Malawi, Mozambique and Zambia (n=68)



Results of patients screened following the orientation training (as of March 2023)

Countries	Patients screened		
	Positive n (%)	Negative n (%)	Total n (%)
Mozambique	64 (20)	250 (80)	314 (100)
Malawi	18 (35)	33 (65)	51 (100)
Zambia	6 (40)	9 (60)	15 (100)
Total n (%)	88 (23)	292 (77)	380 (100)

Practical session during the training



CONCLUSION

Health professionals in Malawi, Mozambique and Zambia are equipped to identify signs of leprosy and test, allowing for early and accurate diagnosis, appropriate treatment and reduction of transmission rates. The successful orientation training program also set a strong precedent for the continuous improvement of healthcare training programs on leprosy and other prevalent diseases.

Multisectoral engagement in TB response: An experience in SATBHSS project countries

Authors: Mahamba, V, Mushi B, Lungu P, Matu M.

Introduction

Tuberculosis (TB) is a major obstacle to human and economic development essentially in high TB burden countries. Apart from being a public health problem, TB is also associated with poor socio-economic development, marginalization and exploitation. The actions required to tackle the socio-economic and structural determinants of TB lie beyond the purview of the health sector alone, calling for a harmonized multisectoral response. It is in this context, ECSA-HC through SATBHSS project supported development of multisectoral accountability framework for TB response to make a case for transforming TB elimination efforts from a health sector struggle to a whole-of-society responsibility.

Approach

An initial gap analysis was established using a WHO baseline assessment checklist in the figure below. This was followed by mapping of all government sectors and stakeholders already engaged in TB control initiatives and those with potential to be engaged in overall TB response.

WHO Multisectoral Accountability Framework for TB (MAF-TB)
Baseline Assessment Checklist for country use in pursuing a national MAF-TB¹
Addressing the 4 components of the MAF-TB and key elements within components
March 2020

Note: In short explanation / comments boxes, kindly elaborate on the status and note if the element needs adaptation or is not applicable according to national constitutional, legal and/or regulatory frameworks or other relevant factors

I. COMMITMENTS	Planning initiated / In process	In place	To be strengthened	Who is accountable?	Short explanation/comments and reference to relevant documents
Are the following commitments translated into national policies and targets?					
A. Sustainable Development Goals for 2030 (2016-2030)					Please note the national document(s) and date adopting the SDGs, and if there are relevant national or subnational targets (with link to document if available)
Target 3.3 to end the tuberculosis (TB) epidemic, and other relevant targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
B. WHO End TB Strategy (2016-2030 and associated WHA resolution 67.1)					Please note the national document(s) and date adopting the SDGs, and if there are relevant national or subnational targets (with link to document if available)
Targets for incidence, deaths reduction and zero catastrophic costs (2030) and milestones (2025, 2025), adapted to national level, End TB Strategy pillars and principle applied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

A workshop was done in which a SWOT analysis (Strengths, Weakness, Opportunities and Threats) from each sector and stakeholder was conducted with the guidance of the outcome of the assessment checklist. An overview on the collaboration was developed and outlined different strategic/thematic areas of each sector and stakeholders. This eventually led to development of the accountable action framework ready for implementation

Key outputs and outcomes

Three out of four countries, namely Zambia, Malawi and Lesotho were supported in developing the multisectoral accountability frameworks, outlining actions and timelines for implementation. Most of the government sectors and ministries, implementing partners and civil society organizations developed actions addressing the gaps identified in their sectors. A consolidated framework was developed which outlined interventions, targets, timeframe and reporting as outlined in the figure below.

Indicators	Collaborating Partners	Targets				Data source	Reporting Frequency
		Baseline 2023	Target 2025	Target 2027	End line 2030		
GAPS:							
1. Lack of knowledge on TB infection Prevention and Control							
2. The Committee did not concentrate much on TB							
ACTIONS:							
1. Convene trainings/orientation for Senators/ Principal Chiefs on TB awareness, prevention, referral/linkages to care, treatment, adherence support and stigma reduction so that they can caucus on TB							
2. Conduct advocacy and awareness sessions for Senators/Principal Chiefs on Legal frameworks that hinder TB interventions							
3. Convene a meeting with CSOs to support Chieftaincy at community level – coordinate step down trainings to Chiefs (Marema a libaka and bo Rametse)							
4. Establish TB Champions among Senators							
5. Reestablishment of Parliamentary TB caucus							
Indicator 1: Number of Hon Members trained and updated on TB infection Prevention and Control Measures	Ministry of Health	0	33	33	33	Training report	Annually
Indicator 2: Number of advocacy sessions convened	Min of Health Principal Chiefs District Administrators	0	4	4	4	Activity report	Annually

Furthermore, an operational plan was developed to guide implementation of the developed framework

Key lessons learned

- Engagement of different sectors and stakeholders in TB response needs a coordinated approach and a good buy in from all relevant entities
- The process of engaging different sectors and stakeholders emphasizes complementarity and capitalizes on potential synergies to accelerate TB elimination
- A formal national coordination mechanism is highly recommended to oversee the implementation of the MAF-TB



Conclusion

- The engagement of different sectors and stakeholders provides an opportunity for policy and decision makers, societies to become more accountable in response to TB control issues.
- The process identifies the key areas and mechanisms of alignment and presents a concrete framework for harnessing existing expertise across sectors and stakeholders.
- Engaging different sectors and stakeholders in the TB response, has the potential to make the TB elimination efforts to be sustainable. For effective implementation, the engagement needs to be well coordinated and monitored routinely.

Improving End TB strategy targets: Development of country and provincial specific TB score cards in SATBHSS Project countries

Authors: Mahamba V, Mushi B, Matu M

Introduction: Tuberculosis (TB) is a disease of major implications on the health and development goals at household, community, national, regional and global levels. In 2014, The World Health Assembly adopted the End TB Strategy with ambitious goals of ending TB by 2030. Given that Africa has the highest incidence of TB globally i.e. 212/100,000, ending TB in Africa will have a significant impact on achieving the targets.

As part of commitment following the 2018 United Nations General Assembly High Level Meeting on TB (UNHLMTB) Declaration, the African Heads of States endorsed the Continental End TB Scorecard initiative. Since inception, it has been published annually, showing the performance of indicators of each country.

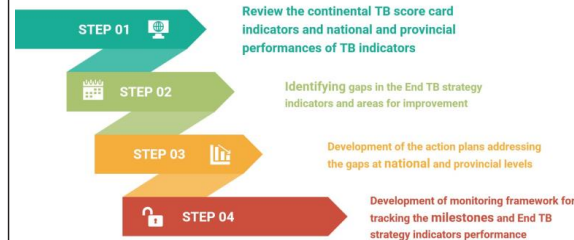
In SATBHSS project countries, some indicators were observed not to perform well which indicated the need of country and provincial specific TB score cards. ECSA-HC supported development of score cards which were specific to provinces and were envisioned to improve the overall End TB strategy indicators.

SATBHSS COUNTRIES TB SCORECARD												
Indicators	2018				2019				2020			
	Lesotho	Mozambique	Zambia	Malawi	Lesotho	Mozambique	Zambia	Malawi	Lesotho	Mozambique	Zambia	Malawi
Estimated TB incidence rate (per 100,000 population) for 2018, 2019, 2020	460	521	346	131	654	361	331	146	600	368	313	141
% change in incidence compared to 2016, 2018, 2019 (negative number = decline)	-8%	0%	-4%	-18%	-22%	8%	-12	-11	-2%	2%	-4%	-4%
Estimated combined TB and TB/HIV related mortality rate (per 100,000)	252	183	106	30	231	59	102	44	215	57	86	37
% change in mortality compared to 2016, 2018, 2019 (negative number = decline)	-13%	-14%	2%	35%	-35%	-33%	-15%	-15%	-3%	-5%	-15%	-15%
Treatment success rate for new and relapse cases (2016, 2017, 2018 others)	77	90	88	82	76%	90%	90%	86%	78%	94%	89%	89%

Fig 1: SATBHSS project countries on continental score card

Approach: The intervention involved a workshop which engaged the technical, monitoring and evaluation staff from the NTP, WHO and was facilitated by ECSA-HC staff.

The main aim was to develop a monitoring framework with high impact interventions which would improve the performance of the End TB strategy indicators. The following steps were deployed:



Key outputs and outcomes: The intervention was implemented in 3 countries namely Zambia, Malawi and Mozambique. All provinces in Zambia Mozambique and all zones/districts in Malawi were engaged to develop the monitoring frameworks with scoring. The frameworks narrated action plans with milestones of implementations and the timeframes. The review of performance was planned to be done on an annual basis.

SGD Indicators	Process Indicators	Indicator definition	What the indicator measures	National average	Scores		
					Green	Yellow	Red
Reduction in TB incidence rate compared with 2015 (%)	1. Stimulation rate	Proportion of people who are identified as presumptive TB cases through screening in a defined population per 100,000 population	Effectiveness of the TB screening in the given population	2732/100,000	>2732/100,000	2000-2731/100000	<2000/100000
	2. Proportion of Presumptive TB Cases reported to the Laboratory	Total number of presumptive TB cases reported to the laboratory out of all presumptive TB cases identified.	Effectiveness of the Lab services	100%	95-100%	90-94%	<90%
	3. Proportion of bacteriologically confirmed TB cases among all presumptive TB cases	Total number of TB cases which are bacteriologically confirmed by GeneXpert, smear microscopy, LAM, Rapid, Culture based or Confirmed TB Cases	Coverage of TB Lab services	70%	70%	60-69%	<60%
	4. Activity Rate	Number of samples identified as confirmed positives through a laboratory test among all presumptive samples examined in the lab	Coverage of TB screening in the population	10-15%	10-15%	8-9%	<8%
	5. Proportion of TB notifications among BCG free	Total Number of children aged 0-14 years notified as TB cases in the total TB notification	Case detection of paediatric	10-15%	10-15%	8-9%	<8%
	6. Proportion of active TB cases for which contact tracing was done	Number of index TB cases for which contact tracing was done out of the total TB cases	Identified active TB case finding	100%	95-100%	85-94%	<84%
	7. Proportion of TB patients who received TB preventive therapy	Number of TB patients who received TB preventive therapy out of the total number of TB patients eligible for IPT	Coverage of TB preventive therapy	100%	95-100%	85-94%	<85%

Fig 2. National TB score card key

SGD Indicators	Indicator	Issues with the Indicator	National target	Strengths	Areas for improvement	Activities addressing gaps	Time frame	Baseline/current performance	Indicator Performance Targets (Plan for improvement)		
									6 months	12 months	18 months
Reduction in TB incidence rate compared with 2015 (%)	1.										
	2.										
	3.										
	4.										
	5.										

Fig 3. Monitoring framework

Key lessons learned:

- Involvement of the national and provincial staff essentially the technical and monitoring and evaluation staff were a pivotal in this intervention and ensured the good uptake of the intervention and accountability.
- Engagement of Implementing partners in the exercise is very crucial for resource mobilization.
- Periodic review of the implementation of the actions, essentially quarterly, is equally important to assess the performance and ascertain challenge and respond timely

Conclusion: Despite the progress and achievements in strengthening the health system hence TB services, there still remain substantial challenges which prevail on the overall performance on the End TB strategy indicators. This is due to high burden of disease, gaps in funding and health systems. Development of the country and provincial specific TB score cards are envisioned to support fast-tracking SGDs and End TB targets. Based on the identified gaps requiring support, the countries present with an opportunity to develop high impact interventions to improve performance hence accelerate the progress to end the TB epidemic globally.

Multisectoral engagement in TB response: An experience in SATBHSS project countries

Authors: Mahamba, V, Mushi B, Lungu P, Matu M.

Introduction

Tuberculosis (TB) is a major obstacle to human and economic development essentially in high TB burden countries. Apart from being a public health problem, TB is also associated with poor socio-economic development, marginalization and exploitation. The actions required to tackle the socio-economic and structural determinants of TB lie beyond the purview of the health sector alone, calling for a harmonized multisectoral response. It is in this context, ECSA-HC through SATBHSS project supported development of multisectoral accountability framework for TB response to make a case for transforming TB elimination efforts from a health sector struggle to a whole-of-society responsibility.

Approach

An initial gap analysis was established using a WHO baseline assessment checklist in the figure below. This was followed by mapping of all government sectors and stakeholders already engaged in TB control initiatives and those with potential to be engaged in overall TB response.

WHO Multisectoral Accountability Framework for TB (MAF-TB) Baseline Assessment Checklist for country use in pursuing a national MAF-TB ¹ <i>Addressing the 4 components of the MAF-TB and key elements within components March 2020</i>					
Note: In short explanation / comments boxes, kindly elaborate on the status and note if the element needs adaptation or is not applicable according to national constitutional, legal and/or regulatory frameworks or other relevant factors					
I. COMMITMENTS					
Are the following commitments translated into national policies and targets?	Planning initiated / in process	In place	To be strengthened	Who is accountable?	Short explanation/comments and reference to relevant documents
A. Sustainable Development Goals for 2030 (2016-2030) <i>Target 3.3 to end the tuberculosis (TB) epidemic, and other relevant targets</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<i>Please note the national document(s) and date adopting the SDGs, and if there are relevant national or subnational targets (with link to document if available)</i>
B. WHO End TB Strategy (2016-2030 and associated WHO resolutions 92.1) <i>Targets for incidence, deaths reduction and area categorical goals (2030) and milestones (2020, 2025), selected to national level. End TB Strategy pillars and principles applied</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<i>Please note the national document(s) and date adopting the SDGs, and if there are relevant national or subnational targets (with link to document if available)</i>

A workshop was done in which a SWOT analysis (Strengths, Weakness, Opportunities and Threats) from each sector and stakeholder was conducted with the guidance of the outcome of the assessment checklist. An overview on the collaboration was developed and outlined different strategic/thematic areas of each sector and stakeholders. This eventually led to development of the accountable action framework ready for implementation

Key outputs and outcomes

Three out of four countries, namely Zambia, Malawi and Lesotho were supported in developing the multisectoral accountability frameworks, outlining actions and timelines for implementation. Most of the government sectors and ministries, implementing partners and civil society organizations developed actions addressing the gaps identified in their sectors. A consolidated framework was developed which outlined interventions, targets, timeframe and reporting as outlined in the figure below.

Indicators	Collaborating Partners	Targets				Data source	Reporting Frequency
		Baseline 2023	Target 2025	Target 2027	End line 2030		
GAPS:							
1. Lack of knowledge on TB infection Prevention and Control							
2. The Committee did not concentrate much on TB							
ACTIONS:							
1. Convene trainings/orientation for Senators/ Principal Chiefs on TB awareness, prevention, referral/linkages to care, treatment, adherence support and stigma reduction so that they can caucus on TB							
2. Conduct advocacy and awareness sessions for Senators/Principal Chiefs on Legal frameworks that hinder TB interventions							
3. Convene a meeting with CSOs to support Chiefdoms at community level – coordinate step down trainings to Chiefs (Matsena a libaka and bo Rametso)							
4. Establish TB Champions among Senators							
5. Reestablishment of Parliamentary TB caucus							
Indicator 1: Number of Hon Members trained and updated on TB infection Prevention and Control Measures	Ministry of Health	0	33	33	33	Training report	Annually
Indicator 2: Number of advocacy sessions convened	Min of Health Principal Chiefs District Administrators	0	4	4	4	Activity report	Annually

Furthermore, an operational plan was developed to guide implementation of the developed framework

Key lessons learned

- Engagement of different sectors and stakeholders in TB response needs a coordinated approach and a good buy in from all relevant entities
- The process of engaging different sectors and stakeholders emphasizes complementarity and capitalizes on potential synergies to accelerate TB elimination
- A formal national coordination mechanism is highly recommended to oversee the implementation of the MAF-TB



Conclusion

- The engagement of different sectors and stakeholders provides an opportunity for policy and decision makers, societies to become more accountable in response to TB control issues.
- The process identifies the key areas and mechanisms of alignment and presents a concrete framework for harnessing existing expertise across sectors and stakeholders.
- Engaging different sectors and stakeholders in the TB response, has the potential to make the TB elimination efforts to be sustainable. For effective implementation, the engagement needs to be well coordinated and monitored routinely.

LOWER AND HIGHLY VARIED TB TREATMENT SUCCESS RATE IN BORDER TOWNS OF MALAWI, MOZAMBIQUE AND ZAMBIA & MINERS IN LESOTHO, A VALIDATION FOR ENHANCED CROSS-BORDER TB COLLABORATION

Background

Global efforts in the response to the Tuberculosis (TB) epidemic are focused on eliminating TB as a public health threat by 2030. One of the targets for the **End TB Strategy** is a **treatment success rate of $\geq 90\%$** . It's known that TB treatment success rate varies by country and by regions/district within the country. Cross-border collaborations and data sharing efforts are pivotal in establishing a responsive continuum of care for TB patients to optimise TB treatment outcomes. We, therefore, explored TB treatment success rates in border districts compared with in-land districts in three countries, **Malawi, Mozambique and Zambia**.

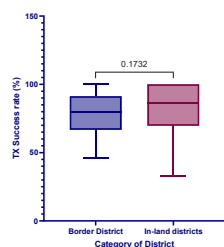
Methods

We used Mann-Whitney Test to compare TB treatment success rates for 2019 (pre covid-19). Data analysis and figures were conducted and developed using GraphPad Prism version 10.0.2 (232)

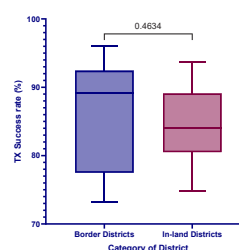
Results

The evaluations shows lower TB treatment success rate in border districts in Zambia and high variability in treatment in border districts of Malawi.

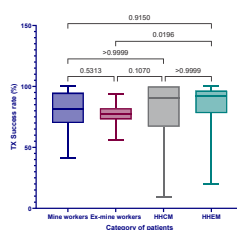
Comparison of TB Treatment Outcome by type of district in Zambia



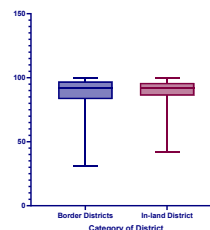
Comparison of TB Treatment Outcome by type of district in Malawi



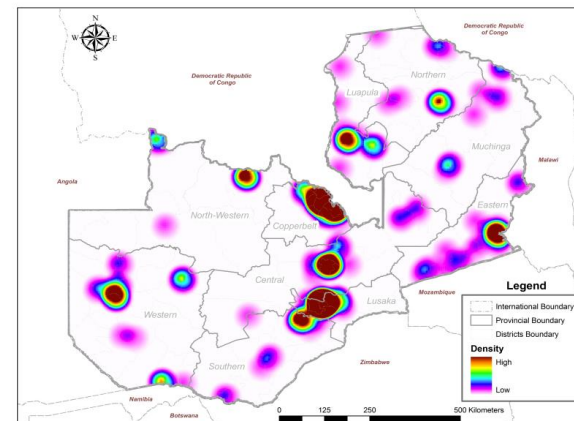
Comparison of TB Treatment Outcome by patient category in Lesotho



comparison of TB treatment success rate by type of district in Mozambique



DR-TB pre-dominantly in border towns and transport corridor



Conclusion

TB treatment success rate are lower among miners and highly vary in border towns in comparison to in-land districts in the 3 neighboring countries. **Enhanced regional collaborative efforts** are required to compliment national interventions for **optimal** national and regional TB treatment success rates. *Dr Lungu et al*

BIOMEDICAL ENGINEERING ON SUSTAINABLE MAINTENANCE OF MEDICAL LABORATORY EQUIPMENT

Khalide Azam and Martin Matu

INTRODUCTION

Quality laboratory testing is crucial to confirm clinical diagnoses, conduct accurate infectious disease surveillance, and direct public health care policy. Lack of laboratory equipment maintenance continues to pose a major threat to health system strengthening, with serious consequences for patient care and public health. ECSA-HC supported SATBHSS Project countries to build capacity in maintenance, verification and validation of laboratory equipment.

METHODS

- **Approach:** 10-days training
- **Target:** Biomedical engineers
- **Areas of training:**
 - Biosafety Cabinet (Malawi and Zambia)
 - Others/ancillary equipment (Lesotho and Mozambique)
- **Equipment covered:** Biosafety cabinet; incubators; rotators and centrifuges; waterbaths; shakers & vortex; balances,

pipettes, refrigerators and freezers, microscopes, autoclaves and sterilizers.



Practical session during the training

ACHIEVEMENTS

- Eighty-six (86) Biomedical engineers were trained: (46 Mozambique, 17 Lesotho, 13 Zambia and 10 Malawi)
- All the laboratory equipment covered during the training were serviced and calibrated
- Several equipment were successfully repaired which were not in use at different laboratories
- Lesotho purchased toolkits for maintenance of ancillary laboratory equipment

RECOMMENDATIONS

- Project countries to purchase toolkits for maintenance of biosafety cabinet and ancillary equipment
- Trainees to carry out an inventory of laboratory equipment in their respective facilities to gauge the current status
- Laboratory Department to involve trainees in maintenance of laboratory equipment (practice and trust)
- Implement mentorship programs to ensure proper application of skills and validity of results

CONCLUSION

The conclusion drawn from this endeavor encompasses several key aspects:

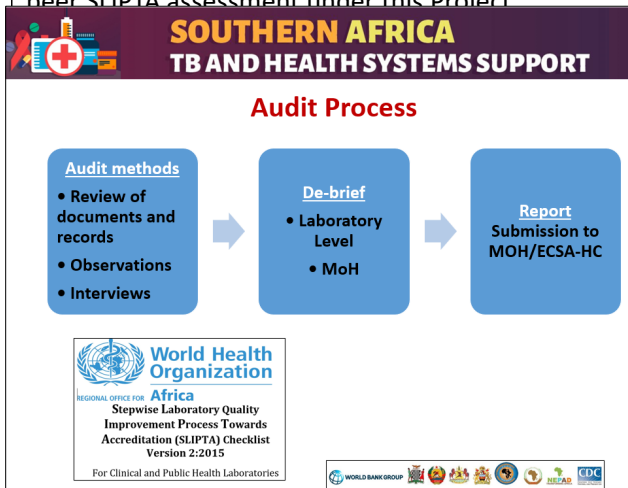
- Improved healthcare services,
- Cost-effectiveness
- Sustainability
- Skill development
- Resilience and preparedness
- Enhanced Quality Assurance

Strategic Audits, Quality Triumphs: Utilizing SLIPTA to Attain ISO 15189 Accreditation

Khalide Azam & Martin Matu

Introduction:

As part of evaluating the support to laboratory system strengthening by the Southern Africa TB and Health System Support (SATBHSS) project, ECSA-HC coordinated regional training and certification of Auditors who conducted peer assessments using the WHO/AFRO Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLIPTA) program. The SATBHSS Project countries selected laboratories for inclusion into the annual assessment. This work describes the achievements for implementing Quality Management System (QMS) and annual peer SLIPTA assessment under this Project



Laboratories enrolled for SLIPTA audits in 2017 and their baseline audit results (in stars):

- **Lesotho:** Mafeteng (1), Motebang (2), NTRL (1)
- **Malawi:** Kasungu (0), Mulange (0), Mzuzu (0), Rumphu (2)
- **Mozambique:** Machava (0), Beira (0), Nampula TB Reference Lab (3)
- **Zambia:** CDL (3), TDRC (3), UTH (4)

Key results by September 2023

Laboratories accredited on ISO 15189



- | | |
|----------------|---------------|
| Lesotho | Malawi |
| 1. Motebang | 1. Mzuzu |
| 2. NTRL | 2. Rumphu |

- Mozambique**
1. Nampula TB Reference Lab

Zambia

1. Chest Disease Laboratory (CDL)
2. Tropical Disease Research Center (TDRC)
3. University Teaching Hospital (UTH)

Certification of SLIPTA Auditors (n=14)

- | | |
|--------------|-----------------|
| • Lesotho: 4 | • Mozambique: 3 |
| • Malawi: 4 | • Zambia: 3 |

Key observations (from 2021):

- **Lesotho** enrolled Butha-Buthe, Maluti and Paray
- Kasungu and Mulange (**Malawi**) had infrastructures issues and were replaced by Dedza, Chiradzulu, Mangochi and Bwaila
- Beira (**Mozambique**) went on rehabilitation from 2018-2023 and replaced by Chimoio, Inhambane, Quelimane and Tete
- **Zambia** enrolled Chikankata, Kalulushi and Monze

Key lessons learnt

- Engagement and training of pool of expert at regional level
- Regular Audits (internal and external –SLIPTA)
- Comprehensive Understanding of ISO 15189 Requirements
- Effective Documentation and Record Keeping
- Adaptability and Flexibility
- Effective Communication and Knowledge Exchange

Conclusion

The SLIPTA audits is crucial to assess, enhance, and demonstrate this commitment to high standards of quality, ensuring the provision of accurate and reliable diagnostic services.

SATBHSS REGIONAL POSTERS-AUDA-NEPAD

REGIONAL BASELINE STUDY ON RESPIRABLE CRYSTALLINE SILICA DUST EXPOSURE MANAGEMENT IN SOUTHERN AFRICA

Authors: N Khoza; Tom Mabururu, C Chamdimba and J Byaruhanga
AUDA-NEPAD: Human Capital and Institutional Development (HCID)

Introduction

Mining is an important contributor to the SADC GDP, however, mining is associated with occupational accidents, injuries and diseases. Prolonged exposure to crystalline silica dust results in silicosis which predisposes workers to tuberculosis. Silicosis is an irreversible, fibrotic pulmonary disease with a long latency period that may develop following the inhalation of crystalline silica containing dust. Exposure to crystalline silica dust causes multiple diseases with silicosis and silica dust associated tuberculosis (TB) a high priority as it contributes to the epidemic of tuberculosis, particularly in Southern Africa. Silicosis is a risk factor for pulmonary tuberculosis.

The results were of the respirable silica dust concentrations were compared to (i) The South African Occupational Exposure Limit (SA-OEL) of 0.1 mg/m³ (OEL1), (ii) The National Institute for Occupational Safety and Health's Recommended Exposure Limit (NIOSH-REL) of 0.05 mg/m³ (OEL2), and (iii) The American Conference of Industrial Hygienists Threshold Limit Value (ACGIH-TLV) of 0.025 mg/m³ (OEL3).



Acknowledgement

The study was funded by the World Bank and authors would like to acknowledge project countries for their invaluable contribution.

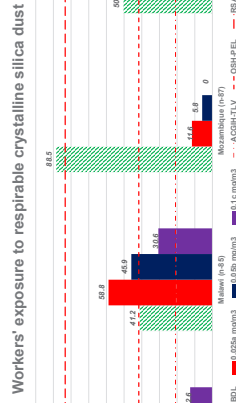


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Methodology

A purposive, quantitative and qualitative sampling approach was employed. The study considered mines under SATBHSS project sites, they were further divided into large, medium, small scale and artisanal small-scale mines. Each category was sub-divided into a commodity, sampling sites to ensure that each major commodity is well represented in the samples. Homogenous exposure group (HEG) was used to identify the group of employees exposed to agent similar enough that monitoring the agent exposures of any worker in the group provides useful data representing exposure of the rest of workforce doing similar activities. A total of 396 silica dust samples were collected and analysed using the MDHS101.



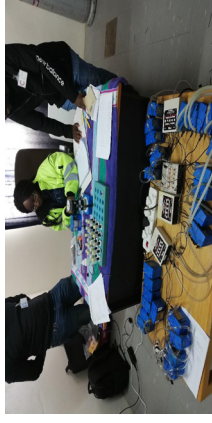
Results and Discussion

A total of (n) 396 samples were collected in Lesotho, Malawi, Mozambique and Zambia. To obtain sample representation the samples were spread across all sizes of mines and commodities. Amongst there was a mix of large, medium, small-scale and artisanal small-scale mines mining gold, coal, copper, diamonds, ruby, limestones, rock aggregates, cement factories, etc. A total of 14.4% of the total samples exceeded the South African occupational exposure limit of 0.1mg/m³. 23.7% were >0.05mg/m³ exceeded the NIOSH Permissible Exposure Limits, 38.6% exceeded the ACGIH Threshold Limit Values and a total of 49.2% were below the analytical detection limits. If the sample is below detection limit it simply means that the amount of crystalline silica dust could not be detected by the analysis method used. Several factors could have contributed to this finding, being the low content of silica in the rock, and damp soil. The exposure levels can increase when the earth is dry and as the mining activity progresses. Malawi recorded the highest (30.6%) percentage of samples that exceeded the South African OEL of 0.1mg/m, followed by Zambia at 14.6%, Lesotho at 12.6% and Mozambique with 0% of samples above 0.1mg/m³. However, Mozambique still had several samples which were above the NIOSH and ACGIH limits.

Respiratory protective devices (RPDs) were the primary control measure, however, the selection of the RPDs was not informed by a proper risk assessment. The protection factors and approval of the RPDs were not specified, poorly maintained and not frequently used

Objectives

The objectives of the study were to determine workers' exposure to crystalline silica dust, assessment of the workplace monitoring and control measures and mentorship of inspectors on practical airborne dust monitoring.



Conclusion

A total of 38.6%, 23.7% and 14.4% of the samples collected were above the ACGIH, NIOSH and the South African, respectively of the occupational exposure standards for respirable crystalline silica. Therefore, it can be concluded that workers working in these mines are at high risk of developing silicosis and at 6 times at risk of pulmonary tuberculosis, as indicated by previous studies referenced in this policy brief. Of greater concern is Malawi sample exposure of 58.8% that exceeded the ACGIH, NIOSH and the RSA OEL. Malawi included several artisanal small-scale mines such as germ stone and aggregate quarrying. Inadequate control measures were prevalent.

Recommendations:

- Develop occupational exposure limits guidelines, consider developing a regional occupational exposure limit guideline similar to SADC Global harmonisation system policy. Considering that it takes time to develop in-country guidelines especially when there is limited expertise.
- Ensure the risk assessment (RA) is mandatory by developing guidelines and ensuring that RA is a fundamental right in the OHS law.
- Assist countries to develop occupational health and safety programmes such as occupational hygiene, medical surveillance, hearing conservation, PPE programmes
- Conduct a further study to ascertain the exposures that were below detection limit during the dry season using the bulk sampling technique, gravimetric sampling, particle size distribution and lung surface deposition methodology.

References

Rees & Murray, 2007. Silica, silicosis and tuberculosis (State of the Art Series, Occupational lung disease in high- and low-income countries. The International Journal of Tuberculosis and Lung Disease, Volume 11, Number 5, May 2007, pp. 414-424(11) doi:10.1186/1544-5181(11)05005.pdf
http://web.gpi.edu.tw/~jowu/express07/ie0005.pdf



An Overview of the Private Sector Engagement in TB Control Strategic Framework in Southern Africa, 2022 – 2025

Authors: Tom Mabururu, Norman Khoza, Chimwemwe Chamdimba

<p>Background: Globally, TB response strategies including the End TB Strategy and the Global Plan to End TB have prioritised the engagement of private healthcare providers to end TB as a public health threat by 2030. Private healthcare providers play a key role in expanding access to TB services but they are no well-coordinated and supported to ensure quality service. Private healthcare providers are essential for reaching missed people with TB. Globally there were about 3 million missed TB cases in 2019. Engaging private healthcare providers ensures those seeking care in private facilities receive quality TB care. Finding of the study on private healthcare providers engagement in TB control found a low proportion of these providers collaborating with NTPs in Malawi, Lesotho, Mozambique and Zambia. The engagement of pharmacies was even lower. The development of this strategic framework was informed by the funding of this study.</p>	<p>Strategic Objective 1: To improve compliance with regulations for establishment and delivery of healthcare services including TB among for-profit and informal private healthcare providers through:</p> <ul style="list-style-type: none"> • Establishing or strengthening legislations for regulating healthcare providers including private hospitals, clinics, polyclinics, individual practitioners and pharmacies. • Strengthening capacity of regulatory bodies to monitor compliance with regulations among for-profit healthcare providers • Improving collaboration between MoH/NTP and professional bodies to enhance compliance with regulations including TB guidelines • Establishing a regulatory framework for traditional medicine • Strengthening the capacity of NTPs to monitor compliance with TB regulations (guidelines) in for-profit healthcare settings • Developing and implementing mining industry TB initiatives through collaboration of NTB, chambers of mines and other mining industry players • Improving the capacity of regulatory bodies for mine health and safety of enforce compliance to mine health and safety regulations
<p>Purpose: The purpose of this strategic framework is to provide strategic guidance to four countries (Malawi, Lesotho, Mozambique and Zambia) in the development of country specific action plan for scaling up private health providers provision of TB services; to integrate the collaboration between MoH/NTPs and private sector in the broader healthcare service delivery; and to strengthen the private healthcare system with TB as an entry point.</p>	<p>Strategic objective 2: To establish and/or scale up innovative modes of engagement for for-profit healthcare providers’ involvement in TB control through:</p> <ul style="list-style-type: none"> • Developing/scaling up models of engagement with for-profit healthcare providers in TB control • Establishing or scaling up existing pilot initiatives involving pharmacies and traditional healers in TB control
<p>Goal: The goal of this strategic framework is to accelerate the progress of the four targeted countries towards ending TB epidemic as a public health threat by 2030. This goal is to be realised through the scale up of the engagement of the for-profit and informal private healthcare providers in TB control in Malawi, Zambia, Mozambique and Lesotho.</p>	<p>Strategic objective 3: To establish innovative incentives and enablers for for-profit healthcare providers’ engagement in TB control through:</p> <ul style="list-style-type: none"> • Strengthening systems for monitoring incentives and enablers provided to for-profit healthcare providers • Providing non-financial incentives for pharmacies and traditional medicine practitioners
<p>Strategic objective 5: Strengthening the capacity of for-profit healthcare providers to provide quality TB services through:</p> <ul style="list-style-type: none"> • Training laboratory personnel and healthcare workers • Strengthening referral mechanisms • Sensitising service providers on TB guidelines and standardising TB screening tools; strengthening screening of high-risk populations • Improving for-profit healthcare providers capacity in TB/HIV integration • Training for-profit healthcare providers on infection prevention and control. 	<p>Strategic objective 4: To reduce catastrophic costs for patients seeking TB services from the for-profit healthcare providers through:</p> <ul style="list-style-type: none"> • Prioritising the provision of free input to for-profit healthcare providers to reduce the cost for patients • Developing linkages with social insurance and social protection schemes
<p>Implementation: AUDA-NEPAD is coordinating implementation across the 4 countries. Each country has a PPM coordinator leading implementation. Each country has an action plan breaking down strategic objectives into activities; annual reviews are undertaken to assess progress.</p>	<p>Strategic objective 6: Strengthen coordination mechanisms and advocacy for private sector engagement in TB control through:</p> <ul style="list-style-type: none"> • Strengthening PPM coordination units • Establishing oversight mechanisms • Strengthening district level PPM coordination • Training NTP staff on private sector engagement, • Strengthening M&E systems for for-profit healthcare providers • Advocating for private sector engagement in TB control.

Acknowledgement

“The private sector engagement in TB strategic framework was developed as part of the SATBSS project supported by the World Bank. The framework was developed through a participatory process that involved the National TB Programmes Managers, PPM Coordinators, M&E Officers, Private Sector healthcare providers representatives, mining industry representatives and health facilities and pharmacies regulatory bodies.



Results and conclusions of the study on opportunities for private sector participation in TB control in

Southern Africa

Authors: Tom Mabururu, Dr. Woldemariam Haile, Chimwemwe Chamdamba and Norman Khoza

Background

The End TB Strategy emphasises the engagement of private sector healthcare providers to detect missed TB cases, increase early TB detection and treatment of all people with TB. Private healthcare providers include not-for profit healthcare providers; for-profit health care providers ranging from large hospitals, clinics, individual doctor practices, pharmacies, stand-alone laboratories; traditional healers; and informal private healthcare providers. However, data on national TB programmes engagement of these private healthcare providers is limited.

Objectives: Study objectives were to assess the level of engagement of private healthcare providers in TB control and identify opportunities, risks, challenges and key strategic priorities to further expand private sector support to TB prevention and care. The study was to inform development of a regional strategy for private sector engagement in TB control.

Methodology: This was a facility based cross sectional study conducted in Malawi, Zambia, Mozambique and Lesotho covering not-profit facilities (faith-based and non-governmental health centres and hospitals); for-profit facilities, including large hospitals, clinics, individual doctor practices, standalone pharmacies and laboratories, and corporate hospitals/clinics; and traditional healers. A proportional stratified sampling technique was used. Latest available list of health facilities provided by regulatory bodies was used as sampling frame.

A total sample size of 251 facilities was calculated based on estimation of private facilities reporting and using 5% margin of error, excluding dental, ophthalmologic and optician facilities. Two districts with both high TB burden and high number of private healthcare providers were selected in each country. Data was collected by trained data collectors using a pre-tested, semi structured questionnaire.

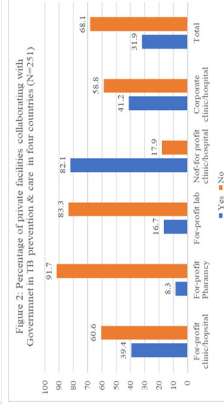
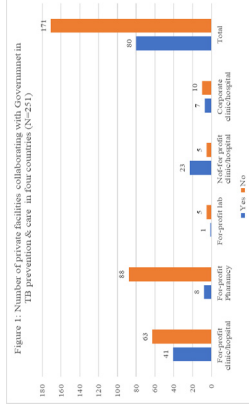
Key findings

Private sector engagement in TB prevention and care was very low (33%) in the four countries, with some variation between countries. The MOH/NTP, in collaboration with development partners, engaged some private facilities (clinics, health centres, hospitals) by providing free TB drugs and TB diagnostic services for referred patients, trainings, mentorship, supportive supervision, guidelines, and reporting tools. The private facilities were in return expected to provide quality TB services at reduced cost and report regularly. Not-for profit facilities work with government in the provision of health services including TB, except for Mozambique where not-for profit facilities were unavailable.

Some non-collaborating private facilities do not know why they have not been engaged by MOH/NTP. The perceptions that there is a low level of trust between private sector and government and the bureaucratic administrative process in government were considered a hindrance for collaboration. The private sector perceived benefits for collaboration with MOH to include getting up to date knowledge on TB prevention and care, standardization of clinical protocols, and improved service quality.

Many private healthcare providers believe that patients visiting private facilities would prefer to get TB services in one place and may not have a desire to be referred to government facilities for reasons, such as long queue, stigma, perceived low quality of service and inconvenience. The collaboration between private sector and MoH is also considered as a solution for alleviating long queues at government facilities and an opportunity for increasing visibility, recognition, and a resulting increase of income from management of co-morbidities and follow up of contacts.

Most private facilities collaborating with MOH/NTP and those that are interested to collaborate expressed their need for incentives for collaboration, such as training, regular supportive supervision and monitoring, guidelines, recording/reporting tools, and consistent supply of anti TB drugs, and diagnostics depending on the type of services they provide.



Conclusion: The engagement of not-for-profit service providers in TB control is well established in the study countries except Mozambique. The engagement of for-profit healthcare providers (hospitals, clinics, individual practitioners, laboratories) varied from country to country but was general low. The engagement of pharmacies in TB control was in its infancy. There was consensus among policy makers on the need to engage traditional healers given the last number of clients they attend to.

The key study recommendation is to scale up MoH/NTPs engagement with for-profit private sector through increasing advocacy; developing appropriate models of engagement, incentives and enablers; strengthening NTPs capacity to engagement private sector.

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- B. R. J. A. Anand T, "Enhancing the role of private practitioners in tuberculosis prevention and care activities in India," Lung India, no. 34, pp. 538-44, 2017.

Acknowledgement

"This study was conducted as part of the SATBSS project supported by the World Bank. The study was commissioned by AUDA-NEPAD and field data collection was coordinated by the SATBSS coordinators in the four countries



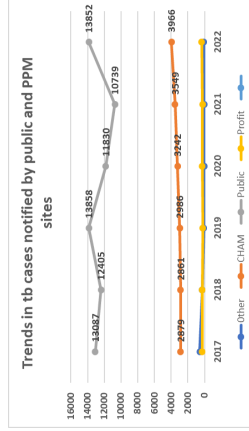
The contribution of not-for profit and for-profit private sector to national TB case notification in Malawi, Lesotho, Mozambique

Authors: Tom Mabururu and Norman Khoza

Background: AUDA-NEPAD conducted a study on the private sector engagement in TB control in Mozambique, Malawi, Lesotho and Zambia in 2019. This study established the extent to which private sector is engaged in TB control in these countries and identified challenges hindering government and private sector coordination in the delivery of TB services.

The study informed the development of a regional private sector engagement in TB control strategic framework 2022-2025. This framework was accompanied with a two-year (2022/2023) action plan developed by each country. Countries have been implemented these action plans with support from the Southern Africa TB and Health Systems Strengthening Project and other funding sources to improve the contribution of private sector to TB case notification.

Malawi: Overall, Christian Health Association of Malawi (CHAM) a not-for-profit healthcare provider, contributed 225 of the total TB cases notified against a target of 20% by 2022 while private for-profit facilities contributed 2% of the total notified cases against a target of 5%. This shows that TB case finding in private-for profit facilities has not been optimised and/or documentation needs to be improved.



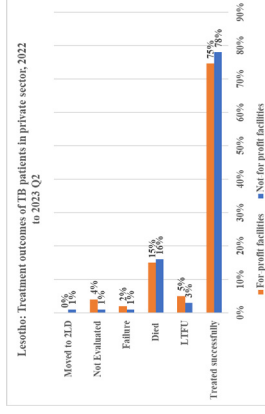
Mozambique: Number of presumptive TB cases and people diagnosed for TB in for-profit health facilities since 2020 increased; the contribution of traditional healers is also increasing but the contribution of pharmacies to diagnosed TB cases remains small.

Year	No. of presumptive identified	No. of people diagnosed with TB	No. of people successfully treated for TB
2020	353	167	38 (90%)
2021	976	102	55 (65%)
2022	932	155	8 (47%)
2023	314	92	4 (80%)

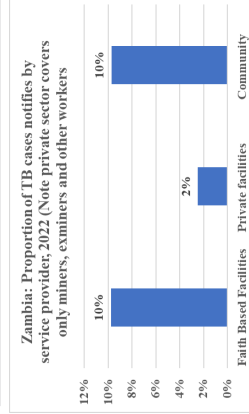
Year	No. of presumptive identified	No. of people diagnosed with TB	No. of people successfully treated for TB
2020	2,414	9	9 (94%)
2021	468	58	31 (94%)
2022	678	50	46 (96%)
2023	425	10	15 (100%)

Year	No. of clients referred	No. of people reached IIP	No. of people diagnosed with TB
2016	20	8	1
2017	52	31	0
2018	30	9	1
2019	18	6	1
2020	3	0	0
Total	120	54	3

Lesotho: Of the number of people screened for TB, 40% were screened in not-for-profit facilities and 3% in for-profit facilities between 2022 and 2023 quarter 2. 37% and 10% of national presumptive cases were identified in not-for profit for-profit facilities respectively while. Not-for-profit contributed 68% and for-profit contributed 5 of total TB case notification.



Zambia: Data for Zambia is for current and ex-miners and non-miners, and this provides partial results on private sector contribution TB case notification. Between 2020 and 2022, 69,358 miners, 3,622 ex-miners and 23,893 other workers were examined for TB and 69 had pulmonary TB, 49 has Pneumocoinosis while 12 had both had both diseases.



Conclusion: Private sector contribution to TB case notification has increased but the contribution of for-profit facilities and pharmacies should be improved. However, the contribution of all types of private healthcare providers to TB notification is not well documented. The number of for-profit facilities engaged in TB should be further increased, data collection and reporting system improved and data for for-profit healthcare providers disaggregated.

Acknowledgement

"This review of the private sector contribution to TB case notification was conducted as part of the SATB/SS project supported by the World Bank. The review was conducted with the public-private mix (PPM) coordinators, M&E officers and private sector representatives from Lesotho, Malawi, Mozambique and Zambia.



AUDA-NEPAD SATBHSS PROJECT KEY ACHIEVEMENTS

Authors: N Khoza; J Byaruhanga
AUDA-NEPAD: Human Capital and Institutional Development (HCID)

The Role of AUDA-NEPAD

- Policy reforms & political commitment
- Harmonization of regulatory frameworks, guidelines, and standards
- Domestication of harmonized regional regulatory framework
- Policy advocacy
- Coordination of private sector engagement in TB Control
- Leveraging on learning & utilizing best practices



Human Capacity Development

No.	Training	2018	2019	2020	2021	2022	2023	TOTAL
1	Inspectors	16	49	40	71	-	25	201
2	Occupational Hygienists	17	18	-	34	13	51	133
3	Doctors and radiologists	18	19	26	28	59	8	158
4	Nurses	-	-	-	48	78	-	126
5	HealthWISE	21	-	-	-	-	-	21
6	COVID19	-	-	449	50	-	-	499
7	Research	-	-	55	-	-	-	55
8	Labs	-	-	-	24	10	-	34
9	OSHS	-	10	-	11	12	-	33
TOTAL		72	96	570	242	186	73	1260

OSH Policies

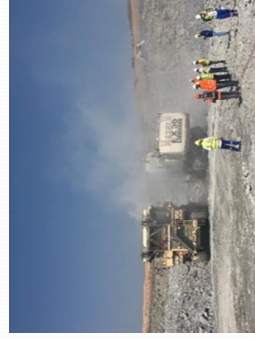
Harmonisation documents:

- Developed a regional occupational safety and health inspection and monitoring equipment guidelines.
- Developed a comprehensive regional occupational health inspection tool.
- Developed and rolled out the regional inspectors training manual for occupational lung diseases.
- Developed a regional occupational code of practice for the management of occupational lung diseases in the workplaces.
- Developed a regional occupational health service management blueprint.
- Developed the national occupational health services frameworks for the Kingdom of Lesotho and Government of Malawi.
- Developed a regional harmonised occupational exposure limit guideline.
- Developed and rolled out a regional adapted ILO International Classification of Radiographs of Pneumoconiosis.
- Developed a regional harmonised occupational, environmental, safety and health guidance document for the Artisanal Small-Scale Mines in Southern Africa
- Developed and rolled out the Private Sector Engagement in TB control in Southern Africa.
- Developed the African Union Private Sector Engagement in Health Framework
- Developed the Centre of Excellence in Occupational Safety and Health (CoE-OSH) strategic plan and its monitoring and evaluation plan.
- Developed the Centre of Excellence in Occupational Safety and Health (CoE-OSH) sustainability plan and its monitoring and evaluation plan.

COVID-19 Interventions

Developed and published 6 Workplace COVID-19 Guidelines: <https://www.nepad.org/publication/african-union-covid-19-occupational-safety-and-health-guidelines-series>

1. Volume 1: AU COVID-19 / OSH Guidelines Series: Workplace Sector Specific Risk Assessment: ISBN: 978-1-990962-91-2
2. Volume 2: AU COVID-19 / OSH Guidelines Series: Mining and Industries: ISBN: 978-0-621-48631-5
3. Volume 3: AU COVID-19 / OSH Guidelines Series: Health and Wellness of Health Workers: ISBN: 978-0-621-48632-2
4. Volume 4: AU COVID-19 / OSH Guidelines Series: Education Sector: ISBN: 978-0-621-48633-9
5. Volume 5: AU COVID-19 / OSH Guidelines Series: Food and Retail Sector: ISBN: 978-0-621-48634-6
6. Volume 6: AU COVID-19 / OSH Guidelines Series: Clinical Occupational Health: ISBN: 978-0-621-48635-3



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KNOWLEDGE DISSEMINATION



Authors: Norman Khoza, Janet Byaruhanga, Buhle Hlatswayo, Nthabiseng Moiloa and Noah Kamanga

#	Title	Journal	Authors
2018	Managing crystalline silica dust to intensify the fight against TB: a regional approach	Occupational Health Southern Africa 24 (3), 84-84	N Khoza, C Chamdimba, H Mlandawire
2019	Regional Centre of Excellence on Occupational Health and Safety established in Kitwe, Zambia The SATBHSS Project, Occupational Health and Safety, mid-term review, key achievements and recommendations (29 April-8 May 2019) Report on the third regional community of practice on mine regulation and occupational health and safety, 21-22 September 2019 AUDA-NEPAD COVID-19/OOSH regional response activities	Occupational Health Southern Africa 25 (2), 67-67 Occupational Health Southern Africa 25 (5), 168-169 Occupational Health Southern Africa 25 (6), 197-198 Occupational Health Southern Africa 26 (4), 170-172 Occupational Health Southern Africa 26 (5), 203-204 Occupational Health Southern Africa 26 (1), 21-22	N Khoza, W Silembo N Khoza, C Chamdimba, B Hlatswayo N Khoza, C Chamdimba, MA Mohamed, D Moyo NN Khoza, C Chamdimba, D Moyo, M Zungu, N Moiloa, B Glove N Khoza, C Chamdimba, D Moyo, I Chirime, BM Ngandu N Khoza, C Chamdimba, F Sngogo, MA Mohamed, D Moyo
2020	A regional response to tuberculosis amid COVID-19 in southern Africa: towards eliminating silicosis and ending tuberculosis by 2030 SATBHSS Project: 2019 key achievements on occupational health and safety and an invitation to occupational health and safety experts to be registered on the AUDA-NEPAD database Regional collaborative initiatives to strengthen occupational health and safety training programmes in southern Africa Accessing occupational health services in the Southern African development community region	Occupational Health Southern Africa 26 (3), 126-127 International journal of environmental research and public health 17 (18), 6767 C Chamdimba, N Khoza	N Khoza, C Chamdimba, D Masekameni, D Moyo and P Heyumbu MD Masekameni, D Moyo, N Khoza, C Chamdimba
2021	Regional implementation of occupational health and safety information system (OHASIS) Regional virtual research and publication workshop The importance of an occupational safety and health legal framework and its progress in southern Africa Impact of COVID-19 pandemic on occupational health services delivery in the mining sector in southern Africa Regional occupational safety and health and tuberculosis technical assistance to the Government of Malawi Workplace COVID-19 response intervention in the Kingdom of Lesotho: the role of risk assessment	Occupational Health Southern Africa 26 (6), 297-298 Occupational Health Southern Africa 27 (2), 56-57 Occupational Health Southern Africa 27 (4), 140-141 Occupational Health Southern Africa 27 (5), 177-178 Occupational Health Southern Africa 27 (3), 97-98	Occupational Health Southern Africa 27 (1), 19-20 N Khoza, C Chamdimba, K Azam, N Mulima, M Mohamed BM Ngandu N Khoza, B Ngandu, C Chamdimba N Khoza, C Chamdimba, B Ngandu, N Moiloa, J Kguru N Khoza, C Chamdimba
2022	Workplace COVID-19 follow-up risk assessment in the Kingdom of Lesotho: control interventions, challenges and lessons learned Transforming occupational health services provision in southern Africa through capacity building Knowledge exchange between Zambia and Malawi: establishment of occupational health services in Malawi Community of practice on occupational health and safety-2021 annual tuberculosis and occupational health and safety regional response progress report meeting Regional technical support for the establishment of occupational hygiene analysis laboratories in Malawi and Zambia Urgent Need for a Comprehensive Public Health Response to Artisanal Small-Scale Mining Regional Centre of Excellence on Occupational Health and Safety-induction of the Regional Expert Advisory Panel (REAP) Regional quest to implement occupational safety and health information system continues	Occupational Health Southern Africa 28 (6), 210-212 Occupational Health Southern Africa 28 (1), 20-21 Occupational Health Southern Africa 28 (2), 63-66 Health Southern Africa 28 (4), 151-153 Occupational Health Southern Africa 28 (5), 198-201 Annals of Work Exposures and Health 66 (1), 1-4 Occupational Health Southern Africa 28 (3), 104-108 Occupational Health Southern Africa 28(6), 239-241	IO Elimi, N Khoza, S Myeni, C Chamdimba N Khoza, C Chamdimba, D Moyo N Khoza, Y Moyo, C Chamdimba, K Ngosa N Khoza, C Chamdimba, C Sandy, N Moiloa Occupational N Khoza, D Mirekei, I Niranjan, C Chamdimba P Gottsfeld, NN Khoza N Khoza, N Moiloa, C Malwenko, C Chamdimba N Khoza, C Ndwana, Z Saugene, C Chamdimba
2023	Continuous development of the occupational hygiene profession in southern Africa using a multi-organisational collaboration: true and meaningful collaboration The role of occupational health and safety and the private sector in pandemic prevention: the One Health approach in Africa Integrated environmental, corporate, and business risk management approaches in regional and national developmental projects	Occupational Health Southern Africa 29 (1), 36-40 Occupational Health Southern Africa 29 (2), 94-96 Occupational Health Southern Africa: 28(3); 42-43	N Khoza, C Chamdimba, N Mundy, I Niranjan N Khoza, C Chamdimba, C Sandy N Khoza, and C Chamdimba

- A total of 25 publications in peer-reviewed journals, receiving 20 citations
- A total of six SATBHSS project annual reports published on the project website
- More 12 policy briefs have been developed and published on the project and study results
- More than 30 international and local conference, 5 radio interviews, including four TB lung conferences side meetings led by ECSA-HC, three international vision zero conferences.
- The project results were presented to the SADC ministers responsible for health annual meetings as a SADC TB response activities.

Efficacy of wet dust suppression techniques for respirable crystalline silica dust generating scenarios: A systematic review.

Norman Nkuzi Khoza, Thokozani Patrick Mbonane, Masilu Daniel Masekameni

Introduction

Dust controls focused on total and respirable dust compared to their efficacy on sub-micron dust particles, which are the most toxic due to their ability to reach the alveolar section of the lungs. The study sought to identify effective engineering wet dust suppression techniques.

Aim of the study

To identify appropriate exposure assessment methods and control technologies to efficiently monitor and control submicron dust particles in mining and railway industries.

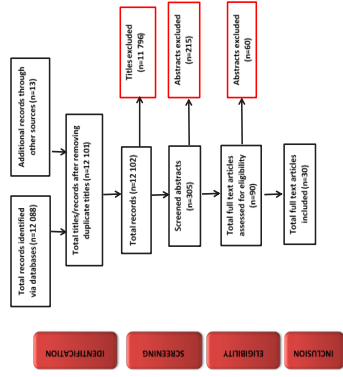
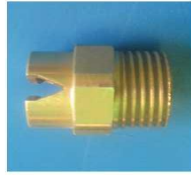


Figure 1: Prisma Search Flow Diagram



Picture 1: Foam nozzle and its injection effects (Chen et al., 2016)

Acknowledgement

"This study was conducted as part of the SATBHSS project supported by the World Bank

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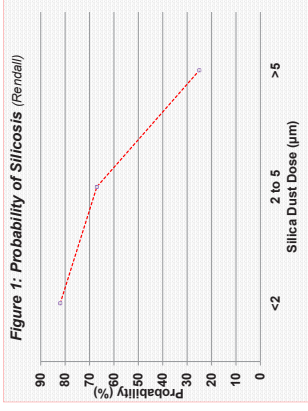
Methodology

A systematic review of peer-reviewed journal articles and research reports published in national and international sources and organizations up to April 2021.

Results and Discussion

The average reduction percentage of the total, respirable, and crystalline silica dust reduction efficiencies (Using chemical aided and water-based controls) were 85%, 83%, and 85%, respectively. Although, Thirty-three and fifty-three percent of the studies did not specify water or pressure consumption levels. Approximately 20% and 13% of the studies used water and pressure of less than 1 l/min and 1 bar, respectively. About 13% and 20% used water at 1-10 l/min and pressure 1-10 bar, and 10% and 13% used water and pressure above 20 l/min or bar.

The water-based dust suppression without surfactants showed efficiency for respirable silica dust compared to chemical-based studies. In studies done outside of coal mines, water-based control is not adequate to control coal dust. However, the water-based system seems efficient, feasible, cost-effective, intrinsically safe to operate in the current study setting (quarry and railway), known and controllable trade-off, and meets occupational and environmental regulations in suppressing occupational and environmental pollution.



Conclusion and recommendations

The study identified the water- and chemical-based dust controls. The water-based system seemed feasible for the current exposure scenario. Therefore, there is a need to explore the water and sprays in a quest to control sub-micron silica dust. This paper further suggests that authors explore the use of multi-criteria decision analysis (MCDA) to select the appropriate control strategy through stakeholder engagement.

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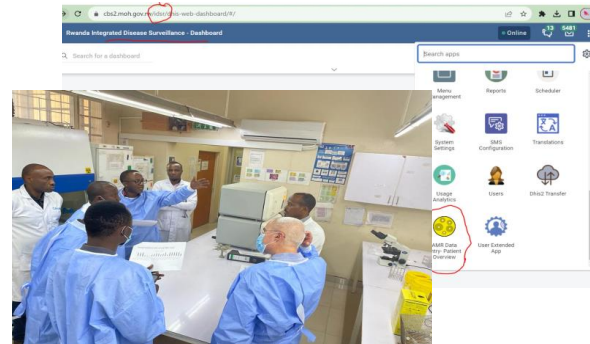
Rwanda's Journey in building sustainable of Antimicrobial Stewardship and Resistance Surveillance Systems and Integration into DHIS 2 Platforms

Authors: Leandre Ishema, Evelyn Wesangula, Denyse Mugwaneza, Andrew Muhire, Noel Gahamanyi, Khalide Azam, Martin Matu, Misbah Gashegu

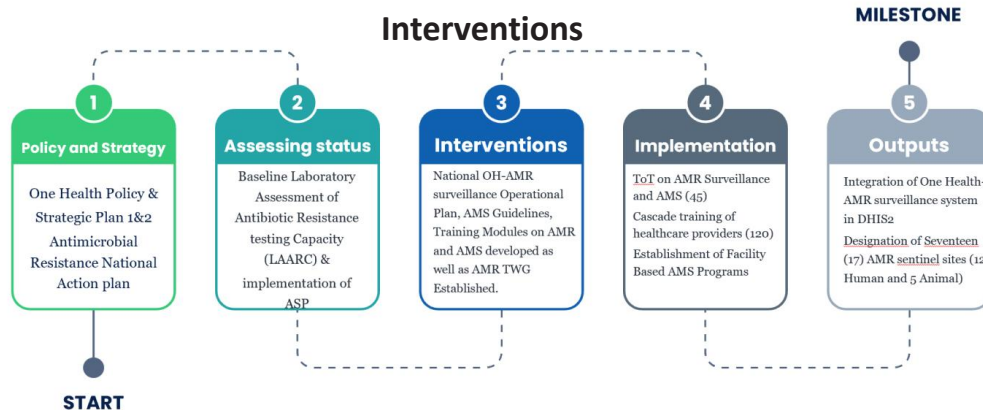


Introduction

- The 2018 Global Health Security Agenda (GHS) assessment report based on the International Health Regulations (IHR) and the Joint External Evaluation (JEE) tool concluded that antimicrobial resistance was a major public health problem in Rwanda .
- It also highlighted an inadequate system for full collecting data on antimicrobial resistance (AMR) from both the public and private sectors that an playing an important role in veterinary and human health.



Lessons Learnt



Conclusion

- ✓ Significant progress has been made in AMR surveillance and stewardship in Rwanda
- ✓ Sustained efforts required through continued research, investment in healthcare infrastructure and international collaboration,

SPP TANZANIA



Key Steps in the Preparation and Performance of the Joint External Evaluation , Tanzania Experience, May – September, 2023



Vida Mmbaga¹(MSc), Witness Mchwampaka¹(MSc), Welema Solomn¹(MSc), Martin Matu³, PhD, Mohamed A. Mohamed³(Msc) Khalid Massa¹, PhD, Erick Richard¹, MSc, Jacob Lusekelo¹, Ndel Oriyo,² (PhD), ¹Tumaini Nagu ¹(PhD)
¹Ministry of Health, ²National Institute for Medical Research ³ECSA Health Community

Background

- Tanzania conducted its first Joint External Evaluation (JEE) in 2016 and the second in August, 2023
- The JEE exercise was done in collaboration with various stakeholders and was financially supported by WHO and ECSA-HC through SPP funded by World bank



Joint External Evaluation (JEE) of International Health Regulations (IHR 2005) Core Capacities in Tanzania

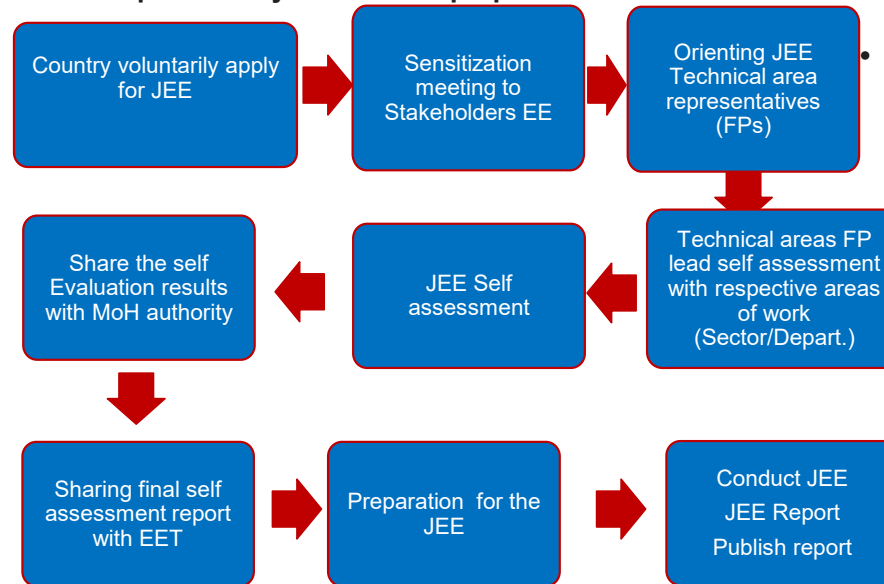
14-18 August 2023



JEE Process

- Formation of Multi sectoral Secretariat (10 members) – meets after/before each stage of the process for the preparation of the next step
- Stakeholders engagement at all stages
- Identified Focal Points(FP) for all the 19 technical areas
- Identified FPs for each areas: Prevent, Detect, response & Other/POE

Steps taken by Tanzania to prepare and conduct JEE



Key Lessons Learnt

- Considerations for a Successful JEE exercise
- Pre JEE planning and roadmap of activities
- Committed secretariat members, and preparatory meetings supported
- Setting enough time for the preparation of the JEE process
- Stakeholder engagement at each stage of the process
- Country Ownership -

Opportunities

- ✓ Varied expertise in the region for experience sharing
- ✓ Partners to support the countries for JEE preparation and experience sharing

Recommendations & Conclusion

Countries should take ownership of the JEE and support their JEE teams to well prepare for the process. Partners are encouraged to support the JEE secretariat to conduct preparatory meetings

COUNTRY RISK PROFILE ENHANCE TANZANIA RESILIENCE TO MITIGATE IMPACT OF EMERGENCIES & DISASTERS: TANZANIA EXPERIENCE

Authors: S. Nungu¹, G. Mwambulambo¹, M. Kitambi¹, Elias Kwesi¹, Dr. Erasto Sylvanus¹, M. Mohamed², M. Matu², F. Msemwa³, Allan Mpairwe⁴

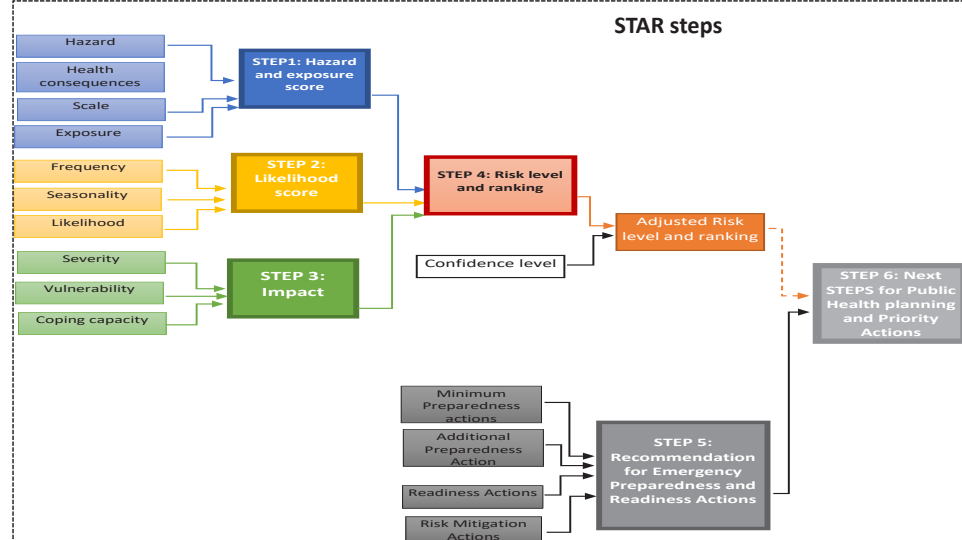
1 Tanzania Ministry of Health, 2 WHO Tanzania, 3 ECSA HC & 4 WHO AFRO

Introduction of the interventions:

Having a good understanding of a country's risk profile is essential for better preparedness in anticipation of potential risks. The process involves identifying and prioritizing high-risk hazards, and then creating specific plans to address each hazard to guide prediction/anticipation of major health risks and response planning/preparedness efforts. It is highly recommended to update the risk profiling every two years due to the changing nature of risks over time. In the case of Tanzania, they applied the WHO Strategic Tool for Assessing Risks (STAR) to develop the country risk and hazard profile. This profile was last conducted in September 2022.

Methodology:

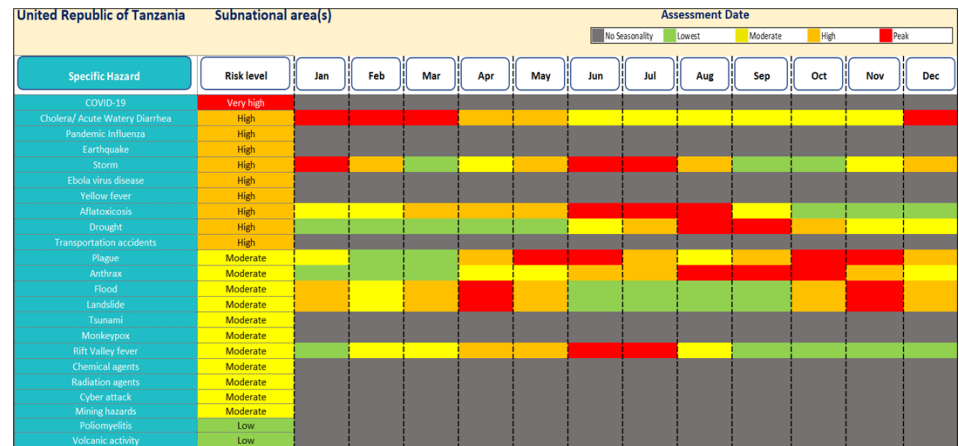
- Tanzania adopted WHO STAR Tool for developing risk profile
- Multisectoral, Multi-disciplinary, all hazard, whole government, whole society approach was used in this process including government organizations, CSOs, NGOs, academic institutions, private sector etc. WHO and ECSA-HQ facilitated technical and financial support



Risk Matrix

Impact	Critical			Pandemic Influenza, Earth Quake, Yellow Fever, Chemical agent, Transportation accidents	Cholera/Acute Watery Diarrhea, Storm, Ebola Virus disease	COVID-19
	Severe	Tsunami				
	Moderate	Volcanic activity		Flood, Landslide, Monkeys, Rift Valley fever, Radiation agents, Cyber-attack, Mining hazards	Aflatoxicosis, Drought	
	Negligible/Minor			Polio myelitis	Plague, Anthrax	
	Very Low	Unlikely	Probable		Very Low	Almost sure
					Likelihood	

Calendar of Identified hazards



Key lessons learned:

- Country risk profiling provides a comprehensive understanding of a country's risks, coping capacities and vulnerabilities.
- helps prioritize and allocate resources effectively by anticipating the major risks, planning for contingencies and mobilising resources to mitigate and prepare for potential threats and disasters.
- It allows for the development of tailored preparedness and response plans, which can better address the specific risks of a country.

Conclusion:

Overall, country risk profiling contributes to enhancing resilience and reducing the impact of public health emergencies and disasters. Support is needed to institutionalise the risk assessment to enhance effective preparedness for PHE and major health risks.



Integration of antimicrobial resistance surveillance and antimicrobial stewardship implementation activities: baseline assessment from additional six hospitals in Tanzania



Majigo Mtebe¹, Reuben Abednego², Emmanuel Magembe², Siana Mapunjo² Emiliana N. Francis², Aneth Wilbrod², Nyambura Moremi², Salim Masoud¹, Evelyn Wesangula³, Martin Matu³, Daudi Msasi², Jeremiah Seni⁴

1. Muhimbili University of Health and Allied Sciences, Dar Es Salaam, Tanzania; 2. Ministry of Health, Dodoma, Tanzania; 3. East Central and Southern Africa Health Community, Arusha, Tanzania; 4. Catholic University of Health and Allied Sciences, Mwanza, Tanzania.

Introduction of the interventions:

Tanzania is implementing her second National Action Plan on antimicrobial resistance (NAP-AMR, 2023-2028). There are 10 and 13 hospitals implementing AMR surveillance and antimicrobial stewardship (AMS). The total number of patients' urine and blood samples/data submitted from hospitals to WHO-GLASS progressively increased from 7,922 in 2020; 21,957 in 2021 to 37,280 in 2022. Notable implementation gaps were lack of integration between AMR and AMS implementation activities and limited data utilization at facility-level.

Modes of intervention:

Baseline assessments were conducted in October 2022 using the LAARC and WHO AMS Health Care Facility (HCF) Indicator Tools in six hospitals to assess the feasibility integrating AMS and AMR programs. The gaps, challenges and lessons learnt were discussed during the stakeholders' meeting on January 2023.

Acknowledgements: The Tanzania AMR-CC, TWGs, all staff in the participating hospitals & ECSA-HC through SPP World Bank Project.

Key results:

The WHO AMS HCF assessment average score was 39% (range: 19% to 92%). The overall LAARC score was 68.2% (range: 47% to 87%) (Figures 1 & 2). Five hospitals (83%) had diagnostic infrastructures for AMR surveillance. A total of 126 professional were trained in AMR and AMS, and through dissemination workshop, a total of 25 members from the hospital management and AMR/AMS committees were capacitated to develop their respective hospitals' AMR/AMS action plans.

WHO AMS core element indicators	HOSPITALS						AVERAGE SCORE (%)
	HOSPITAL 1 (%)	HOSPITAL 2 (%)	HOSPITAL 3 (%)	HOSPITAL 4 (%)	HOSPITAL 5 (%)	HOSPITAL 6 (%)	
Presence of DTC, ICC or AMS team	100%	58%	58%	67%	67%	75%	71%
DTC Functionality	68%	48%	48%	63%	31%	58%	53%
Leadership Commitment	94%	11%	17%	53%	0%	44%	37%
Accountability and responsibility	100%	8%	17%	25%	0%	25%	29%
AMS Actions	98%	44%	44%	63%	38%	63%	58%
Education and training	100%	0%	25%	0%	0%	25%	25%
Monitoring and surveillance	92%	4%	29%	0%	29%	54%	35%
Reporting feedback within the health-care facility	83%	2%	2%	0%	0%	25%	19%
OVERALL Score	92%	21%	26%	33%	19%	44%	39%

Figure 1: WHO AMS HCF Assessment

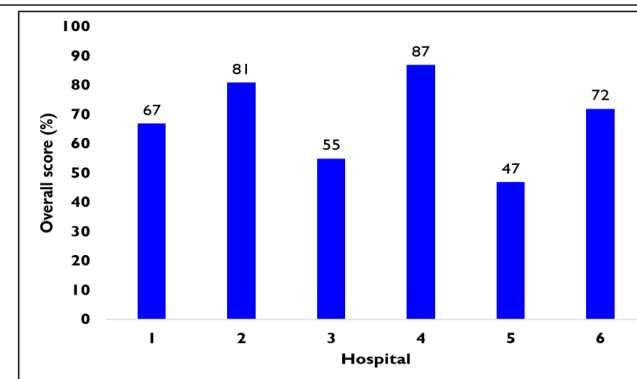


Figure 2: The LAARC Findings from six hospitals

Key lessons learned:

Integration of AMR and AMS implementation activities is feasible and can leverage existing limited human resources.

Conclusion:

Variable AMR and AMS performances across six hospitals was noted. Three hospitals are envisaged to be included in the AMR surveillance (to make a total of 13). All six hospitals have been integrated into country-wide AMS program (to make a total of 19 hospitals). Re-assessment will be done using a plan-do-check-act (PDCA) model.



Patterns of antibiotic use in six hospitals in Tanzania: WHO point prevalence survey for establishing data driven antimicrobial stewardship programs



Emiliana N. Francis¹, Siana Mapunjo¹, Aneth Wilbrod¹, Hameed Kamran², Samir Saitoti³, Gabriel Maganga⁴, Atugonza Kyaruzi⁵, Zahla Nuhu⁶, Evelyn Wesangula⁷, Martin Matu⁷, Daudi Msasi¹, Jeremiah Seni¹

1. Ministry of Health, Dodoma, Tanzania; 2. Aga Khan Hospital , Dar Es Salaam, Tanzania; 3. University of Dodoma, Tanzania; 4. CUHAS & Bugando Medical Center, Mwanza, Tanzania; 5. Mwananyamala Regional Referral Hospital, Dar Es Salaam, Tanzania; 6. Bombo Regional Referral Hospital, Tanga, Tanzania; 7. East Central and Southern Africa Health Community, Arusha, Tanzania.

Introduction

Inappropriate use of antimicrobials in health care facilities is a major concern. However, the availability of antimicrobial use and resistance data for informed decision making is still a challenge.

Methodology

Baseline survey was conducted in April 2023 to determine antibiotics use in six hospitals using the WHO Point Prevalence Survey (PPS). A total 432 admitted patients were enrolled. Data from wards, patients, indications and antibiotics were collected. Analysis was done using STATA software version 13.0 to determine antibiotics use, adherence to Standard Treatment Guideline (STG), Access, Watch and Reserve (AWaRe categorization of antibiotics) and diagnoses.

Key results

A total of 342 patients (79%) were on antibiotics (Figure 1), with only 7% antibiotic therapy guided by culture and antibiotic sensitivity results. Approximately 78% of prescribed antibiotic adhered to the STG. Parenteral administration was the common route (84%). The most frequently prescribed antibiotics were metronidazole (21.10%), ceftriaxone (17.3%) and gentamicin (12.40%). The top 5 antibiotics were predominantly prescribed for non-specified conditions (22.5%) and OBGY infections (21.0%), Figure 2. The AWaRe accounted for 52.8% Access, 32.3% and 0.4%; while not recommended antibiotics was 14.5%.

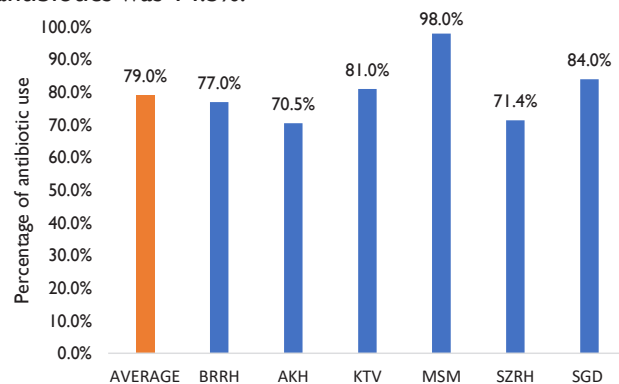


Figure 1: Prevalence of antibiotics use in six hospitals

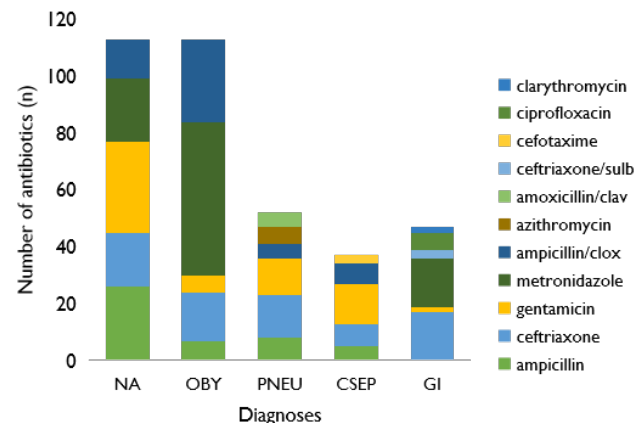


Figure 2: Distribution of top 5 antibiotics per top 5 diagnoses

(NA: Diagnoses not specified; OBGY: Obstetrics and gynecology infections; PNEU: Pneumonia; CSEP: Clinical sepsis; GI: Gastrointestinal track infections).

Key lessons learned

- There a commendable adherence to STG.
- There is underutilization of microbiology diagnostic services and approximately a quarter of antibiotics are prescribed with no clear indications.

Conclusion

There is a need to establish antimicrobial stewardship programs to generate data for evidence based rational use of antibiotics.

Acknowledgements: The Tanzania AMR-CC, TWGs, all staff in the participating hospitals & ECSA-HC through SPP World Bank Project.

SPP ZAMBIA

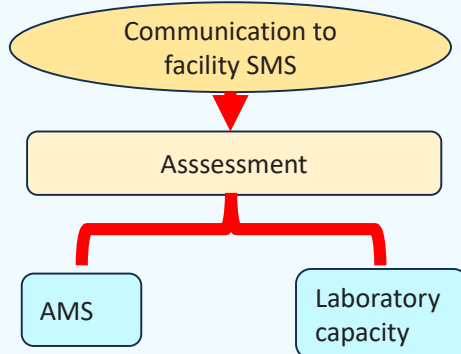
Antimicrobial Stewardship (AMS) Baseline Assessment as a prerequisite to scaling up

structured AMS actions- Zambian case

Introduction

Antimicrobial stewardship (AMS) programs are critical in combating antimicrobial resistance (AMR). Zambia, like other sub-Saharan African countries, is facing challenges in the implementation of AMS programs. Hence, there is paucity of information on the number facilities, level of implementation and the capacities of laboratories to support AMS programs. Therefore, we assessed AMS programs and laboratory capacities in selected hospitals in Zambia.

Baseline assessment of 8 facilities



Tools:

- WHO policy guidance on integrated antimicrobial stewardship activities Healthcare Facility Assessment Tool
- Laboratory assessment of Antibiotic Resistance Testing Capacity (LAARC)

Key results:

Summary of baseline information per healthcare facility on (A) AMS and (B) capacities of laboratories to conduct AMR surveillance

Indicators (Scores in %)	Health Facilities								Overall
	ADH	CCH	KTH	KGH	CMH	MGH	LTH	NTH	
Presence of DTC, ICC or AMS team	83	92	100	100	75	100	100	75	91
DTC Functionality	42	67	21	62	50	77	35	38	49
Leadership Commitment	36	72	47	64	22	86	75	47	56
Accountability and responsibility	33	83	83	100	33	100	67	75	72
AMS Actions	25	44	50	50	50	50	63	69	50
Education and training	58	58	33	83	33	92	25	50	54
Monitoring and surveillance	63	75	54	92	54	100	79	92	76
Reporting feedback within the health-care facility	28	48	40	53	38	60	47	52	46
OVERALL Score	41	64	44	67	42	78	56	56	56

Indicators	Health Facilities								Overall
	ADH	CCH	KTH	KGH	CMH	MGH	LTH	NTH	
1- FACILITY	57	68	39	51	55	58	60	44	54
2- LAB INFORMATION SYSTEM	0	75	0	0	0	0	58	64	25
3- DATA MANAGEMENT	71	83	87	76	79	74	73	77	78
4- QUALITY ASSURANCE	56	60	56	55	28	59	57	73	55
5- QUALITY CONTROL - MEDIA	29	50	26	58	70	45	38	33	44
6- QUALITY CONTROL - IDENTIFICATION	4	5	7	27	86	4	22	8	20
7- QUALITY CONTROL - AST	0	0	0	0	46	17	26	21	14
8- SPECIMEN COLLECTION, TRANSPORT & MANAGEMENT	82	68	91	29	98	79	42	75	71
9- PROCESSING	71	83	74	81	79	89	79	75	79
10- IDENTIFICATION METHODS & SOPs	12	13	89	54	14	63	15	12	34
11- BASIC AST	55	71	64	48	69	70	51	64	62
12- AST EXPERT RULES	20	80	85	27	83	73	40	58	58
13- AST PANELS, POLICY AND ANALYSIS	15	33	74	40	33	74	46	41	45
SAFETY	75	64	75	57	79	57	82	70	70
Overall Score and Module Score Summary	42	52	59	46	59	59	49	50	52

Key lessons learned:

- ❑ DTCs in place but functionality was suboptimal
- ❑ Hospital leadership should be oriented on the significance of AMS
- ❑ Poor reporting feedback
- ❑ Only three labs had LIS with none of the facilities having an electronic linkage with clinical data
- ❑ Only 25% had antibiograms based on their locally generated data
- ❑ Challenges with supply of laboratory consumables and reagents for culture and AST
- ❑ None of the facilities had the full capacity to effectively support AMS

Conclusion:

- ❑ Low indicator scores indicated the need for improvement in AMS programs and capacitating of the laboratories to effectively conduct AMR surveillance

Authors: Chizimu J, Yamba K, Mudenda S, Masaninga K, Bakayita N, Azam K, Wesangula E, Matu M, Chilengi R



Scaling up structured Antimicrobial Stewardship (AMS) actions, the Zambian Case

through Institutionalized Capacity Building in AMS



Introduction

Antimicrobial resistance (AMR) is the world's most pressing public health problem affecting all countries. Healthcare workers are critical in ensuring the prudent use of antibiotics to prevent the emergence and spread of antibiotic-resistant pathogens. Therefore, institutionalizing AMS programs in health facilities promotes coordinated efforts towards appropriate use of antimicrobials thereby improving patient outcomes. Zambia scaled up AMS interventions through a structured approach.

Modes of intervention

- Partner engagement to harmonize interventions
- Adoption of documents e.g training AMS manual
- Development of Antimicrobial Stewardship guidelines
- Training of TOTs in AMS
- Cascade training on AMS in health facilities
- Point prevalence studies across eight facilities

Key results/outputs:

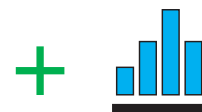
- National antimicrobial stewardship Guidelines and National AMR policy were developed



32 AMS TOT staff



Over 160 staff trained in 8 facilities PPS



- Of the **895 patients**, 71% were on antibiotics but only **7%** were treated based on culture results
- 9% on ≥ 3 antibiotics, 39% on 2 antibiotics, 27.7% patients were on a single antibiotic
- **Only 41%** were in compliant to STGs

Percentage of patients on antibiotics by facility

Facilities		ADH	CMGH	CTH	KCH	KTH	LTH	MGH	NTH
Patients on antibiotics	No (%)	1	45	29	29	41	24	23	30
	Yes (%)	99	55	69	71	56	76	76	69
	Missing (%)	0	0	2	0	3	0	1	1

- **99% of the assessed patients at ADH were on antibiotics**

Authors: Chizimu J, Mudenda S, Yamba K, Azam K, Wesangula E, Matu M, Chilengi R

Key lessons learned:

- Few facilities have trained staff in AMS/AMR
- Treatment is mainly empirical leading to misuse of antimicrobials
- Inadequate compliance to the STG by prescribers
- Most prescribed antibiotics included ceftriaxone, benzylpenicillin, metronidazole

Conclusion:

- Strengthened AMS actions need to be intensified at all levels of care to promote good use of antimicrobials
- Continuous capacity building on AMS is required
- Low numbers of patients treated based on culture results calls for laboratory capacity building and strong communication between the laboratories and prescribers

REGIONAL - ECSA - HC (SPP)

Enhancing early warning and response systems for health emergencies through event-based surveillance in Zambia

Authors: Martin Matu, Davie Simwaba, and Timothy Ayebare

Introduction: Over recent decades, the world is experiencing increasing frequency of high impact health events including disease outbreaks, natural disasters, and terror incident. To achieve this, there is therefore a need to strengthen both indicator-based (IBS) and event-based surveillance (EBS).

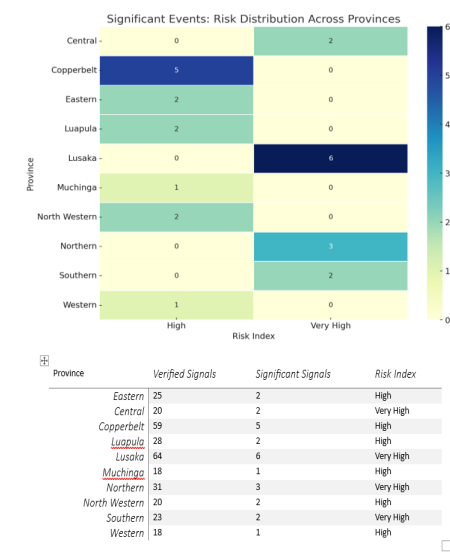
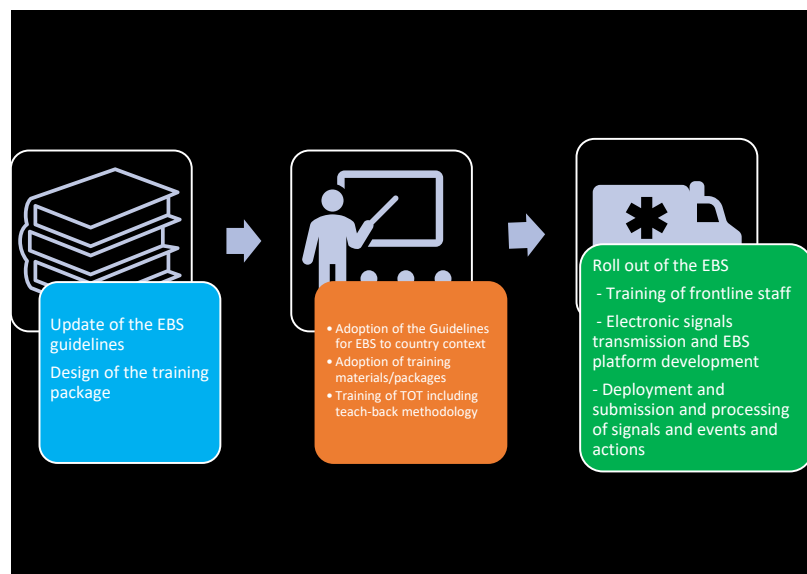
While most countries in Africa have strengthened their IBS component through the Integrated Disease Surveillance and Response strategy (IDSR), their EBS function has lagged. This poster demonstrates the efforts to establish and roll out EBS in the project countries.

Key results:

All the project countries were supported to adopt the EBS framework to national context with about 100 TOTs trained (20 in each country) to lead the roll out of the EBS in the respective countries. Rwanda rolled the event-based surveillance in districts bordering Uganda as part of heightened surveillance for Ebola virus disease (EVD) during the outbreak in Uganda.

Zambia was supported to develop and roll out the electronic EBS model that has recorded 600 signals out of which 26 have been confirmed as outbreaks for Rabies, Scabies, Measles and other high risk events Tanzania was supported to train 826 community health workers (CHW), Health Officers and Health Care Workers (HCWs) to accelerate the roll out of EBS in 5 Districts.

ECSA-HC collaborated with other partners including WHO, Africa CDC, International Organization for Migration (IOM), Jhpiego to foster sustainability.



Key lessons learned:

- Multi-sectoral collaboration in implementing the EBS fosters strong collaboration to enhance implementation.
- The EBS plays a critical role in fostering early warning for health emergencies.
- Involvement of national and other collaborators fosters sustainability of roll out of EBS.

Conclusions:

- This effort is aimed at supplementing indicator-based surveillance to further enhance early warning and response systems to health emergencies.
- Electronic EBS facilitated rapid notification and follow up of reported signals to verify and respond timely.

The Status of IHR Core Capacities at Designated Points of Entry in Malawi and Zambia.

***Benedict Mushi¹, Martin Matu¹, Willy Were¹, Mohamed Mohamed¹, Khalid Azam¹, Vishnu Mahamba¹, Flora Dimba², Innocent Hamuganyi³, Remidius Kakulu⁴, East, Central and Southern Africa Health Community (ECSA-HC)¹, Ministry of Health Malawi², Ministry of Health Zambia³, Ministry of Health Tanzania⁴*

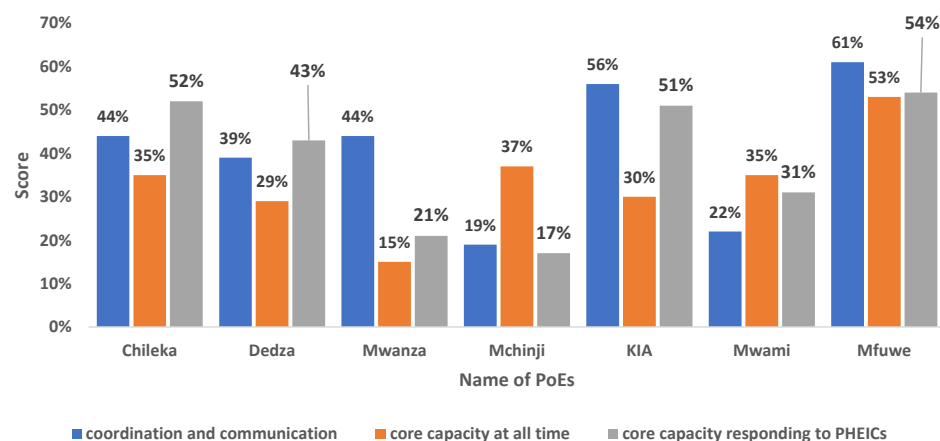
Background: Points of Entry (PoEs) serve as potential hotspots for the introduction and spread of infectious diseases, including emerging and re-emerging pathogens. Strengthening disease surveillance through enhancing IHR core capacities at PoEs is a critical component of global health security. Assessing core International Health Regulation (IHR) capacities at Points of Entry (PoEs) is essential as it plays a crucial role in protecting global public health and ensuring a coordinated response to international health emergencies.

ECSA-HC in collaboration with Malawi and Zambia conducted IHR core capacity assessment at selected PoE(s). The objective of this assessment was to document the status of existing International Health Regulations (IHR) core capacities of designated international airports and ground crossings in Malawi and Zambia and identify critical capacity gaps and develop action plan for enhancing IHR core capacities at these PoEs.

Methods: A team of assessors from both Malawi and Zambia were oriented on the assessment tools and protocols. Data were collected from April to August, 2023 in 7 designated POEs. These PoEs were selected for their high volume of passenger and goods traffic: Malawi (Kamuzu and Chileka International Airports, and Dedza, Mchinji, and Mwanza ground-crossings) while for Zambia (Mfuwe International Airport and Mwami ground crossing). The World Health Organization (WHO) assessment tool for core capacity requirements at designated airports, ports and ground crossings was used to collect data on three technical capacities: (i) communication and coordination, (ii) Capacities at all times and (iii) capacities to respond to Public Health Emergencies of International Concern (PHEIC)

Results:

Scores of all areas of IHR capacity assessment for PoEs in Malawi and Zambia



Mfuwe, Kamuzu(KIA) and Chileka International Airports scored higher than the ground crossing PoEs (Mwami, Mchinji, Mwanza and Dedza). Mfuwe recorded the highest percentage for all groups of capacities, coordination and communication and for core capacity at all times with a percentage of 61%, 53% and 54% respectively. For core capacity to respond to PHEIC, all the ground crossing POEs of both countries recorded below 50%. All the three International Airports had a public health emergency contingency plans unlike the ground crossing PoE(s). There is no documented SoP(s) for communications, detection and reporting of ill travelers, no isolation/quarantine and transport capacity (ambulances) at the POEs.

Conclusion: All POEs assessed did not meet IHR standards of 80% and above and need significant improvement to fulfill the IHR requirements. This assessment saved as a baseline for the PoE(s), strategic improvement plans were developed to address the gaps identified, the plans will be used for resource mobilization to improve IHR core capacities at these designated POE(s).

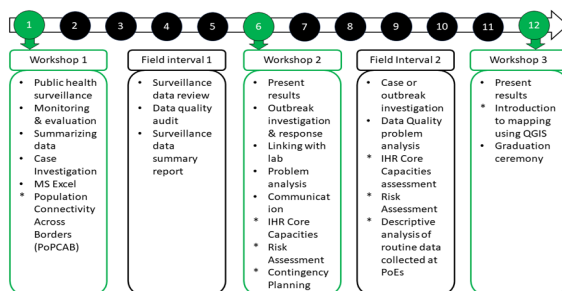


Strengthening Public Health Surveillance at Points of Entry: A Tanzanian Case Study of FETP-Frontline Adaptation



Introduction In our increasingly interconnected world with rising global health risks, the competence of Points of Entry (PoE) staff in epidemiology is essential. This study describes the ECSAHC support to the adaptation of the Field Epidemiology Training Program (FETP)-Frontline curriculum and Training of POE staff in order to meet the specific requirements of PoE surveillance officers and evaluates the performance of the first cohort who completed the training program.

Implementation



We followed the standard FETP-Frontline curriculum and made specific enhancements in each workshop to include POEs specific competency. We utilized a quasi-experimental design, specifically a pre-post study, to assess and compare the trainees' knowledge before and after completing the training.

Results We recruited and trained 30 Port Health Staff from 25 PoEs in Tanzania, Majority of whom being male (n=23, 76.7%). The Mean Knowledge Scores after both Workshops 1 and 2 increased by 17.4 (95% CI, 12.72, 22.08) and 15.25 (95% CI, 11.03, 19.47) points respectively. Trainees' self-assessed skill levels in the descriptive and analytical epidemiology, steps of outbreak investigation, problem analysis, and creating maps using QGIS more than doubled.

Table 2: Difference in trainees' mean knowledge scores before and after Workshops 1 and 2 (n=30)

	Pre-test Mean Knowledge Score (SD)	Post-test Mean Knowledge Score (SD)	Difference in Mean Knowledge Scores (95% CI)	Percentage Improvement	P values
Workshop 1	54.23 (10.02)	71.63 (11.03)	17.40 (12.72, 22.08)	32.08	<0.001
Workshop 2	54.05 (9.16)	69.30 (8.59)	15.25 (11.03, 19.47)	28.21	<0.001

Authors

Dr Mohamed Mohamed, Dr Ally Hussein, Dr. Nsiande Lema, Dr Vida Mmbaga, Mr Nsalile Mwangoka, Dr Mucho Mizinduko and Ramidius Kakulu.

Key lessons learned: The changes made to the curriculum hold immense importance in imparting specific knowledge and skills to surveillance officers at PoEs. These changes can serve as a valuable model for other countries seeking to strengthen the capabilities of their POE staff.



Conclusion: Our efforts to tailor the FETP-Frontline curriculum to the specific needs of surveillance officers at PoEs in Tanzania have yielded significant enhancements in their knowledge and skills. These curriculum revisions serve as a beacon of innovation, departing from a one-size-fits-all approach and instead addressing the unique context and risks faced by port health staff.

Strengthening Regional Healthcare Capacity: Key Outcomes and Lessons from the ECSA-HC Digital Academy

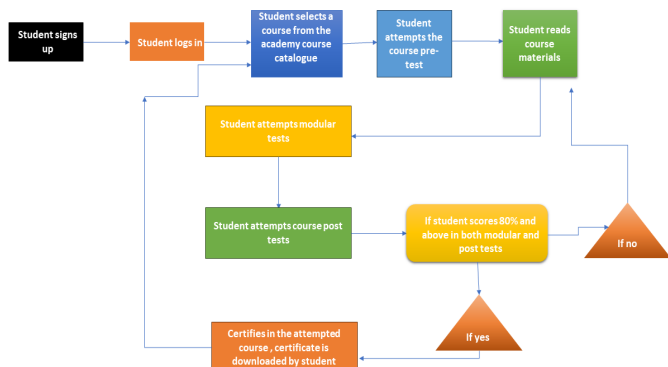
Author: Timothy Ayebare

Introduction: In a rapidly changing healthcare landscape fraught with challenges such as disease outbreaks and antimicrobial resistance, the ECSA Health Community (ECSA-HC) stands at the forefront of public health initiatives in the Eastern, Central, and Southern Africa region. The ECSA-HC Academy is a pivotal part of this ecosystem, functioning as an online platform that focuses on specialized courses essential to modern healthcare systems. These include Antimicrobial Stewardship, Laboratory Management, Event-Based Surveillance, and Infection Prevention and Control, More courses are planned to be added to the platform

Key results:

Country	Total Students	Certified Students
Tanzania	86	47
Uganda	32	19
Malawi	24	12
Kenya	22	13
Rwanda	22	11
Total	186	102

System Flow



Key lessons learned:

- Specialized Courses: High enrollment and certification validate their critical role.
- Online Engagement: Successful in reaching a diverse range of professionals across countries.
- Regional Focus: Enables targeted, impactful course material.
- Multi-Disciplinary Approach: Variety in courses adds value to healthcare education.

Conclusions:

- The ECSA-HC Digital Academy has successfully contributed to regional capacity-building by offering specialized healthcare education to professionals across the Eastern, Central, and Southern Africa region. With notable enrollment and certification figures, the platform has affirmed its role as a key asset in strengthening public health systems in the region.

Strengthening Biosafety and Biosecurity through a comprehensive One Health approach

Khalide Azam and Martin Matu

Introduction

Biosafety and Biosecurity are critically important in various settings, including laboratories, healthcare facilities, research institutions, and other organizations working with biological agents and materials. These concepts help ensure the safe handling, storage, and disposal of biological agents to prevent accidental exposures, protect public health, and safeguard against intentional misuse. ECSA-HC, through the SATBHSS and SPP Projects, supported the countries to strengthen Biosafety and Biosecurity using One Health.



Practical session during the trainings

	Lesotho	Malawi	Mozambique	Rwanda	Tanzania	Zambia
Training of Trainers	Yes	Yes	Yes	Yes	---	---
Training on ISO 15190: 2020	Yes	---	---	---	---	---
Development of Strategic Plan	Yes	Planned	Planned	Yes	---	---
Development of Training Curriculum	Yes	Yes	Planned	Planned	---	---
Step Down Training	Yes	Yes	---	Planned	Yes	Yes
Development of National B&B Guidelines	---	Yes	---	---	---	---

Next Steps

- Officiate the One Health Technical Working Group
- Endorse Policies and Guidelines developed
- Implement the Strategic Plan

Conclusion

The One Health approach emphasizes the interconnectedness of human health, animal health, plant health and environmental health. Enhancing biosafety and biosecurity within this framework through collaborative efforts from various stakeholders ensure prevention, detection, and response to biological threats that can impact humans, animals, plants and the environment.



REGIONAL APPROACHES TO IMPLEMENTING ANTIMICROBIAL STEWARDSHIP AND SURVEILLANCE PROGRAMS IN EAST CENTRAL AND SOUTHERN AFRICA

Authors: Evelyn Wesangula, Khalide Azam, Martin Matu

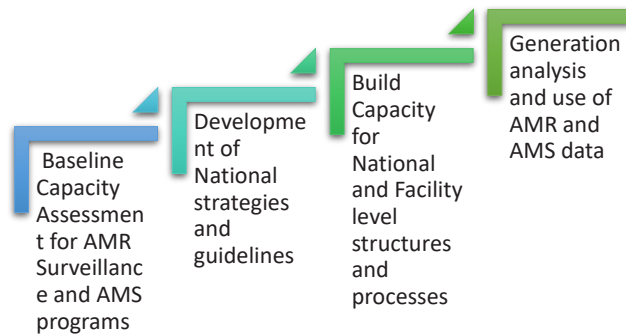


INTRODUCTION

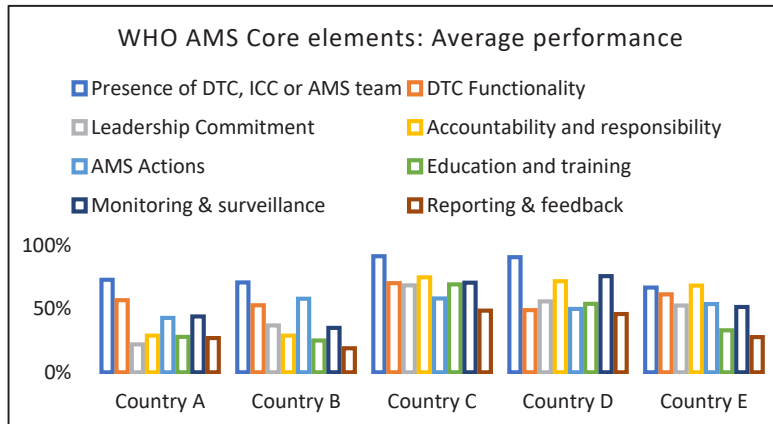
Antimicrobial resistance (AMR) is a growing public health concern in Africa, where access to antimicrobials and laboratory diagnostics is limited and inappropriate use common. Implementing Antimicrobial stewardship (AMS) programs in Africa faces challenges like limited resources and weak health systems. Well-coordinated context specific regional approaches to implement AMS programs may help overcome these challenges.

APPROACH

Stepwise through baseline capacity assessments evaluating laboratory AMR Surveillance and AMS capacities using WHO AMS Checklist and the CDC Laboratory Antimicrobial Resistance Assessment Capacity (LAARC) tool followed by development of AMS and AMR surveillance frameworks.

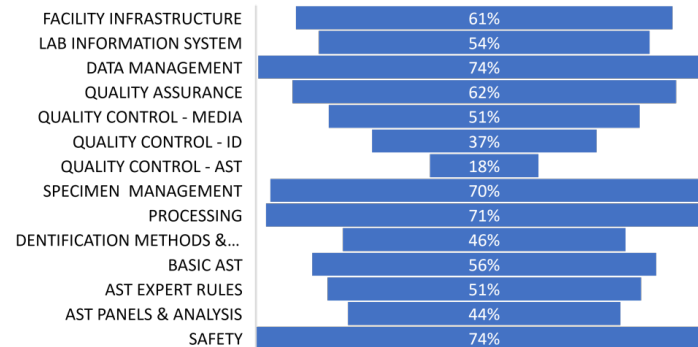


RESULTS



LABORATORY CAPACITY ASSESSMENT

N=30



RESULTS

- Key strengths in AMS included availability of DTC, ICC and AMS teams, accountability and responsibility and DTC functionality
- Areas that need attention are reporting and feedback, education and training
- Best performing areas on AMR surveillance are safety, data management, specimen management and processing while quality control was the weakest point

OUTPUTS

- All five countries have in place National AMS guidelines
- 5 countries are actively implementing antimicrobial stewardship programs
- 4 have conducted an antibiotic Point Prevalence Surveys
- 2/5 countries developed national AMR Surveillance strategies from a One Health Approach

LESSONS

- Concurrent capacity building for AMS and Microbiology capacity provides data for strong and sustainable foundations
- Collaboration between countries and international organizations can facilitate the implementation of effective context specific and sustainable AMS programs.



ASSESSING ANTIMICROBIAL RESISTANCE PROGRAM CAPACITIES FOR DATA MANAGEMENT, MONITORING AND EVALUATION IN SELECTED COUNTRIES.



Authors: Evelyn Wesangula^{1*}, Hannington Amadi², Susan Githii³ Martin Matu¹

¹Strengthening Pandemic Preparedness, East Central and Southern Africa Health Community, Arusha, Tanzania, United Republic of, ²ICT, AMPATH

PLUS, Eldoret, ³National Public Health Laboratories, Ministry of Health, Nairobi, Kenya

INTRODUCTION

Countries within the WHO Afro Region have developed and are implementing National Action Plans (NAPs) on Antimicrobial Resistance to combat the growing threat of antimicrobial resistance.

Thirty-six published their NAPs on the WHO database for AMR NAPs

Priority was placed on generation of data on antimicrobial resistance and antimicrobial use and consumption to strengthen the local evidence base.

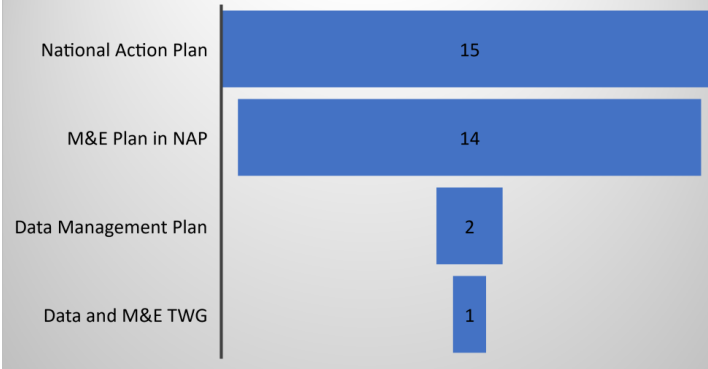
APPROACH

- Desk reviews of 15 NAPs, published in English, from the WHO AFRO database was conducted to ascertain considerations for data management, monitoring and evaluation plans for NAPs.
- Simple checklist was applied among selected National AMR focal points to understand the perceptions on AMR national coordination committees capacities on data management, monitoring and evaluation.
- Development of a training package for data management and monitoring and evaluation

RESULTS

- ✓ Due consideration was made for technical areas as defined within the Global Action Plan on AMR.
- ✓ Fourteen countries (93%) had an M&E plan embedded within the NAPs.
- ✓ Critical support functions like data management, monitoring and evaluation for effective management and use of data generated had limited consideration.

Considerations for Data Management and Monitoring & Evaluation in AMR National Plans (n=15)



OBSERVATIONS

- Five selected countries have databases for electronically capturing and storing data
- One in five countries has a National Surveillance Data Management and M&E Plan
- None has dedicated data management and monitoring and evaluation unit
- Program staff require additional technical capacity for data management and M&E.

CONCLUSION

- Findings indicate an urgent need for deliberate building of country capacities for data management, monitoring and evaluation for AMR programs at all levels.
- Investment in data management and M&E plans will ensure surveillance systems have integrity, quality and accessible data and interoperable systems to enhance effective analysis, reporting and data use for decision making.

ACKNOWLEDGMENT

Dr. Joseph Chizimu- AMR Focal Point Zambia;Emiliana Francis- AMR Focal Point, Tanzania; Misbah Gashegu- AMR Focal Point Rwanda;Dr. Emmanuel Tanui- AMR Focal Point, Kenya;Ellen Banda- AMR Coordinator Malawi

CELEBRATION OF ECSA-HC GOLDEN JUBILEE

REMARKS AND VOTE OF THANKS FROM THE DIRECTOR OF OPERATIONS AND INSTITUTIONAL DEVELOPMENT



Mr. Sibusiso Sibandze (BA. Msc)

The East Central and Southern Africa Health Community (ECSA) is approaching a significant milestone - its 50th anniversary. This momentous occasion provides an excellent opportunity to reflect on the achievements and progress made in advancing healthcare in the region. The celebrations, scheduled to take place in Tanzania between March and April, will be a week-long series of events beginning with the Best Practices Forum (BPF), followed by the DJCC and culminating into the 73rd Health Ministers' Conference (HMC) which will host the main event.

THE KEY ACTIVITIES FOR THE 50 YEARS CELEBRATION

MAIN EVENT: The ECSA-HC 50 Years Golden Jubilee, scheduled for March 2024 in Tanzania, marks the culmination of a series of significant meetings, including the DJCC and Health Ministers Meeting. It is envisioned that all attendees of these prior gatherings will actively partake in this main and final event. Notably, ECSA-HC intends to extend a cordial invitation to the Head of State of the United Republic of Tanzania to officiate the event, adding to its prominence. One of the highlights of the jubilee will be the launch of ECSA-HC's strategic plan for the period 2023-2033, setting the organization's course



for the upcoming decade. Additionally, another important document to be unveiled and shared during the event is the 50 years ECSA-HC achievements report, chronicling the organization's accomplishments over the past five decades. With a mix of celebration, reflection, and forward-thinking, the ECSA-HC 50 Years Golden Jubilee promises to be a momentous occasion that unites key stakeholders and charts a course for continued progress in the region's healthcare landscape. An exhibition shall be organized to showcase ECSA-HC's and other partners and private sectors activities/work.

We sincerely thank you for the continued to ECSA-HC. Wishing every of us a great professional experience , networking during this last RAC for the SATBHSS and SPP projects.

JOINT REGIONAL ADVISORY COMMITTEE MEETING FOR THE SOUTHERN AFRICA TUBERCULSOSIS HEALTH SYTEMS SUPPORT
AND STRENGTHENING PANDEMIC PREPAREDNESS PROJECTS

