Implementation Status, Achievements, Lessons and Future Plans
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Regional context

- **One third of high burden TB countries are in Southern Africa**, including the four project countries;

- **Highest TB/HIV co-infection rates** (50-77% in project countries);

- **High levels of poverty** (50-60%) which contribute to and exacerbate TB;

- **Intra-regional movement** of people and goods along porous borders for labor and other economic activities historically associated with disease transmission, including TB & other infectious diseases;

- **Mining activity** a double edged sword being a major source of income for a number of countries while on the other hand being a historical facilitator for transmission of TB and other occupational lung diseases;

- The region has experienced **public health emergencies** such as the recent cyclone (Idai and Kenneth) that affected Malawi and Mozambique and other neighbouring countries with risks for outbreaks of cholera and other diarrhoeal diseases;

- **Zambia shares borders with DRC** that has been a hot spot for Ebola virus disease (EBV) outbreak in the few past years with many informal crossings, coupled with inadequacies in isolation facilities; competencies of frontline workers;

- **Health systems** which are poorly equipped to respond to the magnitude of the TB burden & other disease outbreaks.
- Countries recording increasing case notification for TB and falling incidence owing partly to the ART coverage high;
- Huge number of cases not being diagnosed and reported despite increasing case notifications;
- Over 49,000 and 78,000 death occurred in 2017 due to TB in Mozambique and South Africa respectively;
- Impacts the most productive segments of the region’s population, youth and young adults, who are most predisposed to the key risk factors for TB (HIV/AIDS, smoking and alcohol.)
Growing Drug Resistant TB with gaps in quality of TB care

- Rates: 3.5% of new cases and 18% retreatment (2017)

- Only 41% of the estimated MDRTB Cases were detected in 2014 & no major improvements since then.

- Surveillance for DRTB among retreatment cases: Mozambique : 22%, Lesotho 5%, Malawi 31%.

- Significant detection – treatment gaps persist: Mozambique 482/544, Lesotho 148/152, Malawi 64/106
Systems impediments to tackling TB and occupational lung diseases and emerging public health threats

- Weak health systems that are poorly equipped, limited diagnostic capacity
- Human workforce - skewed distribution, limited skills in critical areas especially in occupational health and safety and low high staff attrition
- Lack of supportive up to date legislation to facilitate enforcement of mine health regulations and effective compensation schemes
- Poor disease surveillance, outbreak and disaster response systems

Project Summary

OBJECTIVES:
- Improve coverage and quality of key TB control and occupational lung disease services
- Strengthen regional capacity to manage the burden of TB and occupational diseases

COMPONENTS:
- Innovative Prevention, Detection and Treatment of TB (US$45.49 Million)
- Regional Capacity for Disease Surveillance, Diagnostics and Management of TB and Occupational Lung Diseases (US$43.19 Million)
- Regional Learning and Innovation and Project Management (US$33.32)

TARGETED APPROACH:
- Mining, peri-mining communities
- High TB or HIV burden “hot spots” areas
- Border districts and transport corridors
- Areas of high incidence of poverty
Key Features

- **Country ownership**, led by governments with close multi-sectoral coordination among key ministries and private sector

- **Countries’ leadership**, countries taking regional leadership in specific thematic areas

- **Multi-sectoral approach** tackling a common problem by enhancing partnerships between health, mining, labor, legal and other sectors

- **Regional leadership**, closely coordinated with AU/ACDC, SADC, and other key partners (CDC, WHO, GFATM)

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**Supporting Key interventions and innovations to tackle TB, OLD and outbreaks management**

- New diagnostics
- MDR-TB wards
- Legislation and mine health regulations
- Regional centres of excellence
- Cross-border surveillance and continuum of care
- Mobile x-ray to reach communities
- Service delivery
Service Delivery

Demand side interventions to promote early TB screening and treatment adherence

Expanding screening and referral of occupational lung diseases and other co-morbidities (e.g. diabetes)

Cross border TB care referral systems complementing/scaling-up efforts of SADC & IOM

Performance based contracting of NGOs (e.g. Riders for Health for specimen transportation)

Implementation Progress

1 Enhancing TB case detection and treatment success

Innovative Prevention, Detection and Treatment of TB

- Improved TB case detection in general and key populations including miners and ex-miners with enhanced capacity for case finding through Mobile X-rays, GeneXpert network, community based initiatives etc

- Rolled out nutritional and psychosocial support for TB and DR patients to increase adherence to treatment, treatment success rate and reduce the adverse effects of TB treatment – treatment outcomes have improved with some countries already meeting the WHO target of 90% TSR

- Enhanced capacity for MDR-TB management and Patient social support by training frontline health care workers

- Strengthened TB infection control programs and established wellness clinics to enhance HCW screening for TB

- Expanded specimen transport systems to ensure a more reliable and efficient system building upon existing specimen transport networks
Other notable innovations

- Malawi rolled out an innovative approach for community m-health using portable tables/mobile phones to link patient to diagnosis and treatment

- With regional support established programs for infection control in correctional facilities (prison) in Lesotho to minimize TB infection transmission in the set up

- Community engagement with expanded sputum collection points established with community volunteers deployed to support sputum collection, linking patients to care and following up on treatment

- Zambia established system for mapping hotspots for MDR-TB and engaged MDR-TB nurses to enhance care and treatment adherence
## Progress Towards PDO Indicators

The progress towards achievement of the PDO is on-course

<table>
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<tr>
<th>PDO Indicator</th>
<th>Baseline</th>
<th>Current (Cumulative Achievements Year 1 &amp; Year 2)</th>
<th>MTR target (Cumulative Targets for Year 1 &amp; Year 2)</th>
<th>End Target</th>
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<td>POI #1. TB case notification in target geographic areas</td>
<td>83,045</td>
<td>192,436</td>
<td>185,746</td>
<td>296,072</td>
</tr>
<tr>
<td>POI #2. TB Treatment success rate in target geographic areas: All (i) New and (ii) Relapse TB cases (Percentage)</td>
<td>81.3%</td>
<td>85.8%</td>
<td>88%</td>
<td>90%</td>
</tr>
<tr>
<td>POI #3. TB cases identified through active TB case finding (screening) among TB vulnerable population in target geographic areas (Number)</td>
<td>11,932</td>
<td>23,173</td>
<td>36,715</td>
<td>67,215</td>
</tr>
<tr>
<td>POI #4. Project supported laboratories compliant with regionally harmonized SOPs for surveillance of MDR-TB*</td>
<td>58</td>
<td>NA</td>
<td>74</td>
<td>100</td>
</tr>
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<td>POI #5. Direct beneficiaries (Number), and the share of females among them (percentage) - (all diseases within health facilities including TB).</td>
<td>718,967</td>
<td>27,188,447</td>
<td>1,699,621</td>
<td>3,112,114</td>
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3 Improving quality and availability of human resources

Diagnostic Capacity Improvement

1 Training over 4500 regional personnel at country and regional level to build capacities in various priority areas including:
   - Management of MDR-TB
   - TB infection prevention and control
   - Occupational health and safety
   - Operational research and
   - Diagnostics and Drug susceptibility testing etc
   - Laboratory systems improvement and Accreditation (SLIPTA),

2 Training through in-service/short-term and long-term training (Masters degree training)

3 Engaged the Field Epidemiology Training Program (FETP) and trained epidemiologists and support work

4 Strengthening diagnostic capacity and disease surveillance

   - Enhanced capacity for TB testing through expansion of Xpert network, roll out of WHO recommended diagnostics (WAD) and drug susceptibility testing (DST) – 1st line and 2nd line DST
   - Improved laboratory capacity to expand services e.g. renovation and enhancement of National TB laboratory in Lesotho to BSL3 to process TB culture and DST initially covered by South Africa
   - Rolled out a peer laboratory audit model and annual regional peer SLIPTA assessment for quality systems improvement:
     - 100% (11/11 audited labs) with 2 stars and above in 2019 an improvement from 2017 assessment (42%; 5/12)
     - Two laboratory in Zambia have been accredited using the gold standard ISO15189
South to South learning with auditors from East Africa Public Health Laboratory Networking Project seasoned laboratory auditors and ASLM

**Disease surveillance, preparedness and response**

- Enhanced cross-border pandemic preparedness, disease surveillance and response to infectious diseases through simulation exercises (cholera, ebola, leptospirosis and rabies) and threats and hazards identification and preparation of preparedness plans

- Jointly investigated and managed outbreaks of infectious diseases for human and zoonotic diseases
  - Cholera outbreak investigations (Malawi/Tanzania)
  - Anthrax outbreak in Lesotho (Lesotho/South Africa)

- Mapped cross-border zones and enhanced cross-border collaboration with other countries (spill-over but beneficial effects) that are Hotspots for disease outbreaks – DRC (EBV), Zimbabwe (cholera)

- Rolled out Events based surveillance (using community events) in Zambia to facilitate timely detection of events through community systems, mount timely investigations and response to public health threats working with Africa CDC

- Supporting countries to prioritize and address key IHR core capacity gaps identified in the Joint external evaluation

**Mine health regulations**

- Supporting acceleration of development of Legislations and regulations on mine health, OHS and compensation

- Increased mines inspection to enhance compliance to OHS regulations and reduce risks for workers on safety and transmission TB and Occupational lung diseases (OLD)
  - Zambia MSD inspected 68.1% of mines for compliance
  - Malawi and Lesotho conducted inspection for the first time

- Enhanced capacity with necessary equipment and skills for diagnosis of OLD and support primary and secondary prevention of OLD
- Expanded the programs for periodic screening and referral for OLDs

5 Operational Research, Knowledge Sharing and partnerships

Regional studies have been initiated at regional level in collaboration with the countries and local and international stakeholders

- Five regional and country led operational research completed

- Data collection has commenced for the following studies and completion expected by October 2019:
  
  - Cost benefit analysis, and health impacts of targeted interventions,
  
  - Regional protocol for Out-of-pocket expenditure as a barrier to access to TB services and
  
  - A study to assess the implementation of SADC harmonized TB guidelines and protocols has also commenced and
  
  - a Study on Mine Health Regulation

and Occupational Health and Safety Service in Southern Africa to assess the engineering and management systems in place for mine dust control and monitoring practices

- Clients’ satisfaction assessment has been incorporated as routine program in the project countries

- Rolled our knowledge sharing platforms and ICT technologies to increase efficiency in operations and enhance learning (Communities of practice, use of social media for disease intelligence systems etc)
Partnerships and Collaborations between project countries with other countries and other regional programs to leverage on technical and financial support

Strategic synergies with other regional initiatives:

- East Africa Public Health Laboratory Networking Project to enhance capacities for laboratory systems and pandemic preparedness and response;
- Uganda Supranational Reference Laboratory (Uganda SRL) providing technical assistance for TB laboratory strategic planning and rolling out WHO recommended diagnostics and drug sensitivity testing (DST);
- Global Fund TB in the Mining Sector (TIMS) Program for TB and occupational lung diseases management through one stop occupational health centres.
Emerging lessons

- Importance of scaling up countries' innovations on key strategies to enhance active case detection and improving treatment outcomes

- Role of multi-sectoral collaboration i.e. involving ministries in charge of health, labour and mining to ensure full spectrum of care and service delivery and collaboration for disease intelligence sharing and effective joint response

- Need for coordinated efforts in the implementation of the project with countries especially in rolling out cross border continuum of care and outbreak management and linkage with other programs for technical and financial synergies

Challenges and opportunities

Accelerated implementation in Malawi and Lesotho and to some extent Zambia resulted to increased disbursement creating a challenge of the countries running out of funds before the project closing date.

While collaboration was established between the collaborating Ministries, there is need to enhance further the inter-sectoral collaboration in order to realise the expected impact.

Experienced substantial delays in executing regional studies and future implementation of operational research should focus on mentorship for countries executed nimble implementation research studies
Key MTR conclusions and future directions

Main conclusions/observations

The project has received strong ownership and support by the respective Government and countries have set up strong coordination teams that have enabled the project to strongly progress towards meeting the PDO. Three out of the four countries had commendable disbursement (45-88%).

The project has progressed well towards meeting the Project Development Objective (PDO).

In addition to tackling TB, the project has supported countries to respond to major outbreaks on cholera and other public health emergencies & to prepare for disease outbreaks, however, this has need to be adequately captured in the PDO.

NEPAD and ECSA HC have supported strongly in countries’ interventions and realizing the outcomes. Additional suggestions have been proposed to ensure the two regional organizations more efficiently implement cross-border interventions/ regional activities to achieve better impact.

Results framework indicators largely remain relevant, however, some new new indicators were suggested to reflect the strategic directions the project.

The center-for-excellence are key to supporting the countries to meet the end-TB targets, although the implementation pace has been slow and need to be accelerated to realize the expected outcomes.

Future directions

Key cross-cutting high impact interventions for scale up during the remaining period;

- Intensified case finding to find missing cases through scale up Active Case Finding (ACF) in the most vulnerable groups (miners, ex miners, diabetic, PLWHA, their families, health care workers) using more sensitive screening tools such as digital CXR, further increasing access to GeneXpert;
- Improving treatment outcomes (and reduce significantly TB mortality) through enhanced quality assurance/quality improvement for TB management and improved patient tracking and patient support;

- Improving cross-border TB care, including continuum of care;

- Expanding cross-border disease surveillance, preparedness and response interventions for infectious diseases;

- Implementation of International TB Standards of Care and scaling up primary prevention for occupation lung diseases;

- Accreditation of laboratories and achievement of common standards;

- Training & knowledge sharing on key priority existing and emerging capacity gaps

Target implementation to scale, decentralize service delivery and adopt more technologies and innovations during the implementation period to realise and surpass the set goals.