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<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>ACSM</td>
<td>Advocacy, Communication and Social Mobilization</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral Treatment</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CHW</td>
<td>Community Health Workers</td>
</tr>
<tr>
<td>CPT</td>
<td>Cotrimoxazole Prevention Therapy</td>
</tr>
<tr>
<td>DoH</td>
<td>Department of Health</td>
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<tr>
<td>DOTS</td>
<td>Directly observed treatment, short course</td>
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<tr>
<td>EC</td>
<td>Eastern Cape Province</td>
</tr>
<tr>
<td>HBC</td>
<td>High Burden Country</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education, and Communication</td>
</tr>
<tr>
<td>IC</td>
<td>Infection Control</td>
</tr>
<tr>
<td>IPT</td>
<td>Isoniazid Prevention Therapy</td>
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<tr>
<td>KZN</td>
<td>KwaZulu Natal Province</td>
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<tr>
<td>MDR TB</td>
<td>Multi-Drug Resistant Tuberculosis</td>
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<tr>
<td>NHLS</td>
<td>National Health Laboratory Service</td>
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<tr>
<td>NMMM</td>
<td>Nelson Mandela Bay Metro Municipality</td>
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<tr>
<td>NSP</td>
<td>National Strategic Plan</td>
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<tr>
<td>NTCP</td>
<td>National Tuberculosis Control Programme</td>
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<tr>
<td>PEPFAR</td>
<td>President’s Emergency Plan for AIDS Relief</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary Health Care</td>
</tr>
<tr>
<td>PLWH</td>
<td>People Living with HIV</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother-to-Child Transmission</td>
</tr>
<tr>
<td>RTC</td>
<td>Routine Testing and Counselling</td>
</tr>
<tr>
<td>SADC</td>
<td>Southern African Development Community</td>
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<tr>
<td>SANAC</td>
<td>South Africa National AIDS Council</td>
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<tr>
<td>TASC II TB</td>
<td>USAID Technical Assistance and Support Contract, TB</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TCPL</td>
<td>Training Centre for Positive Living</td>
</tr>
<tr>
<td>VCT</td>
<td>Voluntary Counselling and Testing</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>XDR TB</td>
<td>Extensively Drug-Resistant Tuberculosis</td>
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</table>
1 EXECUTIVE SUMMARY

As South Africa continues to work to reduce HIV prevalence and extend treatment and support services for people living with HIV and AIDS, the country’s health service delivery capacity has been hampered by a resurgent TB epidemic, linked to country’s HIV epidemic, which threatens to overwhelm health facilities and impede progress towards stabilisation of health indicators. Despite the longstanding treatment options for TB, increasing poverty and insufficient health system infrastructure to diagnose cases and manage care has led to a startling increase in the number of TB cases, as well as contributed to the emergence of drug resistant TB. Although South Africa’s National TB Control Programme has been active in attempting to halt the further spread of TB and combat TB/HIV co-infection, high quality TB screening, treatment and care services still fail to reach many in need.

USAID’s commitment to accelerating the implementation of improved basic TB services and MDR TB services in South Africa led in 2004 to the award of the five-year USAID Technical Assistance and Support Project/ Tuberculosis (TASC II TB) to University Research Co., LLC (URC). Through this project, URC provided assistance to the South African National TB Control Programme and other stakeholders to strengthen local capacity to detect, treat, and prevent TB as well as further integrate TB treatment with HIV and other health care services and develop community-based strategies to ensure patients seek out and adhere to treatment. URC’s approach to strengthening service delivery is based on quality improvement for health systems and capacity development of local health care personnel. The success of this approach has made URC a leader in the fight against TB in Southern Africa and allowed the organization to provide critical support to local health authorities as they build sustainable health systems capable of tackling the dual epidemics of TB and HIV.

The objectives of TASC II TB were designed to encourage overlap and collaboration around a broader goal of improved treatment for TB and TB/HIV and included:

- Improve the quality of TB services
- Increase availability of TB services
- Increase demand for TB treatment
- Improve management of TB support systems
- Introduce and scale up innovative approaches for expanding DOTS

Working with the existing networks of health services, TASC II TB sought to strengthen the ability of public sector health facilities to provide a wider array of high quality TB services. Through an ongoing process of training and direct mentorship to introduce new technical capabilities to support TB control, the project helped link health service providers to community groups and non-traditional partners such as private sector business to build an integrated network of TB and TB/HIV treatment and care services stretching from the community, district, and provincial levels. Incorporating the most advanced international technical expertise, TASC II TB worked with the National TB Control Programme to respond to changes and developments in country’s TB epidemic.

Through TASC II TB’s strong relationships with the NTCP, the National Department of Health, provincial and district health authorities, the targeted facilities and their surrounding
communities, the project was able to accomplish an array of activities ranging from development of national policies and guidelines for infection control, TB/HIV, MDR/XDR TB, and advocacy communicational and social mobilization. Data collection tools and information systems were designed to assist in collecting data on laboratory services, TB/HIV, TB screening, and MDR TB. Working at the provincial and district levels, TASC II TB was able to assist in the institutionalization of the District Rapid Appraisal Tool (DRAT) and pilot TB laboratory improvement programs. TASC II TB succeeded in providing training to an estimated 16,652 health care workers on basic management of TB. At least 1000 received additional training targeted to improve management of MDR TB. The project is responsible for 80% of all MDR TB training in the country. Further trainings and capacity development activities were conducted for community health workers, DOTS supporters, district and provincial managers, laboratory managers and microscopists, and private sector business leaders. During follow up to the trainings, it was possible to see the effects of TASC II TB in the changing attitudes of healthcare providers, the increased motivation of community groups to get involved in TB control, and the individual cases of patients who were empowered to access treatment.

TASC II TB resulted in improving program outcomes including increased case detection rates, successful treatment completion rate as well as reduced treatment default rates in the project focus districts in the five provinces. Most facilities and many project districts were able to achieve the global targets of 70 percent case detection and 85 percent treatment completion rates. However, some of the project areas continued to have difficulties in achieving these targets due to poor program leadership and/or poor support from diagnostic services. Most participating areas achieved significant improvements in increasing TB screening among HIV+ and HIV testing among TB patients. Onward care and support of TB-HIV con-infected patients also improved in the project areas.

TASC II TB made important accomplishments towards improving the quality, availability, and demand for TB services, while pointing the way towards the next steps to be taken by the NTCP and community and district stakeholders. The project helped providers overcome the reluctance to take on TB by providing tools to facilitate patient flow, developing and clarifying guidelines for screening, treatment, and referrals, and empowering staff to make data-based decisions to plan scale-up of services. Although the impact of the systems-related improvements supported by the project may be hard to quantify in the short term, by empowering nurses and facility staff to take a stronger role in designing systems that meet their needs and will work in a clinical setting, TASC II TB’s approach worked in tandem with efforts to address South Africa’s lack of human resources for health by creating an environment which engaged a larger number of people to join the fight against TB. By acting as a bridge between health facilities and community groups, workplaces and NGOs, international stakeholders and district health departments, TASC II TB expanded the potential network of TB services. In doing so, TASC II TB was also able to introduce systems improvements with potential applicability to other health care issues as well as raise the national profile of TB and TB/HIV and further South Africa’s efforts to combat this disease.
2 BACKGROUND

2.1 TB Situation in South Africa

South Africa is a vibrant nation of over 48 million and an acknowledged political and economic leader in Africa. In the 1990s, South Africa’s peaceful transition from the brutalities of apartheid demonstrated what could be accomplished when a society came together to resist an intolerable situation. In recent years, however, South Africa has come into the world spotlight for a different reason: it has been one of the countries most heavily hit by the epidemic of HIV and AIDS and currently has, in absolute numbers, the highest number of people in the world infected and affected by the virus. Yet South Africa’s AIDS epidemic is also characterized by the response of the numerous communities groups, NGOs and local organizations, individual health workers, patient advocates, faith groups, and health facilities which have thrown themselves into the fight and begun the much needed process of testing and adapting clinical and public health strategies to combat a previously unknown infection.

In this context, South Africa has encountered a new and deadly challenge: a resurgent tuberculosis epidemic which has expanded rapidly to place a severe double burden on a society and a health system already struggling to cope with more than 5 million HIV+ individuals, an ever growing number of whom are starting to access prevention, testing, antiretroviral therapy and care services. Tuberculosis, often viewed in the developed world as a novel disease from a different century, had by the 1970s largely dropped off the priority list of global health programs. Although it had never really disappeared in the developing world, as the prevalence of HIV and AIDS have risen, TB has returned with force to become the leading cause of death amongst HIV sufferers in Southern Africa. In 1986, before the HIV epidemic became generalized in the South African population, the case notification rate for TB was 163 per 100,000 population; by 2007, it has risen to 649, or an estimated 461,000 new cases (WHO 2009). In 2002, the World Health Organization declared South Africa a high burden TB country (HBC) and it currently ranks fifth in the world, behind only the much more populous India, China, Indonesia, and Nigeria. South Africa’s incidence rate per capita is second only to neighbouring Swaziland. As HIV+ people are about 20 times more likely than HIV- people to develop active TB, HIV is the indisputable driver of the epidemic in South Africa the recent (2008) National HIV antenatal survey has shown that in some regions the TB epidemic does not seem to be driven by HIV e.g. Western Cape and Northern Cape. Yet TB has always been a disease of poverty and exclusion, and in South Africa TB can also be linked to the social and economic conditions created by apartheid and the difficulties in reorganizing service delivery systems since the transition to democracy, as well as the country’s current struggles with unemployment and uncertain economic growth.

HIV remains, however, one of the most perceptible factors contributing to the upward trend in TB morbidity in South Africa. Currently, an estimated 73% of new TB cases occur amongst people living with HIV (PLWH). HIV has also altered the characteristic disease burden of TB. Historically, older men experienced the predominate impact of TB; currently in South Africa, the highest number of new TB cases are amongst women ages 20-29, reflecting the age distribution of HIV. TB differs in several key ways from HIV, however, relating especially to transmission and treatment. In comparison with HIV, TB can be transmitted easily and effectively through the air by a person with active disease. Also unlike HIV, there is an established, effective treatment for TB which utilizes drugs that are widely available and replicable.
The long and often complicated treatment regimen, however, makes compliance difficult for many, especially for those co-infected with HIV and required to adhere to a regimen of ART. The difficulties of patient compliance with the 6-8 month standard course of TB treatment combined with failure to cure highly infectious smear positive cases have given rise to a deadly phenomenon of drug resistance in South Africa. In 2002, an MDR TB prevalence survey conducted by the MRC found 1.8% of new TB cases and 6.7% of previously treated cases were estimated to be multi-drug resistant (MDR). MDR TB requires a longer course of treatment and places an additional burden on patients and health services. Even more worrying has been the emergence of extensively drug resistant strains (XDR) for which there are fewer effective treatment options and which typically progress more rapidly from active disease to death than drug-susceptible TB (see Box 1). South Africa continues to struggle to bring treatment success rates up to the global target of 85% and currently has the highest reported number of confirmed MDR/XDR cases in the region (WHO 2009).

### 2.2 Programmatic Strategies and Donor Support

In South Africa most TB control efforts operate against the backdrop of the ongoing endeavour to expand and improve HIV and AIDS prevention, treatment and care services. Table 1 highlights the South African historical roadmap to achieve the global targets for TB control (see Box 2.)The challenge for TB control advocates has been to build on the lessons learned during the development of the national HIV programme and to motivate national leaders, district health departments, communities, and health workers

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**Box 1: TB Drug-Resistance and Tugela Ferry**

In an area with exceptionally high rates of HIV, the Church of Scotland Hospital, serving the town of Tugela Ferry in a rural part of KwaZulu Natal Province, is a front-line in the battle to save TB/HIV co-infected patients. In 2006, the town drew world attention when a new strain of TB discovered amongst patients there was found to be resistant to most first- and second-line drugs and resulted in the most severe documented outbreak of extensively drug resistant tuberculosis. In less than a month, more than 50 of the 221 MDR and 53 XDR patients died. Most were HIV positive and had been receiving ART along with TB medications. By 2007 there were 266 documented cases of XDR, 84% of which resulted in death. Included amongst the dead were several hospital staff, raising the specter of nosocomial transmission of drug-resistant TB alongside acquired resistance. There was strong fear that what was seen at Tugela Ferry was in fact only the tip of the drug-resistant iceberg, and that a new battle would now have to be fought in South Africa and in the region against a tuberculosis for which the traditional tools were useless.

In the wake of the Tugela Ferry outbreak, the South African Ministry of Health called for an emergency meeting of regional health leaders, ministers, and the WHO to develop action plans to combat TB and halt the development of drug resistance. Before the outbreak at Tugela Ferry, no new TB drugs had been developed in decades. In its aftermath, a new focus has been placed on basic TB control, clinical management of MDR TB, laboratory capacity, second-line drug management, infection control, surveillance, and advocacy.

**Box 2: Global Targets for TB Control**

**By 2005:**
- At least 70% of people with sputum smear positive TB will be diagnosed (i.e. under the DOTS strategy), and at least 85% successfully treated. The targets of a case detection rate of at least 70% and a treatment success rate of at least 85% were first set by the World Health Assembly of WHO in 1991.

**By 2015:**
- The global burden of TB (per capita prevalence and death rates) will be reduced by 50% relative to 1990 levels.

**By 2050:**
- The global incidence of active TB will be less than 1 case per million population per year.
to understand the links between TB and HIV and to target TB with the same intensity. Slow progress has been made, but there is still a long way to go to integrate TB control activities into HIV prevention and treatment systems as well as to build provider skills and support systems capable of tackling TB.

**Table 1: South African Program – Historical Roadmap**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>1997</td>
<td>Phased implementation of DOTS, establishment of DTDs</td>
</tr>
<tr>
<td>1999</td>
<td>Introduction of fixed dose combination drugs, Establishment of TB and HIV pilot districts</td>
</tr>
<tr>
<td>2000</td>
<td>MDR-TB guidelines endorsed, establishment of MDR-TB treatment facilities</td>
</tr>
<tr>
<td>2002</td>
<td>Launch of the MTDP 2002-2005</td>
</tr>
<tr>
<td>2003</td>
<td>Launch of the ACSM Plan</td>
</tr>
<tr>
<td>2005</td>
<td>Declaration of TB as an emergency in AFRO region, Launch of the National TB Crisis Plan</td>
</tr>
<tr>
<td>2006</td>
<td>Development of MDR and XDR Action Plan</td>
</tr>
<tr>
<td>2007</td>
<td>Launch of the National TB Strategic Plan 2007-2011, Development of Infection control guidelines for TB</td>
</tr>
</tbody>
</table>

In 1995, the National Department of Health has made an important stride towards TB control by implementing a DOTS strategy (directly observed treatment, short course) with a guarantee of free TB diagnosis and treatment services for all those needing them. At the same time efforts were made to strengthen central coordination and recording systems. However, progress was held back by the lack of provider skills to support DOTS and competition for resources with the more high profile project to control HIV and AIDS. Meanwhile, the number of TB cases, fuelled by an increasing prevalence of HIV, continued to rise and attention began to slowly shift towards more active TB control. In response to the WHO’s Global DOTS Expansion Plan, the National TB Control Programme (NTCP) developed the Medium Term Development Plan (MTDP) in late 2001 with financial support from USAID. The plan was officially endorsed by the Ministry of Health in January 2002. The MTDP adapted the NTCP objectives (85% cure rate and 70% case detection) for the 2005 timeframe. However, despite the increased focus on TB, the initial level of technical skills for TB were so low in most public sector facilities that it was difficult to scale up screening and treatment fast enough to meet the pace of the emerging epidemic. This has been especially true in provinces such as Eastern Cape, Gauteng, KwaZulu-Natal and the Western Cape, which have been among the hardest hit by HIV and where 70% of all TB cases occur.
In 2007, the NTCP adapted the WHO’s Stop TB Strategy to develop the five-year National Strategic Plan for TB. The Stop TB Strategy laid out six key approaches, including: expansion and enhancement of high-quality DOTS; an increased emphasis on TB/HIV, MDR-TB and the needs of poor and vulnerable populations; a focus on TB activities within the framework of strengthening health systems based on primary health care; engagement with all care providers; empowering communities and people with TB through partnerships; and enabling and promoting research on TB and TB interventions. The NSP seeks to integrate key stakeholders in the local healthcare community, including researchers, media, local and international NGOs (including those active in HIV control) and donors to accelerate TB prevention and control in all provinces of the country with an emphasis on providing patient-centric care. The plan also outlines emerging priority areas, such as infection control, which has been one of the greatest challenges to combating the spread of TB in public health facilities and communities in South Africa, but which has been insufficiently implemented to date due to insufficient provider skills and poorly understood guidelines. The NTCP has also faced challenges to increasing health sector service delivery capacity due to inadequate levels of qualified health workers and funding for TB and TB/HIV interventions. In 2008, South Africa had the highest TB control costs per capita among the HBCs. However, weak monitoring and evaluation systems and poor data flow from the districts to the NTCP tend to result in inadequate estimations of funding needs and funding gaps.

The United States Agency for International Development (USAID) has provided support for the South African NTCP since 1998, starting with the Equity Project in the Eastern Cape. In the intervening years as the epidemic has grown and the mandate of the NTCP has expanded, USAID support has been scaled up considerably. USAID is currently the largest bilateral donor for global TB prevention and care programmes and has allocated approximately $730 million over the past 8 years. In 2008 alone, the US government allocated an additional $65 million for TB programs in South Africa. USAID is committed to accelerating the implementation of improved basic TB services and MDR TB services, increasing the number of patients receiving early and effective treatment, and contributing to improvements in the health system as an integral part of achieving gains in TB control. Through PEPFAR (the President’s Emergency Plan for AIDS Relief), the USG has also led efforts to bring stakeholders together around the need to integrate HIV and TB programmes to make a genuine impact. Other USG assistance agencies, such as the Centers for Disease Control and Prevention (CDC), are also working with South Africa to address TB/HIV control, including supporting child survival programs to address the vulnerabilities faced by AIDS orphans.
3 THE TASC II TB PROJECT IN SOUTH AFRICA

For over 40 years, University Research Co., LLC (URC) has worked with public sector and nongovernmental organizations around the world to strengthen basic health services through management systems improvements, training, mentorship, and communications interventions, with the aim of improving access to quality care among general and high-risk populations in urban and rural settings. URC has worked in South Africa since 2004 and our dedicated in-country staff of over 150 have developed close relationships with provincial and district health offices, local community groups, and leading health research institutions to employ evidence-based interventions to scale up access to TB and HIV prevention, care and treatment services. URC’s approach to strengthening service delivery is based on quality improvement for health systems and capacity development of local health care personnel. The success of this approach has made URC a leader in the fight against TB in Southern Africa and allowed the organization to provide critical support to local health authorities as they build sustainable health systems capable of tackling the dual epidemics of TB and HIV. Through the USAID Health Care Improvement Project (HCI) and its predecessor, the Quality Assurance Project (QAP), URC has supported more than a hundred health facilities in all nine provinces to implement modern quality improvement methods to promote greater uptake and retention of HIV and TB/HIV care and treatment. Since 2006, with support from the CDC, URC has also worked with district health facilities to integrate provider-initiated HIV Counselling and Testing services and to build referral networks for patients in high volume clinics, including TB. In 2009, URC began work with the Southern African Development Community (SADC) to develop a set of harmonised minimum standards for the prevention, treatment, and management of TB in the region. Working with all 15 SADC member countries, URC is assisting the National TB Programmes to examine their policies and priorities for TB and work towards greater regional coordination on TB control.

In 2004, URC was awarded the five-year USAID Technical Assistance and Support Project/Tuberculosis (TASC II TB). Through this project, URC provided assistance to the South African National TB Control Programme and other stakeholders to strengthen local capacity to detect, treat, and prevent TB as well as further integrate TB treatment with HIV and other health care services and develop community-based strategies to ensure patients seek out and adhere to treatment. The TASC II TB objectives were designed to assist the NTCP to incorporate lessons learned from international TB control efforts and to devise an updated national TB control plan for South Africa. TASC II TB focused on working with stakeholders at the national and district levels to implement a wide array of small- and large-scale interventions, ranging from skills building for health providers, advocacy, communication, and social mobilization with communities (ACSM), DOTS support, and systems improvements. TASC II TB adopted a holistic approach to encourage integration of TB into all health services, and especially HIV services, and to build lasting collaborations to enhance TB control. With the goal of decreasing the burden of TB especially among PLWH, URC focused on supporting a network of TB control activities that encompassed efforts ranging from community outreach to national policy making.

3.1 Technical Interventions of TASC II TB

The TASC II TB project organized its activities around five key objectives. Rather than comprising a vertical framework in which each segment represents a link in a chain of TB
services, stretching from the district to national levels, the project objectives were designed to encourage overlap and collaboration around a broader goal of improved treatment for TB and TB/HIV. The key objectives are listed below:

3.1.1 Improve the quality of TB services

TASC II TB worked with partners to increase accountability for TB treatment outcomes and to encourage stakeholders to view improvements in the quality of TB services as a network effect, rather than as the individual responsibility of each service sector. The TASC II TB team employed a wide range of modern quality improvement methodology to help stakeholders understand their role in providing high quality TB care and support. TASC II TB provincial coordinators worked with facility managers and nurses to increase the use of TB indicators and improve reporting and recording of TB case finding data, treatment outcomes, and referrals. The project helped revise national guidelines, develop tools and trainings to allow facilities to analyze their data, access immediate feedback to identify gaps, institutionalise successes, and plan further improvement strategies. Through methods such as the regular application of the TB District Rapid Appraisal Tool (DRAT), and quarterly TBHIV collaborative meetings health providers and managers from different facilities were brought together to share ideas and experiences of how to better provide TB and TB/HIV services. The project worked to improve linkages between clinics and microscopy services to facilitate access and strengthen the role of laboratory services. In order to help targeted facilities streamline the integration TB and HIV services, the project worked with providers to improve referral systems between TB and HIV services, improve the quality of routine HIV counselling and testing in clinics, and address negative provider attitudes towards TB and HIV patients.

3.1.2 Increase availability of TB treatment

When the TASC II TB project began, the technical skills for TB control in many health facilities were generally very low. A major emphasis of the project was to support trainings for healthcare workers to allow them to confidently address TB in their facilities, take the lead in integrating TB into general services, and improve collaboration between TB and HIV services. In many public sector health facilities, most responsibility for TB tends to fall on the nurse-clinician. Recognizing that the overburdening of facility staff places a constraint on the availability of TB services, the project also sought to expand the human resource base for TB control and shift certain tasks to community health workers, HIV programme staff, DOTS supporters, and patients. Within the facilities, lay counsellors providing routine HIV counselling and testing and nurses involved in HIV treatment and care were brought in along with primary care providers to facilitate referral systems for TB services from the both the TB and HIV clinical entry points. Community health workers and community DOTS supporters were trained to work with families and patients to help them manage their own care. By empowering a wider segment of implicated stakeholders to take an active role in increasing access to TB treatment, the project worked to increase the number of facilities offering comprehensive TB and TB/HIV services.

3.1.3 Increase demand for TB services

In South Africa, knowledge and awareness of TB still lags far behind HIV. TB patients are too often constrained by fear of discrimination from their communities and lack of information on how to access TB services. In 2003, only 18% of health facilities were engaged in community outreach to increase awareness for TB and DOTS. TASC II TB aimed to engage a district-wide and multi-sector approach in target districts and supported linkages between clinics and
communities to encourage intensified case finding of TB suspects, enhance the capacities of community organizations to conduct outreach around TB, and increase the number of people participating in TB awareness raising activities. The project engaged a wide range of small- and large-scale information, education, and communication (IEC) strategies to build knowledge of the signs and symptoms of TB, methods of transmission, and the availability of treatment and support services. The TASC II TB team facilitated clinicians and community groups to design tailored approaches to improve knowledge of TB services at the district level, while also working with national policy makers to design and implement a country-wide TB-awareness campaign. The project worked with the NTCP to develop a national TB advocacy, communication, and social mobilization (ACSM) strategy, which then was adapted into a set TB behaviour change communication guidelines to assist district-level TB managers. TASC II TB also undertook a mass media radio and television campaign to increase awareness of TB at the provincial level in three provinces.

3.1.4 Improve management of TB support systems

The goal of TASC II TB was to support a continuum of care for TB patients that would allow them to meet their treatment needs while addressing the key underlying factors that increase susceptibility for TB. The project sought to integrate TB treatment and care into a strengthened network of services that reached from the community to the health facilities and district and provincial health management. To support this and to ensure that the increasing number of patients accessing TB treatment were given a consistently high level of care, strengthened management systems were required to allow health facilities to build and scale up the requisite TB and TB/HIV treatment, care, and support services. The TASC II TB team worked at the district level to organize and strengthen HIV, AIDS and STI Teams (HAST) to coordinate strategic planning between community groups, DOTS supporters, facilities and district managers. TASC II TB coordinators worked with facility staff to examine the systems in place for managing drug stores and decrease the number of sites experiencing TB stock outages. The project worked to increase the number of districts with functional Electronic TB Registers (ETR) and brought together policy makers and stakeholders to discuss improvements in management of TB services. At the national level, the project assisted with the development of a TB crisis management plan for the 4 TB crisis districts, revision of the national TB and MDR TB guidelines, TB registers to include HIV information, development of guidelines for TB infection control, national strategy for TB ACSM. In addition, the TASC II TB also assisted provincial and district health teams in operationalizing many of the revised management and policy guidelines.

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**Box 3: Public Sector Health Care in South Africa**

Some facts on public healthcare facilities:
- Forty four percent of facilities are in rural areas.
- Thirty five percent of existing PHC facilities were built since 1994.
- Virtually all facilities are managed by staff with a qualification of professional nurse or higher (although there is a 20% annual turnover rate among such managers).
- The majority of facilities open 5 days per week for roughly 9 hours per day, with a third providing a 24-hour emergency service.
- Although the majority of facilities have most commonly used drugs, less than 10% have a full complement of the 25 drugs on the Essential Drug List in stock.

From: South Africa National Primary Health Care Facilities Survey 2003
3.1.5 **Introduce and scale up innovative approaches for expanding DOTS**

An integral part of increasing availability and demand for high quality TB services involves stronger engagement with the DOTS (directly observed treatment, short course) strategy, which is recognized worldwide as the most effective approach for improving treatment success rates for TB. The DOTS approach (which outlines the combination of appropriate diagnosis and registration of each TB patient detected, followed by standardized multi-drug treatment, supported by a secure supply of high quality anti-TB drugs for all patients in treatment, and individual patient support to ensure a favourable outcome) provides a model plan of action for organizing TB services between multiple stakeholders. In pre-service and in-service trainings, the TASC II TB team used DOTS as a model to build awareness among doctors and nurses of the need to collaborate with communities to promote treatment adherence and trace TB suspects. As a way of further addressing the severe shortage of human resources for health in South Africa, the TASC II TB encouraged communities to think creatively about expanding DOTS and facilitated the incorporation of non-traditional partners, such as private sector employers, to explore work-based DOTS programmes.

3.2 **Partnership with local and international stakeholders**

The TASC II TB project worked closely with the key international stakeholders including WHO-STOP TB and other TB research and advocacy organizations. URC also developed strong partnership with MRC South Africa and other local research groups. MSH and HST-South Africa were the key sub-contractors. URC also awarded subgrants to community-based groups and research institutions to support various project components.
4 Project Scope

In addition to providing technical assistance to the TB control programme at the national level, the TASC II TB project focused its support in five provinces: Limpopo, North West, Mpumalanga, KwaZulu Natal (KZN), and Eastern Cape. URC collaborated closely with Provincial Departments of Health to identify focus districts based both on the TB and HIV status in the region and presence of support services able to work with the project. The project especially targeted the TB crisis districts identified in the National TB Crisis Plan. These districts (Nelson Mandela Bay Metro, Amatole, and eThekwini, together with Johannesburg City) comprise 20% of the TB burden in South Africa. The project placed several dedicated staff members on the ground in each province to coordinate support between targeted health facilities, communities, and district health offices. Constant dialogue with district health departments allowed the project to flexibly respond to developments in the TB situation and target emerging crisis areas to scale up support over the course of the project. In all, the project was successful in reaching 659 health facilities in 11 districts.

Table 2: Project Focus Areas

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
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<tbody>
<tr>
<td>Eastern cape</td>
<td>OR Tambo</td>
</tr>
<tr>
<td></td>
<td>NMBM</td>
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<tr>
<td></td>
<td>Amathole</td>
</tr>
<tr>
<td>KZN</td>
<td>Ilembe</td>
</tr>
<tr>
<td></td>
<td>Ethekwini</td>
</tr>
<tr>
<td>Limpopo (formerly Northern Province)</td>
<td>Sekhukhuni</td>
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<tr>
<td></td>
<td>Waterberg</td>
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<td></td>
<td>Capricon</td>
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<td>Mpumalanga</td>
<td>Nkangala</td>
</tr>
<tr>
<td>North West</td>
<td>Bojanala</td>
</tr>
<tr>
<td></td>
<td>Dr Kenneth Kaunda</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>
5 TASC II TB’s Technical Approach

The activities described above were implemented by extending project support horizontally to a wide array of implemented stakeholders. The strong need for an immediate increase in high quality TB services to address the growing epidemic has led an ever growing number of international NGOs and service delivery organizations to address the direct provision of additional patient services, which in some cases is warranted. URC’s primary approach through TASC II TB, however, has been to work with the network of health services already in place and strengthen the skills of public sector health providers to increase and improve TB services. As the majority of South Africans access public facilities for most of their health care needs, improving public sector TB control systems promises to have the greatest long-term impact on reducing the burden of TB. TASC II TB therefore targeted public sector facilities in high burden districts to receive technical assistance backed by ongoing supportive supervision. This starts with the placement of district-based TB coordinators who are able to target assistance through collaboration with district health managers and provide direct mentorship to reinforce the skills gained through trainings and capacity building exercises. This approach of mentorship to strengthen TB control systems is a labour intensive process supported by the relationships built slowly over time between providers and the project staff. The project staff’s combination of technical expertise and familiarity with local health conditions encouraged clinics and communities to view TASC II TB’s coordinators as an advocate and resource for implementing a district-based TB control strategy. Open dialogue, regular support visits to facilities, continual engagement with district health departments, and strong positive reinforcement was employed to help districts manage and own a patient-centred network of TB care and treatment services. District-based coordinators were backed by the project’s technical experts who were able to assist in developing training materials and curriculum and building targeted skills around areas such as improving monitoring and evaluation capacities, accessing non-traditional partners, or planning social mobilization campaigns. The project incorporated cutting edge expertise to help stakeholders address emerging issues around MDR TB, infection control, paediatric TB, and TB/HIV. Technical assistance at the district level was designed to reinforce the policies and objectives of the NTCP and the National Strategic Plan in a way that flexibly incorporated local priorities. The project helped streamline communication channels so that lessons learned at the district level travelled upward to inform developments in national TB policies. At each level, activities were aided by the strong relationships cultivated by URC’s local project staff with stakeholders involved in TB control.

Figure 1: Performance Improvement
5.1 **Best Practices of TASC II TB’s approach:**

In 2008, USAID commissioned an external evaluation of TASC II TB to assess the impact of the project on strengthening the national TB programme, make recommendations on changes or adjustments for future work, and provide strategic guidance for longer term investments in the TB programme in South Africa. An international team from the IUATLD, the USAID Washington office and URC Washington office joined with national colleagues from the National Tuberculosis Control and Management Programme, the USAID office in Pretoria, URC/Pretoria, and Provincial and District Health Authorities to identify best practices that emerged during project implementation. Some of the findings were as follows:

**Best Practice #1: The management and use of strategic information.**

TASC II TB addressed the deficiencies in the collection, collation and dissemination of TB data and the lack of feedback generated by using TB information for decision making by introducing the practices that are usually employed in other countries throughout the region, whereby service providers actually collate, present and evaluate the results of their work with the assistance of the TASC II TB coordinator. By doing this systematically and formally, the staff of the facilities is provided with an opportunity for reflection, analysis and identification of obstacles to progress toward quality-of-care objectives within their own context. Moreover, this process engages the staff providing the services to the patients to understand the important role of the tedious task of recording information and engages them in a process in which they have a sense of ‘ownership’ of the process of patient care within the services. The process provides a framework by which the nurses are able identify and address the challenges they face within their settings, to communicate this information to their supervisors and to introduce locally-crafted and appropriate solutions to the problems they identify. This is the essence of a ‘strategic information process’ and contributes to sustainability and appropriate revision of policies and practices. The clear benefits of this process of evaluation, analysis and reflection was noted by many of the facility staff that the team met with during the course of the review. In spite of this ‘taking up precious time’, the process was valued by the providers and endorsed by them as a means to help them set personal targets for their work and to be respectfully engaged in planning, priority-setting and revision.

**Best Practice #2: A model for training using TB/HIV collaboratives**

While TASC II TB directs its activities to selected facility within any given geographic area, it engages with the whole of the health system within that area through (among other things) establishing what TASC II TB has termed ‘collaboratives’. These are peer-review processes whereby all personnel within the area responsible for tuberculosis services are gathered periodically for purposes of presenting the results of their work to one another, discussing, comparing and interpreting these results, identifying challenges and discussing solutions to problems encountered. This process builds on the previous ‘best practice’ of using information in a strategic manner to improve policy and practice. The collaboratives become a forum to promote this strategic use of information. In addition, it provides a mechanism for mutual support and problem-solving that promotes the sense of ‘ownership’ of the services and the information used to improve them. This environment creates a system of ‘learning by doing’ that forms a base for in-service training that is appropriate (it addresses the real problems faced in service provision) and creative (it promotes the use of ‘lessons learnt’ at the implementation level). The environment also provided an opportunity to facilitate the introduction of new tools,
methods and strategies. During the course of the TASC II TB work with the facilities, several changes to standard procedures had been introduced. One of the best examples was the introduction of new methods of recording information on TB-HIV collaboration. Providers repeatedly noted the important role of the collaboratives as a mechanism to discuss and understand the new methods and asserted that, in the absence of this mechanism, they would have been markedly challenged in understanding and employing these new methods. The review team frequently encountered providers who identified this process as one of the reasons why they, in spite of the challenges they face, enjoyed and valued their work with tuberculosis patients.

**Best Practice #3: The use of a standard analytical tool to improve quality of services.**

Within the scope of TASC II TB, the approaches have varied to some degree, depending on varying approaches taken by various provinces in their implementation of tuberculosis services. This variation permitted a comparison of practices from one province to another. In one of the provinces assisted by TASC II TB (North West Province) there has been virtually no information reported at all to the national level and extremely limited opportunity to have meaningful input into improving the quality of services within that Province. Other provinces have adopted a tool for evaluation, termed the District Rapid Assessment Tool (DRAT). This is a formula or process by which routine information recorded in the services is analyzed to monitor progress and identify challenges. Where this tool was used, the nurses in clinics noted that they were able to ‘know where they are’ and what challenges they face. Moreover, they reported that the knowledge they gained by using the tool enabled them to communicate more effectively with their supervisors and managers. In provinces which have not adopted such an evaluation tool, providers expressed less confidence in their ability to evaluate their situation and track progress. This was possible individually in selected facilities but not in others. The absence of the tool in these locations was associated with a lower level of efficiency, awareness and empowerment.

**Best Practice #4: Truly supportive methods of supervision that focuses on coaching and mentoring.**

TASC II TB is structured to ensure that TB coordinators have specific, focused and precise tasks to undertake but are also encouraged to provide support and individual attention to the health care workers with whom they work. Repeatedly during the visits, when asked to identify the main contributions of TASC II TB to the health services, both nurses and managers identified the TASC II TB coordinators as key. In particular, the attitude and approach of each coordinator was crucial to the support provided. Nurses repeatedly noted that, when they encountered a problem or did not understand a procedure, they could call on the coordinator to help them. This type of supervision is not a routine part of tuberculosis services in South Africa and the role of TASC II TB in providing it was highly appreciated. While all health services, whether in rich or poor countries, have resource constraints, it would be hard to imagine that the resource constraints of South Africa would be greater than those in the neighbouring countries such as, for example, Tanzania. In spite of this, Tanzania is able to identify the resources needed to provide the type of focused and competent supportive supervision that is modelled within TASC II TB. This type of supervision is the key to improving and maintaining the quality of tuberculosis services and is one of the best practices of TASC II TB that needs to be adopted and scaled up within the general health services in South Africa if the huge challenge of tuberculosis and HIV are to be successfully addressed.
The evaluation further noted that the best practices that have been introduced within the context of the work of TASC II TB were all locally appropriate and could be carried out within virtually any facility in the country. If this were done, it is very likely that the quality of the services for tuberculosis throughout the country would be improved substantially. The health service partners of the TASC II TB indicated that none of the best practices introduced by TASC II TB were inappropriate to the local setting or impossible to scale up or maintain. The most striking thing about the best practices introduced by TASC II TB is that these practices are the type of activities that are routine in most other National Tuberculosis Programmes in the region. They are routine in other programmes specifically to achieve and maintain quality of services within the programmes. In spite of this, these have been practices that were specifically not adopted by the National Tuberculosis Programme in South Africa for various reasons. Adopting these locally-adapted approaches as national policy and practice would, in the minds of the review team, substantially strengthen tuberculosis services throughout the country.

5.2 Developments in TB Priorities and Interventions, 2005-2009

Between 2005 when TASC II TB began and the end of the project in 2009, South Africa experienced several significant changes in its TB epidemic and a number of important developments were made for TB control strategies at the global and regional level. Building on the collaborative approach adopted by the TASC II TB team, and based on continued assessments of providers’ and patients’ needs as well as feedback from stakeholders, the project was able to work with partners to identify emerging priority areas as they developed and adjust the project’s objectives accordingly. Often stemming from the small changes implemented on an individual level, based on the needs of a particular community or clinic, the project was able to...
assist facilities, district TB programs and the NTCP to adapt to the evolving requirements of TB control.

The principal development in the TB situation in South Africa during the course of the project was a question of changes in scale: the number of TB and TB/HIV cases continued to grow markedly during this time as did the number of patients seeking to access services. An ongoing emphasis of the project was therefore to help communities, clinics, and districts rapidly increase the number and types of services they were able to provide to support treatment and care for TB patients. These were assisted by policy developments at the national level which provided guidance and sought to increase coordination between district and provincial TB programmes around common targets. In 2007, TASC II TB was actively involved in the compilation, analysis and final development of the five-year National Strategic Plan for TB which provided a platform to motivate and organize district-based work. Similarly, the project played a role in ongoing discussions on the development of policies for providing routine HIV testing and counselling (RTC) at clinic sites as a means of increasing referrals between TB and HIV clinical entry points. TASC II TB also was integral in developing and implementing the national ACSM strategy for TB. In its role as a liaison between clinics, district TB management, and national policy makers, TASC II TB was able to introduce policies to providers as they were developed, provide trainings and clarifications, and troubleshoot barriers to implementation.

When TASC II TB was designed in 2004, MDR TB had not yet fully emerged as a priority area for TB control efforts. Following rapid increases in the number of MDR and XDR TB cases in South Africa and in the wake of high profile outbreaks such as the Tugela Ferry outbreak (see box), TASC II TB mobilized to incorporate a focus on MDR. To meet the need for new tools to help sites combat MDR/XDR, the project assisted in sourcing technical assistance and funding the revision of the current MDR-TB clinical guidelines to align with the recommendations by the WHO and to include XDR TB. An adapted training curriculum on MDR TB was developed and a series of trainings were conducted to assist providers to manage clinical MDR/XDR cases, prevent nosocomial transmission, and understand drug interactions between second-line TB drugs and ART. Social mobilization tools and IEC materials (see box at left) were adapted to include guidance on this new threat and explain the connections between challenges in adherence to treatment regimens and the development of drug-resistant TB. The rise of MDR TB also sparked a renewed emphasis on strengthening infection control procedures to prevent virulent strains of TB from being spread by patients in facilities, workplaces, and homes. TASC II TB quickly found that maintaining strong infection control procedures was a major challenge when dealing with open TB cases in hospitals and clinics. The project supported several studies to examine the infection control risks posed to healthcare workers and developed an infection control risk assessment tool which was piloted and then scaled up to 175 facilities. TASC II TB worked with the NTCP to develop national infection control guidelines which were
supported by district-based trainings for clinic staff, community health workers, and DOTS supporters.

TASC II TB also provided a link between TB stakeholders in South Africa and international TB control programmes and facilitated the adoption of global innovations in TB prevention and treatment. Following the introduction of the WHO-recommended “3 Is” framework strategy to tackle TB/HIV co-infection through coordinated efforts to intensify case finding of active TB suspects, provide isoniazid preventive therapy, and strengthen implementation of infection control policies, TASC II TB adopted this model for use in project-supported health facilities. The project has implemented the 3Is through health care worker training, development of a TB screening tool and infection control risk assessments conducted in facilities. Public education efforts were also undertaken to reduce opportunities of nosocomial transmission of TB at facility and community levels. The project also responded to the renewed focus on monitoring and evaluation to support data-based global health interventions by working with facilities to change their paradigm towards data collection and use. Through the facilitation and collaboration approach, TASC II TB helped facilities own their TB data and understand the benefits of using indicators to help set goals, record successes, review achievements, and plan improvements. While increased use of M&E data has been an ongoing challenge, numerous individual successes have been seen. As one clinic manager remarked after working with a TASC II TB coordinator: “With no data don’t talk—show me the evidence.”
6 PROJECT ACCOMPLISHMENTS AND RESULTS

6.1 Training and capacity development

TASC II TB succeeded in providing training to an estimated 16,652 health care workers on basic management of TB. At least 1000 received additional training targeted to improve management of MDR TB. The project is responsible for 80% of all MDR TB training in the country. Subsequent to the development of the infection control TB risk assessment tool, risk assessments were conducted in 175 of supported facilities followed by trainings for 340 health care workers on infection control guidelines and procedures. All trainings were followed by continuous mentoring and supervision by district-based project coordinators to reinforce lessons learned and strengthen long-term capacity development skills. Further trainings and capacity development activities were conducted for community health workers, DOTS supporters, district and provincial managers, laboratory managers and microscopists, and private sector business leaders.

Through implementation of TB in the Workplace information and educational materials, partnerships with the private sector (3 companies in EC and two in KZN) have been formed in two provinces to expand public private mix DOTS and a number of local community-based organizations were funded to provide TB-HIV community awareness and treatment support resulting in reduced defaulter rates in some of the areas.

Figure 3: Training by Province

![Training numbers by Province](chart.png)
6.2 Programmatic results

6.2.1 TB

6.2.1.1 Treatment success rates/cure rates

During the past five years, improvements in cure rates and treatment outcomes have been achieved in the project focus districts. Figures 3 and 4 provide an overview of these improvements. However, some facilities within a district and some districts overall have shown accelerated improvements, while many facilities and some of the districts continue to face problems with improving treatment outcomes. District management leadership, commitment of facility staff are some of the factors affecting the overall program outcomes. The project also was able to assist in reducing treatment default rates (Figure 5). Appendix A provides province specific data on program outcomes.

Figure 3: TB Cure Rates in Project Districts in Five Provinces
Figure 4: Successful TB Treatment Completion in Project Focus Districts

Figure 5: Treatment Default Rate in Project Focus Districts
6.2.2 TB-HIV

Among the strongest successes of the project was in supporting stronger integration between TB and HIV clinical and support services. TASC II TB achieved this through promoting routine HIV counselling and testing in supported facilities, and introducing standardized TB/HIV reporting and recording tools. The project saw a strong increase in the numbers of HIV patients screened for TB and TB patients tested for HIV in the majority of facilities, however several issues remain particularly in furthering the integration of TB services from the HIV clinical entry point.

Figure 5: HIV entry point – 215 facilities

![HIV entry point data (Oct 06-Aug 09)](image)

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<thead>
<tr>
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<th>Oct 06-Sep 07</th>
<th>Oct 07-Sep 08</th>
<th>Oct 08-Aug 09</th>
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</thead>
<tbody>
<tr>
<td>% tested for HIV</td>
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<tr>
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<td>28</td>
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<tr>
<td>% HIV positive screened for TB</td>
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<td>33</td>
<td>77</td>
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</tbody>
</table>

Figure 6: TB entry point – 215 facilities

![TB entry point data (Oct 06-Aug 09)](image)

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<th>Oct 07-Sep 08</th>
<th>Oct 08-Aug 09</th>
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<tbody>
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<td>% cases offered C&amp;T</td>
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<td>84</td>
</tr>
<tr>
<td>% tested for HIV</td>
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<tr>
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<tr>
<td>% of co-infected on CPT</td>
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</table>
Box 4: Key findings of mid-term project assessment

In 2007, TASC II TB commissioned a midterm review of the project to date in order to identify successful interventions and determine areas for improvement or scale-up. Four major areas were identified in the report as best practices or emerging best practices, including:

(1) Decentralized Capacity Building. The project’s ability to involve provincial and district officials in problem analysis and planning, applying the District Rapid Appraisal Tool (DRAT) for supportive supervision, and the use of improvement ‘collaboratives” for strengthening data accuracy, analysis and use to improve TB program management were cited as clearly contributing to improved TB outcomes in the areas where they were used.

(2) TB/HIV Integration. The project made important strides in strengthening the system of cross-referrals and tracking patients across the TB and HIV services at the facility level. Data collected on a monthly basis by the project showed highly encouraging trends reflecting that an increasing proportion of patients were receiving appropriate TB and HIV services due to referrals and tracking.

(3) TB Laboratory strengthening. The use of the TB Microscopy Supervisory Tool for improved performance was identified as a best practice in its early stage of implementation. Although at the time of the evaluation there was insufficient data on improvements in laboratory services tied to use of the tool, the process of developing the tool and its potential to encourage quantifiable improvements warranted the consideration as a best practice.

(4) Advocacy, Communication, and Social Mobilization. TASC II TB’s use of social mobilization techniques and collaboration with community NGOs to improve community understanding of and support for TB programmes was highlighted as a significant best practice. While it was noted that there was little quantitative evidence of the impact of ACSM strategies, managers and service providers uniformly reported that social mobilization activities had resulted in reduced defaulter rates and increases in case detection.

The review further identified several significant best practices in program management that assisted the project to achieve its goals, including the emphasis on rapid scale-up of successful interventions, the flexibility and responsiveness the project demonstrated to the needs of the NTCP, the institutional arrangements developed for operations research, and the emphasis on working with facilities to make more efficient use of staff for data collection tasks.
7 SUCCESS STORIES

The impact of TASC II TB can be viewed in the achievements made towards meeting national targets for increasing TB case detection and improving treatment success rates. Many of the project’s accomplishments, though, are hard to capture through statistics. The project’s emphasis on building provider skills, supporting community engagement, and strengthening networks of services often makes it challenging to gauge the immediate impact of an intervention. In many cases, however, it is possible to see the effects of TASC II TB in the changing attitudes of healthcare providers, the increased motivation of community groups to get involved in TB control, and the individual cases of patients who were empowered to access treatment. Many of the project’s success stories are individual examples of particular problems in TB control overcome through small, localized solutions, which may nonetheless have the potential for broader application. The examples are too many to list; a few only are provided below.

7.1 Engaging the private sector in KwaZulu Natal

South Africa, like many countries, has been hit hard in the past several years by rising unemployment. As a result, the jobs which are available in manufacturing and service industries are highly sought after and people are willing to work long hours far from home to secure a steady income. From the beginning of their work in TB crisis districts, TASC II TB coordinators realized that changes in employment opportunities had a strong impact on TB risk behaviour and treatment adherence. Many of the TB patients the project worked with were the neighbours and family members of workers who had brought TB home with them from their factory, warehouse or office. When community health workers and DOTS supporters would visit the homes of TB patients to encourage all family members to be screened, they would often be met with resistance from a husband or brother who had a job they were afraid of losing should a diagnosis of TB be known. Many fear that interrupting work to undergo treatment will cost them their livelihood. Without treatment, a worker instead becomes an ongoing source of infection for their families and those around them and risks losing employment opportunities down the line due to illness. Through discussion with clinic staff, DOTS supporters, and patients’ families, TASC II TB decided to address this problem with employers.

In 2007, TASC II TB held a series of breakfast meetings with private sector employers in several high burden TB districts in KwaZulu Natal and Eastern Cape Provinces. The meetings were coordinated with participation from local government officials including town mayors and district health managers, as well as representatives from the trade unions. These business breakfasts provided a forum to build awareness of the TB crisis and discuss with major employers how they might integrate TB control within the HIV and AIDS workforce programmes, which many had already developed, and reduce TB infections in the workforce. Private employers were presented with a package of materials spotlighting TB workplace risks and were given the opportunity to share experiences and brainstorm action plans. Among the participants in the discussion were representatives from Toyota South Africa. With several factories located in crisis districts outside Durban in KZN province, Toyota managers were actively engaged in monitoring the increase in illness experienced by their workers. A factory production line is an ideal location for TB to spread and

Key Facts on Toyota South Africa:
- The company employs over 9700 people nationwide
- In 2005, 689 people accessed company-provided VCT. In 2007, this had risen to 1,578
during the business breakfast the company representatives shared their concern that infected employees may be passing the disease to their co-workers on the factory floor. Through the breakfast forums, the company learned more about what was being done to combat TB in their district and were put in contact with the local TASC II TB coordinator to develop a targeted TB control program for their production facilities.

In eThekwini district in KZN province, Toyota South Africa is a key employer, providing critical jobs in its 7 factory branches. The company has earned an important place in the community through the steady employment it provides as well as the support services it offers its employees, including dedicated staff clinics in each of its factories. In response to the high rate of HIV in the district, Toyota’s employee clinics had formed linkages with public sector ART providers and, in addition to primary care and occupational health, were committed to building AIDS awareness, increasing testing, and providing ART to employees. At the time that the TASC II TB coordinator began work with the company’s health staff, however, there was little focus on TB and few patients were being screened. Through the partnership with TASC II TB, the Toyota managers and employee clinic staff were linked to the district TB control program and began regularly attending district trainings focused on TB infection control, case management and DOTS, in partnership with TB nurses and staff from the public sector clinics. In addition, the project developed a targeted training for twenty staff from the Toyota clinics, focused on TB control for workplaces. The TASC II TB coordinator worked with the clinics’ staff and factory managers to organize workplace awareness campaigns in each of the factory branches and distributed educational materials and posters on cough etiquette in the workplace, the signs and symptoms of TB, and how to access treatment. A company policy was developed to provide two weeks leave to any employee infected with TB, as a way of encouraging employees to come forward for screening without fear that being known to have TB would endanger their job. The project was able to leverage the strong motivation of the district TB manager to facilitate a partnership between the company and local public sector clinics to provide treatment and coordinate DOTS support with the employee clinics. A key contribution was the introduction of contact tracing on the factory floor. Building from the model through which DOTS supporters and community health workers will trace family members of TB patients, a company tracer team was organized to identify and seek out those who worked in close proximity with each infected employee and encourage them to come forward and be screened. Where needed, the company tracer team coordinated with community DOTS supporters to ensure further tracing of family members and friends of the employees identified.

The partnership with Toyota had an important effect on furthering the local TB control strategy. Partnership with workplaces and private sector companies offers an important opportunity for TB control, as TB can easily be spread by workers who spend long hours in close quarters in workplaces with no infection control policies. Private sector employers such as Toyota are also well placed to present TB information to their workforce and promote policies to keep their employees healthy by encouraging screening and providing flexible working schedules to ensure
patients stay on treatment. In KZN, as in other crisis districts, partnerships for TB control must be widely sought and a multi-sector “all hands on deck” approach is required to sustain reductions in infections. Linking with the employee clinics allowed district TB managers to monitor the quality of treatment and ensured that services were accessible to more patients. When the TASCII TB project ended in 2009, the district was still working on expanding the private sector partnership model. Ongoing assessments with the URC coordinator had identified a gap in outcomes of company-supported TB patients—in many cases, patients were not followed up to ensure they had completed treatment with a favourable outcome. Improvements in monitoring and recording of patient outcomes needs to be maintained and shared with the district TB program to determine the long term impact of the partnership. All involved agree, however, that the collaboration with a motivated employer has allowed a more comprehensive response to TB in the district and encouraged all parties involved to examine how the disease impacts the livelihoods of those infected. Rather than ignoring non-traditional partners like private companies, the partnership developed with Toyota allowed advocates for TB control to explore how engagement with a private sector business model might further reduce the impact of TB in eTkekwini.

7.2 Community engagement and TB gardens in Eastern Cape

The Kwamagxaki clinic serves a population of more than 10,000 in the Nelson Mandela Bay Metro (NMBM) district in the Eastern Cape Province. Although the district includes an expanding industrial area stretching from the seaside city of Port Elizabeth, many of those who come to Kwamagxaki are rural workers living in the local townships and farming communities. When the TASC II TB project began work with the clinic in 2007, there was little active screening for TB, despite the high rate of HIV and the appearance of MDR TB in the district. The TASC II TB coordinator, using the strong ties she had built with health workers in the area over several decades as a nurse and community advocate, began working to engage the clinic staff to take a more active role in TB control. The TASC II TB coordinator initiated discussions with the clinic staff and patients to explore how TB was approached at the clinic and where the gaps were in service delivery. She found that most of the nurses and counsellors had had little formal training in TB and were often unaware of the need to integrate TB screening and treatment into primary services. The TB patients the clinic did see often came in already knowing their status and sometimes complained that the discriminatory attitudes of the healthcare workers led them to discontinue treatment. Through a slow process of discussion, training and mentorship, the TASC II TB team began working with the nurses at Kwamagxaki to turn things around. With the support of the district TB manager, the clinic began taking part in regular district rapid appraisals to highlight the TB situation in the area and illustrate the links between TB, HIV, and other illnesses. Kwamagxaki staff were given the chance to share experiences with TB nurses in other districts and learn about the benefits of more active TB control initiatives. Trainings in infection control for TB and MDR TB helped to address provider fears of working with TB patients. As the clinic began more active screening for TB, patients also reported that the newly positive attitude of the staff was a strong motivating factor in accessing treatment. With support from the TASC II TB coordinator, the TB nurse at the clinic adopted the habit of taking an open approach with TB patients and began to learn more about their individual situations and to talk through the challenges they faced adhering to treatment.

Despite the strides the Kwamagxaki clinic made to increase screening and start more patients on treatment, the staff and TASC II TB coordinator were worried by the persistently high numbers
of patients in the district whose treatment was interrupted before they were fully cured. When TASC II TB began working with the clinic, the defaulter rate for TB treatment was 26%. Adhering to the standard six-month course of TB treatment is challenging and although the nurses were willing to work with patients to help them stay on treatment, many of the factors that influence successful completion were beyond the reach of the overburdened clinic staff. As one nurse said, “You must know your patients, ask them everyday how do they feel? You must have that relationship and they never default. You must visit their home and help them cope.” The TASC II TB coordinator decided to explore how the clinic might benefit from increased DOTS support through a stronger link between the clinic and the local community. In collaboration with the district health manager, TASC II TB identified a local NGO able to collaborate with Kwamagxaki to improve cure rates. The organization, the Training Centre for Positive Living (TCPL), was one of only a handful of groups active in community outreach for TB control in the area. Unfortunately, there are still few active community based organizations dedicated to TB in South Africa, as most groups continue to focus their activities on HIV. With about 50 members, many of whom had been previously involved in nursing and community activism for HIV, TCPL had developed a network of DOTS supporters who were closely rooted in the NMBM community. Many staff and volunteers in TCPL had built on their experience mobilizing their communities around HIV prevention and treatment and had found that many of the same approaches were needed now for TB. The TASC II TB coordinator facilitated a series of meetings between TCPL, the TB nurses from Kwamagxaki and other local clinics, and the sub-district health management to outline a plan to trace defaulters and improve DOTS support. TASC II TB provided technical assistance and financial support to TCPL to select additional DOTS supporters from the local community and provided training on how to engage patients and their families to increase case finding of suspects. TASC II TB worked as a bridge to build relationships between the local clinics and the NGO and helped them map the area to ensure coordinated coverage of DOTS supporters. TCPL’s DOTS workers used their local knowledge to gain the trust of TB families and were able to assist in a remarkable reduction of defaulters (see chart). In one month, 332 of 543 defaulters were found and put back on treatment. Soon, the collaboration between the clinic and the community workers expanded beyond primary DOTS support and TCPL volunteers and staff began actively tracing TB suspects and collecting sputum samples from patients too ill to reach the clinic. Through its collaboration with TCPL, the nurses at Kwanagxkai also began to take a more active role in community outreach campaigns. Each

![NMBM DISTRICT TREATMENT INTERRUPTION RATE](chart)

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Interrupted Rate

Target

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week, the nurses helped TCPL plan a targeted activity such as a school visit, a door-to-door campaign, or an awareness-raising talk at a taxi stand or local business to encourage the community to access TB services.

TASC II TB involvement with TCPL was based on a mutual appreciation of the need to take a comprehensive approach to TB control. In order to reduce defaulters, it is necessary to look more closely at the problems faced by patients and their families that they keep them from continuing treatment. TCPL’s DOTS supporters came to feel a personal involvement in the lives and well beings of the TB families they worked with and looked for creative ways to address their immediate treatment needs as well as help them reduce the likelihoods of future infections. One of the key outcomes of the collaboration between TASC II TB and TCPL was the development of TB patient gardens in the township communities around Kwanagxkai. In an area of deep poverty and high unemployment, a TB diagnosis can mean time away from work, sometimes for several family members at the same time. The loss of income can make it hard for families to make ends meet and put food on the table. Adding to the difficulties is the discomfort of taking multiple TB medications on an empty stomach. Many clinics, Kwamagxaki included, seek to address this problem by providing food supplements for TB patients, particularly during the first two months of treatment when patients visit the clinic regularly. However, there are multiple logistical difficulties inherent in this approach, including ensuring the regular supply of supplements. As an alternative, TCPL proposed that TASC II TB support the group to buy vegetable seedlings for TB patients and worked with each DOT-supported family to plant a vegetable garden near their home. As a pilot programme, this approach was unique in the district. After the first vegetable harvest, TASC II TB began receiving feedback that the strategy was considered a strong success by the patients involved. With minimal cost, TB patients were able to access nutritional support to help them adhere to treatment. Patients were encouraged that they were able to help support their families despite a TB diagnosis. Other community members viewed the positive outcome of accessing TB services and sought out TCPL for involvement in the project. TCPL has gained a higher profile in the community which it has been able to leverage to support more outreach and build greater demand for TB services.

There are many more challenges to overcome. As cases of MDR TB increase in Nelson Mandela Bay Metro, community groups have begun to focus more on methods to protect DOTS supporters as they work in patients’ homes and spreading awareness of infection control practices among the families of TB patients. Through their outreach campaigns in schools, TCPL has helped the local clinics identified a larger number of TB cases among children, prompting the district to take a new look at control of paediatric TB. The group hopes to expand the vegetable gardens through church groups and schools and possibly engage more with local correctional facilities which experience high rates of TB. In the future, TCPL plans to work more with former patients to encourage them to stay active in
peer support groups for TB families and help them link up with other social support services, such as vocational and educational programs. The strength of the collaboration between the Kwamagxaki clinic and TCPL has been to allow both sides to explore what a holistic approach to TB control means in their community and employ small-scale interventions with wide ranging effects. Backed by a TASC II TB coordinator with deep local roots who was able to facilitate the collaboration and provide tools and technical support, the community is beginning to understand that TB is everyone’s problem and are encouraging each other to find solutions.

7.3 Improving TB Laboratory Services in KZN

Fully functioning laboratory services providing reliable, valid and timely results are required to support national tuberculosis control programs in care and treatment, including the diagnosis of TB, identification of drug resistance and monitoring of treatment at each level of care. The emergence of MDR and XDR TB, whilst creating an additional burden, has assisted to drive the agenda not only to expand and strengthen laboratory services but also to develop and utilise a wider range of technologies for improved diagnosis and rapid identification of drug resistance. Despite the advent of several new and improved technologies, sputum smear microscopy is still the primary method used for diagnosis of TB in much of the developing world. Prior to 2000, provision of public sector laboratory services in South Africa were the responsibility of each Provincial Department of Health, at which time the National Health Laboratory Service (NHLS), was formed as a new entity by an Act of Parliament. The NHLS, under contract from the DoH, provides all public sector laboratory services throughout the country and has developed sophisticated business strategies to ensure financial viability of the laboratory services as well as test profiles and arrangements for specimen referral and transport to ensure comprehensive laboratory coverage for South Africa.

In 2005, at the beginning of the TASC II TB Project, the NHLS faced several challenges, including recruiting and retaining qualified laboratory staff in the rural areas and ensuring the accessibility of TB diagnostic services. Although the NHLS had instituted a referral and transport system for all specimens in order to maintain a cost-effective and financially viable laboratory service, the TB microscopy services were still not easily accessible to all rural communities. The lack of a TB-specific laboratory management information system (MIS) made it difficult for the NTCP to collate information on the number of samples examined, the results, and the number of follow-up cases examined. Furthermore, there were few quality assurance mechanisms in place and little active supervision of sputum smear microscopy. Discussions between TASC II TB and the Director of the NTCP revealed that there were major concerns about the efficiency and quality of TB microscopy services in South Africa and especially in the high burden districts in Eastern Cape and KwaZulu Natal Provinces. If TASC II TB could improve the management and supervisory skills of the laboratory managers, they would be enabled to take the necessary actions to rectify deficiencies, improve the quality of services and to institute standardised quality monitoring of microscopy. Therefore, in consultation with the TASC II TB project team and the national TB advisor of the NHLS it was agreed that the main focus for laboratory strengthening would be to improve the quality of smear microscopy services. It was decided to develop, implement and evaluate a model in one province, with the intention of later using the experience and lessons learnt for wider implementation in other TASC II TB supported provinces. The NHLS managers and staff in both KZN and Eastern Cape welcomed this idea and a pilot was designed for initiation in KZN.
With approximately 20% of the total population of South Africa, KZN province has 76 microscopy sites, (representing 30% of all the country’s TB microscopy laboratories). Unlike the other provinces, it has several microscopy sites in urban and rural PHC clinics, many of which have no other laboratory services. Due to the shortage of qualified laboratory technologists and technicians, many of these PHC microscopy sites are staffed only by microscopists who received three months training. Although the large number of microscopy sites has the potential to make TB diagnosis more easily available and accessible, the province faces many challenges to ensure the quality of the service and reliability of results. Lack of regular support supervision needs to be addressed and although the NHLS had started a pilot scheme in the province to initiate external quality assurance of TB microscopy using ‘blinded rechecking’, there was no comprehensive quality monitoring of TB microscopy and therefore the quality was unknown. This situation prompted the development and implementation of the TB Laboratory Performance Improvement Programme (TLPIP) as a mechanism for district TB officials to initiate changes in the way they managed the TB microscopy services and to monitor the impact of those changes. The Improvement Programme was based around the need for a systems approach to a Fully-Functional TB Laboratory Service, strengthening management and leadership capacity to improve performance, and making use of collaborative mentorship to produce a step-wise and continual cycle of performance improvement.

In order to ensure that the NHLS senior managers and other KZN provincial staff would actively support and engage in the TLPIP, field visits were made to selected TB laboratories in Durban and Pietermaritzburg as well microscopy sites in rural clinics to review their current operation and to discuss the problems and challenges faced both by the laboratory staff as well as by the clinical staff using these laboratories. A one-day senior alignment meeting was conducted with the NHLS Regional Executive Manager and her team of senior business managers in KZN, the provincial NTCP manager and other key stakeholders involved in TB control to discuss the perceived challenges in providing quality TB laboratory services in the province. The meeting was used as a platform to explain the relationship between these challenges and the requirement for improved management and leadership in order to address them and make the necessary improvements to improve the quality of TB microscopy services. To ensure an additional level of commitment from the NHLS head office, the NHLS National Executive Director for TB was briefed and agreed to actively participate in the program in KZN and to brief the NHLS executive on the program, its results and applicability to laboratories in other areas of the country. A series of three workshops, each building on the other, was conducted for 25 laboratory managers (from the TB crisis districts in KZN), clinicians and provincial TBCP staff. A participatory process was employed throughout, rather than the more traditional workshop format of presentations. Participants worked in teams (each team was composed of 6-8 people), providing the opportunity to discuss, plan and interact with each other.

The first workshop introduced the concepts of leadership and management, team-building and team work. The participants examined the current situation in their TB laboratories and identified problems and challenges affecting overall laboratory performance and more specifically TB microscopy. They created their shared vision of how the TB microscopy service would operate in the future and developed, from first principles, the framework for a fully-functioning TB diagnostic service. Their shared vision heralded a significant change from the current status quo of a 24-48 hour laboratory turn-around time for microscopy, which in practice meant that patients in the rural areas often had to wait several days, sometimes longer, to receive their microscopy results. The framework also incorporated two other important concepts: quality
assurance and accessibility of services, neither of which could be currently demonstrated or guaranteed. The participants also identified and prioritized challenges and developed a concrete action plan for improving the management and quality of TB microscopy services in KZN Province. Each manager was assigned a specific role in line with his managerial role and physical location. Progress towards accomplishing the objectives in the action plans was reviewed during the second workshop and laboratory managers identified where things had gone well and the challenges encountered. All activities were found to have been completed. A supervision check list had been devised and more than 70 microscopy units had received a supervisory visit. Observations on the functioning of the TB laboratory or microscopy centre were made and baseline data collected. The supervisory teams reported that they were able to organise themselves and work well together. They agreed on a plan to revise, expand and adapted the draft supervisory tool and piloted it in six TB microscopy centres (one in each of the six Business Units in KZN). The results of the pilot were discussed at the third and last workshop. Again, the laboratory managers showed that they were able to complete all the agreed activities satisfactorily.

When the TLPIP was initiated in KZN Province, it was with the intention of scaling-up to other provinces of the country, once the initial program was completed, the methodology validated and the experiences and benefits documented. During a meeting with representatives from the NHLS, the National TB Control Program, Provincial NHLS representatives from KZN, Eastern Cape and other selected provinces, the laboratory managers from KZN enthusiastically presented their experience of participating in the TLPIP. Much of the feedback and recommendations given to the TASC II TB managers was that more trainings were needed and that the team building and leadership and management skills building were especially appreciated, as was the participatory approach to problem solving that was introduced. There was strong motivation to expand the programme beyond KZN and further strengthen the leadership and management skills of the first group of participants over a longer period of time with ongoing mentoring and coaching.
8 THE IMPACT OF TASC II TB

Through TASC II TB’s strong relationships with the NTCP, the NDoH, provincial and district health authorities, the targeted facilities and their surrounding communities, the project was able to achieve the following (selected) outputs:

8.1 Case detection rate

- Clinical services – identification of designated TB Focal Persons has improved access to TB services. Case detection rate in supported facilities approximates 70%. On average >90% of the supported districts have a TB Suspect rate between 2 and 10%
- TB/HIV integration – quality improvement trainings have improved TB/HIV indicators. 100% supported sites report from both entry points. TB patients screened for HIV is >70%. National target is 65%

8.2 Program Outcomes

- Case detection has reached the WHO target of 70%
- >90% facilities with TB Suspect Rate of 2 – 10%
- >90% facilities have treatment start rate <5days
- Staff are using data at facility and district levels to track performance
- All facilities offer comprehensive TB/HIV care
- 100% supported sites report from both entry points. - TB patients screened for HIV is >80%. National performance level is 65%
- 100% supported facilities are implementing standardized TB management protocols

8.3 Improved skills and knowledge

Through the TASC II TB Quality Improvement trainings:

- Quality Improvement Teams were formed in 80% supported sub-districts (Capricorn, Waterberg, Sekhukhune, Ethekwini, Ilembe, Nkangala, NMBM, Amathole,) out of the above list 60% are functional.
- Facility TB plans have been developed in 60% facilities and monitored through quarterly Quality Improvement Meetings
- Staff able to analyze own data and use it to improve performance

8.4 Supervision and monitoring

- Quarterly supportive supervision institutionalized using a standardized tool (DRAT) and revision of TB Section of the national PHC Supervisors Manual resulting in improved quality of data and regular reporting to the highest level
8.5 **Strengthened policy environment**

- The TASC II TB contributed to the following key documents:
  - National Advocacy, Communication and Social Mobilization Strategy for TB
  - Infection control guidelines and training modules
  - MDR TB Guidelines
  - MDR TB recording and reporting tools
  - Revision of National TB Guidelines
  - Revised TB registers to incorporate HIV data
  - IEC materials (pamphlets and posters) on TB and HIV for HCW, patients and workplaces
  - Developed National Laboratory information system – indicators to be reported by lab to NTP
  - Assisted in the development of first South African National TB Conference
  - Implemented national seminar on TB/HIV to accelerate implementation of IPT and other interventions to address co-infection

8.6 **Strengthened Provincial and District management capacity**

- Terms of reference developed for district HAST committees
- 3000 PHC and District Managers trained in TB Program management
- TB Laboratory Performance Improvement Program piloted in KZN
- TB “breakfast” series held with district health management and private sector stakeholders

8.7 **Strengthened management capacity at health facility levels**

- ETR Data management exercises and training: Data verification exercises have resulted in better understanding of data recording and reporting, timeliness and utilization of data for program planning
- Institutionalization of regular supervisory rounds through successful introduction of the District Rapid Appraisal Tool
- TB/HIV Collaboratives – data analysis and utilization to improve quality: charts, trends and development of improvement plans
- Introduction and increased uptake of the TB Screening tool and TB/HIV data collecting tool
- Ongoing supportive supervision to encourage facilities to evaluate their case finding, smear results, and treatment outcomes
- 16,652 health care workers trained in TB management
8.8 Enhanced community support and education

- Formed partnerships with several private sector companies (3 companies in EC and two in KZN) to develop workplace TB programs and expand DOTS coverage.

- Built awareness on TB risk and increased demand for TB services through local and mass media awareness campaigns, including radio and television educational segments. The recent media campaign promoting TB treatment adherence reached 80 percent of the population in the country.

- Provided funding for local community health organizations and NGOs to extend DOTS coverage and increase demand for TB screening and treatment. In 2008/2009 alone, 15 community-based and 3 research organizations working with TB and TB/HIV related issues were funded.

8.9 Long term impact

When TASC II TB began its district-based programme, many providers in the targeted facilities were unable to track trends in the number of patients they had on DOT, were unsure of how often and why patients completed treatment or defaulted, and were not equipped to provide referrals to HIV services. The project helped providers overcome the reluctance to take on TB by providing tools to facilitate patient flow, developing and clarifying guidelines for screening, treatment, and referrals, and empowering staff to make data-based decisions to plan scale-up of services. As noted by the evaluation team, the impact of this approach is not always immediately felt and system-related results can be hard to quantify in the short term. However, by empowering nurses and facility staff to take a stronger role in designing systems that meet their needs and will work in a clinical setting, TASC II TB’s approach worked in tandem with efforts to address South Africa’s lack of human resources for health by building job satisfaction and creating an environment where more people will want to join the fight against TB. By acting as a bridge between health facilities and community groups, workplaces and NGOs, international stakeholders and district health departments, TASC II TB helped spread the burden of managing TB services. In the process, TASC II TB was able introduce systems improvements with potential applicability to other health care issues as well as raise the profile of TB and TB/HIV as a national priority.
9 SUMMARY AND FUTURE DIRECTIONS FOR TB PROGRAMS IN SOUTH AFRICA

There is a great deal more to be done to strengthen the network of services available to control TB in South Africa. TASC II TB made important accomplishments towards improving the quality, availability, and demand for TB services, but one of its most lasting contributions was in enabling and pointing the way towards the next steps to be taken by the NTCP and community and district stakeholders. Along with ongoing improvements to general TB services, some of the priority areas for increased emphasis include:

- Improved coordination between TB and HIV programmes. As ART and long term care for PLWH continues to expand, integration of TB and HIV needs to continue to be stressed in order to reduce competition and address organization of service delivery systems. Although South Africa has begun to experience some stabilisation in HIV prevalence in some provinces, TB cases will continue to increase due to immunosuppression.

- Advanced interventions to combat MDR/ XDR TB. As noted earlier, the current data on MDR and XDR prevalence indicates that there are likely many more cases than are presently being reached. Better knowledge about outbreaks and strains is needed to guide the development of more targeted interventions.

- Coordinate cross-border interventions. In South Africa, TB is often a cross-border phenomenon, tied to the movement of workers and patients between other high burden countries such as Lesotho, Swaziland and Zimbabwe. Stronger coordination between regional NTCPs is needed to ensure treatment adherence as patients move between services and to combat further emergence of drug resistant strains.

- Institutionalize infection control. As MDR and XDR cases increase, IC needs to become standardized in health facilities. Guidelines for increased IC procedures for DOTS supporters, community health workers, and TB families need to be linked to treatment literacy campaigns.

- Second generation ACSM. Social mobilization and education campaigns need to continue and be expanded to include interventions around emerging areas such as household IC and managing care for infected children.

- Engagement with the private sector. Non-traditional partners, including businesses and workers’ groups, have shown the ability to make powerful contributions to TB control. The successful linkages which have been made between facilities and communities, including community health workers and DOTS supporters, need to be expanded to promote further collaboration with the private sector.

- Address paediatric TB. Traditional TB control methods geared towards managing TB cases in adults are frequently inadequate for dealing with the increase in TB cases among children and infants, tied to the rise in HIV. Coordinated TB and HIV care for orphans and vulnerable children (OVCs) needs to be advanced, as do dedicated trainings in paediatric TB case management for clinicians and increased outreach with schools and parents to encourage case finding among children.

- Improve information systems for TB. More work needs to be done to streamline the process of data flow and improve coordination between reporting systems (such as...
electronic and paper-based systems) and levels of information. More work needs to be
done to encourage reporting and recording of TB indicators at the facility level through the
simplification of tools and reporting schedules.

South Africa should not merely be branded a high-burden country, with TB cases
disproportionate to its population or which overwhelm its ability to combat. With the assistance
of programmes like TASC II TB, South Africa is working to marshal the skills and energy of its
communities and the dedication and talents of its people. In the near future, we may hope that
South Africa will be viewed as one of the driving forces behind international TB control, and as
a country which rose to the challenge of this terrible disease and was able to overcome it.
10.1 Eastern Cape

New smear positive cases registered
Buffalo City: Qtr 1/05 - Qtr 1/09

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Treatment Outcomes
Buffalo City: Qtr 1/05 - Qtr 2/08

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10.2 KZN

Interim outcome results at 2 & 3 months
Ilembe District: Qtr 2/04 - Qtr 1/09
10.3 Limpopo

![Graph showing treatment outcomes in Limpopo sub-district from Qtr 1/05 to Qtr 2/08.]

10.4 Mpumalanga

![Graph showing treatment outcomes in Mpumalanga sub-district from Qtr 1/05 to Qtr 2/08.]

_TASC II TB – South Africa: Program Outcomes and Lessons Learned_