

# **USAID Tuberculosis South Africa Project**

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## **Quarter Three Report**

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**Submitted by: University Research Co., LLC (URC)**

**To: USAID Southern Africa**

## **USAID Tuberculosis South Africa Project**

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## Acronyms

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ACSM	Advocacy, Communication and Social Mobilization
AFB	Acid Fast Bacilli
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
BC	Bacteriological Coverage
CHW	Community Health Worker
CO <sub>2</sub>	Carbon Dioxide
CPT	<i>Cotrimoxazole</i> Preventative Therapy
CQI	Continuous Quality Improvement
DM	Diabetes Mellitus
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment, Short Course
DR-TB	Drug-Resistant Tuberculosis
DS-TB	Drug-Susceptible Tuberculosis
DVE	Data Verification Exercise
ETR	Electronic Tuberculosis Register
GXP	GeneXpert® MTB/RIF (Xpert)
HCT	HIV Counseling and Testing
HIV	Human Immunodeficiency Virus
ICSM	Integrated Clinical Services Management
IC	Infection Control
IEC	Information, Education and Communication
IPC	Infection Prevention and Control
IPCC	Interpersonal Communication and Counselling
IPT	<i>Isoniazid</i> Preventive Therapy
LDHF	Low-Dose High-Frequency
M&E	Monitoring and Evaluation
MDR-TB	Multi-Drug Resistant Tuberculosis
NDOH	National Department of Health
NGO	Non-Governmental Organization
NTP	National Tuberculosis Control Program
PEPFAR	United States President's Emergency Plan for AIDS Relief
PMDT	Programmatic Management of Drug-Resistant Tuberculosis
PPP	Public-Private Partnership
PTB	Pulmonary Tuberculosis
QI	Quality Improvement
QIP	Quality Improvement Plan
RTCs	Regional Training Centers
RR	<i>Rifampicin</i> Resistant
SCR	Smear Conversion Rate
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infection
TAT	Turnaround Time
TB	Tuberculosis
TOT	Training of Trainers
URC	University Research Co. LLC
USAID	United States Agency for International Development
WBOT	Ward-Based Outreach Teams
WC PDC	Western Cape People Development Centre
WHO	World Health Organization
XDR-TB	Extensively Drug-Resistant Tuberculosis

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## EXECUTIVE SUMMARY

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Building on progress from Quarter two of the USAID Tuberculosis South Africa Project implementation, the project continues to strengthen its partnership with the Government and other government and non-governmental stakeholders to directly support efforts aimed at reducing the burden of TB in South Africa. The primary aim is to reduce TB infections; increase the sustainability of effective TB response systems; and, improve care and treatment of vulnerable populations. The project's target is to ensure 90 per cent of vulnerable populations are screened, 90 per cent of those screened are tested, 90 per cent of those diagnosed are started on treatment, and 90 per cent treatment success is achieved.

The project has made great strides in support of TB services in the target 14 districts with the results showing a 20 per cent increase in head count from the first quarter through the second quarter. The proportion screened increased from 67 to 83 per cent during the same period. Although there was just a per cent increase in the number tested, the number initiated on treatment increased by 27 per cent. The proportion of clients initiated on treatment consistently exceeded the 90 per cent national target. The number of clients who died or were initially lost to follow up declined by six and forty per cent respectively.

The project continued to maximize on the use of community radio stations to educate and create awareness about TB in various districts. The project also created continuous visibility using its social media platforms; Twitter and Facebook. Over 400 health care workers were trained on inter-personal communications and counselling (IPC/C) package aimed at improving TB patient counselling and treatment retention. In addition, the project participated in the 5<sup>th</sup> South Africa TB Conference; hosting five satellite sessions/roundtables/symposia on the following topics: pediatric TB management, TB infection prevention and control, finding missing TB cases through prioritizing key and hard-to-reach populations, the role of the private sector in TB management, and best practices in implementing mHealth innovations in limited resource settings. Further, 10 presentations (five oral and five poster presentations) were successfully delivered and shared with the wider TB community and scientific community.

To strengthen service delivery capacity at all levels, the project continues to build the capacities of healthcare providers to deliver evidence-based care as a crucial component of improving TB outcomes. A total of 698 managers including HIV, AIDS, STI and TB (HAST) managers, PHC supervisors and local area managers at various levels were capacitated through review workshops.

In the recent past, the Government of South Africa estimated that approximately 150,000 persons infected with TB in South Africa never found their way into treatment programs. The project is working closely with the government and other stakeholders to implement innovative strategies to find 15,200 of the government's target to find 40,000 missing TB patients, link and retain them in care by end of September 2018. Given the effectiveness in finding missing TB patients contact management, FAST and IPC interventions, targeted door to door campaigns, improved diagnostics, district data cleaning, and targeted interventions among key population has been scaled-up significantly during the quarter. Within two months of interventions 1,906 missing patients were identified equivalent to 17 percent of the anticipated target.

The project continues to support the Government's multi-sectoral approach to strengthen systems of care and establish partnerships, particularly for the benefit of key populations. As of June 2018, the project funds 39 local NGOs to provide community-based support to 4,809 patients (3,580 DSTB and 1,229 DRTB). This translates to 48 % of the target of 10,000 patients projected in the workplan. With recommendations from the steering committee, recruitment of additional NGO was halted to allow determination of the intervention's cost effectiveness.

Improvements in the process of care through implementation of Quality Improvement interventions

focused on increasing the efficiency of TB program management. Several innovative strategies have also been implemented, focusing on rapid and targeted patient identification, use of new diagnostic assays in health facilities and strengthened operational research to improve the evidence base that will facilitate the closure of gaps along the TB Care Cascade. The Quality improvement initiatives has been introduced to all 14 supported districts, representing a health system shift in ensuring project implementation is within the existing health systems to sustain impactful innovations. To date, the project has oriented managers from 13 of the 14 supported districts on QA/QI and implementation is in progress in these districts.

The project is also a key partner supporting the Government of South Africa to roll-out the DR-TB service package as part of global efforts to improve DR-TB patient management. Within six months of implementation, 225 patients have been recruited into the study; all patients evaluated in the research received the package for at least six months, and 14 completed treatment.

To accelerate achievement of the project targets, the project continued to expand the use of innovative tools, including mobile health (mHealth) platforms to further improve data-based planning and management. Efforts focused on identifying high TB burden areas across the project's supported districts through geo-mapping and targeted interventions. The NGO Network Model remains a key pillar, as well as engagement of the Ward-Based Outreach Teams, linking community-based non-governmental organizations to local health facilities to improve community-based TB management systems.

The monitoring and evaluation framework of the project is directly integrated into and aligned with the national M&E systems; thus, ensuring that project activities contribute to national targets. During Q3 the project continued to support the NDOH in its endeavor to harmonize and standardize the TB recording and reporting systems including the Electronic TB Register (ETR.Net), Electronic Drug Resistance Register (EDR.Net), District Health Information System (DHIS) and the new electronic Tier system – The HIV and TB Integrated System (THIS).





# ACCOMPLISHMENTS BY INTERMEDIATE RESULTS (IRs)

## IRI: TB Infections Reduced

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As elaborated in the contractual document, the risk of TB transmission is affected by numerous factors, including the prevalence of active infectious pulmonary disease in communities in South Africa; the severity of TB disease; the frequency, intensity, and duration of exposure; and the presence of risk factors such as HIV, diabetes mellitus, silicosis and overcrowding in poorly ventilated congregate settings. Prevention is one of the pillars of the Global post-2015 strategy that was endorsed by the World Health Assembly in May 2014.

The project's main areas for interventions to reduce TB infections include screening for TB, improving follow-up for patients who drop out of treatment, stronger infection control in health facilities and congregate settings, effective treatment, and advocacy to increase public awareness of risks of contracting TB, and of effective prevention measures.

### IR 1.1 Increased public awareness of the TB epidemic

The project has developed and implemented strategies to promote and provide capacity building support for advocacy, communication and social mobilization (ACSM) activities, working in collaboration with and in support of National TB Program (NTP) planned activities, as well as with Management Teams at provincial, district and local levels. The USAID TB South Africa Project continues to increase and improve the roll-out of ACSM activities to bring the extent of the TB epidemic and its impact on national productivity and individual lives to the forefront of public attention. In addition, the project supports interventions to improve patients' adherence to treatment, and the role of national and provincial TB ambassadors in encouraging completion of treatment. The project further collaborates with commercial and community institutions to catalyze their involvement in national and local events to increase public awareness about the TB epidemic. Efforts continue to be made to monitor the links between exposure to ACSM events or campaigns and measure their impacts on health facility attendance and uptake of TB screening services. Specific interventions towards this end are elaborated below

#### ***1.1.1 Conduct 100 targeted infection prevention and control campaigns in high TB burden areas, including among key populations to contribute towards finding the missing TB patients***

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To date the project has facilitated 50 out of the planned 100 infection prevention and control (IPC) campaigns planned for FY2. These were implemented in TB high burden areas, with focus on targeting key populations (KPs), to effectively contribute towards improving TB knowledge, encouraging uptake of services, and finding a portion of the approximately 154,000 TB patients estimated to be missing from care in South Africa.<sup>1</sup>

As part of its ACSM strategy, the project hosted community dialogues and campaigns to ensure community and patient-led communication around TB. Between in the first half of the year, the project hosted 26 targeted infection, prevention and control (IPC) campaigns in supported districts. A total of 16,003 people were reached, and 99 new TB cases identified as a result.

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During Q3, an additional 24 IPC campaigns were conducted across the 14 supported districts, reaching a total of 11,721 people. Of these, 5,700 people were screened for TB; 1,180 had TB symptoms and 1,163 were tested at the site of the campaign/referred for testing. Ninety-two people tested positive for TB and 90 were initiated on appropriate treatment because of these efforts.

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<sup>1</sup> World Health Organization. 2017. Global Tuberculosis Report. Geneva: World Health Organization.

In total, 50 IPC campaigns have been implemented to date in Financial Year 2, reaching 27,724 people, with a total of 189 new TB cases were both identified and linked to care. The project will further intensify IPC campaigns in the TB high burden areas identified through geo-mapping to reach the target of 100 events by September 2018.

### ***1.1.2 Implement patient-centered interpersonal communications) and counselling package to improve retention in care***

The project supports implementation of an interpersonal communication and counselling (IPC/C) package of interventions to promote patient retention and adherence to TB care and treatment. Adherence to TB treatment until completion is currently estimated at 78 per cent among DR-TB patients in South Africa. In Q1 and Q2, the project cumulatively provided interpersonal communication and counselling (IPC/C) training to 232 healthcare workers; the majority being personnel of the 39 project-funded sub-grantees. Training was provided to participants in Free State, Limpopo and Mpumalanga provinces.

Over 800 TB patients were counselled and supported to adhere to TB treatment by trained health care workers post-capacity strengthening in FY1.

During Q3, additional 418 health care workers – mainly staff of funded NGOs – received training on IPC/C. Training was conducted in Waterberg, uMkhanyakude and Fezile Dabi districts. Trainings will be scaled up to cover all project-supported districts during Q4 of FY2. In total, 222 patients received counselling following implementation of the package in Q3. To date, 650 healthcare workers have been trained, from the target of 1,000, with direct benefits to 1,022 patients. More training workshops are planned for Q4, with the aim of significantly increasing the number of patients reached directly by trained personnel and improving the quality of counselling provided to TB patients. The project will also evaluate the outcomes of patients reached through the IPC/C package to assess its effectiveness.

A manual on *Interpersonal Communication and Counselling for Professional Health Workers* developed by the project was field-tested in Limpopo Province in February 2018, and in KwaZulu-Natal Province in May 2018. The IPC/C manual will be printed and distributed for use in supported districts to facilitate adherence counselling and support for TB patients.

#### **Adherence support for drug-resistant TB patients**

The project developed *My TB Survival Toolkit*, a TB treatment adherence package to support DR-TB patients currently supported by the 39 project-funded NGOs. The adherence package comprises TB messaging, an adherence box (with pill box and storage for medication and personal protection items), and a psycho-social assessment tool (chart on how well a patient is feeling).



Figure 3: *My TB Survival Toolkit* for treatment adherence support

The toolkit helps DR-TB patients on their TB treatment journeys with adherence support. A standard operation procedure (SOP) document with a reporting tool was developed for health care workers

to teach and collect information on how the box has helped patients and to monitor their adherence. Patients were also given diaries to document stories from their treatment journey. During the reporting period, 210 boxes were delivered to patients through supported NGOs.

### ***1.1.3 Partner with the Department of Health to develop and strengthen TB messages as part of the Phila campaign***

The project's plan is to develop and implement effective strategies to promote and provide capacity-building for ACSM) activities, working in collaboration with and in support of activities of the NTP, and with Management Teams at provincial, district and local levels. Initial discussions with the NTP have been initiated to develop and strengthen TB messages as part of the *Phila* campaign. Further engagement with the NTP during Q4 on developing new messages will be facilitated to ensure the production of the new messages.

### ***1.1.4 Utilize facility-based television network (Mindset) to increase TB awareness among healthcare workers and patients***

The project collaborates with commercial and community institutions to catalyze their involvement in national and local events to increase public awareness about the TB epidemic in South Africa. During FY2, the project continued to utilize television networks to increase TB awareness among KPs. From January to April 2018, the project used the Mindset Network, which broadcasts directly into 993 health facilities across all nine provinces of South Africa, and nationally on the DSTV pay television platform. The broadcast was strategically planned to be part of project activities around World TB Month 2018, aimed at creating awareness about TB signs, symptoms and treatment, and improving patients' adherence to treatment. The broadcast consisted of five short documentary videos produced by the project based on real life stories of TB patients in areas supported by directly funded grantees (NGOs) in Eastern Cape Province. The videos address the following topics: TB contact management, managing side effects of multidrug-resistant MDR-TB treatment, dealing with stigma, preventing TB in children, and preventing the spread of TB.

### ***1.1.5 Increase TB awareness through commemoration of key national health days***

During Q3, the project participated in the 5<sup>th</sup> South Africa TB Conference held in Durban, KwaZulu-Natal Province in June. The project hosted five satellite sessions/roundtables/symposia on the following topics: pediatric TB management, TB infection prevention and control, finding missing TB cases through prioritizing key and hard-to-reach populations, the role of the private sector in TB management, and best practices in implementing mHealth innovations in limited resource settings. Further, five oral and five poster presentations were successfully shared. Twelve project staff members presented at the conference. The project had an exhibition stand at the conference, an important platform used to engage with conference delegates, and disseminate TB information in both printed and audio-visual forms. Delegates who visited the stand were provided with TB information, education and communication (IEC) and promotional materials, as well as project briefs highlighting the work of the project in the supported provinces. Deputy President of South Africa, David Mabuza, along with other top government officials, also visited the project exhibition stand where they interacted with project staff.



*Figure 4: Deputy President David Mabuza and KwaZulu-Natal MEC for Health Dr Sibongiseni Dhlomo visit to the project stand in the exhibition hall*

### ***1.1.6 Integrate TB messages into mainstream media***

As part of its collaboration with commercial and community institutions to catalyze their involvement in national and local events to increase public awareness, the project received USAID approval to implement a national mass media campaign on national radio and television, strategically positioned billboards, and rank and transit TV to enhance awareness of TB prevention, diagnostics and treatment services. The campaign, projected to reach 20 million people with crucial information to raise awareness around 2017 World Diabetes Day and World AIDS Day commemorations, launched on November 5<sup>th</sup>, 2017.

Table 1: Community radio reach with TB information

District	Community radio station	Theme	Estimated reach
Sekhukhune	Thaba Ntsho	TB transmission MDR-TB	20,000
eThekweni	Inanda FM	TB awareness and publicity for door-to-door campaigns	130,000
Nelson Mandela Bay Metro/Sarah Baartman	Nkqubela Radio Station	DR-TB diagnosis, treatment, infection control	15,600,
ORT	Unitra Community Radio (UCR)		500,000

In Q3, the project continued to utilize community radio stations, as illustrated in Table 1, to create and increase awareness about TB. In Sekhukhune, the project gave 10 radio interviews at a local community radio station, *Thaba Ntsho* FM which has a listenership of 20,000. Topics covered included: TB transmission, MDR-TB and treatment side effects. The project further secured slots to provide information about TB on the station every Wednesday. In Nelson Mandela Bay Metro, the project partnered with the provincial Department of Health to provide TB and health education sessions on the community radio station *Nkqubela Radio Station* in Zwide on alternate Mondays. The station has listenership of 15,600 people. In total 12 radio interviews were conducted, covering topics that ranged from DR-TB diagnosis, treatment, infection control and social services available to patients and how to access them in their area.

In the run-up to the 5<sup>th</sup> South Africa TB Conference, the project participated in one radio interview on the breakfast show on *Inanda FM* in eThekweni on June 11<sup>th</sup>, 2018. The station has an estimated listenership of 130,000. The focus of the interview was to create and increase TB awareness, and publicise the door-to-door campaign that was scheduled to take place in the community of Umlazi at the same time as the conference. Beyond this interview, the project-initiated discussions with *Izwi Labantu* FM to possibly partner and collaborate to raise awareness of TB issues among inhabitants of Durban Central, eThekweni Metro. In OR Tambo District, a radio interview was conducted with UCR radio in April to publicise the community dialogue orientation workshop hosted at Dr Malizo Mpehle Memorial Hospital. The radio station has a reach of 500,000. A newspaper article on the workshop was also published in a local newspaper.



Figure 3: USAID TB South Africa Project staff take part in an interview on Inanda FM on 11 June 2018

### **1.1.7 Engage 25 TB champions and 25 ambassadors (infected and affected) to improve involvement of communities on TB**

The project engages with TB survivors to act as TB ambassadors and enablers for completing treatment in their communities through sharing their experiences with TB, educating the public about the disease and supporting interventions to increase adherence to treatment. The Department of Health has identified six men and women who act as national TB ambassadors, and the project works

with these individuals to raise the profile of TB in the country, through their participation in and publicizing of strategic events and key national health. The project also works with these ambassadors to develop TB messaging relevant to their localities. In addition, each district will identify two ambassadors and their involvement will vary based on the TB profile in each district.

Table 2: List of National TB Ambassadors in South Africa

National ambassador	Profile
<b>Ms Gerry Elsdon</b>	National celebrity, former Miss South Africa and TV presenter who contracted TB and was successfully treated
<b>Prince Nhlanganiso Zulu of KwaDlamahlaha</b>	Prince Nhlanganiso of the Zulu Royal House, one of the sons of Zulu King Goodwill Zwelithini kaBhekuzulu, is a TB survivor who was successfully treated for TB, although he lost one lung in the process. Prince Nhlanganiso is a very active health and social justice advocate for the health of communities in KwaZulu-Natal Province
<b>Mr Thabo Pelesane</b>	Mr Pelesane was treated for TB three different times over 22 years
<b>Ms Phumeza Tisile</b>	Ms Tisile was diagnosed with TB, then MDR-TB, and then XDR-TB in the space of five months in 2010. MDR-TB treatment left her deaf. In 2013 she was cured from XDR-TB, but she was still deaf. In 2015 Ms Tisile underwent surgery to be fitted with a Cochlear Implant and she can now hear
<b>Dr Dalene von Delft</b>	Dr von Delft is a medical doctor who was diagnosed with primary MDR pulmonary TB on Christmas Eve 2010. What followed was a harrowing 19 month of treatment, during which she had to make some potentially life-threatening decisions to preserve her hearing and career
Dr Thato Moside	Dr Moside had extremely drug-resistant TB (XDR-TB) and received both Bedaquiline and Linezolid as part of her treatment regimen (while Bedaquiline was still available for compassionate use).

During Q3 in Sekhukhune, a district-level ambassador, Ms Naaf Matsimela who is a Nursing Service Manager, participated in a TB awareness campaign which was held on May 11<sup>th</sup>, 2018 at Ephraim Mogale Local Municipality. She gave a motivational talk to the participants encouraging early presentation to health facilities and treatment adherence.

### ***1.1.8 Increase visibility of the project through communication and media platforms***

The USAID TB South Africa Project continues to intensify ACSM activities to contribute to reducing the TB epidemic and its impact on national productivity and individual lives to the forefront of public attention. In the first half of FY2, the project social media platforms reached 113,682 people (Facebook 34,068 and Twitter 79,614) with TB information and content.

During Q3 a total of 60,474 people were reached via both Facebook and Twitter. An impressive 50,400 people were reached via Twitter alone with information about TB prevention and treatment information, as well as content publicizing project activities in various supported districts. An additional 10,074 were reached through Facebook. Encouragingly, the project gained 50 new followers on social media, increasing the number of people who will continue to be reached with information via these important platforms. This brings the total number of people reached through social media since October to date to 174,156 (44,142 through Facebook and 130,014 through Twitter). The project website, which has been finalized, will provide another platform to reach people via this 'new' media. This will substantially contribute to the achievement of the remaining 4.2 million targeted people.

#### **Material production and dissemination**

In the first half of the year, the project provided support to provinces/districts with information, education and communication (IEC) materials to increase levels of knowledge about TB in communities. Towards this end, the project disseminated 385,900 materials, being a combination of

IEC and promotional items with TB messages. Materials were distributed mainly during World Diabetes Day, World AIDS Day and World TB Day.

During the quarter under review, the project continued to make available IEC material. The table below shows list and quantities of items distributed.

Table 3: Promotional and IEC materials distributed by the project in Q3

Item/description	Quantity
Smart cards	200
TB in farms smart cards	6,000
TB brochures (TB in children, TB and diabetes, TB and pregnancy & MDR-TB)	1,000
TB posters (Infection, prevention and control)	40
Branded TB in farms bags	100
Branded TB in farms water bottles	100
Branded TB in farms hats	100
TB message pins	300
TB/HIV playing cards	100
<b>Total</b>	<b>7,940</b>

### Support for the National TB prevalence survey

In efforts to improve the prevention and management of TB in South Africa, the Department of Health is currently conducting the inaugural National TB Prevalence survey, in partnership with Human Sciences Research Council (HRSC), the USAID TB South Africa Project, South African Medical Research Council (SAMRC) and National Health Laboratory Services (NHLS). This process aims to determine the true burden of TB disease in the country.

The project provided IEC materials and developed guiding notes on how the best social mobilization could be conducted, especially in hard-to-reach and middle class urban areas in Q3. The project also procured promotional materials including protective clothing for social mobilisers, pre-listing teams and the teams conducting TB testing in the TB survey stations. These materials are used to raise awareness not only about the survey, but also the prevention, treatment and management of TB in general, thus contributing to the governments TB control and management targets.

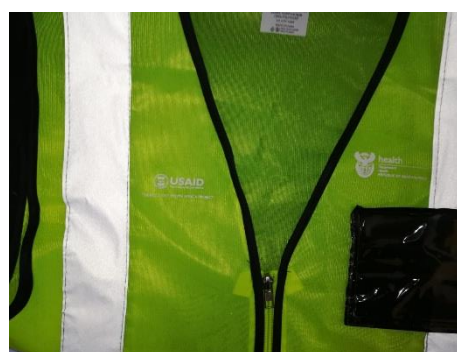


Figure 4: Sample protective jacket procured for the South Africa TB Survey

By the end of Q3, the survey had achieved the following results: 8,943 households visited and 14,803 people enrolled in the survey in KwaZulu-Natal, Eastern Cape, Western Cape (incomplete), Northern Cape, Free State and Limpopo provinces. Mpumalanga, Gauteng and North-West Provinces were to be visited next, and Western Cape, which was not completed the first time, will need to be re-visited. The survey is scheduled to be completed in January 2019.

### ***1.1.9 Increasing public awareness through key government departments civil society and non-governmental sectors and private sector***

The project collaborates with commercial and community institutions to catalyze their involvement in national and local events to increase public awareness about TB. To this end, the project entered into strategic partnerships with key government, civil society organizations, NGOs and the private sector to further create awareness about TB. The USAID TB South Africa Project engaged with the Department of Basic Education and Department of Transport. Engagement with the former was to adopt the Tackling TB in Schools Campaign. This process awaits finalization of a Memorandum of

Understanding (MOU) between the project and the department. In relation to the Department of Transport, the project is part of the multi-sectoral collaboration to implement the *Phila* Taxi Industry Campaign, which was launched in November 2017.

Private sector breakfast meeting: A collaboration between the National Department of Health, USAID TB South Africa Project, the American Chamber of Commerce in South Africa and Janssen Pharmaceutica culminated in the hosting of a private sector breakfast meeting on the May 14<sup>th</sup>, 2018 in Johannesburg. The objective of the event was to introduce the private sector to the status and challenges related to the management of TB in South Africa, share strategies and best practices that the private sector is using to address TB which can be scaled up and attain private sector commitment to contribute resources towards ending TB.



Figure 5: Private sector breakfast meeting in pictures (left) Dr Rifloee Matji, Senior Technical Advisor, USAID TB South Africa Project, (middle) USAID delegation and (right) Dr Precious Matsoso, Director General, National Department of Health

Sixty-one companies, including Absa, Eskom, Tsogo Sun, Ford Motor Company, Anglo Gold Ashanti, Vodacom, Pfizer, Simba/Pepsi Co., Council of Minerals, CSIR, Discovery Holdings and Deloitte participated. The outcome of the meeting was an agreement to draft a plan of action for the private sector to join government efforts to find 80,000 of the TB patients estimated to be missing from care in South Africa by March 2019. The process will be led by the organizing committee (USAID TB South Africa Project, Janssen Pharmaceutica and National TB Program), and will include various elements including: TB in the workplace (education and screening within work space and associated community), innovation in TB (private sector to share contributions towards innovations in communication, transport/deliver, reporting and monitoring and use of information technology for improved TB management); and contribution to mass campaigns (The National Department of Health will host mass TB testing campaigns, which the private sector can contribute to).

Engaging with the transport sector: The project, through the work of Footballers for Life (FFL), a project-funded sub-grantee, signed memorandums of understanding (MOUs) with three taxi associations in Johannesburg Health Metro, Tshwane and eThekweni Metro districts, Gauteng Province, aimed at forging partnerships between the taxi associations and the project to increase awareness and TB case-finding in the taxi industry. Activities conducted targeted taxi drivers, members of the taxi associations, queue marshals and commuters, with specific focus on men. A partnership was also established with the district Department of Health to link diagnosed TB patients to selected facilities near the targeted taxi ranks. During May and June 2018, activations were conducted at Dobsonville Taxi Rank and Braamfischer Taxi Rank, as well as Kwamashu C and Kwamyandu taxi ranks to find missing TB patients. Over 5,000 people were reached,



Figure 6: FFL District coordinators providing health education at taxi ranks



Figure 7: FFL District coordinators screening taxi driver at Dobsonville taxi rank, Johannesburg Health Metro



with 92 per cent screened for TB. Of those screened, 20 per cent were symptomatic and 73 per cent were tested for TB with 37 new cases identified.

### ***1.1.10 Rollout of pediatric DR-TB support through activities***

The project supports interventions for adherence to treatment for children. The project implements Buddy Beat TB as an enabler for children to complete their treatment. Buddy Beat TB is a friendly TB-fighting mascot developed to encourage pediatric patients to take their TB treatment and feel welcome while admitted as in-patients in hospitals across South Africa and is one of the flagship initiatives of the USAID TB South Africa Project. Buddy Beat TB was created to provide much-needed support to children with TB receiving treatment while admitted in hospital.

When children are sick and admitted in hospital, their routines are disrupted, often leading them to become anxious due to being separated from their parents, siblings and other family members. The Buddy Beat TB Initiative is being implemented in five hospitals (Sizwe Hospital, King Dinuzulu Hospital, Brewelskloof Hospital, Brooklyn Chest Hospital and Sonstraal Hospital). A total of 184 pediatric TB patients have been supported with components of Buddy thus far.

During Q3, the project engaged with Nelson Mandela Bay Metro, Eastern Cape Province, with the aim of introducing Buddy Beat TB to Empilweni and Jose Pearson hospitals. Engagement will continue in Q4, to formally introduce the package in both hospitals. The project also worked on the Buddy Beat TB animation video. The video will aid children's understanding of TB based on the Buddy character.

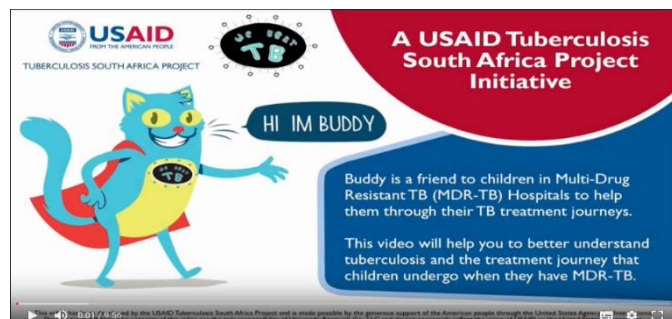


Figure 8: Buddy Animation

In Q4, the project will conduct an annual impact assessment with implementing hospitals. The exercise will be in the form of a snap survey involving caregivers and pediatric DR-TB patients who have been receiving support through implementation of the Buddy package. The aim is to measure the psychological impacts of a DR-TB diagnosis, hospitalisation and treatment in relation to pediatric patients' responses to treatment process, with the focus being to understand these experiences among patients exposed to the Buddy Beat TB Initiative. The project will also conclude development of the *Buddy Play Therapy Implementation Guide*, which is aimed at ensuring more structured and measurable use of the character and package as further rollout takes place.

## **IRI.2 Effective implementation of infection prevention and control**

Preventing the spread of TB and MDR-TB in congregate settings and communities is a major concern to USAID Southern Africa, and a fundamental core requirement of the project. The prevention and reduction of the number of infections in high risk populations and settings is critical to achieving a shift in the epidemic. Reduction of TB infection is also dependent on reducing initial defaulter rates, which in turn is linked to the capacities of health care facilities, particularly at the primary health care (PHC) level, and communities to support patients who are on treatment. The project continues to build the capacities of health providers, and NGO and community partners to foster adherence, track and re-enrol patients lost to care, and thus reduce the risk of infection. The high infection rate among health providers is also evidence of the need to strengthen IPC in health settings (NSP 2017-2022). The project continues to focus on improving implementation of IPC recommendations at national, facility and community levels, and in congregate and household settings. The project has plans to work with Brigham and Women's Hospital and University of Pretoria, and has incorporated a plan to measure, assess, and prioritize the most effective evidence-based interventions to support sustainable improved IPC measures. The following specific interventions have been implemented by the project for IPC.

### 1.2.1: Expand implementation of the FAST Approach in all hospitals in supported districts to increase TB case detection

The FAST Approach, which stands for Finding TB cases Actively, Separating safely, and Treating effectively, is a quality improvement intervention aimed at preventing the spread of TB in congregate settings. Implementation of this strategy assumes that unsuspected TB cases are driving incidence of TB transmission – particularly in healthcare facilities – and that if they are rapidly diagnosed using molecular TB diagnostics and then put on effective therapy, the risk of transmission of infection will be reduced, thus preventing further transmission.

During this quarter, the USAID Tuberculosis South Africa Project continued to implement the FAST Approach, to increase protection of health care workers, patients and visitors to health care facilities through improved rapid detection of TB and effective management thereof. A total of 67 hospitals in five provinces (Eastern Cape, Free State, Gauteng, KwaZulu-Natal and Limpopo) were implementing the FAST Approach at the time of reporting. Thirty hospitals had started reporting on FAST activities, compared to 19 hospitals in the previous quarter.

Following implementation, there is noticeable progress in increasing TB screening number from a baseline of 26 per cent in April-June 2017; 65 per cent in Q2 (Jan-March 2018) to 71 per cent in Q3 (April-June 2018). However, participating hospitals reported a low testing rate of 56 per cent, with TB detection rates of 13 per cent (note, the data reported in this quarter is only for two months (April and May 2018)). The reported data for June 2018 requires verification and will be included in the report for Q4. Of the 90,304 patients screened this quarter, 206 were diagnosed with TB by GeneXpert and 226 by other clinical diagnostic tests. A total of 93 per cent of DS-TB, and 80 per cent of DR-TB patients were initiated on treatment, as illustrated in Table 4. This is a significant improvement relative to the national treatment initiation rates (73% DS-TB, and approx. 50% DR-TB%).

Table 4: TB screening number in FAST Approach implementation sites (\*number of evaluated sites)

Number	Baseline April – June 2017 *N=14		Quarter 1 (Oct- Dec 2017) *N=15		Quarter 2 (Jan-March 2018) *N=18		Quarter 3 (April-May 2018) *N=30	
	No	%	No	%	No	%	No	%
Headcount	130,953		259,224		149,759		127,972	
Patients screened for TB	33,838	26%	156,197	60%	97,003	65%	90,304	71%
Presumptive	6,658	20%	5,161	3.3%	3,042	3%	2,943	3%
Tested by GeneXpert	1,833	28%	4,266	83%	2,024	67%	1,656	56%
Tested positive by GeneXpert	258	14%	1,104	26%	554	27%	215	13%
Diagnosed with DS-TB	236	91%	632	57%	321	58%	206	96%
Diagnosed with RR TB	17	7%	28	2.5%	6	1%	30	14%
Started on DS-TB treatment	223	94%	603	95%	305	95%	191	93%
DS-TB initial lost to follow-up	4	2%	3	0.5%	5	2%	2	1%
DS-TB died before treatment started	1	0%	8	1.3%	2	1%	3	1%
RR TB started on treatment	16	94%	24	86%	5	83%	24	80%
RR TB lost to follow up before treatment started	1	6%	0	0%	0	0%	0	0%
RR TB died before treatment started	0	0%	2	7%	0	0%	0	0%
Tested by other clinical diagnostic tests (e.g. clinical evaluation, X-ray, ultrasound and specimen evaluation)	0	-	314	-	414	-	226	

Key challenges identified in the baseline assessments included predominance of X-ray testing versus GeneXpert testing and low treatment initiation rate of patients with *Rifampicin* (Rif) resistance, especially in non-decentralized sites. Only 56 per cent of presumptive cases were tested for TB using GeneXpert. Capacity strengthening and continued feedback to clinicians in hospitals is essential to ensuring adherence to the national algorithm. Time to commencement of treatment for DS-TB alerts is satisfactory, with all seven hospitals from Gauteng Province reporting time to commencement of treatment of less than 48 hours. DR-TB treatment initiation remains a challenge, treatment initiation being more than five days, with referral times still above five days, in line with national guidelines. To address this challenge, the project will continue to support training and mentorship of health care workers working in hospitals on DR-TB management.

**Urine -Lipoarabinomannan (U-Lam) implementation:**

The NDOH has adopted U-LAM as a diagnostic test for sick HIV positive patients with CD4 <100. The algorithm was finalized through the National Think Tank, after the results of the STAMP trial (a rapid urine-based screening for tuberculosis to reduce AIDS-related mortality in hospitalized patients in Africa). The project was involved in finalizing the algorithm through its participation in the Think Tank Sub-Committee. The project supported the introduction of U-LAM in Limpopo district in Q3, with 64 tests conducted with 17 positive results thus far in FAST sites as shown in Table 5. KwaZulu-Natal Province will also introduce U-LAM in FAST sites in the next reporting period, with the project facilitating the introduction and monitoring of implementation.

Table 5: Hospitals implementing U-Lam in Limpopo in June

Hospital	# of tests	# Positive
George Masebe	11	4
Ellisras	8	3
Mokopane	5	0
FH Odendaal	11	4
Thabazimbi	11	0
Warmbaths	5	0
Witpoort	8	3
Voortrekker	5	3

**1.2.2: Scale-up infection prevention and control practices in homes of identified TB index patients through the non-governmental organization program to prevent TB transmission**

The project continued to focus on improving implementation of IPC recommendations at community, congregate and household settings. The project, through its 39 sub-grantees, provided education on IPC to members of the households they visit daily, as well as during community awareness and door-to-door campaigns. A total of 181 household risk assessments were conducted in Free State and Limpopo provinces during Q3. This brings the total number of household assessments conducted to 334. Key findings of household IPC risk assessments indicate that household TB contacts were screened for TB as they were supported by project-funded grantees. On environmental control issues, most homes visited in Free State Province were in informal settlements and most homes were inadequately ventilated. In both provinces, funded grantees provided health education on how to prevent TB infection. Education emphasized cough hygiene, opening of windows and doors for adequate ventilation, and the importance of hand washing.

**1.2.3: Implement IPC package in all health facilities to prevent TB transmission**

Besides FAST implementation at hospital level, the project continues to focus on improved implementation of IPC recommendations at other facility settings. The project conducted 12 risk assessments in the supported districts. This brings the total number of facilities assessed to 177 of the 200 targeted in FY2. Key findings from the assessments include infrastructure challenges, poor screening of health care workers and non-functional IPC Committees. In addition to risk assessments, follow-up visits were conducted in supported facilities to evaluate the implementation of TB infection control measures, and reviewing administrative, environmental and personal respiratory controls in place.

### ***1.2.4: Monitor infection prevention and control practices in all healthcare facilities using carbon dioxide monitors***

There have been limited efforts to support IPC implementation in congregate settings. However, the most cost-effective and efficient manner to implement IPC requires additional study. The project uses carbon dioxide (CO<sub>2</sub>) monitors to evaluate environmental controls and ensure efficacy of infection control measures. Mounted CO<sub>2</sub> monitors send alerts to health care workers to decant areas that are congested and those that are poorly ventilated. Piloting of the CO<sub>2</sub> monitors in collaboration with the Centre for Science and Industrial Research (CSIR) continued in Q3. As part of the package, staff in these hospitals have been oriented on the use and monitoring of the devices. Training emphasizes the importance of decongesting waiting areas and opening windows to increase ventilation if the alarm on the monitor goes off.

The project has procured 100 CO<sub>2</sub> monitors to date, of which 14 have been installed in nine facilities (five hospitals and four primary health care facilities). The following key challenges have been identified: poorly aerated facilities, CO<sub>2</sub> monitors are unplugged when the alarm continues to ring, and manual recording is inconsistently done (there were no additional incentives to report where there were no incidents).

The project has worked on integrating remote reporting by each device, with devices now sending out remote reports to the project, with plans to link facility managers and the Department of Health to action on alerts. Table 6 below illustrates the reporting received by the project from ODI Hospital, one of the health facilities implementing the FAST Approach. Preliminary findings reveal that the Casualty Department's environmental measures become compromised in the evenings when the department is at its busiest.

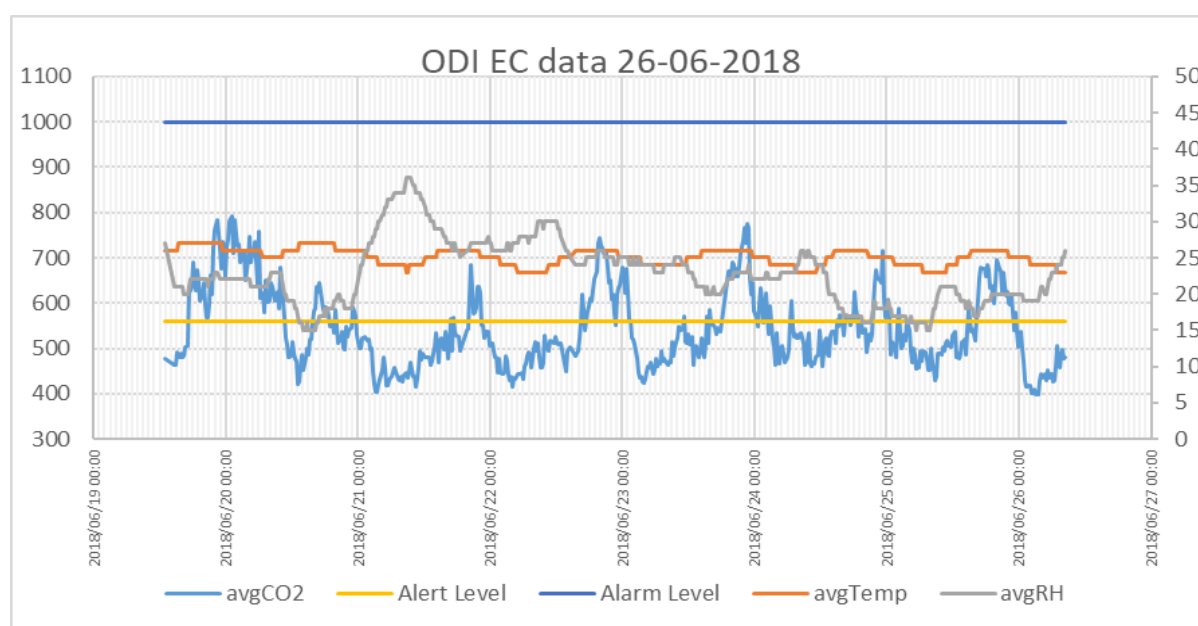


Figure 9: ODI Hospital data

### ***1.2.5: Integrate use of CO<sub>2</sub> monitors and web-based risk assessments in FAST Approach implementation***

In the pilot phase of using CO<sub>2</sub> monitors, a key challenge noted was inability of TB coordinators to identify key hot spots for prompt response. Records, while completed manually, made it laborious to prioritize intervention sites. A solution identified was to integrate alerts with the IPConnect platform already available utilized for capacity building on infection control. This will be an invaluable resource for operational managers to track infection control practices, but also as a repository for IPC tools,

SOPs and guidelines. The database for CO<sub>2</sub> monitors has been developed and will be linked to report on IP-Connect.

### ***1.2.6: Support the revision of national and international policies and guidelines on TB management***

The project contributed to reviewing the international IPC guidelines. The main discussion points included the standardization of IPC indicators. The project also provided technical input into reviewing the TB Preventative Therapy Memorandum. The key discussions points were on providing evidence for scale-up of the three-month regimen (*Rifapentine* and *Isoniazid*) on efficacy and cost-effectiveness of operationalizing preventative strategies. The South African government revised the *Drug Resistance Guidelines* based on submissions from project staff. These are pending release by the National Department of Health.

## **IR 1.3 Improved TB screening, including among key populations**

Preventing and reducing the number of infections in high-risk populations and settings is critical to reducing TB infections. The interventions implemented towards this end during the reporting period are elaborated below. The primary screening strategy is to improve early detection of active TB, which leads to early treatment, reduced risk of poor treatment outcomes, and reduced prevalence and death rates. In addition, it reduces TB transmission by shortening the infectious period and reducing incidences of TB. The USAID TB South Africa Project supports the NDOH through strategies to increase access to improved TB testing, particularly for individuals and groups at high risk. Approaches used include expanding strategies to reach, screen and evaluate individuals in groups at higher risk for latent TB infection and TB disease; improved application of diagnostic tests and clinical assessment with high combined specificity; and, minimizing risks of progression from latent TB infection (LTBI) to disease. Specific interventions conducted during the reporting period are further elaborated below

### ***1.3.1: Conduct one operational research to identify barriers to early diagnosis and treatment adherence in Nelson Mandela Bay Metro and develop and implement a model to address initial loss to follow up in three districts***

Plans to undertake a desk top review to exam barriers to care for TB and other chronic conditions in Nelson Mandela Bay Metro in preparation for a fully-fledged operational research supported by University of Pretoria were at an advanced stage by the end of Q3.

### ***1.3.2: Implement use of Rifampicin Resistant Alerts (Rif alerts) to link TB patients to care, in partnership with the National Institute for Communicable Disease, to reduce initial loss to follow up***

Following feasibility of community-based linkage to care, the project scaled up linkage to care through it's the activities of its sub-grantees and monitoring of Rif alerts to seven supported districts: Sekhukhune and Waterberg (Limpopo), Fezile Dabi and Mangaung (Free State), and OR Tambo, Sara Baartman and Nelson Mandela Bay Metro (Eastern Cape). The number of patients documented in care increased from 494 to 694, out of 716 post-intervention, as shown in Figure 10 below.

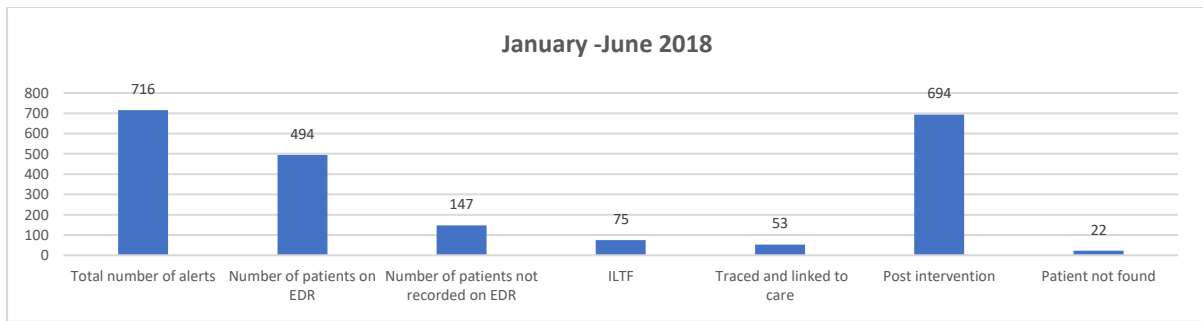


Figure 10: Use of Rif alerts to link patients to care

Systems improvement gains of 20 per cent were noted, through engagement of the district management. This finding was presented at the National TB Think Tank and buy-in was secured to ensure implementation beyond USAID TB South Africa Project-supported districts.

Use of DS-TB alerts is currently linked to the project quality improvement (QI) implementation strategy due to the high number of alerts generated on a weekly basis. This is also being used to generate a monthly testing report, compared to an estimated target, to inform impact of interventions. City of Johannesburg, Bheki Mlangeni and South Rand Hospitals, all in Gauteng Province, were used as pilot sites of DS-TB linkage to care. Using QI, TB treatment initiation rates in the two hospitals were recorded at above 95 per cent, as shown in Figure 11.

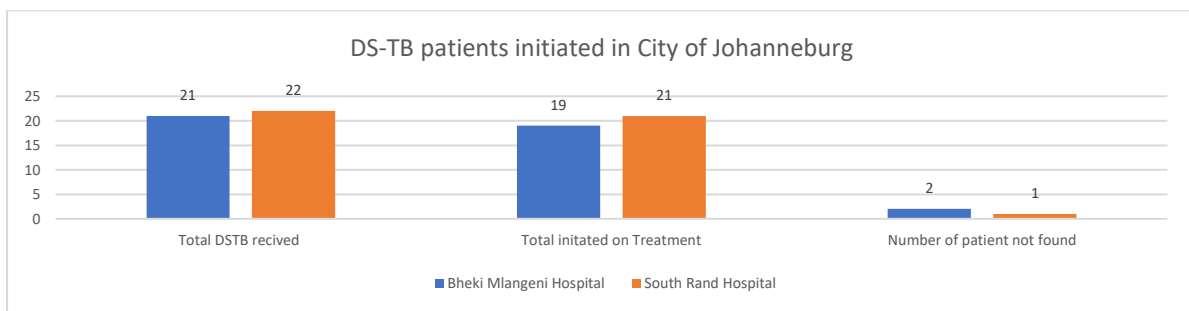


Figure 11: Use of DS-TB alerts to link patients to care in City of Johannesburg

### ***1.3.3: Pilot the use of Interferon-Gamma Release Assays (IGRA) to determine feasibility of its use amongst healthcare workers in two provinces: Free State and Kwa-Zulu Natal***

There is a large population of individuals with latent TB, who will continue to develop TB disease unless their risk of progressing to disease is diminished through improved LTBI detection, treatment implementation and adherence, and/or addressing the underlying clinical and population risk factors for progression. These strategies may also need to be targeted to KPs and high TB burden settings within South Africa. Screening for LTBI is beneficial if LTBI diagnosis can be made with reasonable accuracy, while excluding active TB.

Despite the lack of reliable standards for LTBI diagnosis, IGRA is one of the tests designed to detect latent TB infection. The project is collaborating with the NDOH to implement a study on IGRA to determine the feasibility of its use amongst health care workers. The high infection rate among health providers is a justification for targeting this key population (NSPI7-2022).

Three hospitals (implementing FAST, thus to be used as entry points), Zithulele Hospital, Eastern Cape Province; Pelonomi Hospital, Free State Province; and Pretoria West Hospital, Gauteng Province were selected for the pilot study. Ethics approval was granted by all provinces. A study implementation plan was developed and reviewed by the research team. An orientation workshop with study stakeholders was conducted, including: National Institute for Occupational Health (NIOH), NICD, QIAGEN, and

representatives of the Free State, Gauteng and Eastern Cape departments of health. Training materials, IEC materials and implementation plans were developed and adopted by the sites.

### ***1.3.4: Promote and conduct screening among key populations***

Many people from groups designated as KPs for TB do not present to health care facilities or benefit from intensified case finding in care facilities, congregate settings and other high-risk locations. The project promotes and conducts screening for TB among KPs. This approach has been strengthened by increased partnerships with community-based organizations (CBOs) and other social organizations, particularly at community level.

Since October 2017, project-funded sub-grantees conducted screening and door-to-door campaigns which resulted in over 80,000 people being reached with TB messages. Of the people reached, 94 per cent were screened for TB, with 448 new cases diagnosed with TB, as shown in the table below. In April and May 2018, grantees conducted awareness campaigns and door-to-door campaigns, reaching 17,576 people, of whom 15,533 (83 per cent) were screened and 60 were confirmed as having TB. Fifty-nine people (98 per cent) were started on TB treatment.

Table 6: Sub-grantee activities

Indicator	Oct-Dec 17	%	Jan-Mar 18	%	Apr-May 18	%	Total	%
Number of people reached	29,109		33,872		17,576		80,557	
Number of people screened	27,779	95%	32,709	97%	15,533	88%	76,021	94%
Number of people TB presumptive	3,060	11%	2,931	9%	1,680	11%	7,671	10%
Number of people tested	2,551	83%	2,035	69%	960	57%	5,546	72%
Number of people confirmed TB	263	10%	125	6%	60	6%	448	8%
Number of people started on treatment	262	100%	125	100%	59	98%	446	100%

### ***1.3.5: Pilot the use of point of care molecular testing using GeneXpert/Omni - Improved application of diagnostic tests and clinical assessment with high combined specificity.***

The project continues to explore improved application of diagnostic tests and clinical assessment with high combined sensitivity. This particularly applies to the introduction of testing with GXP machines to track both DS-TB and DR-TB and provide a faster, more specific diagnosis. The project is at an advanced stage in preparations to start implementing molecular TB testing using GeneXpert Omni through private general practitioners (GPs) in OR Tambo District, Eastern Cape Province. At the time of reporting, private practitioners have been enrolled. Implementation was scheduled to start in Q4; therefore, reporting on GeneXpert Omni will start in Q4.

**1.3.6: Support the Department of Health to identify hot spots within the 14 supported districts through geo-mapping**

During Q3, geomapping was undertaken in West Coast District, Western Cape Province. Of the 409 patients reported in the Electronic DR-TB Register (EDR.Web), only 336 patients were mapped, as the remaining patients could not be located. Patients either gave addresses that do not exist or the people living in the homes had never heard of the specified patients. As shown in the map, Saldana area had the highest concentration of patients. TB patients are concentrated in residential areas less than two kilometers in radius. These areas will be prioritized for active case finding, contact management and other outreach activities.

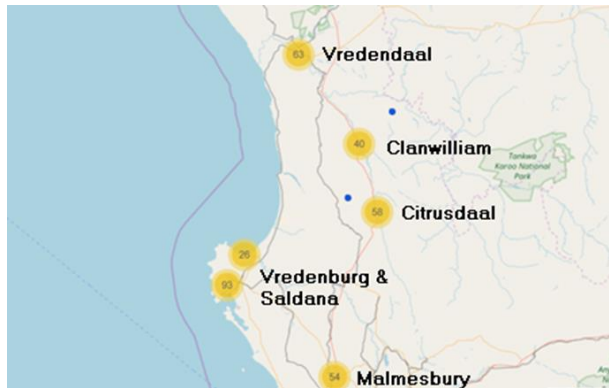


Figure 12: Distribution of DS-TB patients in West Coast District

Cumulatively, geomapping has been completed in seven of the supported districts since October 2017, including Cape Winelands and West Coast districts in Western Cape; Nelson Mandela Bay Metro and Sarah Baartman districts in Eastern Cape; uMkhanyakude and eThekweni districts in KwaZulu-Natal; and Waterberg district in Limpopo.

**1.3.7: Appoint 30 additional local non-governmental organizations to increase screening and finding of missing TB patients among prioritized key populations**

As of June 2018, the project funds 39 local NGOs out of the targeted 60 by the end of FY2, to provide community-based support to 5,228 patients (3,645 DS-TB and 1,583 DR-TB). This translates to 48 per cent of the target of 10,000 patients projected in the approved project work plan. Grantees provide support in 16 districts across eight provinces. Most supported patients are in Eastern Cape and Free State provinces (19 per cent respectively), as illustrated in the Figure 13 below. Activities for the grantees include adherence support, contact management and community screening.

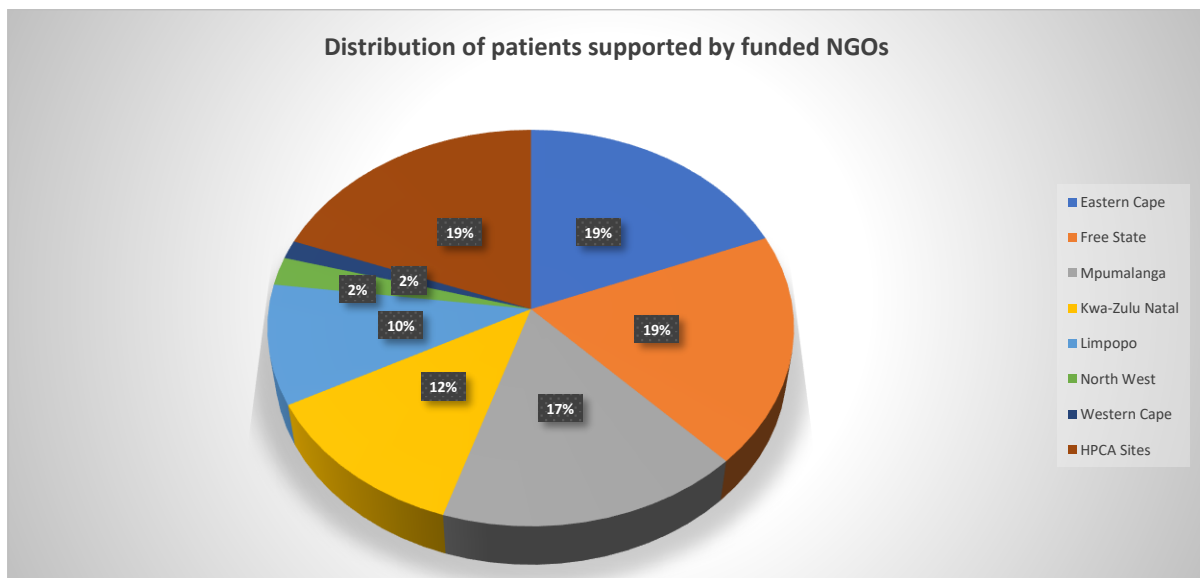


Figure 13: Distribution of patients supported by funded NGOs



## **IR2: Sustainability of Effective TB Response Systems Increased**

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Project-supported TB management services are implemented and delivered by existing health systems at national, provincial and district level, which provide the platform on which key TB prevention, diagnosis and treatment activities are introduced, expanded and strengthened. The quality of the larger health system, including the capabilities and attitudes of its staff has a critical role in the provision of quality TB services. Underlying the ability of the project to provide sustainable capacity-building to support the effective implementation of health policy is, therefore, the need to strengthen the capability of Health Management Teams at all levels to identify gaps and shortfalls in procedures; guide the recording, reporting, analysis and feedback of relevant data; and propose and obtain consensus on future action (e.g. necessary training). It is critical to improve the quality and availability of TB-related health systems including those for drug and laboratory policy and management, human resources for health, and monitoring and evaluation (M&E).

### **IR 2.1 Strengthened management capacity at all levels**

The assumption underlying this activity is that strengthened management capacity will contribute to institutionalized and improved systems. Thus, the project is implementing specific activities to strengthen management capacities further, as elaborated below, following a baseline Quality Assurance/Quality Improvement (QA/QI) assessment of current procedures in low-performing health facilities to identify current strengths and weaknesses.

#### ***2.1.1: Provide technical assistance to the National Department of Health to implement the National Quality Improvement Program***

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The project has seconded a quality improvement (QI) manager based at the NDOH. The manager oversees the implementation of the national QA/QI initiative of the NDOH. In addition, the project participates in the QI Steering Committee and Technical Working Group to review and guide implementation on the National initiative.

During the reporting period, the National QA/QI Team, which includes the project, conducted four learning sessions in Western Cape and eThekweni, training 177 health care workers. In addition, 138 health care workers were trained on data management in KwaZulu-Natal and Eastern Cape provinces to close the gaps identified during the QA/QI in these sub-districts.

The National QA/QI project has noted the high ratio of facilities allocated to improvement advisors. The team also noted that in the current model where improvement advisors visit districts at specific times, their support is viewed as external, thus limiting impact. The model will be changed to have Improvement Officers based in the district to support the DHMTs on a regular basis. Thus, the project will hire two additional improvement officers to support in directly supported districts. The project will continue to support QA/QI in all districts and will support scale-up in the national QA/QI sites.

#### ***IR 2.1.2 Provide technical assistance to provincial and district management on CQI***

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The USAID TB South Africa Project quality improvement strategy has been introduced to all 14 supported districts in six provinces, representing a health system shift in ensuring project implementation is within the existing health systems to sustain impactful innovations. To date, the project has oriented managers from 13 of the 14 supported districts on QA/QI and implementation is in progress in these districts with project support. Figure 12 below shows the conceptual framework of the project QI support

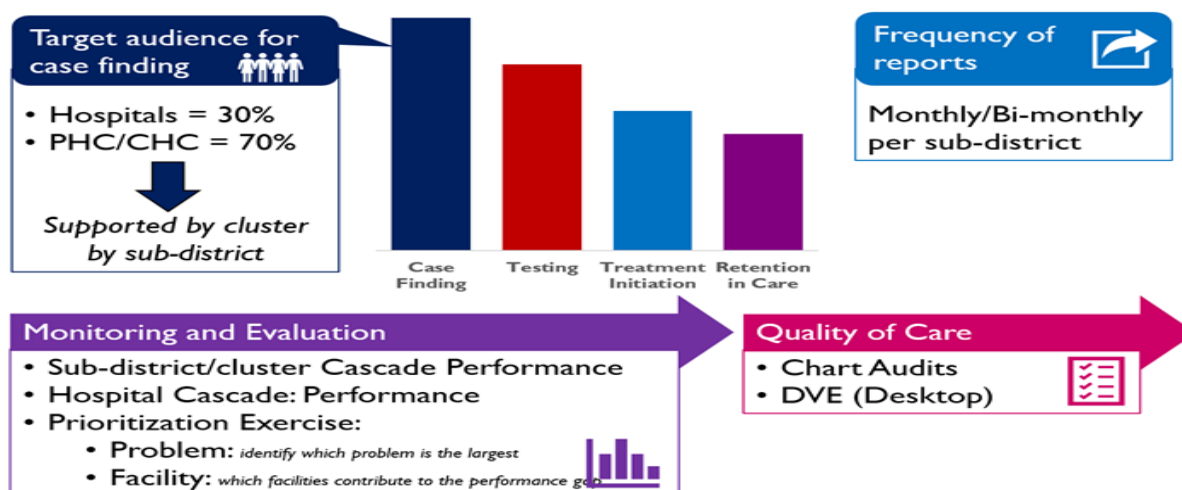


Figure 14: USAID TNB South Africa Project CQI model for support

### 2.1.3 Build capacity of HIV, AIDS, STI and TB managers, primary health care supervisors and local area managers on DS/DR-TB management, FAST, and infection prevention and control

To enhance health system capacity to meet the current challenges facing TB control and elimination in South Africa, managers at various levels were capacitated through review workshops conducted as shown in the table below. HIV, AIDS, STI and TB (HAST) managers, PHC supervisors and local area managers were among the participants.

Table 7: Capacity building workshops and program reviews held from April to June 2018

TB review workshop	# Male	# Female	Total
Quarterly Program Review Meeting	02	31	33
Sub-District Review	14	83	97
District HAST Review Meeting	08	106	114
Quarterly District Review Meeting	10	53	63
DR-TB Review Meeting	06	27	33
TB District Review Meeting	28	133	161
Provincial DR-TB Committee Meeting	34	50	84
<b>Programme Operational Plan</b>	16	97	113
<b>Total</b>	<b>118</b>	<b>580</b>	<b>698</b>

## IR 2.2 Strengthened service delivery capacity at all levels

This outcome focuses on two major areas: first, guidance and training to health care personnel, with attention to institutionalizing sustainable quality improvement, expanding access to training programs, and focusing on strengthening a Training of Trainers approach. Second, strengthening supportive systems for patient treatment.

## 2.2.1 Build capacity of healthcare workers on DS/DR-TB management, FAST, infection prevention and control and QA/QI, in collaboration with RTCs

### Collaboration with National & Provincial Regional Training Centers

The project, in partnership with Regional Training Centers (RTC) (National RTC, Limpopo, Free State and Eastern Cape Provincial RTCs) and the National TB Program, conducted three field test trainings for the draft Basic TB Management curriculum for HCWs, in April and May 2018 respectively. Inputs and comments received were incorporated into the final curriculum.



Figure 15: TB module development seminar

The project, in partnership with the NTP, also conducted a follow-up assessment of training modules to evaluate the translation of the know-do gap. The assessment covered general patient care, TB/HIV Care and treatment (integration) and reporting and recording. Overall, trainees scored well in the general clinical care and management for TB patients. However, gaps were noted in the screening on contacts and recording and reporting in some facilities assessed. On-spot training was conducted together with RTC staff to address some of the gaps identified. The findings of this assessment have been used to provide guidance to trainees and were discussed during feedback sessions.

**Capacity building:** During the reporting period, the project trained a total of 1,135 HCWs were engaged to enhance health system capacity to meet the current challenges facing TB control and elimination in South Africa. With the knowledge and skills received during the various training sessions, it is expected that TB service delivery along the continuum of care will be strengthened. Table 9 shows the number of HCWs trained on TB by category and type of training. In addition to didactic training, in-service trainings were conducted as part of the low-dose high-frequency training approach for 468 HCWs, shown in the table.

Training Course	Number trained
DR-TB Management	76
DR-TB Service Package Nutrition	40
TB Cascade Management & Reporting	46
FAST on-site training	64
Infection Prevention & Control	116
CQI	02
DR-TB & Nutrition	38
TB HIV Integration System	69
TB, HIV, STI & NCD	17

Table 8: Number of health care workers trained by category

### 2.2.2 Implement the use of self-directed learning modules

The project is still developing the web-based modules on self-directed learning modules.

### 2.2.3 Implement QAI/QI Approach to address identified gaps in the TB Care cascade

In the previous reporting period, the project focused its support on a few high burden facilities in a district. This limited the project's impact at district level. The project has changed its approach to QI utilizing sub-district/cluster-based intervention. This entails holding learning collaboratives at cluster or sub-district level and identifying poor performing facilities which will require additional support. During the learning sessions, facilities also learn from each other how they are implementing change ideas to identified problems.

To date, 25 sub-districts have been trained on QI across the 14 supported districts. Key gaps identified in cluster meeting include poor understanding of reported data and translation to key priorities, poor oversight of data capturers (no external assurance), and poor quality of TB screening.

Table 9: Summary of QA/QI activities

Province	District	Status of C-QITs and improvements noted	Issues, next steps, remedial actions etc.
<b>Gauteng</b>	Tshwane	Five teams based on the five districts (Tshwane, City of Johannesburg, Ekurhuleni, Westrand, and Sedibeng) - each team represents the two hospitals	Buy-in from provincial management Buy-in meetings locally and development of hospital specific QIP
<b>Free State</b>	Mangaung	Originally three teams based on the three sub-districts. These were revised to align with the DIP cluster processes. Bloemfontein (five), Botshabelo (two) Thaba Nchu (one) TB Screening increased from <40 per cent to 70 per cent	TB treatment initiation rate between 40 and 50 per cent Addressing data discrepancies between WebDHIS and Facility Monthly Data Input Forms
	Fezile Dabi	11 QIT, all three sub-districts now on board One sub-district still outstanding. QIP addressing challenges along the entire cascade TB Screening increased from 37 per cent to >80 per cent in Ngwathe Sub-District LTFU decreased from 12 to <5 per cent	CQI SOP implementation highlighted challenges with non-engagement of Operational Managers in the facility data management processes, especially access to the WebDHIS. All four local area managers and operational managers exposed to the functionalities of the WebDHIS as an orientation
<b>Eastern Cape</b>	OR Tambo	Seven QIT, as part of the NDOH TBQI Project	Trainings conducted in two of the four sub-districts Data management workshop conducted to address data quality challenges
	Nelson Mandela Bay Metro	Three QIT in Sub-District C, Part of NDOH TBQI Project	TB Screening improved from 40 – 70 per cent. Clusters now addressing TB testing and treatment initiation cascade. Data Verification Exercises planned to further clean the data Plan to roll out to Sub-District A
	Sarah Baartman	Training of operational managers conducted on QI and orientated on QI SOP	Implementation to start next quarter
<b>KwaZulu-Natal</b>	uMkhanyakude	Seven teams in Hlabisa Sub-District only, but activities were halted when there was no Coordinator on the ground	District coordinator started work in June. Implementation of activities continuing
	eThekweni	Three clusters in the South Service Area addressing TB screening and testing. Part of NDOH TBQI Project	Learning sessions conducted by NDOH. The project has appointed a mentor and a district coordinator who are also engaged in QA/QI activities
<b>Western Cape</b>	West Coast	One Team in Cederberg as part of NDOH TBQI Project	Roll out plan to Matzikama. Baseline assessments completed mid-June and training planned for end August 2018
	Cape Winelands	One team in Drakenstein, part of NDOH TBQI Project	Roll-out plan to Breede Valley
<b>Limpopo</b>	Waterberg	Three teams in each of the three sub-districts (Lephalale, Bela and Modimolle)	Conducting learning sessions has been challenging as different participants from DOH are sent for the meeting each time. This challenge is being addressed with DOH managers

Province	District	Status of C-QITs and improvements noted	Issues, next steps, remedial actions etc.
	Sekhukhune	Four of the five sub-districts trained on CQI	Teams formation remains challenging due to minimal support on the ground

### **2.2.5 Support NDOH in the introduction of new treatment regimens, including management of serious adverse events and adverse events**

As at June 2018, the cumulative number of patients enrolled on *Bedaquiline*-based regimens was 4,826. The project developed Terms of Reference for evaluation of adverse event reporting. Health Sciences Research Council (HSRC) was awarded a contract to review representative facilities in six provinces in South Africa providing DR-TB care. A road map through the Technical Working Group on Pharmaco-vigilance (WHO, Global Fund, DR-TB Directorate, Pharmaco-vigilance Unit, National Department of Health, and USAID TB South Africa Project) was drafted.

### **2.2.6 Implement DR TB service package in three districts for 200 patients**

#### Drug-resistant TB service package implementation

While South Africa has already made tremendous strides in improving access to DR-TB treatment and care, a 57 per cent treatment success rate for MDR-TB in 2016 is still unacceptably low (WHO, 2017). The project continued to lead efforts to implement a standardized package of essential DR-TB patient-centred services aimed to improve the quality of care and treatment success rates in three provinces (Eastern Cape, Free State and Limpopo). Provincial MDR-TB treatment sites were allocated to the intervention group and the control group. In the control sites, all patients diagnosed with DR-TB between July and December 2017 received the standard services. All eligible patients seen in the intervention sites during this period were provided with a DR-TB care package in addition to the standard DR-TB services. The DR-TB care package includes a health education package, patient and family education, nutritional support, psychosocial support, monitoring and timely treatment of side effects and adverse drug reactions; regular monitoring and treatment of mental health conditions, how to reduce social isolation and provide emotional support, how to protect from stigma and discrimination, and, transport assistance through provision of social grants.

Within six months of implementation, 225 patients had been recruited into the study; all patients evaluated in the research received the package for at least six months, and 14 completed treatment. Unfortunately, two patients were confirmed lost to follow-up; five were still hospitalized at the time of reporting and 22 patients had died. Data for cured patients will only be available after they have been on treatment for at least nine months and will, therefore be reported in the Q4 report. To ensure optimal implementation, 229 chart audits were done, and gaps identified on the completeness of patient's records, patient and family education, adverse events reporting, diabetes screening and nutrition status. In Q3 alone, a further 173 chart audits were conducted, showing improvement in quality of care and recording and reporting as shown in the Figure 14 below. The chart audits have facilitated flexible and targeted training of healthcare workers based on findings of the audits.

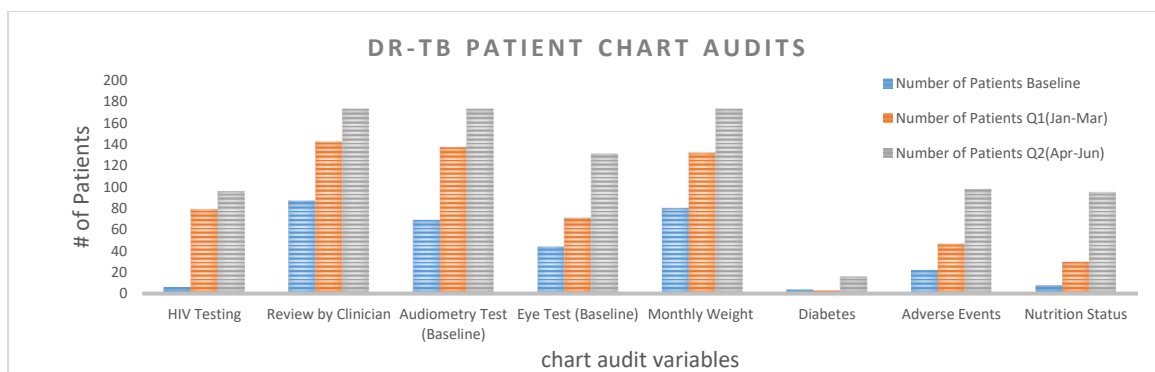


Figure 16: DR-TB patient chart audits

## IR2.3 Improved data reporting and recording at all levels

Target-setting and monitoring of progress in implementing each component of the NSP (2017-2022) is critical. Currently, four data reporting systems are in use – the Electronic TB Register (ETR.Net), the Electronic Drug Resistance Register (EDR.Net), the District Health Information System (DHIS) and the new electronic Tier system and the HIV and TB Integrated System (THIS). A key component of this project is to support the NDOH in its move to harmonize and standardize the TB recording and reporting system.

### **2.3.1: Build capacity at national and provincial, district and facility levels to collect, analyze and report accurate data in a timely fashion**

Between October 2017 and March 2018, the project trained 229 HCWs, against a target of 190, on data management in supported districts. During the period under review, an additional 74 HCWs from Nelson Mandela Bay Metro district were trained on THIS (45 operational managers, five clinic supervisors, and 24 data capturers). This increased the number of facilities fully signed up to 114 out of 145 in the districts.

### **2.3.2: Redesign and re-develop the ConnectTB application to improve patient management and reporting capabilities**

The project introduced and initiated scale-up of an innovative technology using tablets and cell phones for surveillance – the ConnectTB mHealth application. During the reporting period, the project continued to redevelop the ConnectTB application. The platform was delivered on June 15<sup>th</sup>, 2018 and was being field tested at the time of reporting. The ConnectTB platform has been expanded. At the end of the reporting period, 23 of the 39 NGOs were using ConnectTB for adherence support to patients. The remaining NGOs will start using ConnectTB on August 1<sup>st</sup>, 2018. This will ensure standardization of care and improve reporting and recording among project-funded sub-grantees.

### **2.3.3: Support Department of Health to identify TB hotspots in the 14 project supported districts using geomapping**

Cumulatively, geomapping has been done in seven of the 14 districts since October 2017: Cape Winelands and West Coast districts in Western Cape; Nelson Mandela Bay Metro and Sarah Baartman districts in Eastern Cape; uMkhanyakude and eThekweni districts in KwaZulu-Natal; and Waterberg District in Limpopo.

### 2.3.4: Support the Department of Health to conduct quarterly provincial/district program reviews

During the reporting period, the project supported seven quarterly reviews in Fezile Dabi, OR Tambo, uMkhanyakude, Waterberg, City of Tshwane, Sarah Baartman and West Coast. This brings the total to nine reviews supported by the project, out of the projected 14. During the reviews, TB program performance was discussed with the relevant district, sub-district and facility managers. Gaps noted included poor quality of screening, low testing rates and increasing loss to follow-up rates. Districts were supported in the development and implementation of quality improvement plans to address the identified gaps.

### 2.3.5: Carry out internal data quality audits for monthly reported data and for supported NGOs data

Data Quality Assessments (DQAs) provide a verification factor, which is a measure obtained by comparing the data reported by NGOs to the project, versus what is recorded in the physical records and registers both at the NGO and facility levels. During the reporting period, significant progress was made towards assessing the accuracy, consistency and reliability of data collected through the Small Grants Program. A DQA tool and SOP were developed and the tools field tested on April 16<sup>th</sup> and 24<sup>th</sup>, 2018 at Care Ministry (Nelson Mandela Bay Metro District, Eastern Cape Province) and Isiphephelo (Mpumalanga Province) respectively. Following the piloting of the DQA tools, four DQAs were done with NGOs: Bokamoso, Lesedi Lechabile (Free State), Octavovect and Mfesane (Eastern Cape). Some data gaps noted during the DQAs include over-reporting of patients by some NGOs, systematic under-reporting on outcomes and poor record keeping, as some of the source documents were misplaced, as shown in Table 11 below.

All the current 39 NGOs will have been assessed by the close of the program year in September. The project is migrating all supported NGOs to ConnectTB to improve data management and additional training is being given to the NGOs to address the identified gaps.

Table 10: Data from NGO data quality assessments

Organization	Key findings (positive and negative)	Remedial actions
<b>Bokamoso</b>	<p>Positives</p> <ul style="list-style-type: none"> <li>The Bokamoso team comprises the project manager, admin officer, data capturer and 10 CHWs. In terms of project implementation and performance monitoring, this team is capable</li> <li>A comprehensive DOT register has been developed to improve data management and reporting. This tool was implemented from June 2018</li> </ul> <p>Negatives</p> <ul style="list-style-type: none"> <li>There is a need for a clinical person who will liaise between the facility and the NGO to ensure that there are no gaps between data reported by the grantee and the facility</li> <li>Recording and reporting is done in an A4 note book, with no source documents for consolidation</li> <li>The grantee does not have a directly observed treatment (DOT) visit register</li> <li>Community healthcare workers' (CHWs) weekly reports are not dated and numbered correctly</li> <li>Reporting of indicators by CHWs is not done. This can assist in measuring cadre performance towards the set targets.</li> </ul>	<ul style="list-style-type: none"> <li>The NGO must implement a summary report per CHW to be able to collate correct totals. This can be implemented per day or week and month. These summaries must be kept safely at their office. It will also enable verification during DQA process</li> <li>The grantee must implement the DOT visit register per CHW and collate the reports regularly (daily, weekly and monthly)</li> <li>There is a need for Basic TB Management training.</li> <li>Appointment of a clinician to monitor sputum dues, collection and patient outcomes.</li> </ul>

<b>Lesedi Lechabile</b>	<p>Positives</p> <ul style="list-style-type: none"> <li>The NGO uses a DOT visit sheet for each CHW. The sheet is signed by both the care giver and patient during each visit.</li> </ul> <p>Negatives</p> <ul style="list-style-type: none"> <li>The absence of administration staff, data capturer, and project manager at the Botshabelo office Inadequate data management processes.</li> <li>Recording and reporting is done in an A4 note book, with no source documents for consolidation</li> <li>The grantee doesn't have a DOT visit register.</li> <li>Reporting of indicators by CHWs is not done. This can assist in measuring cadre performance towards the set targets.</li> <li>Thaba Nchu has a small TB caseload and there are other NGOs in the area that offer the same services as Lesedi Lechabile. Therefore, the NGO is struggling to meet its patient numbers target.</li> </ul>	<ul style="list-style-type: none"> <li>A follow-up DQA is recommended at Lesedi Lechabile head office, with the presence of the project manager and/or director</li> <li>Appointment of data capturer at their Botshabelo office to assist with data management</li> <li>The NGO must keep all their reports at the Botshabelo office This will help with verification during DQAs</li> <li>Regular support visits and reporting by the monitoring and evaluation officers and provincial/district coordinators to monitor implementation of the recommended action plan</li> </ul>
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### **2.3.6 Conduct data quality assessments in partnership with the National Department of Health**

The project completed two DQAs in Waterberg and Cape Winelands districts in October and November 2017. During this reporting period, three DQAs were done (one in Cape Winelands and two in Fezile Dabi). Findings from the DQAs showed improved recording of patient demographic data, confirmation of patient diagnosis and TB treatment elements. However, gaps were noted in recording of HIV information, pharmaco-vigilance, laboratory monitoring and contact management. The districts were supported to address the identified gaps. District TB coordinators will support facilities to record HIV, pharmacovigilance, laboratory monitoring, contact management and social monitoring information in the patients' books.

### **2.3.7 Continue to support NDOH to review monitoring and evaluation tools**

The project reviewed the monthly data input form to include all 90-90-90-90 cascade indicators. The project also participated in the review of the National Indicator Data Set (NIDS) indicators this quarter and updated the Monthly Data Input (MDI) forms.

## **IR 3: Care and treatment of vulnerable populations improved**

Marginalized, vulnerable populations as well as those most at-risk are a special focus for the DOH, as illustrated in Table 12. Unless TB services are extended to serve these populations, the achievement of country goals will not be possible.



Table 11: Vulnerable populations in the context of TB in South Africa (NSP 2017-2022)

Risk Groups	Size of Risk Group		TB Estimates in Risk Group				NINS*	Number of Cases (2014) <sup>†</sup>	Overall Contribution to Epidemic <sup>‡</sup>
	Risk Group (% of Pop)	Size of Risk Group (Number)	Prevalence of TB per 100 000*	Relative Risk of TB **	Incidence of TB per 100 000*	% of Pop Accepting Screening*			
General population	100%	54 000 000	696	1.0	834	60%	144	450 360	100%
Children under 5 years	10.6%	5 719 329	511	0.7	407	60%	196	23 278	5%
Elderly**	5.5%	2 971 887	190	0.3	262	60%	526	7 786	2%
Refugees and migrants**	2.7%	1 450 000	1084	1.6	1084	44%	92	15 718	3%
Health workers	0.4%	231 111	1470	2.1	1133	85%	68	2618	1%
Miners	0.9%	510 000	1056	1.5	3000	100%	95	15 300	3%
HIV infected	10.2%	5 510 000	4500	6.5	6517	78%	22	359 087	80%
Diabetics**	4.2%	2 292 920	2760	4.0	2760	77%	36	63 285	14%
Pregnant women	2.3%	1 250 782	3300	4.7	1125	28%	144	13 587	3%
Prisoners	0.3%	159 563	300	7.6	2300	100%	19	8456	1.9%
Informal settlements	6.1%	3 306 697	2703	3.6	1500	60%	37	162 689	36%
Clinic Attendees**	45.0%	24 300 000	6398	9.2	8500	89%	16	413 100	92%
Household contacts	1.7%	1261 800	3500	5.0	1300**	95%	20	63 090	14%

Although TB, DR-TB, and TB/HIV treatment is mandated by South African national policies and provided free of charge at public health care facilities, quality treatment is still not accessible to many groups of people. The project will use several approaches to increase care and treatment services for vulnerable populations: (i) improved systems of reaching these populations through contact tracing and TB case monitoring; (ii) expanding community involvement in and links with the PHC system for DOTS delivery; and (iii) increasing formal and informal linkages with organizations and institutions that work with these populations. The improvement in systems and performance that are aimed at increasing this outreach will benefit all patients. The strategy will be developed in close collaboration with PEPFAR's program for co-infected patients.

### 3.1 Increased contact tracing of key populations

The Joint Review of TB Programs in South Africa (April 2014) identified strengthened use of TB cascade analysis as a key instrument to reduce losses of patients and the NTP has identified this process as an immediate priority. Cascade analysis can identify key intervention points in the referral cascade that need to be addressed to reduce losses and ensure retention in care of TB patients. Project interventions include screening for TB of all persons attending health facilities, testing of identified suspects, tracing and screening of contacts of confirmed patients, initiation on treatment and loss to follow-up. Specific interventions during the reporting period and some key results are highlighted below.

#### 3.1.1: Implement contact management for all 10,000 TB index cases to contribute towards finding 2,000 missing TB patients

During the reporting period, 4,061 contacts from 2,040 index TB patients were reached and 4,026 (99 per cent) screened for TB, of which 817 (20 per cent) were presumptive for TB, 754 (92 per cent) were tested and 59 (8 per cent) diagnosed with TB and linked to care, as shown in the table below. Cumulatively, since October 2017, 16, 685 contacts were reached through 5,512 index cases leading to the diagnosis of 417 TB cases. The number of index cases reached is 55 per cent of the target set in the work plan.

Table 12: Adult contact management figures

Adult contact management	Oct-Dec 17	Jan-Mar 18	Apr-May	Total
Number of new index patients	1,815	1,657	2,040	5,512
Number of contacts reached	7,335	5,289	4,061	16,685
Number of contacts screened	7,096	5,395	4,026	16,517
Number of contact with presumptive signs	1,368	1,061	817	3,246
Number of contacts tested	1,195	945	754	2,894
Number of contacts confirmed positive TB	150	208	59	417
Number of contacts put on treatment	150	208	59	417

For child contact management, 295 children were reached and 287 (97 per cent) screened. 254 (85 per cent) were referred for TB investigation and nine (6 per cent) diagnosed with TB, and all started on treatment.

### 3.1.2 Pilot use of *ConnectTB* among Ward Based Outreach Teams to expand contact management and patient care

A key priority of the project is to ensure sustained implementation of strategies to support community-based management of TB. Capacity-building is done to strengthen processes for working with the PHC Re-engineering Ward Based Outreach Teams (WBOTs). During the period under review, significant progress was made to pilot use of *ConnectTB* among WBOTs to expand contact management and patient care in Nelson Mandela Bay Metro. Various meetings were held with provincial, district and operational managers to discuss implementation and ensure a government led-intervention. The meetings were then followed up with training of five WBOT teams on *ConnectTB*.

Following the training, implementation started mid-June 2018, led by DOH staff with the project providing technical support and on-going mentorship.

Table 13: Results from two weeks of implementation of *ConnectTB* in Nelson Mandela Bay Metro

Indicator	Number
Number reached	533
Number screened for TB	346
Number symptomatic for TB	64
Number symptomatic with sputum sent for testing	17
Number positive	14
Number started on treatment	Not yet available

Early results from the two-weeks of implementation show positive outcomes. WBOTs in Nelson Mandela Bay Metro were previously not reporting on TB indicators. The intervention has now enabled TB reporting. Of the 533 clients reached, 14 were diagnosed with TB as shown in the table above.



Figure 18: Nelson Mandela Bay Health District operational managers, including facility managers, WBOT team leaders, NGOs and the district manager



Figure 17: Nelson Mandela Bay Health District operational managers discussing operationalization of scale-up of *ConnectTB*



Figure 19: West End Clinic WBOT Team with their team leader WBOT coordinator for Sub-District C, facility manager and ConnectTB facilitator

Of note is the low testing rate for presumptive TB patients, as WBOTs refer clients to the clinic for sputum collection. The project will work with WBOTs to improve linkages to increase TB testing among presumptive TB patients. Based on these early results, it is worth investing more into scaling up ConnectTB among WBOTs, particularly where there is high-level buy in and ownership by district management. There is a great potential to scale up the intervention across all facilities in Sub-District C in Q4.

### IR 3.2 Improved TB case management among key populations

Expanding access to reliable, linked TB services for key populations requires tailoring program elements to the specific conditions and different issues of each population. Case management systems for these populations need to be responsive to the shifting situation of many of these populations, such as systems for sputum collection and testing in such settings. The project continues to develop tailored programs in conjunction with the DOH and other key partners, as elaborated in the report below.

#### ***3.2.1: Support NDOH to develop treatment guidelines for latent TB infections (LTBI)***

Development of latent TB guidelines, pending results of IGRA study (commissioned by USAID TB South Africa Project), and additional studies in South Africa (see detailed reporting under IR2).

### ***IR 3.3 Strengthened comprehensive systems and partnerships for care***

In South Africa, as in many other countries, the private, quasi-governmental and non-DOH public sectors play an important role in providing health and TB services and in reaching out to communities at risk. To strengthen outreach and access to high quality patient support and care for TB services in a range of settings, the project continues to develop new and stronger partnerships with the health service, across government agencies, local organizations and health service providers in the private sector. Key interventions during the reporting period are highlighted below.

#### ***3.3.1: Engage private practitioners in urban and rural settings to improve TB case finding, linkage to care and treatment outcomes***

The project continues to explore opportunities for developing locally generated models of best practices in TB, MDR-TB and TB/HIV care packages and services in the private sector. The USAID TB South Africa Project launched its engagement with NEXT2People in 2017, with the intention of collaborating with the private sector (through private general practitioners (GPs) to improve TB case-finding in OR Tambo District. Since approval of the proposal in December 2017 and, the following progress was made in the quarter under review:

- Provincial and district approval: The Eastern Cape Department of Health Clinical Cluster Management approved implementation of the project on April 24<sup>th</sup>, 2018 and the project has been given a final go-ahead. The project will be launched on July 16<sup>th</sup>, 2018.
- Identification of project implementation sites: The project will be launched in three phases. Phase I will be in Libode/Port St Johns, Phase II will be in Qumbu, and Phase III will be in Flagstaff, Lusikisiki, Mthatha, Tsolo and Mqanduli.
- Enrolment of private GPs, CHWs and professional nurses: 22 private GPs and 13 CHWs have been enrolled into the project.
- Training and capacity building: The first training of CHWs was held on April 3<sup>rd</sup> to 5<sup>th</sup>, 2018 at Mthatha Health Resource Centre. A total of 13 CHWs were trained and represented all sub-districts except for King Sabata Dalindyebo. A follow-up workshop was held at Port St Johns on May 30<sup>th</sup> and June 1<sup>st</sup>, 2018 for 44 CHWs.
- Establishment of partnership with Cepheid: A strategic partnership has been established with Cepheid, who have donated two additional GeneXpert machines, which will be installed at PSJ Community Health Centre (CHC) and Qumbu CHC respectively.
- Engagement of the National Health Laboratory Services: A meeting was held with the NHLS at the Nelson Mandela academic hospital in Mthatha on the May 10<sup>th</sup>, 2018 with all OR Tambo District NHLS managers and a representative from the OR Tambo District Health Office. Roles and responsibilities were assigned and a draft letter of commitment developed. The letter outlines the terms of the partnership with NHLS.

### ***3.3.2 Collaborate with PEPFAR District Support Partners (DSPs) to improve TB case-finding, linkage to care and treatment outcomes***

District Support Partners (DSPs) collaboration: The project continues to explore and strengthen mechanisms for collaboration, referral and screening between district support partners (DSPs) and other major donors working with the TB program. Key actions include linking and expanding activities in TB/HIV between the PEPFAR program and separately-funded USAID and Centre for Disease Control (CDC) activities; and harmonizing planning with the Global Fund. To maximize programmatic synergies and coordination between the USAID TB South Africa Project and the PEPFAR DSPs working in the same priority districts, the project engaged with DSPs to identify areas of collaboration in implementing TB/HIV activities. This partnership approach is employed to avoid duplication of efforts and ensure more efficient use of United States Government investment in the fight against HIV and TB in South Africa. Areas of collaboration include:

- Building capacities in basic management of TB, including IPC, for Department of Health staff and other partners in overlapping districts and supported facilities.
- Providing training on the implementation of TB QI activities and supporting facilities and districts to implement CQI initiatives.
- Coordinating the sharing of IEC materials related to TB, MDR-TB and IPC in supported facilities.
- Collaboration also includes conducting joint campaigns to enhance knowledge about the links between TB and HIV, and to raise awareness about the two.
- Collaboration on conferences.

Support in specific districts is highlighted below.

#### National

*Foundation for Professional Development (FPD):* The project worked with Foundation for Professional Development to implement the 5<sup>th</sup> South Africa TB Conference which was held in eThekweni District, KwaZulu-Natal from June 12<sup>th</sup> to 15<sup>th</sup>, 2018.

#### Provinces

##### **Eastern Cape**

The project collaborates with Health System Trust (HST), JHPIEGO South Africa (JPS Africa) and Kheth'Impilo in Eastern Cape Province, as highlighted below.

*Health Systems Trust:* The project provides support to HST nurse mentors on TB management among their assigned patients, including referral linkages to facilities. HST data capturers were assisted on how to capture TB data, which reports to generate, and how and when to generate the reports on the TB HIV Integrated System (THIS). The project has a planned training in July for DR-TB for nurse mentors.

Table 14: TB cascade among farm workers (Oct-Jun 2018)

Indicator	Oct -Dec	Jan-Mar	Apr -Jun	Total
Reached	3,924	5,324	3,050	12,298
Screened for TB	3,708	4,954	2,876	11,538
Presumptive for TB	572	678	833	2,083
Tested for TB	555	524	830	1,909
Tested positive	70	74	44	188
Initiated on	67	63	38	168

*JHPIEGO South Africa (JPS):* Data capturers are provided technical support on DR-TB data management, which includes generating reports for long and short TB regimens, follow-up of DR-TB sites to ensure completeness of registers for data capturers to record and update patient records on WebDR.

*Kheth'Impilo:* The project collaborates with Kheth'Impilo on the TB in Farms Initiative in Sarah Baartman District during pre- and post-season health screening campaigns. While the project provides TB-related services, Kheth'Impilo provides HIV testing and counselling services.

## Gauteng

*Right to Care and University of Pretoria:* The project, in collaboration with Right to Care and University of Pretoria, are working together on a campaign for 'close the gap' by finding missing TB patients in Region 6 (Mamelodi), in City of Tshwane. The project's support took the form of capacity building for CHW who participated in the campaign. The project also provided IEC materials and sputum carry cooler boxes for the campaign, while RTC engaged the CHWs and University of Pretoria managed the reporting tools used.

## KwaZulu-Natal

*Match, Aurum, HST and SACBC:* In collaboration with the DSPs (Match, Aurum, HST, SACBC), the project developed a TB/HIV integrated work plan, which services both the eThekweni district and municipality. As a result, USAID TB South Africa Project was assigned to support the eThekweni District South Service Area.

## Limpopo

*Aurum, Humana People to People, Childline Limpopo and Zakheni Training and Development Centre:* The project capacitated Aurum Institute staff, together with other district partners (Humana People to People, Childline Limpopo and Zakheni Training and Development Center) on the CQI SOP developed by the project in Sekhukhune District, Limpopo Province as part of the HAST review meeting. Partners were also orientated on the FAST Approach being implemented in all hospitals in Limpopo Province.

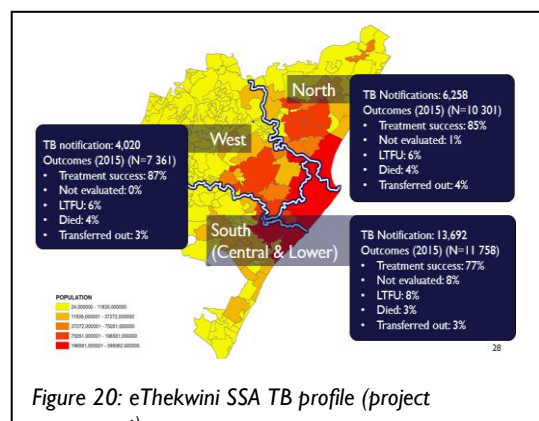


Figure 20: eThekweni SSA TB profile (project)

### 3.3.3 Continue to support Department of Health to scale-up implementation of a model of support for farms and farming communities

The TB in Farms Intervention Model was expanded to Waterberg and Sekhukhune districts, Limpopo Province in May 2018. This expansion brings the total number of districts implementing the model to

five (Waterberg, Sekhukhune, Sarah Baartman, West Coast and Cape Winelands) achieving the five targeted in the approved work plan. During the reporting period, 3,050 farm workers were reached, resulting in the diagnosis of 44 patients, as shown in Table 16. Cumulatively, 12,298 farm workers have been reached in implementing districts, with 188 new cases diagnosed.

### **3.3.4 Engage the Department of Agriculture, Forestry and Fisheries; Department of Transport; Department of Social development; Department of basic Education to identify opportunities to strengthen TB response**

The project, engaged with the Department of Basic Education, in collaboration with Department of Health (School Health Teams) in two supported districts; namely Fezile Dabi in Free State Province and OR Tambo in Eastern Cape Province. In Fezile Dabi, TB information sessions were conducted in six schools in Kroonstad. The project also facilitated a TB dialogue with learners in Moqakha Sub-District during the reporting period. In OR Tambo, a TB awareness and screening campaign was conducted at Dudumayo Senior Secondary School. During the campaign, 104 learners were reached with TB messages. All 104 (100 per cent) were screened for TB, 28 (27 per cent) presumptive cases were identified and all 28 (100 per cent) were tested for TB, while one (4 per cent) tested positive and was initiated on treatment.

### **3.3.5 Engage with public agencies (e.g. South African Medical Association, Public Health Association South Africa and South African National AIDS Council to identify opportunities for partnership to strengthen TB and TB/HIV collaborated response**

#### **South African Medical Association**



As part of engaging private practitioners and strengthening the project's efforts to collaborate with the private sector for comprehensive systems and partnerships for care, the project had initial discussions with members of the South African Medical Association (SAMA) to explore potential areas of collaboration. Identified areas of collaboration include capacity building for private HCWs. The project can share TB information and guidelines with health care providers on SAMA platforms to more than 17,000 HCWs.

#### **National Institute for Communicable Diseases**



An MOU was signed between the USAID TB South Africa Project and the National Institute for Communicable Diseases on April 24<sup>th</sup>, 2018. The MOU documents the respective roles and responsibilities of the two parties in relation to the following activities:

*IGRA study:* IGRA is one such test, designed to detect latent TB infection. The project supports the NDOH to implement a study on IGRA to determine the feasibility of its use amongst healthcare workers. The project will collaborate with NICD on testing of TB infection among health care workers for early case detection and initiation on treatment. The study is scheduled to commence in July 2018 in Eastern Cape, Free State and Gauteng provinces.

*Linkage to care, initial lost to follow-up (ILTFU):* using Rif alerts to trace diagnosed DR-TB patients who have not been started on treatment. Patients will be linked to care and initiated on appropriate treatment. The linkage to care intervention is being implemented in six districts across five provinces: Eastern Cape, Free State, KwaZulu-Natal, Limpopo and Western Cape.

## South African National AIDS Council

The project participated in South African National AIDS Council (SANAC) local structures at the KwaZulu-Natal Provincial AIDS Council Civil Society workshop, which was held from June 28<sup>th</sup> to 29<sup>th</sup>, 2018 at the office of the premier in eThekweni District. The project presented on the technical support provided and various activities being implemented in the district, including the finding missing TB patients project. The purpose of the project's participation in the meeting was to get 'buy in' and commitment from local councillors on initiatives to finding missing TB patients project for them to assist with mobilizing communities to participate and creating awareness on the project.



### 3.3.7 Convene TB Symposium on Key Populations to highlight effective strategies to address TB amongst key populations

The project hosted the TB Symposium on Key Populations on June 12<sup>th</sup>, 2018 at the 5<sup>th</sup> South Africa TB Conference held in Durban. The symposium, which was attended by over 200 stakeholders, discussed strategies that need to be implemented in finding missing TB patients and to reach the 90-90-90-90 TB targets among key populations in the country. Global and national experts shared existing good practices and models of care for addressing TB among various key populations, such as migrant workers (farm and mines workers) and inmates in correctional facilities. Among the speakers was Ms Rebecca Krzydwa, USAID Southern Africa Acting Mission Director. Ms Krzydwa gave remarks on the work USAID has done and continues to do through funded projects such as the USAID TB South Africa Project in terms of providing support to the Government of South Africa to reach the 90-90-90-90 targets and commitment to ending TB. Dr Lucica Ditui, Executive Director of Stop TB Partnership spoke on the global efforts to end TB among key populations: Lessons for South Africa.

Figure 21: Dr Lica Ditui (left), Stop TB Partnership Executive Director and Ms. Rebecca Krzydwa (right), USAID/Southern Africa Acting Mission Director



### 3.3.8 Build capacity of 60 local NGOs in South Africa to improve TB case finding at community level

The USAID TB South Africa Project committed to finding 15,200 missing TB patients. The project's aim is to contribute to the 40,000 target that the National Department of Health has committed to finding by August 2018. The government target is in preparation for the United Nations General Assembly meeting, which will be attended by health policy makers around the world. For the first time TB will be on the agenda. According to the WHO, an estimated 154,000 TB patients are reported missing from care, either as they are undiagnosed or diagnosed but not initiated on treatment in South Africa.

Within the government's strategy, the USAID TB South Africa Project is implementing various activities in efforts to locate the missing TB cases, working towards the set project target. Activities are broadly aligned to the NDOH's five key interventions: optimized TB screening, efficient contact tracing of index cases, enhanced case detection among key populations, improving diagnostic yield through use of new diagnostics and revised algorithms, and improved quality standards for recording, reporting and movement of patients between facilities

Table 15: Missing TB cases Jan-Mar and Apr-Jun 2018 from eight supported districts

Strategy	National target	Actual	Actual	Percentage achieved
	Apr–Aug 2018	Jan–Mar 2018	Apr–Jun 2018	Jan–June 2018
Contact management	2,000	18	42	3%
Community mobilization including door-to-door campaigns	2,200	20	68	4%
FAST + IPC	6,000	607	1,377	33%
District support: CQI + ILTFU initiative	3,000	0	308	10%
Moved in, moved out	1,500	0	0	0%
Data clean up exercises	2,000	0	66	13%
Diagnostics tests (GeneXpert Ultra and LAM)	1,000	0	33	7%
Key populations	2,000	4	12	1%
<b>Total</b>	<b>15,200</b>	<b>649</b>	<b>1,906</b>	<b>17%</b>



## Project key output and performance indicators

### Background

The project now supports 14 districts; but has not started fully implementing initiatives in City of Cape Town. The current data, therefore, excludes information from City of Cape Town. The current 90-90-90-90 cascade data is by quarter from October 2016 to March 2018. In Gauteng Province, DOH computers were infected with a virus, resulting in the province asking districts to re-enter their data delaying reporting of data from the province for City of Johannesburg and Tshwane.

Tuberculosis cascade analysis towards achieving the 90-90-90-90 targets: 90 per cent of headcount screened for TB, 90 per cent of those with symptoms tested for TB, 90 per cent of clients diagnosed with TB put on treatment and 90 per cent of those put-on treatment successfully complete treatment, as illustrated in Figure 20 below. At the time of reporting, the project was supporting 14 districts, based on recommendations of the Project Steering Committee. There was a 20 per cent increase in head count from October to December 2016 to January to March 2018 (from 4,972,420 to 5,951,283). The proportion screened increased from 67 to 83 per cent during the same period. However, there was just a 1 per cent increase in the number tested for TB in supported districts, from 104,067 to 105,341. The number initiated on treatment increased by 27 per cent (from 8,798 to 11,198). The proportion of clients initiated on treatment consistently exceeded the 90 per cent national target. There was also a recorded decline in the number of clients who died or were initially lost to follow up (six and 40 per cent respectively). This is attributed to the expansion of CQI activities in 12 supported districts; (except in City of Cape Town and uMkhanyakude) and expansion of the FAST Approach to hospitals in seven supported districts (City of Johannesburg, Tshwane, Mangaung, eThekweni, OR Tambo, Waterberg and Sekhukhune).

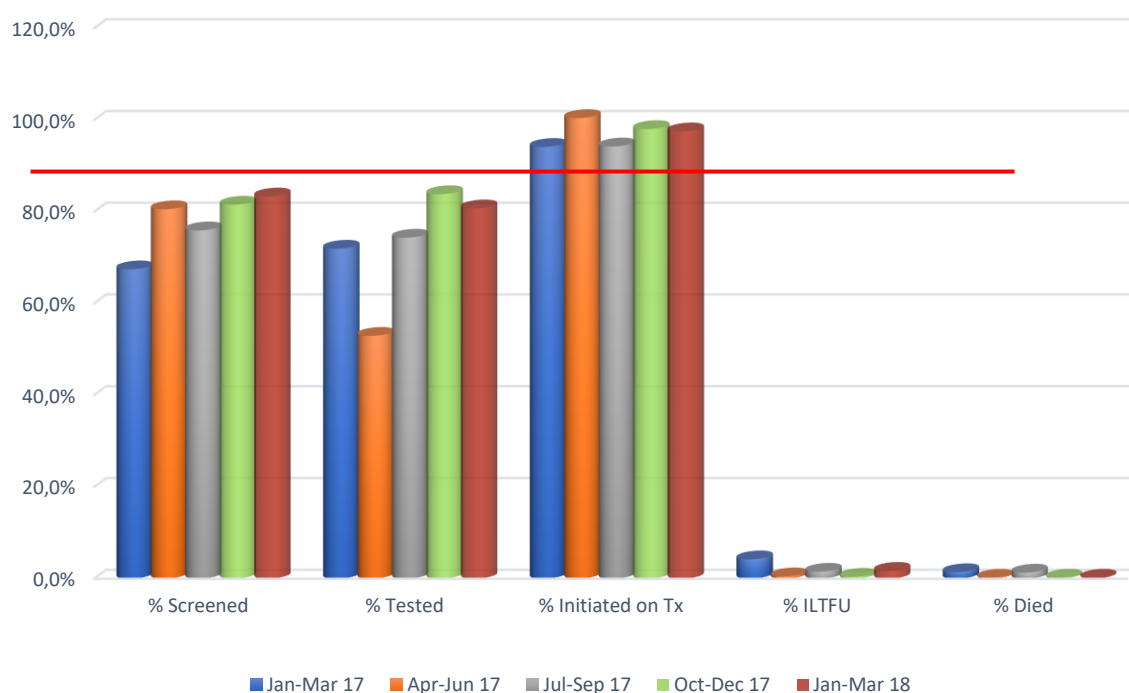


Figure 22: USAID TB South Africa-supported districts 90-90-90 cascade performance (January 2017 to March 2018) by quarter

The individual districts cascade data (individual district data and analysis – **Annex**)

Table 16: Individual districts cascade data (individual district and analysis)

USAID TB South Africa Project supported districts cascade data												
	Oct-Dec 2016		Jan-Mar 2017		Apr-Jun 2017		Jul-Sep 2017		Oct-Dec 2017		Jan-Mar 2018	
Number	#	%	#	%	#	%	#	%	#	%	#	%
Headcount	4,972,420		5,632,786		5,047,507		4,786,873		5,179,966		5,951,283	
Screened for TB	3,289,646	66.2	3,798,586	67.4	4,063,104	80.5	3,630,881	75.9	4,223,441	81.5	4,957,726	83.3
Presumptive TB clients	122,443	3.7	174,047	4.6	227,518	5.6	134,554	3.7	121,275	2.9	130,506	2.6
Tested	104,067	85.0	125,195	71.9	120,286	52.9	99,941	74.3	101,688	83.8	105,341	80.7
Tested positive	9,201	8.8	7,299	5.8	8,570	7.1	9,455	9.5	10,539	10.4	11,484	10.9
Started on treatment	8,798	95.6	6,868	94.1	8,605	100.4	8,911	94.2	10,333	98.0	11,198	97.5
Initially lost to follow up	207	2.2	303	4.2	45	0.5	141	1.5	46	0.4	194	1.7
Died before treatment started	47	0.5	102	1.4	14	0.2	127	1.3	24	0.2	28	0.2

## ETR.Net data for supported districts

This section contains district data from the ETR.Net reports comparing the period October to December 2017 and January to March 2018 case finding and TB/HIV, October to December 2016 and January to March 2017 treatment outcomes. This report covers data from eleven districts out of fourteen districts selected for full support. These districts, per province are:

- Eastern Cape: Nelson Mandela Bay Metro (NMBM) Sub-district C, OR Tambo and Sarah Baartman
- Free State: Fezile Dabi and Mangaung Metro
- Limpopo: Sekhukhune and Waterberg
- Western Cape: Cape Winelands and West Coast
- Kwa-Zulu Natal: uMkhanyakude and eThekweni

Excluded is data from City of Cape Town, City of Johannesburg and Tshwane district as mentioned above.

## Case finding data

There were 13,344 cases reported this quarter a 12 per cent decrease from the 15,096 cases reported last quarter, as shown in Figure 21 below. The decline is in line with the declining trend of TB cases noted in South Africa, and in Sub-Saharan Africa, as reported by the WHO *World TB Report* of 2017.

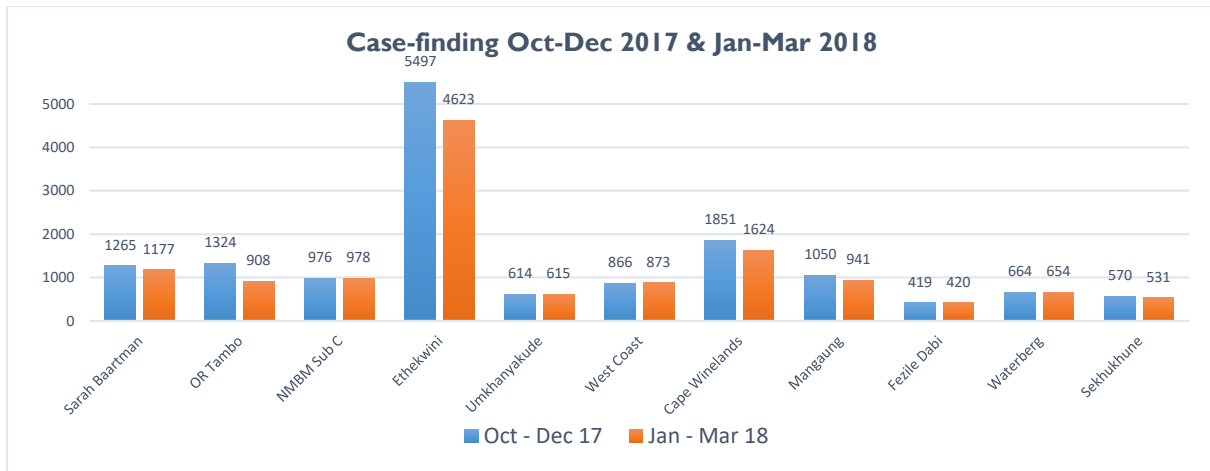


Figure 23: Case-finding data in USAID TB South Africa Project-supported districts (October to December 2017 and January to March 2018)

During project support visits to eThekweni Metro, KwaZulu-Natal Province, recording gaps were noted among patients diagnosed in hospitals and incorrectly recorded as moved out or not reported at all in the hospitals. It is worth noting here that eThekweni Metro had the second highest TB incidence in the country. This leads to underreporting of TB cases from the hospitals. The project is assisting the NDOH in updating its records. This will increase the notified cases reported in this district post data clean-up.

### Treatment success rate by district (October to December 2016 and January to March 2017)

Of the 16,053 TB cases recorded, 12,685 (79 per cent) were successfully treated in the supported districts. This represents a two-percentage decline compared to the previous quarter. All supported districts recorded declines in treatment success rates. The notable declines were Sekhukhune; 81 per cent to 75 per cent, OR Tambo 91 to 83 per cent and Sarah Baartman 76 to 63 per cent.

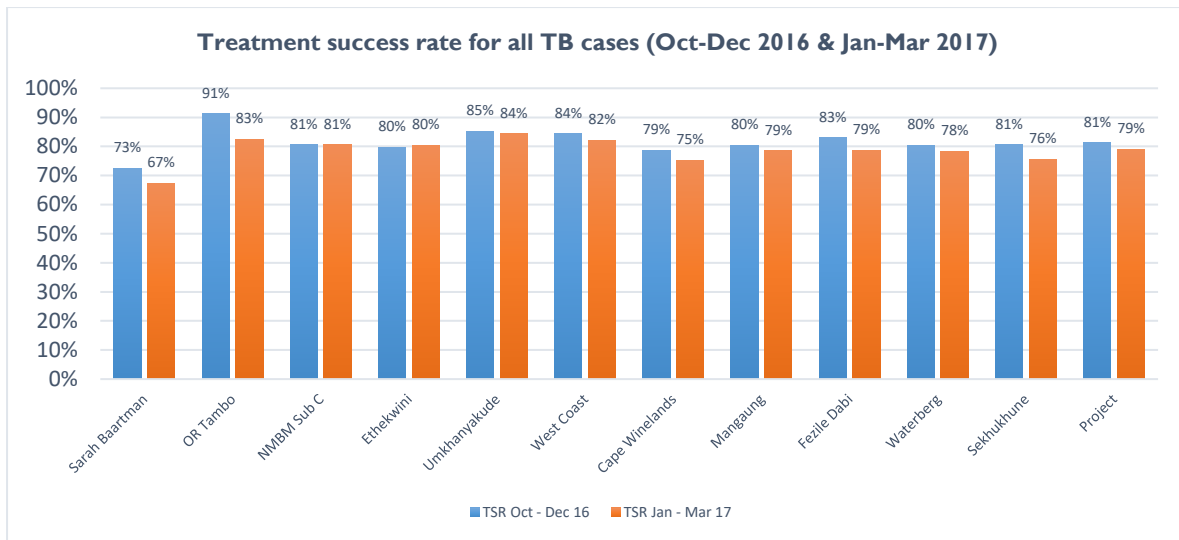


Figure 24: Treatment success rate for all TB cases (Oct-Dec 2016 & Jan-Mar 2017)

### Lost to follow-up (LTFU)

Of the 16,053 TB cases reported; 1,302 (8.1 per cent) were lost to follow-up. This is a 0.5 per cent increase compared to the last quarter. Three supported districts reported LTFU rates below the national target of 5 per cent. There were OR Tambo (3 per cent), uMkhanyakude (2 per cent) and Fezile Dabi (4 per cent). Three districts: Sarah Baartman (16.2 per cent), Nelson Mandela Bay Metro (10.1 per cent) and Cape Winelands (15.1 per cent) continue to report high LTFU rates. The project, through funded NGOs, is engaging the districts to address the high LTFU rates.

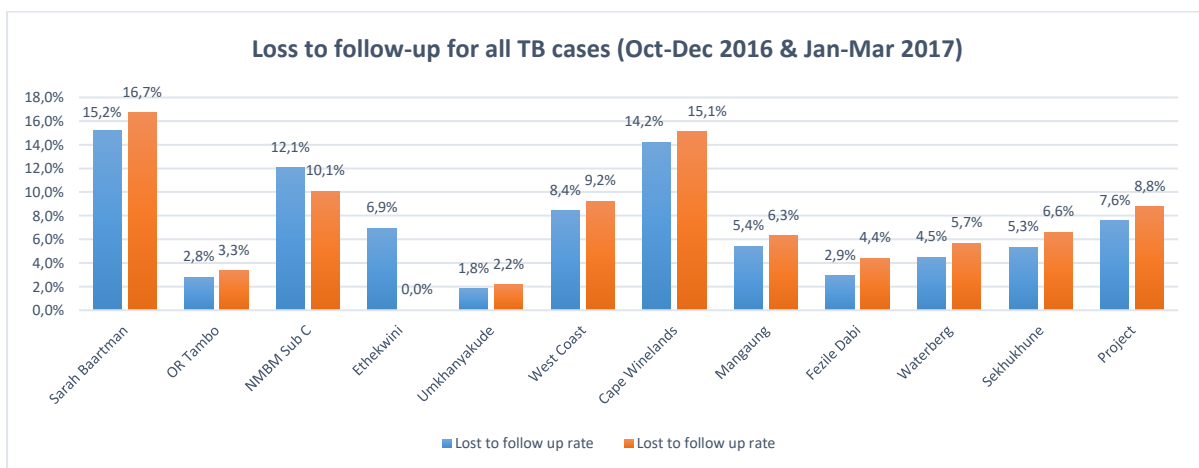


Figure 25: Lost to follow up rate for all TB cases (Oct-Dec 2016 and Jan-Mar)

### Mortality

The supported districts' average mortality was 5.6 per cent. Three of the supported districts had mortality rates below 5 per cent. Waterberg, Sekhukhune and Fezile Dabi reported the highest mortality rates of 15.6 per cent, 13.4 per cent and 12.8 per cent respectively.

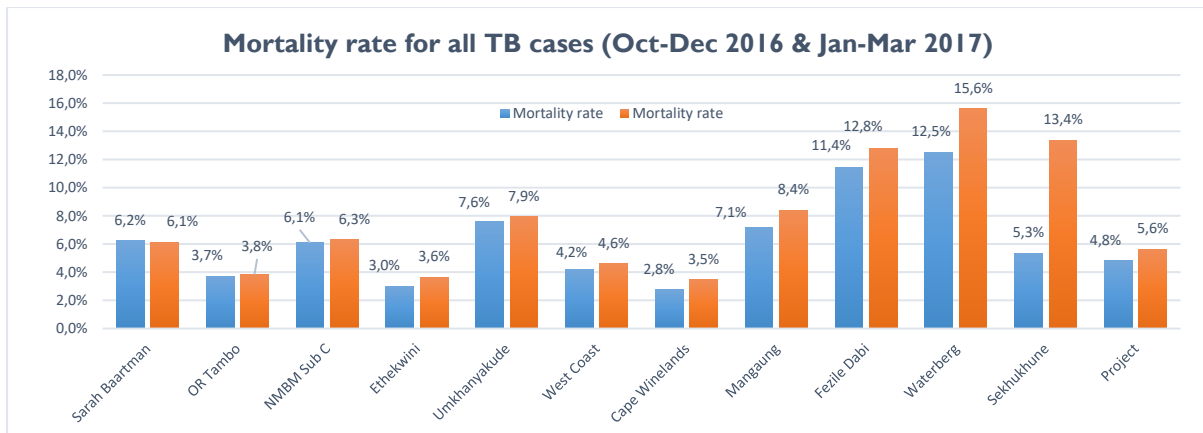


Figure 26: Mortality rate among all TB cases (Oct-Dec 2016 & Jan-Mar 2017)

### TB/HIV data

Of the 7780 notified TB cases in the nine supported districts (as Mangaung and eThekweni added to City of Johannesburg, City of Tshwane and City of Cape Town in not reporting on the TB/HIV collaborative activities hence the changed totals in notified TB cases) in the period January to March 2018, 7,109 (91.4 per cent) had a known HIV status and 3,291 (46.3 per cent) of those were co-infected with HIV. 1,949 (59.2 per cent) of the co-infected were receiving *Cotrimoxazole* and 2,759 (82 per cent) of the co-infected patients were on ART.

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## Success stories

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### USAID Tuberculosis South Africa staffer scoops Discovery Award at the 5<sup>th</sup> South Africa TB Conference

Ms. Lerato Lebona, USAID Tuberculosis South Africa Project Key Populations Advisor, emerged as one of four winners of *The Discovery Award* for an oral presentation she gave entitled *Improving access to care for farm workers: A case of Differentiated Model of Care implemented in Sarah Baartman District, Eastern Cape Province, South Africa* at the just-ended 5<sup>th</sup> South Africa TB Conference in June 2018.

“It came as a shock to me but I was very happy to hear my name announced as one of the winners. I had previously thought any winners of the awards might be pre-selected, so I was in disbelief. I remember shaking when I heard my name.” Lebona explained. “As a project, we needed to come up with interventions and activities that were evidence-based, and which could respond to the burden of TB. Developing a model of support to improve farm worker’s access to care is an initiative I am proud to be working on. There has been a dramatic change in the TB response in the areas following our collaboration with farm owners.”

Lebona’s daily work involves working closely with those in the farming community, a group designated as a key population by the project. This includes prioritising monthly campaigns to raise vital awareness and knowledge about HIV, TB and associated issues such as stigma and the impact of co-infections too.

*The Discovery Award* is given by Discovery Limited in recognition of research, projects and interventions that demonstrate clinical and public health excellence by the next generation of leaders, researchers, academics and practitioners in South Africa. It recognizes quality healthcare infrastructure and services that are committed to improving access to care within communities that have not previously had access.

Lebona’s outstanding presentation, co-authored with Mr. Simphiwe Mayaphi, Mr. Banele Dlamini and Ms. Mamorao Khaebana, is evidence of this. The presentation discusses the USAID TB South Africa Project-developed model of support in response to the high TB burden and low access to health services within farming communities in supported districts. *The Discovery Award* acknowledged the team’s hard work, dedication and consistent efforts in increasing TB awareness among this key population, which often



Figure 27: Ms Lerato Lebona accepts the Discovery Awards for her presentation at the 5th South Africa TB Conference

struggles to easily and consistently access healthcare services.

In leading the implementing team, Lebona’s work is based on her belief that significant achievements are nurtured with the cooperation of many minds with a shared vision working toward a common goal. Being awarded *The Discovery Award* goes beyond recognition of the work of the USAID TB South Africa Project, but also highlights the South Africa TB Conference as an important platform to feature various noteworthy contributions of TB initiatives in South Africa.



Figure 28: TB in Farms Initiative campaigns in action

The project’s participation in the conference was aimed at showcasing on-going commitment to support the Government of South Africa in its efforts to reduce TB infections, increase sustainability of effective TB response systems and improve care and treatment of TB patients in health facilities and communities.

“It has been a pleasure to be of service to our communities and to receive validation through receiving this award. It is a testament that we are on the right track and moving in the right direction,” said Lebona, reflecting on her success at the conference. “There is a lot more work that lies ahead and it will be done with the same passion and intentions of making a difference in people’s lives”, she added. Lebona thanked and acknowledged the United States Agency for International Development (USAID), the Eastern Cape Department of Health, Mr Simphiwe Mayaphi, USAID TB South Africa Project District Coordinator: Sarah Baartman District; Ms Mamorao Khaebana, Advocacy, Communication and Social Media Advisor; and Mr Banele Dlamini, Advocacy, Communication and Social Mobilisation Coordinator, and the farm owners and workers for their contribution to and participation in the TB in Farms Initiative.

You can read more about the TB in Farms Initiative here:

<https://usaidsouthernafrica.exposure.co/raising-tb-awareness-in-the-farming-community>

## Institutionalization of TB training into Regional Training Centers

The project conducted Training of Trainers (ToT) sessions for Limpopo provincial and district RTC managers and coordinators on Basic TB Management in March 2018. The main objective was to build the capacities of the RTC at the provincial and district levels to conduct Basic TB Management training going forward. Since it was a ToT, facilitating the session on ‘Best and worst learning experiences’ for the trainers as the first session allowed them to be aware of their own preferred learning styles and how they can enhance learning experiences for their participants.

Table 17: Training overview

Name of training	<b>Basic TB Management Training</b>
Venue	MJ Gateway Conference Centre, Polokwane, Limpopo Province
Facilitators	Ms Moleba & Ms Ziki

Categories and numbers of participants trained	Category	Number
	Deputy Director: RTC Province	2
	HAST Trainer/Professional Nurse	8
	TB Programme Facilitator	6
	RTC Training Coordinators: District	4
	HAST Coordinator	4
	Clinical Nurse Practitioner	2
	RTC Trainer	4
	CHW Trainer	2
	STI Trainer	2
<b>Total</b>	<b>34</b>	
Knowledge assessment	Average pre-test score	Average post-test score
	78%	94%

As part of the next steps, it was agreed that delivery of training courses on the TB program will be conducted jointly with all stakeholders, i.e. RTC trainers, TB coordinators and the USAID TB South Africa Project. This means that no training on TB should be conducted without the RTC's involvement. To this effect, RTC coordinators from Waterberg District have since conducted Basic TB Management for enrolled nurses and enrolled nurses' assistants (42 in total) from June 25<sup>th</sup> to 29<sup>th</sup>, 2018. The project fulfilled an oversight role during the training and the RTC trainers were further mentored and coached during the training. Capacity building for TB program/training courses is now institutionalized within the RTC structures, and this forms part of strengthening the health system at provincial and district levels. In addition, the RTCs at provincial and district levels will be able to support the TB program going forward in the same way that they support all other health program.

The project also conducted a ToT on Basic TB Management course for four RTC nurse educators and coordinators in KwaZulu-Natal Province. They joined the training course which was conducted from May 15<sup>th</sup> to 17<sup>th</sup>, 2018 in eThekweni. The RTC nurse educators and coordinators were new in the employ in the KwaZulu-Natal Provincial Department of Health and are based at Eshowe RTC, Church of Scotland Centre. The strategy to build the capacities of RTCs in the districts and provinces that the project is operating in on TB program management is gaining momentum, with KwaZulu-Natal being the second province to come on board.



## Annexes

### Annex I: Summary - Performance updates as per FY2 Work Plan, June 2018

IR	Description	Implementation progress
IR I: TB infections reduced		
IR I.1 Increased public awareness of the TB epidemic		
I.1.1	Conduct 100 targeted IPC campaigns in high TB burden areas including key populations (people living with HIV, pregnant women, children, people living with diabetes, migrants) to contribute towards finding the missing TB cases.	<p>Between October to March the project hosted 26 targeted infection, prevention and control (IPC) campaigns in supported districts. A total of 16,003 people were reached, and 99 new TB cases identified as a result.</p> <p>During the quarter under review (March to June 2018), 24 IPC campaigns were implemented, reaching 11,721 people. A total of 5,700 people were screened for TB. 1,180 had TB symptoms, of whom 1,163 were tested at the site of the campaign/referred for testing, and 92 tested positive for TB. Ninety people were initiated on appropriate treatment because of these efforts.</p> <p>In total, 50 IPC campaigns have been conducted in Financial Year 2, reaching 27,724 people, and a total of 189 new TB cases were identified and linked to care.</p>
I.1.2	Implement patient-centered interpersonal communications and counselling (Inter-PC/C) package to improve retention in care	<p>During the previous two quarters (October to December 2017 and January to March 2018), the project cumulatively provided interpersonal communications and counselling (IPC/C) training to healthcare workers; the majority being personnel from funded project grantees. Training was done in Limpopo, Free State and Mpumalanga provinces, for a total of 528 healthcare workers trained by the project. In turn, over 800 TB patients were counselled by trained healthcare workers post-capacity strengthening.</p> <p>A manual on <i>Interpersonal Communication and Counselling for Professional Health Workers</i> developed by the project was field-tested with 36 hospital staff at Matlala Hospital, Limpopo Province in February 2018, and in eThekweni Metro, KwaZulu-Natal Province in May 2018 with staff from King Dinuzulu, Clairwood, KwaMakhutha, Charles James and Wentworth hospitals. At the time of reporting, the manual had been submitted to management to get approval and sign-off for print.</p> <p>From April to June, 418 healthcare workers, also mainly from project funded NGOs, received training on IPC/C. Training was conducted in Waterberg District, Limpopo Province, uMkhanyakude District, KwaZulu-Natal Province, and Fezile Dabi District, Free State Province. A total of 222 patients received counselling through the package.</p> <p>To date, 946 healthcare workers have been trained, from the target of 1,000, with direct benefits to 1,022 patients. A few more training workshops are planned for the next quarter, with the aim of substantially improving the quality of TB patient counselling provided, and the number of patients reached directly.</p>
I.1.3	Partner with the Department of Health to develop and strengthen TB messages as part of the Phila campaign	There was no activity in terms of developing <i>new</i> TB messages for dissemination national mass media platforms during the period under review. This will be a priority for implementation in Quarter 4.
I.1.4	Utilize facility-based television network (Mindset) to increase TB awareness among healthcare workers and patients	<p>In Q2 and Q3, five project-developed <a href="#">videos</a> were broadcast on the Mindset Network. Mindset Television (channel 319) on DSTV reaches 3.5 million (<a href="http://www.mindset.co.za/programmes/health">http://www.mindset.co.za/programmes/health</a>) homes with programs, and broadcasts directly into the waiting areas of 993 public health facilities in South Africa. The videos sought to communicate on the themes of: TB stigma, TB in children, TB treatment adherence, TB prevention and treatment side effects. The videos were each broadcast once a day (at 9am and 12pm) and shown 70 times between January 15<sup>th</sup> and April 13<sup>th</sup>.</p> <p>As the project seeks to maximise the reach of TB messages, and to monitor the effectiveness of dissemination strategies, the Strategic Communication Team undertook an audit to determine how many of the 993 facilities listed by the Mindset as receiving its broadcast content into hospital waiting areas did access content in USAID TB South Africa Project-Supported districts.</p> <p>The exercise was aimed at determining the value added to the project by utilizing the channel. The audit found that the number of facilities in project-supported districts receiving the channel is very low, not even reaching 50 facilities. Where the channel is broadcast, televisions are absent or not operational, meaning that no one actually receives content. It is therefore recommended that this channel is not foregrounded as a key dissemination tool in the work plan for Year 3.</p> <p>Filming of three videos was commissioned in March 2018 to enhance documentation of USAID TB South Africa Project models of addressing and managing tuberculosis. The process documented (i) the launch of the Community Dialogues Approach, with focus on the training and door-to-door</p>

IR	Description	Implementation progress
		<p>events and community dialogues held in Kouga, Sarah Baartman District, Eastern Cape, and (iii) provincial commemoration of World TB Day in Eastern Cape Province on 27 March, and (iii) the treatment pathway of a TB patient in Wellington, Cape Winelands District, Western Cape Province. At the time of reporting, the videos had been approved at USAID, pending final revision by the service provider. Dissemination of these videos will be prioritized in Q4</p>
I.1.5	<p>Increase TB awareness through commemoration of key national health days: World TB Day; World Diabetes Day; and, World AIDS Day</p>	<p>From October 2017 to March 2018, the project collaborated with the national and provincial Department of Health to commemorate World Diabetes Day and World AIDS Day 2017, as well as World TB Day 2018. Activities were conducted at national, provincial and district levels, targeting TB high burden areas and key populations. These activities reached a combined 26,413 people. Of these, 7,905 were screened for TB, with the 569 who presented with symptoms being referred for testing. A total of 26 people tested positive and were started on treatment.</p> <p>During the period under review there were no health days commemorated. The project did, however, participated in the 5th South Africa TB held in Durban, KwaZulu-Natal Province in June. The project co-hosted the National TB Conference with FPD and served in the organising committee. Five side sessions were hosted including (i) Paediatric TB management (ii) TB infection prevention and control (iii) Finding missing patients among key populations (iv) mHealth technologies and (v) Community based approaches to finding missing TB patients. The project also presented five approved abstracts covering the various activities being implemented as follows:</p> <ol style="list-style-type: none"> <li>i. Bottleneck analysis of the DR-TB continuum of care</li> <li>ii. Cross-promotion of tuberculosis information on mass and social media to reach a critical mass of people in South Africa</li> <li>iii. An innovative performance-based grants system to improve TB case management by community-based organizations in South Africa</li> <li>iv. Buddy beat TB: Innovative Pediatric TB patient support and education</li> <li>v. Prevention and control of tuberculosis transmission at Matlala Hospital using FAST Approach</li> </ol>
I.1.6	<p>Integrate TB messages into mainstream media</p>	<p>Between October 2017 and March 2018, the project gave 12 interviews on traditional media platforms including Radio <i>Namakwaland</i> (West Coast), <i>Thabantsho</i> Community (Sekhukhune) and <i>Nkgubela</i> Radio Station (Nelson Mandela Bay Metro and a on Bonitas Housecall, a medical TV talk show on the national broadcasters' SABC 2 channel at 8am on Saturday March 24<sup>th</sup>, 2018, which is also the date when World TB Day is officially commemorated.</p> <p>During the reporting period, the project continued to maximize the use of community radio stations (<i>Thaba Ntsho</i> Radio, <i>Inanda</i> FM, <i>Nkqubela</i> Radio Station and <i>Unitra</i> Community Radio (UCR)) to educate and create awareness about TB in various districts. The project reached 665,600 people through 24 interviews conducted on community radio stations in supported districts of Sekhukhune, eThekweni, Nelson Mandela Bay Metro/ Sarah Baartman and OR Tambo respectively.</p>
I.1.7	<p>Engage 25 TB champions and 25 ambassadors (infected and affected) to improve involvement of communities on TB</p>	<p>This quarter, in Sekhukhune, one of the ambassadors, Nursing Service Manager Naaf Matsimela, participated in a TB awareness campaign which was held on May 11<sup>th</sup> at Ephraim Mogale Local Municipality. She gave a motivational talk to the participants encouraging early presentation to health facilities and treatment adherence.</p>
I.1.8	<p>Increase visibility of the project through communication and media platforms</p>	<p>Between October 2017 and March 2018, the project reached 113,682 people via its social media platforms (34,068 on Facebook and 79,614 on Twitter).</p> <p>Two press releases were written, one for World AIDS Day 2017 and one for World TB Day 2018. Despite the project's best efforts to get these printed, no media houses published either press release.</p> <p>During the reporting period a total of 60,474 people were reached via both Facebook and Twitter. An impressive 50,400 people were reached via Twitter alone.</p> <p>Encouragingly, the project gained 50 new followers on social media, increasing the number of people who will continue to be reached with information via these important platforms. This brings the total number of people reached through social media since October to 174,156.</p> <p>It is anticipated that approval of the project <a href="#">website</a>, which at the time of reporting was final and awaiting USAID approval to go live, will provide another platform to reach many people via this 'new' media. This will substantially contribute to achievement of the remaining 4.2 million people. The project team wrote and submitted several abstracts to the 5<sup>th</sup> South Africa TB Conference, five of which were accepted for presentation and duly presented as follows:</p> <ul style="list-style-type: none"> <li>• Bottleneck analysis of the DR-TB continuum of care</li> <li>• Cross-promotion of tuberculosis information on mass and social media to reach a critical mass of people in South Africa</li> <li>• An innovative performance-based grants system to improve TB case management by community-based organizations in South Africa</li> <li>• Buddy beat TB: Innovative Pediatric TB patient support and education</li> <li>• Prevention and control of tuberculosis transmission at Matlala Hospital using FAST Approach</li> </ul>

IR	Description	Implementation progress
I.1.9	Increasing public awareness through key government departments civil society and non-governmental sectors and private sector	<p>Between October 2017 and March 2018, the project engaged key government departments, among them the Department of Basic Education and Department of Transport. Engagement with the former was to adopt the Tackling TB in Schools Campaign. This process awaits finalization of a Memorandum of Understanding (MOU) between the project and the department. In relation to the Department of Transport, the project was part of the multi-sectoral collaboration to implement the <i>Phila</i> Taxi Industry Campaign, which was launched in November 2017.</p> <p>This quarter:</p> <ul style="list-style-type: none"> <li>In Sekhukhune District, Limpopo Province, the project is collaborating with Ephraim Mogale local municipality and Marble Hall Taxi Association, both the Taxi Association and Local Municipality provided the venues for the events as well as availing their employees for getting TB information and screened for TB</li> <li>Jansen Pharmaceutica, American Chamber of Commerce in South Africa were engaged to co-host a private sector breakfast to increase awareness on finding missing TB cases. Sixty-one (61) private sector companies attended the breakfast meeting.</li> <li>Six taxi associations in the City of Johannesburg, City of Tshwane and eThekweni signed MOUs with FFLD, a project funded NGO to conduct awareness campaigns in taxi ranks in the three districts</li> <li>Treatment Action Campaign in Lusikisiki Village conducted a facility risk assessment on June 26<sup>th</sup>, utilizing tools developed by the project to minimize risk of TB infection among health workers. The assessment covered administrative control, environmental and personal protection.</li> </ul>
I.1.10	Roll out of pediatric DR -TB support through Buddy Beat TB activities.	<p>The Buddy Beat TB initiative is being implemented in five hospitals (Sizwe Hospital, King Dinuzulu Hospital, Brewelskloof Hospital, Brooklyn Chest Hospital and Sonstraal Hospital. A total of 184 pediatric TB patients have been supported through Buddy.</p> <p>During the quarter under review, the project engaged with the Nelson Mandela Bay Metro, Eastern Cape Province, with the aim of introducing Buddy Beat TB to Empilweni and Jose Pearson hospitals. Engagement will continue in Quarter 4, with the aim of have the project formally introduced in both hospitals.</p>
<b>IR.1.2 Effective implementation of infection prevention and control (IPC)</b>		
I.2.1	Expand the Implementation of FAST Approach in all hospitals supported districts to increase TB case detection	<p>To date, the project has introduced the FAST Approach at the national level, with all nine provincial representatives.</p> <p>In the reporting period 67 hospitals reported on FAST activities, with an average screening rate of 71 per cent. 215 cases were detected in the supported sites and health care workers were screened and identified with TB. The key challenges that remain include low presumption rate (supported hospitals reporting and average 3 per cent), and low use of GeneXpert testing of 56 per cent average GeneXpert testing rate). Treatment initiation rate, however, is within the projected target. The key to the success of FAST is the facility buy-in, with high staff turnover in facilities posing a serious confounding factor in demonstrating impact of FAST.</p>
I.2.2	Scale up IPC practices in homes of identified TB index patients through the NGO program to prevent TB transmission	<p>The project has developed and revised a home-based risk assessment tool. The project report (January to March 2018) demonstrated feasibility of home-based risk assessment implementation. To date, 334 risk assessments have been conducted with the following key findings</p> <ul style="list-style-type: none"> <li>TB patients stay in very poor conditions and most houses have very poor air circulation</li> <li>Contact management is infrequently conducted by diagnosing facilities and CBOs supported by the project should incorporate contact management within household risk assessments.</li> <li>There is also limited knowledge of cough etiquette</li> </ul>
I.2.3	Implement IPC package in all health facilities to prevent TB transmission	<p>Twelve (12) risk assessments were conducted in supported districts in the reporting quarter, with the following key findings</p> <ul style="list-style-type: none"> <li>Poor infrastructural challenges (windows sealed shut, small windows, no rooms for patient separation)</li> <li>Screening of HCWs</li> <li>Non-functional IPC Committees</li> </ul>
I.2.4	Monitor IPC practices in all healthcare facilities using CO <sub>2</sub> monitors	<p>The project, through partnership with CSIR, commissioned the development of 100 CO<sub>2</sub> monitors to be implemented in nine facilities (five hospitals and four primary healthcare facilities). To date, 30 CO<sub>2</sub> monitors have been developed, however the following key challenges were identified</p> <ul style="list-style-type: none"> <li>In poorly aerated facilities, CO<sub>2</sub> monitors are unplugged as the alarm will continue to ring</li> <li>Manual recording is inconsistently done (no additional incentive to report if no incident)</li> </ul> <p>The project has worked on integrating remote reporting by each device, with devices now sending out remote reports to the project, and there are plans to link facility managers and department of health to action on alerts.</p>
I.2.5	Integrate the use of CO <sub>2</sub> monitors and web-based risk assessments in FAST implementation	<p>CSIR has developed CO<sub>2</sub> monitors with reporting ability. A service provider has been appointed to integrate monitors to IP-Connect website. This activity is projected to be complete by August 2018.</p>

IR	Description	Implementation progress
1.2.6	Support the revision of national and international policies and guidelines on TB management	<p>The project participated in the review of the international IPC guideline review. The main discussion points included the standardization of IPC indicators–finalization of draft indicators to be continued at the Union conference.</p> <p>The project also provided technical input into the review of TB Preventative Therapy Memorandum. The key discussions points were on providing evidence for scale-up of the three-month regimen (<i>Rifapentine</i> and <i>Isoniazid</i>), on efficacy and cost effectiveness of operationalizing preventative strategies.</p> <p>The South African government has revised the drug resistance guidelines with submissions from the project. These are yet to be released by the National Department of Health.</p>
<b>IR 1.3 Improved TB screening including key populations</b>		
1.3.1	Conduct one operational research to identify barriers to early diagnosis and treatment adherence in Nelson Mandela Metro and develop and Implement a model to address initial lost to follow up (ILFU) in 3 districts	Draft protocol has been developed for review.
1.3.2	Implement use of Rif. Alerts to link TB patients to care in partnership with NICD to reduce initial loss to follow up	<p>Feasibility of utilization of Rif. alerts were conducted in three districts (Sekhukhune, Nelson Mandela Metro Bay and Mangaung). Demonstrated feasibility resulted in scale-up of Rif. alerts in seven supported districts. The partnership with NICD has also expanded the Rif. alerts to include DS-TB alerts.</p> <ul style="list-style-type: none"> <li>• Total number of alerts received - 716</li> <li>• Total number of patients on EDR.Web - 494</li> <li>• Total number of patients not recorded - 147</li> <li>• Total number of ILTFU - 75</li> <li>• Total number traced – 53.</li> </ul>
1.3.3	Pilot the use of IGRA to determine feasibility of its use amongst healthcare workers in two provinces, namely Free State and Kwa - Zulu Natal	<p>The project established research sites in Eastern Cape (Zithulele Hospital), Free State (Pelonomi Hospital) and Gauteng (Pretoria West).</p> <p>An orientation workshop with study stakeholders was conducted, including: National Institute for Occupational Health (NIOH), NICD, QIAGEN, Free Sate, Gauteng and Eastern Cape representatives of health in June 2018.</p> <p>Training and IEC materials and implementation have been developed and adopted by the sites. Implementation is projected to start in the next quarter.</p>
1.3.4	Promote and conduct screening among key populations (people living with HIV, Pregnant women, children, people living with diabetes, migrants)	Key populations evaluated in FAST hospitals are desegregated according to entry points to care. The project identified antenatal care units for screening of pregnant women. To be reported in next reporting quarter.
1.3.5	Pilot the use of point of care molecular testing using GeneXpert / Omni	Testing to be conducted through the GP partnership project, which is projected to start implementation in the next quarter.
1.3.6	Support the DOH to identify hot spots within the 14 supported districts through geo-mapping	Geomapping has been done in seven of the 14 districts: Cape Winelands and West Coast districts in Western Cape, Nelson Mandela Bay Metro and Sarah Baartman districts in Eastern Cape, uMkhanyakude and eThekweni districts in KwaZulu-Natal and Waterberg district in Limpopo.
1.3.7	Appoint 30 additional local NGOs to increase screening and finding of missing cases among prioritized key populations	As of June 2018, the USAID TB South Africa project funds 39 local NGOs to provide community-based support to 5,228 patients (3,645 DS-TB and 1,583 DR-TB). This translates to 48 per cent of the target of 10,000 patients projected in the work plan. Grantees provide support in 16 districts across eight provinces. Most supported patients are in the Eastern Cape (19 per cent), followed by the Free State (19 per cent), Mpumalanga (17.2 per cent), KwaZulu-Natal (12.4 per cent), Limpopo (9.8 per cent), and North West (2.3 per cent), Western Cape (1.5 per cent) and HPCA sites cover 19.3 per cent of patients in various districts, with the remainder being in non-supported districts through HPCA.
<b>IR 2: Sustainability of effective TB response systems increased</b>		
<b>2.1 Strengthened management capacity at all levels</b>		
2.1.1	Provide TA to NDOH to implement the National Quality Improvement program	The project has seconded a QI manager based at the national department of health

IR	Description	Implementation progress
2.1.2	Provide TA to provincial and district management on CQI	To date 698 managers were capacitated on CQI, DS-TB and DR-TB management.
2.1.3	Build capacity of HAST Managers, PHC Supervisors and Local Area Managers on DS/DRTB management, FAST, and IPC	
<b>2.2 Strengthened service delivery capacity at all levels</b>		
2.2.1	Build capacity of healthcare workers (HCWs) on DS/DR-TB management, FAST, IPC and QA/QI in collaboration with RTCs.	To date 3,079 HCWs are trained. Based on the target of 1,000 per quarter, we are on track. 1,495 have been trained to date
2.2.2	Implement the use of self-directed learning modules	Web based modules still in development.
2.2.3	Implement QA/QI Approach to address identified gaps in the TB Care cascade	The project has changed its approach to QI utilizing sub-district/cluster-based intervention. To date 25 sub-districts have been trained on QI. Key gaps identified in cluster meetings include poor understanding of reported data and translation to key priorities, poor oversight of data capturers (no external assurance), and poor quality of TB screening.
2.2.4	Implement supervision of 30 QI clusters in the 12 supported districts	QI supervision ongoing in the 12 supported districts (see table 11 for detail)
2.2.5	Support NDOH in the introduction of new treatment regimens, including management of serious adverse events and adverse events	In Q1 (January to March 2018) a cumulative 2,761 patients were enrolled on <i>Bedaquiline</i> -based treatment regimens. This number increased to 4,826 by the end of June 2018  The project has developed terms of reference for evaluation of adverse event reporting. HSRC has been awarded a contract to review representative facilities in six provinces in South Africa providing DR-TB care.  A road map through the Technical Working Group on Pharmaco-vigilance (WHO, Global Fund, DR TB Directorate, Pharmaco-vigilance Unit National Department of Health, and the USAID TB South Africa Project) has been drafted and shared with USAID.
2.2.6	Implement DR TB service package in three districts for 200 patients	The DR-TB Service Package has been implemented in the three districts of Nelson Mandela Metro Bay, Sekhukhune and Mangaung, through convenient sampling. The study has been in operation for six months with the following progress <ul style="list-style-type: none"> <li>• 225 patients have been recruited for the study</li> <li>• All patients evaluated in the study have received the package for at least six months</li> <li>• Twenty-two (22) patients have died, five are still hospitalized,</li> <li>• Fourteen (14) have completed treatment and two patients confirmed as lost to follow-up.</li> </ul>
<b>2.3 Improved data reporting and recording at all levels</b>		
2.3.1	Build capacity at national and provincial, district and facility levels to collect, analyze and report accurate data in a timely fashion	The project has trained 229 HCWs as of March 2018. During the reporting period, 74 HCWs in Nelson Mandela Bay Metro were trained on THIS (45 operational managers, five clinic supervisors, and 24 data capturers) from Eastern Cape trained on THIS. This increased the number of facilities fully signed up to 114 out of 145 in the districts. The district will likely cover all the 145 because of the training.
2.3.2	Redesign and re-develop the ConnecTB application to improve patient management and reporting capabilities	The application was finalized and delivered on June 15 <sup>th</sup> . The project is currently conducting field testing on the platform before launching the new application. .
2.3.3	Support DOH to identify TB hotspots in the 14 project supported districts using geo-mapping.	Geomapping has been done in seven of the 14 districts: Cape Winelands and West Coast districts in Western Cape, Nelson Mandela Bay Metro and Sarah Baartman districts in Eastern Cape, uMkhanyakude and eThekweni districts in KwaZulu-Natal and Waterberg district in Limpopo
2.3.4	Support the DOH to conduct quarterly provincial/ district program reviews	During the reporting period, the project supported seven quarterly reviews in the supported districts. This brings the total to nine reviews supported by the project out of the projected 14.
2.3.5	Carry out internal data quality audits for monthly reported data	During the period April to June 2018, six DQAs for supported NGOs were conducted in three districts for the following NGOs: Isiphephelo (Gert Sibande); Care Ministry, Octavovect and Mfesane (Nelson Mandela Bay Metro); Bokamoso and Lesedi Lechabile (Mangaung Metro).

IR	Description	Implementation progress
	and for supported NGOs data.	
2.3.6	Conduct data quality assessments in partnership with the National Department of Health	Prior to the reporting period, the project completed two DQA in Waterberg and Cape Winelands in October and November 2017. During this quarter, three DQAs were done (Cape Winelands, two in Fezile Dabi). Findings from the DQAs show that improved recording for patient demographic data, confirmation of patient diagnosis and TB Treatment elements. However, gaps were noted in recording of HIV information, pharmaco-vigilance, laboratory monitoring and contact management. The districts were supported to address the identified gaps. District TB coordinators will support facilities to record HIV, pharmacovigilance, laboratory monitoring, contact management and social monitoring information in the patients' books.
2.3.7	Continue to support NDOH to review Monitoring and Evaluation tools	The project reviewed the monthly data input form to include all 90-90-90 cascade indicators. The project also participated in the review of the NIDS indicators this quarter and updated the MDI forms.
2.3.8	Initiate and participate in the mid-project evaluation	USAID will determine and inform the project as to the necessity of the mid-term evaluation.
<b>IR 3: Care and treatment of vulnerable populations improved</b>		
<b>3.1 Increased contact tracing of key populations</b>		
3.1.1	Implement contact management for all 10,000 TB index cases to contribute towards finding 2000 missing TB cases	From October 2017 to March 2018, 12,624 adults contacts reached, 98 per cent (12,355) screened for TB, 358 new cases diagnosed. During the same period, 1,067 child contacts were reached (99 per cent) 1,055 screened for TB; 40 new cases diagnosed.  During the reporting period, 4,061 adult contacts were reached, 99 per cent were screened (4,026) with 59 new cases diagnosed. 295 child contacts were also reached, 97 per cent (287) were screened for TB and nine new confirmed cases.  The total TB patients among contacts diagnosed and linked to care through funded NGOs is 466.
3.1.2	Pilot use of ConnectTB among 12 WBOT teams to expand contact management and patient care in Nelson Mandela Bay Metro	During the period April – June 2018, five WBOT teams from five facilities in Sub District C in Nelson Mandela Bay Metro were trained and introduced to ConnectTB. 533 people were reached and 346 were screened for TB (65 per cent) and 17 new cases were diagnosed and linked to care.
3.1.3	Disseminate the contact management standard operating procedure and train / build the capacity of department of health staff to conduct contact management	The contact management SOP has been included in the Basic TB Management Training and all new NGOs, WBOTs and Department of Health HCWs trained by the project on Basic TB Management are simultaneously trained on contact management.
<b>IR 3.2 Improved TB case management in key populations</b>		
	Support NDOH to develop treatment guidelines for TB in children	Development of latent TB guidelines pending results of IGRA study (commissioned by USAID TB South Africa Project) and additional studies in South Africa.
<b>IR 3.3 Strengthened comprehensive systems and partnerships for care</b>		
3.3.1	Engage private practitioners in urban and rural settings to improve TB case finding, linkage to care and treatment outcomes	Implementation to start next quarter.
3.3.2	Collaborate with PEPFAR District Support Partners (DSPs) to improve TB case finding, linkage to care and treatment outcomes	The project is collaborating with six DSPs in five districts, including Kheth'Impilo in Sarah Baartman, MatCH in eThekweni, Aurum in Sekhukhune, HST in OR Tambo, Right to Care in Tshwane District and the Foundation for Professional Development based in Tshwane.
3.3.3	Continue to support DOH to scale up implementation of a model of support for farms and farming communities	The project is implementing the TB in Farms Intervention Model in four of the targeted five districts: Sarah Baartman in Eastern Cape, West Coast in Western Cape, Sekhukhune and Waterberg in Limpopo. October 2017 – March 2018: the model was implemented in two districts (Sarah Baartman and West Coast) and 9,248 farm workers were reached, 8,664 (94 per cent) were screened for TB, 1,250 (14 per cent) presumptive patients were identified, 1,079 (86 per cent) people were tested, 144 (13 per cent) were diagnosed with TB and 133 (92 per cent) were initiated on appropriate treatment.

IR	Description	Implementation progress
		During the reporting period, April – June 2018, a total of 3,181 farm workers were reached, 3,007 (95 per cent) were screened, 848 (28 per cent) were presumptive, 845 (99 per cent) were tested for TB, 44 (5 per cent) tested positive and 38 (86 per cent) were initiated on treatment. Cumulatively, 188 patients were diagnosed with TB through this intervention.
3.3.4	Engage the Department of Agriculture, Forestry and Fisheries; Department of Transport; Department of Social development; Department of basic Education to identify opportunities to strengthen TB response.	October 2017 – March 2018: One meeting was attended at SANAC For the reporting period, the project had two meetings, one with SAMA to discuss engagement of private health practitioners and with SANAC local structures in KwaZulu-Natal
3.3.5	Engage with public agencies e.g. (e.g. South African Medical Association (SAMA), Public Health Association South Africa (PHASA) and SANAC to identify opportunities for partnership to strengthen TB and TB/HIV collaborated response.	Meetings were held with SAMA and SANAC (see detailed report in the narrative section)
3.3.6	Conduct ongoing technical and financial management capacity development activities for 60 sub-grantees	To ensure that newly funded grantees start program implementation as soon as possible, a post award workshop was held from May 23 <sup>rd</sup> to 25 <sup>th</sup> , 2018 to give them the technical capacity required to start program implementation. To further capacitate them, representatives of funded NGOs, were trained on Basic TB Management and ConnectTB, as well as the financial and technical aspects of grants implementation. In the reporting quarter, a total of 109 NGO staff were trained from NGOs.
3.3.7	Convene TB symposium on key populations to highlight effective strategies to address TB amongst key populations	The TB symposium was held on the June 12 <sup>th</sup> , 2018 at the 5th Annual South Africa TB Conference in Durban
3.3.8	Build capacity of 60 local NGOs in South Africa to improve TB case finding at community level	39 out of the 60 targeted have been identified and sub granted. The project continues to provide capacity building interventions to improve TB case finding at community level

