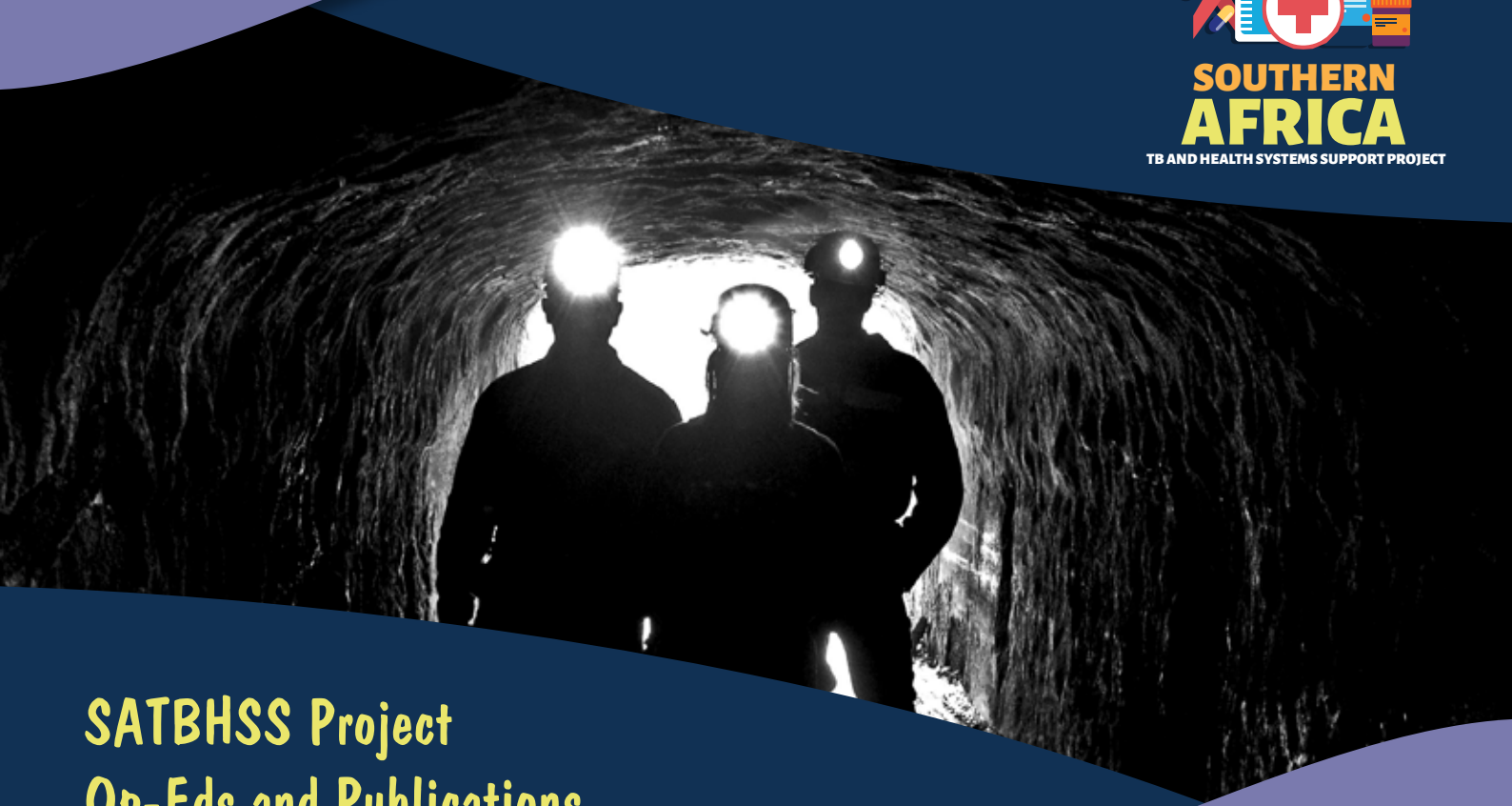
SOUTHERN AFRICA
TB AND HEALTH SYSTEMS SUPPORT PROJECT



SATBHSS Project
Op-Eds and Publications

2017

Tackling the scourge of TB in Southern Africa

The worldwide battle against tuberculosis (TB) reached a turning point in 2015, when TB became the leading global cause of death from an infectious disease, surpassing HIV/AIDS. Southern Africa is bearing the brunt of this crisis. One third of the countries worldwide with the highest TB burdens are in Southern Africa, and the rates of TB in the region are among the highest on the continent, and showing few signs of slowing down. Furthermore, the emergence of multi drug resistant TB (MDR-TB) is an even bigger threat, as treatment is dramatically more expensive, lengthier and more toxic.

TB is an infectious disease which is fueled in Southern Africa by intraregional activity, including cross-border trade, patterns of migration, and labor from neighboring countries moving to South Africa, particularly to support its mining industry. While such activity is critical for advancing economic opportunities, it has also made efforts to control diseases such as TB more challenging. It is critical that political leaders, ministries of health, mines, labor and the mining industry itself work across borders in a proactive, strategic manner to address TB as a public health issue—one that threatens to undermine economic gains in the region.

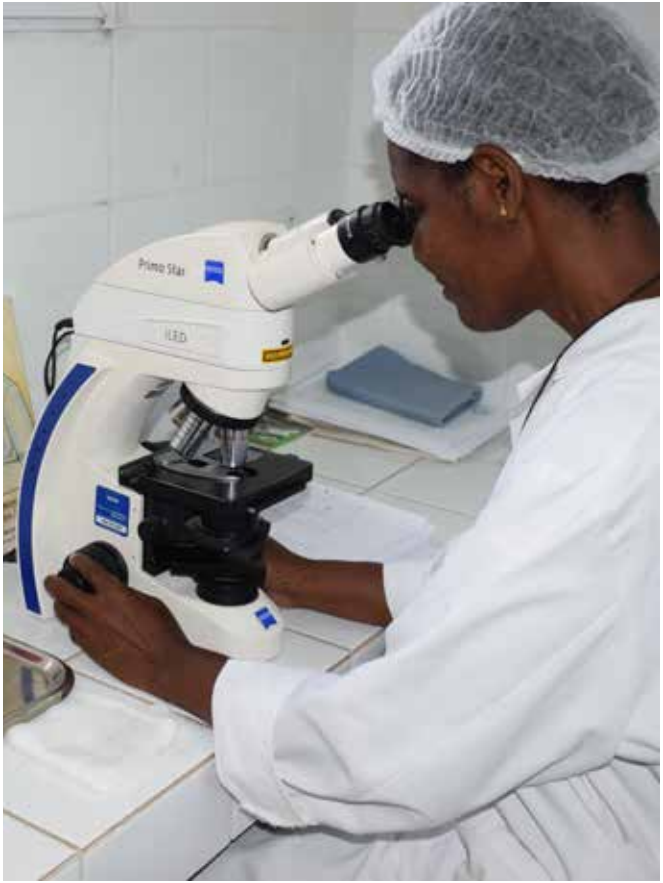
This week on December 7, Maputo is playing host to delegations from seven countries comprised and lead by Ministers of Health and Labor, senior representatives of regional organizations and international agencies the launch of an innovative regional effort which bolsters our collective efforts on this front. This $122 million collaboration, called the Southern Africa Tuberculosis and Health System Support Project, brings together Lesotho, Malawi, Mozambique and Zambia to support a regional response to TB and occupational lung diseases, as well as to strengthen health systems and improve the region's capacity to manage TB. Supported by the World Bank, the project will target individuals and families affected by TB in mining communities, in transport corridors and cross-border areas across the four countries which are particularly vulnerable to the disease. It will also focus on regions with high rates of both TB and HIV/AIDS: between 55 and 70 percent of those with TB also have HIV/AIDS, putting Southern Africa at the epicenter of these dual epidemics.

Addressing TB in the mining sector is essential. South Africa's mining sector has historically attracted large numbers of workers from neighboring countries. About 40 percent of the estimated 500,000 workers in South Africa's gold mines originate from Lesotho, Mozambique and Swaziland. In South Africa alone, TB rates within the workforce are estimated at 2,500 -3,000 cases per 100,000 individuals – an incidence which is 10 times what the World Health Organization (WHO) terms a health emergency.

For Mozambique, the project will have a dual focus, tackling a burden of TB linked to historical cross-border migration particularly from the southern provinces to South Africa and building systems and rolling out services to position Mozambique's own rapidly expanding mining sector to better manage TB and other occupational lung diseases.

Importantly, this project will build upon recent collective efforts among countries in the region to tackle TB. These include the August 2012 passage of a declaration by the Heads of State of Government of the Southern African Development Community to eradicate TB in the mining sector; and the development of a regional framework that harmonizes treatment, prevention, diagnosis and referral services across the four countries so that mineworkers who start treatment in one country could receive continued care in the neighboring country. This regional effort also learns important lessons from an earlier project working with mineworkers in South Africa and the region, which has helped to introduce innovative ways of finding and managing cases of TB.

While the Southern Africa region has seen GDP growth above 4 percent since 2005, continued high levels of poverty and inequality and the presence of diseases like TB are holding our region back from enjoying truly sustainable and inclusive growth. It is imperative that nations in the region ramp up working in an integrated manner to build awareness about TB, promote proven interventions and create opportunities for learning across countries. I look forward to working with my minister of health colleagues across the region on this: the future economic growth of Southern Africa depends on it.



A pan-African effort is needed to lead the global fight against tuberculosis

Forget AIDS, malaria, SARS or Ebola. The real threat to global health is an old and well-identified foe that caused nearly 25% of all deaths in Europe in the 18th century: tuberculosis (TB). Unfortunately, the world is being complacent about it. The fight against TB has lagged behind. Who knows for instance that TB is among the top ten causes of death globally and the leading infectious cause of death with 1.5 million people dying every year due to the disease? The United Nations (UN) aims to eradicate TB by 2030 but in order to achieve this bold objective, policy makers and international bodies should remember some of the lessons learned during the fight against malaria and HIV/AIDS.

Today, the TB epidemic is particularly prevalent in Africa. But, beyond the huge challenges it poses to health and economic development on the continent, the hot spots found in Africa form pockets of resistance and hotbeds that could jeopardize the global control of tuberculosis and undermine global health. For instance, out of the estimated 10.4 million people who fell ill with TB in 2015, 2.7 million originated from Africa. The continent accounts for 281 new TB cases per 100,000 population. This exceeds the World Health Organization (WHO) emergency threshold of 250 per 100,000 and accounts for 34% of TB deaths.

Compounding Africa's response to TB is the proliferation of Multidrug-resistant tuberculosis (MDR TB), which may be even more prevalent than previously appreciated. MDR TB, which infects an estimated 450,000 people worldwide every year, is not new. It has been recognized since the first WHO global survey on drug resistance in the late 1990s. However, research shows that drug resistance has reached alarming levels with the emergence of strains that are virtually untreatable with existing drugs. The recent report of an outbreak of extensively drug-resistant TB (XDR TB) in South Africa, with its extremely high case-fatality rate, has drawn wide attention. Co-infection with HIV/AIDS also exacerbates the TB challenge in Africa. There is a real danger that these new forms of TB expand out of Africa because of the highly contagious nature of TB.

If the continent is to win the war against TB by 2030, efforts have to be targeted where it matters most: in the vulnerable communities and hot spots for the spread of the disease such as mining communities (more vulnerable because of silica dust exposure), transport corridors, labour sending communities, correctional facilities, migrants and refugees. The unique relationships between TB and HIV, TB and poverty, and TB and mining require a multi-sectorial integrated approach. For instance, involving organisations responsible for labour and mining will facilitate tackling TB as an occupational disease. Investment from the private sector can also accelerate the fight against TB in Africa.

Also, as is often the case, the best solutions to common challenges facing African countries are often found at the regional level. As a communicable disease, TB moves across borders and hence efforts need to focus on tackling the challenge as a regional public health challenge. The good news is that regional efforts have been initiated in Regional Economic Communities (RECs). For instance, the Southern Africa Development Community (SADC)

region adopted Harmonized TB Management Guidelines and Cross-border Referrals in the Mining Sector. This is the first true effort to coordinate a regional policy and should serve as a basis for future action.

African countries need to build on these initiatives by investing in rapid diagnosis and treatment of cases. Unfortunately, most health systems on the continent face huge challenges, including limited human resources and financing, weak laboratory diagnostic capacity, weak and non-standardised TB prevention and treatment strategies and protocols as well as weak occupational health systems.

The World TB day commemoration on March 24 presents African governments with an opportunity to take stock of actions being taken and galvanise efforts towards ending TB by 2030. One piece of good news on this front is that the UN has grasped the emergency and will hold a high level meeting on TB in 2018. This will allow the international community to define a global strategy that will also be the topic of a WHO global ministerial conference on the fight against TB to be convened in November 2017 in Moscow. Africa is preparing itself to defend a common vision to tackle the disease.

TB presents a huge challenge to Africa but this comes with an opportunity to completely rethink our health care systems. The continent also has the opportunity to take a collective stand and be a driving force against the spread of this disease. As the main victim of the disease, Africa certainly deserves international support, but it should also aim at proving it can lead the struggle for a world freed from TB.

Leave No One Behind: "Free TB treatment in Africa saved my life" – Timpiyan

World Health Organization (WHO) reports that in 2016, Tuberculosis (TB) killed more than 10 million people globally, with 6.3 million new cases recorded the same year.[1] Out of those infected by TB, not many live to tell their story. Timpiyan Leseni from Kenya is among those who have overcome TB infection, and is now using her experience to advocate for an end to TB. Timpiyan claims that she was able to overcome the disease largely due to the free TB treatment that is offered in Africa, and considers herself lucky to have been surrounded by family and friends who provided care and supported her during the illness.

TB is the biggest infectious disease killer in the world and remains a major problem in Africa, home to 16 of the 30 High Burden TB countries in the world. TB continues to spread and people continue to die from the disease on the continent. Speaking in Moscow, Russia during the First WHO Global Ministerial Conference on Ending TB in the sustainable development era, WHO Director General, Dr Tedros Adhanom Ghebreyesus revealed that there are over 4 million people with TB in the world who don't even know they have it – they are left behind.

"No one should get sick and die from TB because they cannot access medication and care", claimed Dr Tedros.

1 World Health Organization Global Tuberculosis Report 2017: http://www.who.int/tb/publications/global_report/en/

Free diagnosis, the solution to increasing TB coverage in Africa

More TB deaths could be prevented with early diagnosis and appropriate treatment. For the world to reach the 2030 target to reduce TB deaths by 90%, there is need to expand access to TB prevention, enhance diagnosis and accelerate treatment. TB survivor, Timpiyan says that in addition to free TB treatment that undoubtedly saved her life, African countries must begin to offer free TB X-ray because most poor people have no access to TB treatment as they cannot afford the cost of the TB X-rays at the hospital. Responding to this problem, the Ministry of Health in Lesotho has taken lead on the continent by purchasing digital mobile X-rays that will be used in improving the delivery of TB diagnosis services in the vulnerable and most marginalized communities, which are hardest hit by the disease. This approach in Lesotho aligns with sentiments by the WHO DG, Dr Tedros who has called for countries to take the fight against TB on the frontline, and focus efforts on the most affected countries, targeting the most vulnerable communities.

The digital mobile X-rays will play a critical role in delivering on the TB Prevalence to estimate the number of people living with active TB in Lesotho, staying true to the phrase "Leave No One Behind." Access to the digital mobile X-rays will be cost free and they will move around the communities at regular intervals to increase TB coverage. The digital mobile X-rays shall also include OMNI equipment for testing and confirming TB diagnosis and will act as referral centres for patients who test positive for TB by referring them to the right hospitals where they can get treatment and care. Linked to the digital mobile X-rays is community awareness and sensitization to address common myths and stigma associated with TB especially in Africa.

This above approach in Lesotho has been made possible by the Southern Africa Tuberculosis and Health Systems Support (SATBHSS) project funded by the World Bank (WB) at a total cost of USD 122 million and implemented in four Southern African Development Community (SADC) countries: Lesotho, Malawi, Mozambique and Zambia. NEPAD Agency and East Central and Southern Africa Health Community (ECSA-HC) have teamed up to provide the technical support to the countries in the implementation of the SATBHSS project.

Community level activities adding value to fight against TB

Timpiyan further makes an appeal to global leaders to consider streamlining approaches by working through the communities and employing adequate community health workers to provide care and support to the TB patients and help to address issues of stigma.

"I survived TB because I received the needed care and support from my parents, some of the patients are not fortunate enough", Timpiyan said.

Solutions to TB have to be developed to fit our own context and challenges in Africa, and the community approach is a highly favourable one. Most importantly, Africa must address the social drivers of TB on the continent by translating the strategy and rhetoric in to community action. WHO Regional Director for Africa, Dr Matshidiso Moeti reverberated this call by asserting that Africa must expand access to TB patient centres of care and also stay on course to achieving Universal Health coverage. She further emphasized the need to employ community health workers on government payroll so that we begin to move away from the current scenario where most of the community health workers are either part-time or sponsored by private companies or Civils Society Organizations (CSOs). Of course, the efforts of private sector and CSO matters, and it is important to work in a multi-sectoral approach to effectively address the social drivers of TB, not only at the national level but also in a multi-sectoral approach at the community level. The two dimensions have to be enhanced in parallel as they are both equally critical in tackling the burden of TB in the African context.

There is also need for political will and funding to achieve the 2030 targets in Africa. Currently, there is a funding gap of 26% to adequately address the burden of TB on the continent, Dr Moeti implored African countries to find innovative ways and strategies to increase domestic funding if we are to indeed Leave No One Behind in Africa. It is time to move forward from just making pronouncements and Calls to Action, but turning these into Decisive Action at the highest level. WHO reaffirms its support and will walk with the African countries every step of the way to ensure there is collective efforts and shared responsibility in addressing the burden of TB because the disease knows no borders. It affects people across national boundaries.

With the necessary political will and funding on board, resources can be invested in Research and Development (R&D) and supporting African scientists to conduct research and develop advanced treatment methods to combat the disease of TB. R&D must particularly focus on combating Multi Drug Resistant TB (MDR-TB) which currently takes longer to cure, is more expensive to treat and has more toxic treatment. It also affects households quite severely due to the disease burden and care required to complete the treatment which can take up to 24 months compared to 6 months of regular TB. In addition, it is a well-known fact that HIV and TB influence each other, hence Africa will fail to address the burden of TB if efforts don't take into consideration co-infection rates and devise a common agenda that responds to the social drivers of HIV and TB co-infection.

Moscow Declaration To End TB

At the end of the Global Ministerial Conference on Ending TB in the sustainable development era, 74 Ministers of health and other sectors drawn across the world agreed to sign the Moscow Declaration To End TB. The Declaration involves 4 commitments and calls to action; (i) advancing the TB response within the Sustainable Development Goal (SDG) agenda (ii) ensuring sufficient and sustainable financing (iii) pursuing science, research and innovation (iv) and developing Multisectoral Accountability Framework. A total of 1000 people attended the Conference representing 125 countries, along with over 1250 partner organizations.

Timpiyan is working with communities in Kenya to advocating for an End to TB in Africa, by reaching one person at a time. If we all do our part and work together, it's possible to End TB in Africa for good and Timpiyan has become a living testimony and champion that TB can be overcome and no one should ever have to die from the disease. The SATBHSS project is also implementing innovative approaches to solving the problem of TB in the most affected, and most vulnerable communities in the SADC region. By implementing innovative approaches across national boundaries, the project will ensure that no one is left behind.

Lesotho to upgrade national laboratories to accelerate fight against TB

The management of TB requires precise diagnosis which in itself requires a hazard free environment. Lesotho is meeting the challenge

TB service delivery in the Kingdom of Lesotho is impacted by long delays between sample collection and receiving test results, especially in the rural areas and townships where TB laboratories are not operating optimally. In extreme cases, this process can take as long as 3 months and there is a backlog of over 900 TB samples. Consequently, this leads to delayed commencement of treatment for TB. The Ministry of Health (MOH) has earmarked the renovation of two (2) TB laboratories; National TB Reference Laboratory and Leribe TB Laboratory to address these problems and bottlenecks. In addition, upgrades are planned at three (3) Correctional Service Facilities with the goal of creating TB isolation wings to reduce exposure to TB infection and transmission among prison inmates.

The upgrades are aimed at improving the delivery of TB services and ensure they meet occupational health and safety, and infection control standards. The scope of the planned renovations of the laboratories is informed by the World Health Organization (WHO) comprehensive assessment, together with one conducted by the Africa Centre for Disease Control (CDC). During a joint project support mission to the country conducted by the World Bank (WB), NEPAD Agency and East Central and Southern Africa Health Community (ECSA-HC), the Deputy Principle Secretary in the Ministry of Health in Lesotho, Ms. Palesa Mokete confirmed that an Engineer has since been employed under the Southern Africa Tuberculosis and Health Systems Support (SATBHSS) project to oversee and supervise these works from a technical perspective with support from other government units.

"We have a backlog of TB samples at the National TB Reference Laboratory and renovating this laboratory will help to reduce these numbers", Ms. Mokete said.

Senior Health Specialist and country project support mission team leader, Ronald Mutasa outlined the objectives of the mission which is aimed at reviewing SATBHSS project progress and work with the country team to identify priority areas for scaling up activities.

"We acknowledge the work being done in Lesotho and will shall continue to provide technical support to ensure the country finishes the project start-up year strongly", Mr Mutasa said.

The current state of the TB laboratories pose many hazards especially to the service providers, as well as in the management of specimens according to internationally accepted standards. During a courtesy call, the Permanent Secretary at the Ministry of Labour and Employment (MOLE) Mrs Maseithati Mabeleng emphasized that her Ministry will take up responsibility for implementing the Occupational Safety and Health (OSH) component on the project to accelerate progress.

"The SATBHSS project comes at the right time and will answer most of the questions that have hindered TB screening, as well as access to social benefits for the ex-miners who once worked in South Africa and left without accessing their benefits", Mrs Mabeleng said.

Through the SATBHSS project, the national Occupational Safety and Health (OSH) Profile in Lesotho will be updated and the TORs for this work have been drafted. The Permanent Secretary at the Ministry of Mining Mr. Soaile Mochaba acknowledged and appreciated the work being done under the SATBHSS project through a multi-sectoral approach involving the different Ministries. He reminded everyone that the biggest driver of TB and occupational lung diseases in Lesotho is mining so they are a stakeholder in addressing the scourge of TB.

"This project is creating synergies that will ensure our Ministries work collaboratively to implement multi-sectoral approaches to kick-out TB and occupational lung diseases in Lesotho", the PS Ministry of Mining said.

The renovations shall involve removing and replacing the current roof covering with a proposed economical and maintenance free aluminium sisalation membrane to prevent rain water penetration and formation of water drops caused by water vapour. The current roof covering has been letting in water especially during the rainy season. In addition, the damaged doors to the secure areas will be replaced by new ones with a heated viewing window. The new doors to the Ante Rooms will be replaced by aluminium ones that interlock with electromagnetic latches to ensure that when one door is open the other cannot open.

Furthermore, the existing wooden pass boxes will be replaced with heavy duty metal pass boxes in GL powder coating. The cracked walls and broken water pipes will also be reinforced and replaced respectively to ensure they are sealed to safeguard specimens in the laboratory and prevent accidents. The Ministry of Health shall engage a contractor to undertake the above and many other renovations works. Additionally, since some of the works involve specialized knowledge there shall also be some nominated sub-contractors to undertake these works.

The upgraded laboratories will aim to attain certification level with international accepted standards for TB laboratories and meet standards for occupational health and safety. Revamping will help the laboratories to operate optimally and strengthen efforts to end TB by 2030 in Africa.

Bold Leadership, Policy, More Financing, and Out-of-the-Box Interventions Critical to End TB

At the recent Delhi End TB Summit, Sudeshwar Singh, 40, a tuberculosis (TB) survivor, took to the stage to share his story, not just about the physical hardship of his diagnosis but also the stigma and fear that plagued his family and threatened to crush his spirit. Sudeshwar's story, however, ends with a victory and a call for optimism for the fight against TB; he completed his treatment, and became an activist, raising TB awareness in his home state of Bihar.

His journey is just one example of what fuels our current optimism around global efforts to address the TB epidemic. In fact, a year ago on World TB Day, we both blogged about TB control, one of us from New Delhi and the other from Washington DC—6,000 miles apart—and while challenges still exist and there is much to be done we both felt there was a new energy around the global efforts to address the TB epidemic. The cause for positivity was so elusive years ago, when the TB epidemic grew in complexity and scale, topping HIV/AIDS as the leading cause of death from infectious disease.

Still, TB is a major public health and economic development challenge, particularly since it disproportionately affects adults in their economic prime. Globally, in 2016 alone, 10.4 million people developed TB and 1.7 million people, including the 374,000 suffering from the double burden of TB and HIV, died from the disease. Additionally, there are too many other cases that aren't even diagnosed or reported.

India has the world's highest TB burden, with an estimated incidence of 2.79 million cases in 2016. And Southern Africa is at the epicenter of people suffering the double burden of TB and HIV/AIDS. In 2015, the WHO began to group countries based on their TB, TB/HIV and multidrug resistant TB (MDRTB) burdens; nearly every Southern African country belongs to one or more of these three groups.

Aggressive TB response

Strategic policy action, bold leadership, adequate financing, and innovative TB control interventions are all critical components of an aggressive TB response. Since the India Finance Minister's 2017 announcement of the plan to eliminate TB by 2025, India has followed through with policy, funding, and programming that, if sustained, will bend the curve of the TB epidemic not only in India, but globally. At the Delhi End TB Summit, Prime Minister Modi delivered a passionate keynote speech that conveyed a multi-sector vision and a call for public, private and civil society partnerships in India, South East Asia and globally. He underscored the dedication and leadership required to conquer the TB epidemic.

An ambitious National Strategic Plan 2017–2025 is being operationalized with out-of-the-box interventions. The Plan includes a scale up of public and private sector partnerships – a sound option given that 46% of TB cases in India are treated in the private sector. Earlier pilots in India demonstrated the efficacy of this model and scaling up this work will be critical for the country.

India also backed its ambition with funds, almost doubling its 2016 budget envelope for TB to US$525 million in 2017. To address the diagnostic gap, Gene Xpert/CBNAAT machines, which test for the presence of TB bacteria and drug resistance, are now in 624 districts. Ongoing efforts to move to universal drug susceptibility testing will have a significant effect on TB outcomes.

India is also focusing on providing patient incentives to follow and complete TB treatment. If well-designed, implemented, and monitored at scale, patient incentives will be a game changer in India and generate important lessons for the 30 high TB burden countries. The design and implementation of such a scheme at scale is not trivial, but can be informed by a wealth of experience from Latin America, among others, where individual and household incentives have been applied to influence health and other positive behaviors.

In Southern Africa, over and above national TB efforts, governments continue to mount a coordinated regional response to TB, which has cross-border dimensions and staggering economic impact in the region. Looking beyond diagnosis and coverage of treatment services in the general population, the Southern Africa TB and Health Systems Support project, approved by the World Bank in May 2016, has supported participating countries to roll out and scale up interventions targeted on vulnerable groups, such as in mining communities, border districts with high levels of movement of people and goods, and areas of high incidence of poverty. The project's regional approach allows countries to reap economies of scale through harmonizing efforts, coordinating high impact interventions, and pooling resources and is being coordinated with other regional initiatives and partners including US CDC, WHO and the Global Fund.

A special feature of the regional project is support to countries to establish centers of excellence in the management of TB. Each participating country – Malawi, Zambia, Mozambique and Lesotho – has a comparative technical advantage, and each is now at an advanced stage of setting up a regional center of excellence in the management of TB and occupational lung diseases. While each country's leadership has prioritized an area unique to its context and public health policy priorities, innovations will serve the broader region and generate substantial opportunities for learning across countries.

For example, Malawi's center of excellence is focused on strengthening TB case management and includes sample tracking, patient follow-up, and drug management. They have developed an e-health intervention for TB patient tracking and management; the web-based system has a mobile application that community volunteers are using for patient registration.

The electronic system tracks patient sputum samples and minimizes turnaround time from sample collection to results notification and subsequently to treatment initiation. Patients receive SMS notification when results are ready and reminders to collect anti-TB drugs from the health facility. If a patient defaults treatment, the system sends alerts to the patient and places the patient on the defaulters' list for provider follow-up.

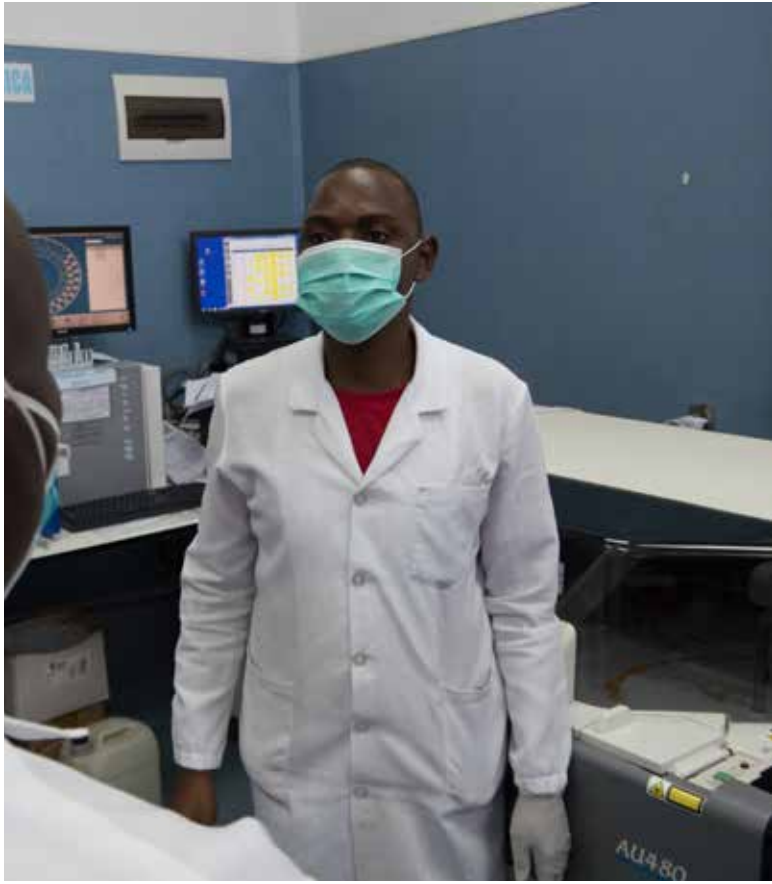
Mozambique's center for excellence is in its final stages of development and will focus on programmatic management of MDRTB and childhood TB – two areas in which Southern Africa has a dearth of expertise and experience.

Moving forward

Opportunities exist, now more than ever, to advance the TB response and for countries to learn from each other's innovations – and mistakes – in efforts to scale up. Intervention-based research and nimble evaluations can assess new approaches to TB prevention and care – as well as their cost effectiveness and chances for successful implementation at scale.

Scaling up innovative programs demands financial, technical, and human resources – the mobilization of which should be part of long-term plans to achieve 2030 targets globally. The policy-level attention TB is receiving needs to be sustained beyond the UN General Assembly High Level Meeting on TB planned for later this year. TB must remain core to the UHC policy debate and we all must live up to domestic and external financing challenges.

Ending TB will bring about a global public good with immense economic and social value. "Meri Jeeth, Meri Anubhav" (My victory, My experience)" are Sudeshwar's hopeful words after being cured of TB. We hope millions more will live to echo his sentiments.



E-Health for Community Intervention: Improving Patient Tracking and Management

The TB case management has over the years been facing a lot of challenges despite the Malawi government and donors' effort. Some of the main challenges in the management of the TB cases include sample tracking, patient follow up and drug management.

Samples are delivered to the health centers through community volunteers or sometimes patients come directly to the hospital and deliver their samples which are recorded manually in a register before being delivered to the laboratory for testing. This is a big challenge to the health workers because samples easily get mixed up as the labelling is simple and there is no accountability at the laboratory on when the samples are received and when they are tested. As a result of this challenge, patients get their results after a long time and sometimes the samples are not tested on time forcing the patients to come back to the hospital for the same process. This puts the patient's life in danger.

Patient follow up and drug management is a big issue since the records are kept manually and it is not easy for health workers to know how the patient is doing. The health workers rely on the patient's health passport to manage their medication and there are times that patients default their treatment and it becomes difficult for health workers to know from the manual system.

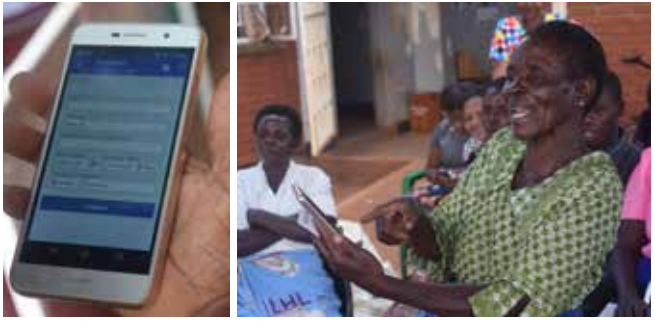


Fig 1: Mobile application for e-health and a community volunteer demonstrating the system to World Bank team

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

One of the challenges that the system is addressing is tracking samples and ensuring that turn around time from sample collection to patients being notified about their results and subsequently treatment initiation is minimized. To do this, the system is using community volunteers to screen patients at the doorstep, and transport samples to the nearest facility, which receives the patient information way in advance before the sample arrives.

This allows for the system to identify bottlenecks along the screening, diagnostic and treatment cascade and address them promptly. The system uses barcodes that are linked to the patient's data to ensure that there is no mix-up in samples and a sample can be easily identified simply by scanning the barcode. The system has therefore provided a good tool for sample tracking.

Once the samples are tested, the patient gets an sms notification informing them that their results are ready. Patients also get reminders about when they are due for the next medication. If a patient is defaulting treatment, the system sends alerts to the patient as well as the system user by placing the patient on the defaulter's list. This has greatly improved patient follow up.

Fig 2: TB e-Health web dashboard

Since the implementation of the system as shown in fig 2 above, 433 samples have been collected in the two health centers, 306 samples have been tested out of which 29 are TB patients of whom 21 are male patients. This information is online and NTP as well as district management can make decisions quicker than when they were using manual data recording.

Wanted: Leaders for a TB-Free World. You can make history. End TB

It is unjust and unacceptable for 1.7 million people to die of Tuberculosis each year worldwide – a disease that is not only preventable, but can be treated and defeated. As we commemorate World TB Day on 24 March, we must reflect and begin to ask ourselves pertinent questions on how we fight TB in Africa.

Are we really winning the fight against TB? What are the lessons learnt and best practices and how can these be positively applied to energize current efforts to end TB in the world, and in Africa particularly? The answers to these symmetrical questions demand political and social commitment, both pre-requisites without which the fight to end TB will be lost. There is an urgent need to mobilise our political leaders to speak with one voice and to advocate for improved financial and human resources towards this cause, as well as hasten research and innovation to encourage scientists to find new regimens to treat TB – regimens that are cheaper, accessible, easier to use with shorter treatment timelines.

The NEPAD Agency is working towards this end by involving Parliamentarians to mobilise political support in Africa. Many African leaders have already made commitments to ending TB through the Catalytic Framework to End AIDS, TB and Eliminate Malaria in Africa by 2030. Our objective is to implement and reinforce this commitment with strategic partners.

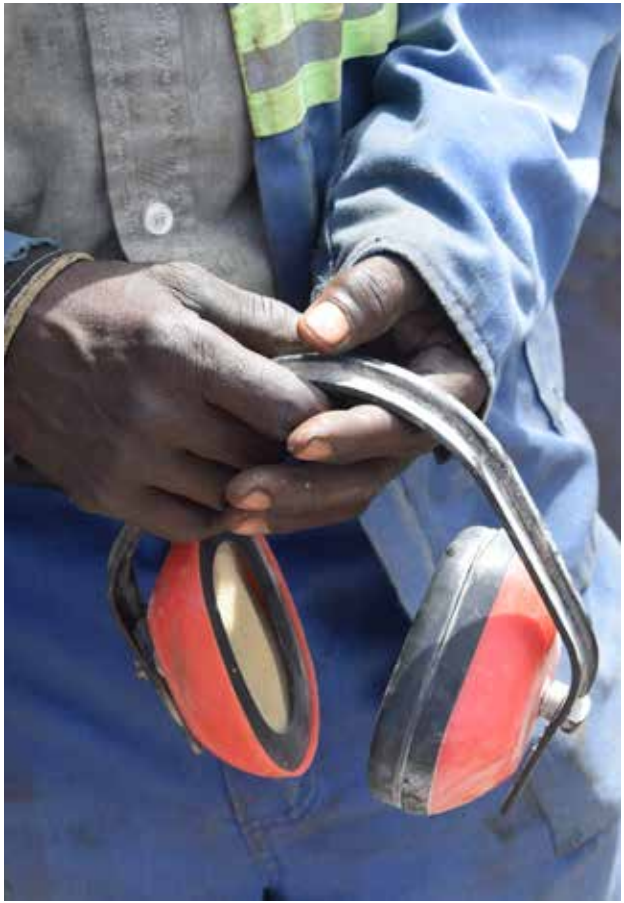
This is a fight that requires working in unison for a common agenda. Hence, we have embraced multi-sectoral and multi-stakeholder approaches to combat the scourge of TB from all possible vantage points.

A healthy Africa translates into a productive workforce, eventually advancing our agenda of socio-economic development.

In addition to political commitment, we have reached a stage where the civil society has to be actively involved in efforts to fight TB given the dynamics of our social structures. African social structures generally provide support to TB patients, support to affected families in times of difficulty and spread the messages of prevention, which is fundamentally as important to ending TB as is treatment. It is time we begin to break myths and tell the unique stories of those who have defeated TB, the TB survivors. These powerful voices can no longer be underrated in behavioural change approaches, which is required to successfully address the challenges of TB mis-information in our communities.

No one should have to die from TB or lose their source of income or job because of TB. This is an injustice that we must endeavour to correct without fail. No one should be left behind in this fight against TB. NEPAD Agency is committed to the theme of this year's World TB Day of *Wanted: Leaders for a TB-Free World. You can make history. End TB.*

We need to find the leaders who will make history by delivering a TB-free world. These leaders exist and are ready to be engaged. Many times we tend to look beyond ourselves, but *YOU and I* are these leaders, we can champion the cause to end TB and bring our contribution to eliminate this scourge for good in Africa, and the world by 2030. Stand up today and be counted among the leaders, you are wanted.



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