2001 - 2008

A Portfolio of Health Care Improvement Success Stories



December 2009

USAID FROM THE AMERICAN PEOPLE | HEALTH CARE IMPROVEMENT PROJECT

This report was prepared by University Research Co., LLC for review by the United States Agency for International Development (USAID). The work described was conducted under the USAID Health Care Improvement Project, which is made possible by the support of the American people through USAID.

Abbreviations & Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral treatment
ARV	Antiretroviral
BHS	Basic Health Care Services
CBO	Community-based organisation
CBC	Community-based care organisation
CD	Community Development
CD4	CD4 cell count
CDC	Centers for Disease Control
CHC	Community health centre
CHW	Community health worker
C&T	Counselling and testing
DCM	District clinical manager
DHIS	District Health Information System
DoH	Department of Health
DOTS	Directly Observed Treatment, Short-course
DRAT	District Rapid Assessment Tool for TB
FBC	Full blood count
FP	Family planning
GP	General practitioner
HAART	Highly Active Antiretroviral Therapy programme
HAST	HIV, AIDS, STIs and TB
HBC	Home-based care
HC	Health Centre
HCC	Health Care Centre
HCI	Health Care Improvement
HIV	Human Immunodeficiency Virus
IEC	Information, education, and communication
IMCI	Integrated management of childhood illnesses
INH	Isoniazid
LFT	Liver function test
LSA	Local Service Area
MCH	Maternal and child health
MDGs	Millennium Development Goals
M&E	Monitoring and evaluation
MCWH	Maternal, Child and Women's health
MNCWH	Maternal, Neonatal, Child and Women's health
NDOH	National Department of Health
NDHIS	National District Health Information System
NGO	Non-governmental organisation
OI	Opportunistic infection
OPD	Out patient department
OVC	Orphans and vulnerable children
PCP	Pneumocystis Carinii Pneumonia
PCR	Polymerase chain reaction
PDSA	Plan, do, study, act
PEP	Post-exposure prophylaxis
PEPFAR	President's Emergency Plan for AIDS Relief
PHC	Primary health care
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission
QA	Quality assurance
QAP	Quality Assurance Project
QI	Quality improvement
QS	Quality supervision
RADAR	Rural AIDS Development and Research
RED	Reach Every District
STI	Sexually transmitted infection
TB	Tuberculosis
THO	Traditional Health Officer
THP	Traditional Health Practitioner
URC	University Research Co., LLC
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
VL	Viral load
WHO	World Health Organisation

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Contents

1 Introduction

Executive summary

The United States Agency for International Development (USAID) funded Quality Assurance Project (QAP) and its follow on, the USAID Health Care Improvement (HCI) Project under URC have, since 2001, been engaged in work that is crucial for health system strengthening with respect to HIV and AIDS programmes and TB. These diseases, require ongoing intervention, monitoring and treatment, and when they present on a mass scale, as they do in South Africa, necessitate measures that are not easy to institute. Indeed, an entire infrastructure has to be put in place wherever affected people require treatment, and especially so in rural areas, where rates of infection are high but medical facilities are scarce.

HCI, one of URC's largest quality management projects, provides comprehensive technical expertise in the design, management, and implementation of quality assurance and workforce development interventions to improve the delivery of child health, maternal health, family planning, HIV and AIDS, and infectious disease services in Africa, Asia, Latin America and the Caribbean.

Focus areas of the project in South Africa include the following programs

- HIV and AIDS programs
- Cross-cutting system strengthening activities
  - Clinic supervision
  - Infection prevention and control
  - Clinical mentoring and clinical audit
  - Development norms and standards for orphans and vulenerable children (OVC) programmes
  - QI/QA training
  - Development and revision of core norms and standards for appraisal of health care facilities
  - NDOH's quality improvement program

USAID's QAP and HCI Projects intervened to answer this need, creating small but effective infrastructures at crucial nodes to support South Africa's health systems, and to bolster the health of the population in general with basic health care programmes.

Teams of professionals have to be in place to minister to those affected, while doctors and nurses needed are crucial, auxilliary staff, including counsellors, data capturers, pharmacists and sometimes psychologists also need to be available to ensure that treatment is effective and ongoing.

The need to monitor patients is necessary in diseases where resistence is always a threat if strict regimens are not adhered to, and in the case of rural inhabitants the need for compliance has to be communicated with the support of community awareness programmes.

But perhaps one of the most important facets of this intervention is to establish a culture of record keeping and compliance with guidelines, and to develop skills that enable medical personnel to analyse, interpret and manage data. This is crucial for monitoring the scale of the pandemic, but also for therapeutic reasons. Establishing this culture is one of the most important interventions that HCI has made, and slowly but surely, the maintenance of records is helping to make programmes such as Voluntary Counselling and Testing (VCT) and the Prevention of Mother to Child Transmission more efficient.

Another crucial intervention is to increase the integration of treatment and monitoring, so that TB patients are tested for HIV by undergoing VCT. The coincidence of these diseases makes it imperative that a continuum of care is available. Record keeping also helps to establish the state of things as they are, and serve to inform us about whether we are making progress or how far we have to go before we do.

Another important innovation is the establishment of outreach teams, who spread the health care improvement knowledge base to areas where there is a scarcity of professionals. Their training programmes are disseminating a culture of efficient therapeutics to areas that have been hardest hit by the HIV pandemic, and provided hope for thousands.

QAP/HCI has established relationships with the various clusters of government including: Maternal Child and Women's Health (MCWH); HIV and AIDS, STIs and TB; Districts and Development; Primary Health Care, Quality Assurance and Office of Standards Compliance. These relationships have been steadily improving, and officials are beginning to be impressed by the successes of the programme, leading to a growing spirit of co-operation and collaboration. Indeed government has begun to make financial commitments to various programmes, as provinces have begun to adopt QAP/HCI methods in health facilities that have not yet benefitted from QAP/HCI interventions.

This publication is a compilation of success stories written over an eight year period to document developments in the QAP/HCI project. The stories span the transition from the QAP to the HCI Project. As such, some refer to QAP and others to HCI.

The compilation begins with a context to the project providing the background to HCI Project. The publication is then divided into provincial sections which feature stories related to specific facilities within each province. This is followed by a synopsis of various research reports which were carried out by the projects.

Technical Strategies of the HCI Project

University Research Co., LLC (URC)

University Research Co., LLC (URC) is an international organisation, dedicated to helping clients use scientific methods and research findings to improve programme management, operations and outcomes. For the last 40 years, URC has helped government and private sector programme staff design, operate and evaluate programmes that address health, social, and educational needs. URC works throughout the world on projects offering cutting-edge approaches and the latest findings from scientific research strategies to improve efficiency, sustainability, and customer service, and management tools to direct the process of organisational and behavioural change. These projects span five core practice areas, including Communication and Outreach, Education and Training, Health and Population, Quality Management, and Research and Evaluation.

The Quality Assurance Project, 2001-2008

Since 1990, the QAP has provided technical leadership for USAID's global efforts to improve health care quality in developing countries. This work has helped to raise awareness in the global health community that quality improvement is an essential component of health system strengthening and that quality standards and QI capacity development are vital to the development of health care systems in even the most resource-constrained countries.

The Quality Assurance Project (QAP) started its work in South Africa in Mpumalanga in 2001. QAP gradually grew and diversified substantially expanding into four other provinces, sustaining interventions by building local capacity at a health-care facility level. The introduction of evidence-based guidelines, changes in service delivery procedures and regular performance reviews ensured significant reduction in perinatal mortality rates. This was also assisted through improved compliance with national guidelines and overall quality improvement in maternal and neonatal care programmes. In response to a NDOH request two assessments were conducted. This included an assessment of the Anti-Retroviral Treatment Sytem and a rapid assessment focused on sustaining improvements in neonatal and perinatal health services at QAP supported facilities.

Healthy competition... Sr Thamsi Lutseke, a senior professional nurse at Parkvale Clinic in the Eastern Cape's Lukhanji District, shows off the clinic's trophy for the best improvement in pap smear testing, March 2009.

QAP completed activities in 2007, bringing to a close over six years of work to adapt and apply modern quality improvement (QI) methods to the most serious health care problems challenging USAID-assisted countries.

QAP pioneered the use of the collaborative methodology in resource-constrained environments through implementation of 39 collaboratives in 15 developing and middle-income countries. Recent evaluative research offers compelling evidence that QAP's collaboratives have been effective in spreading improvements in health care systems throughout the developing world.

Health Care Improvement Project, 2007

The five-year USAID Health Care Improvement Project (HCI), awarded to University Research Co., LLC (URC) in 2007, seeks to improve quality and outcomes of health care in developing countries by adapting and applying modern methods of quality improvement (QI). The project is guided by a vision that health care quality can be significantly improved by applying proven QI approaches to curative, preventive, and chronic care.

The HCI Project is a follow-on to the Quality Assurance Project, one of URC's largest quality management projects.

As a follow on to QAP, the HCI Project commenced activities in 2007. Priority areas include scaling up evidence-based interventions and improving outcomes in child health, maternal and newborn care, HIV/AIDS, tuberculosis, malaria, and reproductive health. The goal of the HCI Project is to achieve and document measurable improvements in the quality of health care and health workforce management in USAID-assisted countries, HCI South Africa is the largest of these projects.

Other significant goals are expanding coverage with essential services; making services better meet the needs of underserved populations, especially women; improving efficiency and reducing the costs of poor quality; and improving health worker capacity, motivation, and retention. The project's objectives are to:

- Institutionalize modern quality improvement approaches as an integral part of health care in USAID-assisted countries.
- Expand the evidence base for the application of QI to human resources (HR) planning and management.
- Expand experience with the improvement collaborative approach in USAID-assisted countries.
- Expand experience with the spread collaborative approach in USAID-assisted countries.
- Expand the experience base for other specific QI approaches.
- Improve the cost-effectiveness of QI in USAID-assisted countries.
- Document interventions implemented to improve the quality of health care, how quality is measured, and the impact of the interventions.
- Provide global technical leadership for QI in USAID-assisted countries.

In South Africa HCI provides assistance to the DOH at a national and provincial level. HCI, using the President's Emergency Plan for AIDS Relief (PEPFAR) funds, has the role of supporting the national Department of Health (DoH) in implementation of various prevention, care and treatment interventions within TB and HIV programmes.

Geographical coverage

Currently HCI provides support to the Eastern Cape, Limpopo, KwaZulu Natal, North West and Mpumalanga provinces. Within each province, HCI works in close partnership with the provincial Department of Health (DoH) as well as with other community and private service delivery systems. HCI also works with the HIV and AIDS, quality assurance (QA), primary health care (PHC), districts and development directorates at a national level. At a health-care facility level, HCI staff provide support to facility staff in the following specific HIV and AIDS programmes: PMTCT (Prevention of Mother-to-Child Transmission), C&T (Counselling and Testing), Basic Health Care (BHS) and Support Activities, TB/HIV and the national antiretroviral treatment (ART) programme.

HCI and the national DoH develop strategies to improve provider compliance with national protocols and guidelines to improve outcomes among PLWHA. HCI also helps provincial DoHs and other stakeholders to develop systems and procedures that facility- and community-based health-care workers can use to undertake regular assessments to identify gaps in HIV and AIDS case management and improve follow up of these clients. One such strategy has been the implementation of monthly chart audits at facilities, where the charts of clients on the PMTCT and ART programme are audited for compliance with the national PMTCT and ART guidelines. Within this context, any identifiable short-comings are noted and appropriate action taken, in conjunction with the whole team.

Methodology

HCI staff have focused on the provision of technical support to facility staff, in order to improve health outcomes and increase efficiency within facilities. This has led to an overall increase in the practice of evidence-based care and compliance with quality processes within facilities, with consequent improvements in the provision of health services to PLWHA. Capacity building at all levels has been an important component of the HCI strategy. This was an essential part of the programme in order to ensure sustainability of an integrated quality assurance system. Facility

personnel were therefore involved in all phases of the programme and HCI personnel provided support for national DoH personnel to develop and implement their own QA system. At the facility level, HCI staff provide ongoing mentoring and support to health-care staff in identifying systemic issues that affect access to and quality of services. HCI staff meet with each facility team on a fortnightly basis to ensure that systemic quality issues are identified and appropriate interventions developed to close the gap. The facility staff are also trained to conduct chart audits and patient surveys to see if the newly introduced changes produce the desired health outcomes.

Over the last five years, HCI's programme in South Africa has grown substantially in response to local needs. The QA approach has been embraced by health-care facilities within the five provinces, which have incorporated baseline assessments, problem identification and analysis, development of improvement interventions, and continuous monitoring and evaluation into their monthly and quarterly schedules. This has resulted in improved compliance with national guidelines at HCI-supported facilities and strengthened monitoring and reporting. District management teams, which usually include community representatives, are reliant on HCI reports and feedback, which assist them to improve on their performance and provide an objective measure against which activities and indicators are assessed.

While HCI has continued to focus on HIV and AIDS programmes, HCI staff has also served as catalysts for cross-cutting quality improvement activities within health facilities and advocates for quality initiatives within the South African health-care system. HCI has been integrally involved in the development of national and provincial QA and Clinic Supervision Policies and in the revision of the national PHC Clinic Supervisor's Manual, bringing quality issues to the fore and highlighting the role of supervision through quality improvement. This emphasis on raising quality of care has been further strengthened by the introduction of provincial Open Days (where best practices and lessons learnt are shared) and Service Excellence Awards (given out during national quality month, November), both initiatives HCI helped develop.

Within South Africa, HCI's team is often called upon to facilitate national meetings, and they serve as members of the national PMTCT steering committee, the national guidelines development committee, and the national QA forum. The project's QA training materials have been adopted by the national QA directorate as the standard QA training for DoH provincial QA coordinators in all provinces. In recognition of HCI's workforce development efforts, USAID South Africa has requested that HCI provide QA training to all PEPFAR partners from 2008.

The HCI Project, under the auspices of URC, is committed to working together with the national DoH, in order to improve the quality of services provided within the health-care system. It is also envisioned that there will be further expansion of the programme within the country, with continued facility level mentoring and onsite capacity building for all health-care workers.

HCI staff focus on the provision of technical support to facility staff to improve health outcomes and increase efficiency within facilities.

Home based care model ensures high quality care and support for PLWHAs

USAID has, through QAP and HCI, heeded the South African government's call to extend the care for People Living With HIV/AIDS (PLWHA) to community level by forging partnerships with community-based home based care organisations.

QAP/HCI supported organisations by helping them to implement a continuous quality improvement model of care in their HIV and AIDS programmes. The QAP/HCI team promoted collaboration between facilities in a particular district to improve follow up of patients and continuity of care for the communities they serve. This was done through the facilitation of meetings between different role-players within various district services to establish linkages between TB, sexually transmitted infection (STI) and HIV and AIDS programmes, specifically counselling and testing (C&T), TB/HIV, PMTCT, ART and HBC services. Facility staff were also provided extensive training and mentoring in the integration of services and use of a continuum of care model. Interventions have resulted in the active tracing of clients on ART and TB treatment, a decrease in the loss to follow up of patients and an increase in referral between the different services, with upward referrals for ART care and treatment and downward referrals for follow up and ongoing support.

QAP & THE BAMBISANANI AIDS PROJECT

QAP's partnership with the Bambisanani AIDS Project was formed in order to build a community-based approach to health care and improve follow-up of patients on chronic medication, including those infected with HIV and TB. The mission of Bambisanani was to mobilize the potential of local communities to create an environment for health care and support. Their overall purpose was to assist the O.R. Tambo and Alfred Nzo districts in the Eastern Cape to respond to improved HIV/AIDS care and support. Bambisanani served as a foundation for community level prevention detection of chronic diseases like HIV and AIDS and as a link between clinics and hospital laboratory services.

Financial and technical support was provided by QAP to Bambisanani between January – December 2006. During the contract period, HBC services were provided to a catchment population of approximately 1 129 000 through a network of 82 care supporters and support staff. Five outreach officers also linked clinics to hospitals and laboratories by transporting clinical specimens and laboratory results between these facilities.

Positive outcomes of the partnership included:

- Improvement of quality of services delivered by community care supporters
- Support and supervision of community care supporters by professional nurse supervisors
- Mobile community-based voluntary counseling and testing (VCT) services
- Improvement of laboratory services between local clinics and hospitals and laboratories
- Strengthening of community mobilization and advocacy programs
- Facilitation of Antiretroviral treatment support at the household level
- Improvement in monitoring and planning of HBC services in order to increase effectiveness and efficiency

Lessons learned from the partnership:

- The local community was very receptive of the partnership and ensured that it was a success
- The elders within the community volunteered to be tested for HIV, as the Bambisanani AIDS project provided a safe environment for VCT
- Many elderly individuals were found to be HIV infected, due mainly to poor infection control practices and a lack of education
- Community care supporters were able to make significant differences in Prevention of Mother-to-Child Transmission (PMTCT) services by tracking down HIV exposed babies for HIV testing.
- Utilizing community care supporters to trace Tuberculosis (TB) defaulters was a very effective intervention
- Laboratory specimen turn-around times improved to less than 48 hours with the laboratory assistance offered by Bambisanani AIDS project.

HCI & PHAPHAMANI HBC, ARTHUR SEAT CBC, ZIMELANI HBC AND AMAKHUMBUZA HBC

Since 2007 HCI has partnerships with local non-governmental organisations (NGOs) in KwaZulu Natal and Mpumalanga, to further expand access to quality services for PLWHA. HCI provides small grants to these organisations and mentoring in quality improvement techniques to improve community/home-based care, including assistance to PLWHA and their caregivers to better adhere with treatment regimens. Additionally, HCI has initiated and improved dialogue between facilities providing ART and home-based care organisations, in order to ensure that there is continued follow up and care of these patients.

Specific support includes:

- Assistance to provide care and ensure early referrals for screening and treatment of patients, build community-based support to ensure treatment adherence by patients and to strengthen health service delivery in communities affected by HIV and AIDS and TB.
- Support to orphans and vulnerable children (OVC),
- Improving community-based HIV and AIDS palliative care and home health care, TB/HIV co-infected patients and community IMCI.

To date four NGOs from two of the five provinces have been awarded funding for community/home- based activities. In Mpumalanga, three NGOs have been funded: Phaphamani HBC, Arthur Seat CBC and Zimeleni HBC. In KwaZulu Natal one HBC, Amakhumbuza HBC has been funded.

Phaphamani Home Based Care Organisation

Phaphamani HBC is situated in Kabokweni township, 35km outside Nelspruit (It was established in 1997 by a group of religious women led by a Professional Nurse). Kabokweni is a semi rural town within Mbombela municipality in Ehlanzeni district. Phaphamani (meaning "wake up") started out with only seven volunteers. Their mission is to be a quality provider of community health services through caring, education, prevention, counselling and advocacy as well as home visits to those who need physical, psychological, spiritual and social support.

The organization has developed methods to become a self-sufficient organisation that provides sustainable community-based health care services to ensure the quality of life and optimal improvement in the health conditions of those infected and affected by HIV and AIDS.

Since March 2007, HCI support to Phaphamani has focused on improving VCT uptake as well as the provision of basic health care through the identification of TB and HIV in the community, home visits for needy patients, development of food gardens and care for OVCs. Health screening is also done in the home of patients, especially those with TB and HIV and referred to the clinic for assessment.

Phaphamani Home Based Care, Mpumalanga

Amakhumbuza Home Based Care Organisation

Amakhumbuza Community Development and Health Care Centre (CD&HCC)is situated at Matshana Reserve, 7 kilometers away from Empangeni Township in Uthungulu district, KwaZulu Natal province.

Initially established by Mr D. Cele as Amakhumbuza Community Development Project in 1990, the organization was managed and supervised by several church leaders in the village. Home based care and support was offered by 7 volunteers who focused on praying for the sick and referring those in need to the local clinic.

The organization was formally registered in 1995 and the name changed to Amakhumbuza Community Development and Health Care Centre. It was officially launched in 2006. The mission of this organization is to provide home based care services and empower the local community in all aspects of life with regards to emotional, physical and spiritual healing. In light of the escalating HIV and TB epidemics within KZN province, much of the organization's work focuses on patients infected with one or both diseases.

Amakhumbuza CD & HCC has strong links with, and is supported by the KZN Departments of Health and Social Development. The support provided includes provision of mentoring and material resources, such as home-based care kits. They also have ongoing support from their local Evangelical Lutheran Church and are linked to Ngwelezane Hospital, Ngwelezane clinic, Thembalethu Home based care organization, Thembeni Hospital and Traditional Healer Structures.

The relationship between HCI and Amakhumbuza CD & HCI began in 2008 with the provision of technical and financial support. Capacity building and empowerment of the Amakhumbuza staff has facilitated the development of a strong partnership between all relevant stakeholders.

Amakhumbuza Home Based Care, KwaZulu Natal

Arthur Seat Community-based Care Organisation

Arthur Seat CBC was registered as an NGO in 2005 by a group of volunteers under the leadership of Rebecca Marule. The organization is a non governmental, non profit making organization that relies on the efforts of community care workers (CCW) who strive to provide quality services to the people of Arthur Seat village, particularly those infected/affected by HIV. The CCW provide their clients with ongoing HIV counseling and participate in general wellness care and awareness campaigns. They engage the local community by empowering them to be able to participate in self help projects.

The organization is located in Bushbuckridge municipality, a semi-rural area in the Ehlanzeni District of Mpumalanga province. The service is provided in Arthur Seat village (ward 16) with an estimated population of about 65 000 people.

Arthur Seat CBC offers the following services:

- Under the supervision of a professional nurse, CCWs conduct home visits to the general population where they have an opportunity to identify needy clients.
- The CCWs provide home based care to their clients and refer those who need further treatment / management to the local clinics.
- The CCWs also provide Directly Observed Treatment- short course (DOT) for all TB patients in the community.
- Ongoing awareness and HIV testing campaigns for the local community
- Provision of social services and nutritional support for all identified OVC in the community

HCI began to provide technical and financial support to Arthur Seat CBC in January 2008. This has contributed to improving and sustaining good relationships with the referral clinics as well as further enhancing the continuum of care for all patients within the community.

Arthur Seat Home Based Care and OVC Feeding Scheme,Mpumalanga

Zimeleni Home Based Care Organisation

Zimeleni Home-based Care (HBC), situated in Mpumalanga province, was established in 2000. It is located in Sheepmoor township, a rural area 48 km east of Ermelo, within the Msukaligwa sub-district in Gert Sibande district. The estimated population in this area is 30,000, comprising mainly farm laborers and their families. There are high levels of unemployment, poverty and illiteracy, within this community. Furthermore, a rising HIV incidence has contributed to a growing number of child-headed households in the area.

The work of Zimeleni HBC includes the following:

- Assistance with poverty alleviation
- Reduce of unemployment by income generation projects
- Advocacy for support from government and other partners to reduce the burden of diseases within the community
- OVC programs including the establishment of a crèche & feeding scheme, provision of social support and liaison with the Department of Social Development
- Provision of follow up and referral for patients suffering from HIV, AIDS, TB, STIs and chronic non-communicable diseases such as Hypertension, Diabetes, etc.

HCI support to Zimeleni HBC commenced in February 2009. The support by HCI was warmly welcomed by the community as the organization was functioning without any formal funding. Zimeleni HBC currently supports the Ermelo hospital mobile clinic and the newly opened Sheepmoor clinic.

Zimeleni Home Based Care,Mpumalanga

2 Success Stories: Eastern Cape

Introduction to the province

In the Eastern Cape QAP, and subsequently HCI, has supported the Chris Hani district, Nyandeni district and the Nelson Mandela Bay Municipality in the Eastern Cape. A total of 43 facilities are included in the HCI program. HCI's technical staff include Ms Felicia Manjiya, Ms Nomso Arosi and Ms Linda Ncaca.

Within the province, HCI works in close partnership with the provincial DOH, as well as with other community and private service delivery systems. HCI has continued to work with the HIV and AIDS and Quality Assurance directorates at the national level to ensure progress in the provinces health facilities.

The identification of key personnel remains key to ensuring meaningful progress, as does the improvement of systems and use of effective monitoring and evaluation tools.

Other successes have been in the areas of improving the uptake of quality counselling and testing for HIV in facilities, home based care and access to PMTCT.

IDENTIFYING KEY PERSONNEL LEADS TO IMPROVED QUALITY IN PMTCT SERVICE DELIVERY

Alfred Nzo Sub-district, Umzimkulu LSA, Eastern Cape (2005)

University Research Co., LLC Quality Assurance Project (URC-QAP) technical advisor, Mrs Nomso Arosi started supporting the Alfred Nzo District in October 2004. The total number of facilities supported was 15 (13 clinics and two hospitals). Mrs Arosi focused her support on key HIV and AIDS services, specifically Prevention of Mother-to-Child Transmission (PMTCT); basic health care and palliative care (BHS); antiretroviral (ART) roll-out and provision of comprehensive care; voluntary counselling and testing (VCT) and HIV/tuberculosis co-infection (HIV/TB) programmes within this area.

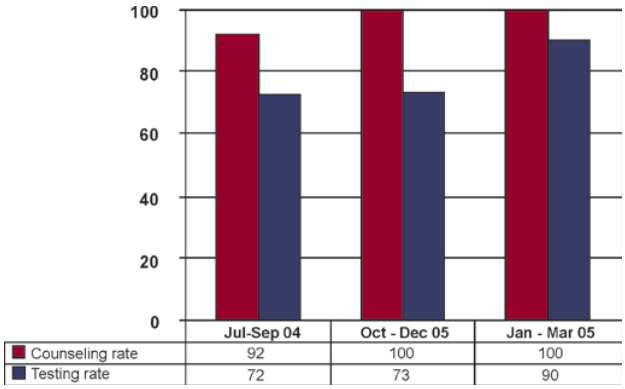
The process started with training of clinic nurses on quality assurance (QA) principles and approaches, followed by baseline surveys, aimed at monitoring quality – which forms an essential part of programme management.

During baseline surveys, the following strengths and weaknesses were identified at the various facilities and programmes:

- There were no quality teams in place.
- Support visits by supervisors were infrequent.
- There was poor support from management on QA initiatives.
- The uptake for counselling and testing within PMTCT was low.
- Testing of TB patients for HIV was not routinely done, unless patients specifically requested HIV testing.
- Screening HIV-infected patients for TB was not performed routinely.

The key objective of the QA training and baseline surveys was to help institutionalise quality and establish a quality assurance system that would form an integral part of all systems and programmes. Although initially some degree of resistance by staff was evident, through perseverance, dedication and patience, the QAP coordinator convinced the facility staff to buy into the process. Eventually, better understanding led to improved staff attitudes and improved cooperation of facility staff, with the consequent establishment of systems to improve the quality of service delivery.

Figure 1: HIV counselling and testing rates in PMTCT services (Alfred Nzo sub-district 15 facilities, 2004/5)



The major challenge in implementing quality interventions, which impacts indirectly but very negatively on quality initiatives was rapid staff turnover. This broke the chain in terms of continuity of care and provision of service. Despite this challenge, Mrs Arosi identified specific individuals in facilities, with whom to liaise on a regular basis, and who would be facility QA leaders.

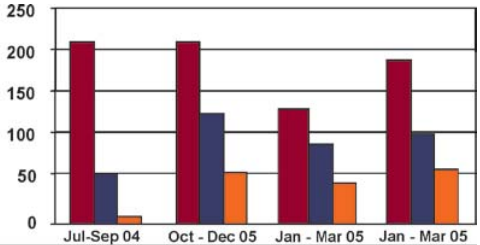
This has led to improvements in the quality of services delivered, particularly with regards to the PMTCT programme across all the facilities. There were demonstrable improvements in the acceptability of HIV testing within the PMTCT programme, as evidenced by higher uptake rates, in facilities where there are large numbers of pregnant women receiving pre-test counselling, but very few women being tested and receiving post-test counselling.

Figure 1 depicts the trends for HIV counselling and testing uptake at the PMTCT sites, within this district, since the onset of QAP activities within the facilities. There was a marked improvement in the provision of counselling and testing rates within this area, from 92% and 72% in July - September 2004, to 100% and 90% in January - March of 2005.

As noted above, screening of HIV-infected patients for TB and HIV testing of TB patients was not done routinely at these facilities before the onset of QAP activities. There has been a noticeable improvement in this area, with an increase in the proportion of patients tested for HIV from 28% (61/221) in July - September 2004 to 55% (108/198) in April - June 2005 (Figure 2). There are, however, still challenges inherent in the process, for which ongoing quality improvement (QI) techniques are being employed.

The success in these areas was attributed to positive reception of QAP by HIV and AIDS and TB departmental management and staff, consistency of support visits wherein data was reviewed and feedback given and onsite training as per identified needs to facilities. The facility staff also empowered to do self-assessments and quality evaluation using tools that QAP developed and introduced.

Figure 2: VCT uptake in TB services (Alfred Nzo sub-district 15 facilities, 2004/5)



	Jul-Sep 04	Oct - Dec 05	Jan - Mar 05	Jan - Mar 05
# TB clients referred for VCT	221	220	141	198
# TB clients tested for HIV	61	132	95	108
# TB clients tested HIV+	9	63	49	66

IMPROVEMENTS IN ACCESS TO PMTCT SERVICES

Nelson Mandela Bay Municipality (NMBM), Eastern Cape (2006)

Mrs Betty Ncanywa, a former Quality Assurance Project (QAP) district coordinator, was passionate about the support she provided to hospitals and clinics within the Nelson Mandela Bay Municipality (NMBM) in the Eastern Cape Province. NMBM, formerly known as Port Elizabeth, is located along the eastern coast of South Africa, with a catchment population of approximately 120,000.

In January 2004, when Mrs Ncanywa started supporting the Prevention of Mother-to-Child Transmission (PMTCT) programme within the area, a baseline assessment revealed several quality gaps, including the fact that the District Health Information System (DHIS) was not designed to capture routine PMTCT indicators and, as a result, data submitted to the provincial information unit was often not accurate and not a true reflection of what was recorded in facility-level registers. In addition, there was no uniformity in recording patients who were offered counselling and testing for HIV, as different registers were used at each facility, within NMBM. This was further compounded by the fact that only 37% (20/53) clinics provided antenatal care services to pregnant women. At these clinics, the drastically high workload meant that staff were unable to offer all pregnant women counselling and testing. This led to demoralisation and demotivation of staff who felt that they were helpless in the face of the HIV epidemic. There were also differences between municipal and provincial facilities, which posed problems within the PMTCT programme, as municipal clinics did not use a PMTCT coding system, while provincial clinics and hospitals utilised the provincial coding system. This led to confusion, both between health-care workers as well as patients and resulted in a significantly poor quality of care for many pregnant women.

However, this was only realised when Mrs Ncanywa presented the findings of the baseline assessment and data to senior management at provincial, district and facility level. It was noted that only 26% of all pregnant women were offered counselling and testing for HIV, well below the provincial target of 70%, with a correspondingly low HIV positive rate and Nevirapine uptake rate. In addition, those women identified as being HIV infected, were not offered CD4 counts or referred for further care. There was minimal follow up or monitoring of babies born to HIV infected women and almost none of these babies received opportunistic infection (OI) prophylaxis. Furthermore, there was no system of testing these babies for HIV at 12 months of age.

These findings were received with shock by the senior provincial mangers, who requested that Mrs Ncanywa and a quality improvement (QI) team assist the province further with developing plans to bridge the gaps identified. This commenced with the training of senior management, programme managers, clinic supervisors and facility staff on QI. Meetings were held with health information officers and facility managers to develop and finalise uniform voluntary counselling and testing (VCT) registers and data fields for PMTCT indicators. Mrs Ncanywa and her Department of Health (DoH) counterparts also motivated to increase the number of clinics providing antenatal

The QA Team, Nelson Mandela Bay Municipality, Eastern Cape, 2006

care services, where HIV counselling and testing would be available five days a week, and suggested that additional lay counsellors be employed at facilities where there was a high antenatal care workload. The facility staff were also trained to realise the importance of following up babies born to HIV-positive mothers at six and 12 weeks of age and providing HIV testing at the appropriate age, according to national guidelines, as well as the utilisation of uniform VCT registers. The team also insisted that staff at all facilities submit data on a monthly basis to improve the accuracy and validity of the data.

These interventions resulted in marked improvements in recording and reporting of data. All clinics currently report PMTCT data within the DHIS data fields, and the data submitted to the information unit is 85 to 90% accurate, on a month-to-month basis. There is a uniform register used to record clients offered VCT by all facilities and all facilities in NMBM are using the national PMTCT coding system. Access to PMTCT services has improved significantly, with five additional clinics providing antenatal care services in FY06 and further expansion in two additional clinics scheduled for FY07. This had had the effect of decreasing workloads by up to 50% in existing facilities and improving PMTCT coverage in all areas. Counselling and testing services are currently available five days a week and the counselling and testing rate for pregnant women has increased from 26% to 78%, exceeding provincial targets. In addition, 355 lay counsellors have been trained in VCT and will start working in designated facilities in the first quarter of FY07.

There has also been a marked improvement in the quality of care offered to pregnant women within the PMTCT programme, with facility staff offering all HIV-positive pregnant women clinical staging, CD4 count and referral for antiretroviral therapy (ART) where appropriate. Records are also maintained at all facilities of Nevirapine administration to HIV-exposed babies, all of whom receive OI prophylaxis at six weeks and are tested for HIV according to national and provincial guidelines.

Figure 1: Uptake in PMTCT services (NMBM, 2003 – 2006)

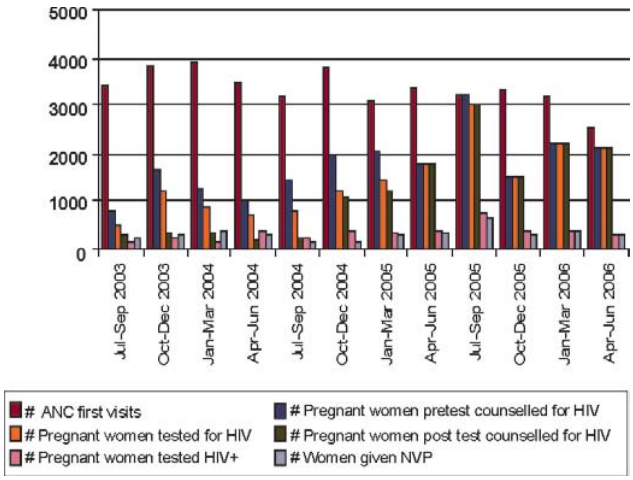


Figure 2: Number of PMTCT clients who had CD4 cell counts taken (NMBM, 2003 – 2006)

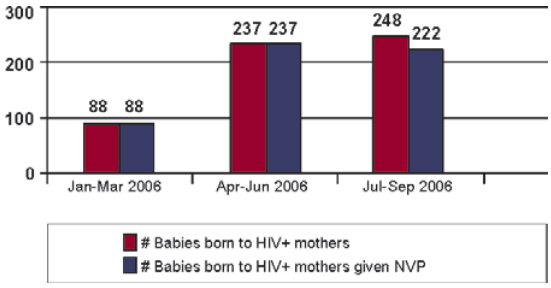
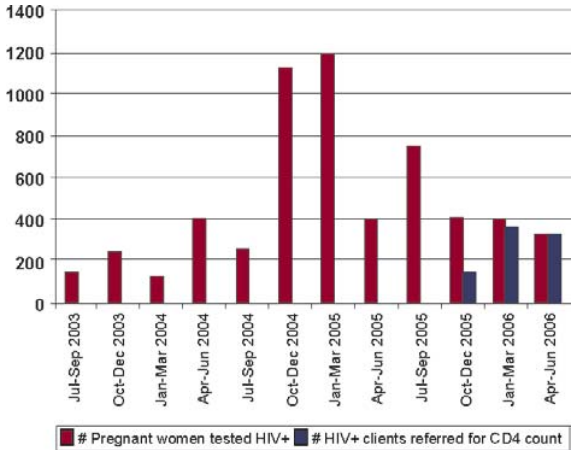


Figure 3: Number of HIV-exposed babies receiving Nevirapine (NMBM, 2003 – 2006)



Mrs Ncanywa transferred from QAP to TASC II in 2007 improve support to TB and TB/HIV programes.

'KNOW YOUR STATUS' C&T PROGRAMME

Alfred Nzo Sub-district, Umzimkulu District, Eastern Cape (2006)

The Alfred Nzo sub-district municipality is located in Umzimkulu District, which lies in a mountainous area on the border of the Eastern Cape and KwaZulu Natal provinces. As a result of the demarcation of municipalities in March 2006, this municipality was transferred from the Eastern Cape to KwaZulu Natal. The infrastructure within this area is poor, and there is a very high rate of poverty, tuberculosis (TB), sexually transmitted infections (STI) and HIV/AIDS. Mrs N Arosi, a provincial Quality Assurance Project (QAP) coordinator worked within this area since 2003, supporting 11 health-care facilities, which provide care and support to approximately 50,000 people.

During the first quarter of 2006, Mrs Arosi, in collaboration with district Department of Health (DoH) staff, recognised that the proportion of clients receiving and accepting counselling and testing (C&T) for HIV within the sub-district was very low.

Extensive discussions between the QAP coordinator and facility teams led to identification of several reasons for the poor C&T service. Due to a lack of basic infrastructure, such as tarred roads, in the area, several health-care facilities became inaccessible during the rainy season. Within the facilities themselves, there were few, if any, designated counselling rooms, offering privacy and confidentiality, due to the lack of space. The turn over of staff, particularly professional nurses, within the Alfred Nzo sub-district was high, as health-care workers moved from rural to urban areas. This led to problems of vacant posts, continuity of care and service delivery and meant that new staff rotating through the C&T clinic required ongoing in-service training in quality assurance (QA) methods. In addition, it was noted that many of the lay counsellors lacked skills in counselling, as many did not fully understand the modes of transmission and the implications of being infected with HIV. A further problem was that the lay counsellors, who were not medically trained, could not take blood from the clients after they had pre-test counselled them. This led to delays, as the process was reliant on the presence of the already overstretched nursing staff. This was an important shortcoming of the programme, as there were only a limited number of professional nurses. Therefore, if these nurses were on leave or had resigned, there was minimal provision of C&T services at facility level.

As a result of QAP interventions in the Alfred Nzo District C&T testing rates virtually doubled in the first six months. This has resulted in better knowledge about the disease and greater acceptance of HIV testing within the community.

In order to remedy the situation, the QAP coordinator actively motivated district management to hire more nurses in the area, as well as recommending the urgent implementation of an active staff retention policy. This would improve the continuity of care as well as the knowledge and skills at facility level. To further capacitate and ensure sustainability of the programme, the QAP coordinator also recommended training for lay counsellors regarding the clinical aspects of HIV/AIDS and HIV counselling, which was done within the first quarter of 2006. She also began to provide onsite mentoring for all the lay counsellors within the 15 QAP-supported sites, helping them to analyse their data and understand what it meant for service provision within the facility and how the C&T service could be integrated throughout the clinics in the sub-district. As part of this integration, one of the main focus areas was the 'know your status' campaign, where lay counsellors encouraged all clients to participate in C&T programmes throughout the Alfred Nzo sub-district.

Mrs Arosi also continued to provide ongoing support to the facilities, with fortnightly visits to the clinics for data sharing and analysis, feedback and on-site clarification and problem solving. In addition, during these visits, Mrs Arosi helped facilities identify available space that could be utilised as counselling space, with minimal disruption to other services.

As a result of these interventions initiated by the QAP coordinator, considerable improvement was demonstrated within the C&T programme in the Alfred Nzo sub-district, with the C&T testing rate almost doubling from 31% in October 2005 to 58% at the end of March 2006. This has resulted in better knowledge about the disease and greater acceptance of HIV testing within the community.

Eastern Cape

Mrs Arosi stopped support to Alfred Nzo subdistrict in June 2007 due to overlap of facilities with other PEPFAR partners.

INTRIGUING TALES OF TURNING THE TIDE BY TAKING QUALITY BEYOND NUMBERS

Lukhanji LSA, Eastern Cape (2007)

Introduction

Quality health care service delivery means more than only the provision of medication to the clients to address their ailments. It actually means more than that - it means bringing all the dimensions that embrace quality in synergy. It is important that health providers change their image and look at public service delivery just not as 'business as usual', but as bringing back their self-esteem by changing their own image by the way they look and the way they relate to their clients.

Background

Lukhanji Local Service Area (LSA) is one of the six health sub-districts of the Chris Hani District Municipality. This LSA is situated in the north eastern part of the Eastern Cape, approximately 200km from East London.

The work of quality assurance (QA) support by the USAID Quality Assurance Project (QAP) to 13 primary health care (PHC) facilities and one hospital started in 2004. Since then the focus has been, and still is, on looking at programme successes in the area of HIV/AIDS with specific attention to providing quality services in voluntary counselling and testing (VCT), Prevention of Mother-to-Child Transmission (PMTCT), tuberculosis (TB)/HIV and antiretroviral (ARV) programmes, working closely with the relevant programme managers. This has yielded tangible, visible and valuable results in this LSA and the effects are spilling over to the rest of the LSA.

In 2006, the URC QAP facilitator in this area came up with innovative ways of enhancing quality in 13 supported facilities. These included changing the image of the health providers and the facility arrangement, and displaying photographs of facility health providers as a welcoming gesture at the entrance of the facility, the so called "photo project."

Lukhanji LSA health providers welcomed the idea, which was founded on the 'back to basics' principle and embraced the Batho Pele principles by changing the image of health providers. They agreed to develop their facility mission statements to include mentioning the delivery of quality services to improve client satisfaction – the main part of which was to take individual staff photos and display these along with staff names and designations at the front of the facility to ensure that all clients were served by named and identified health care providers.

The implementation of this initiative within the QAP supported facilities soon spilt over into all 34 facilities in the LSA, with the LSA manager commending QAP on the idea and, being one the first to implement it in the LSA offices.

Some of the results of this initiative indicate that health care workers are now seen by the communities as having

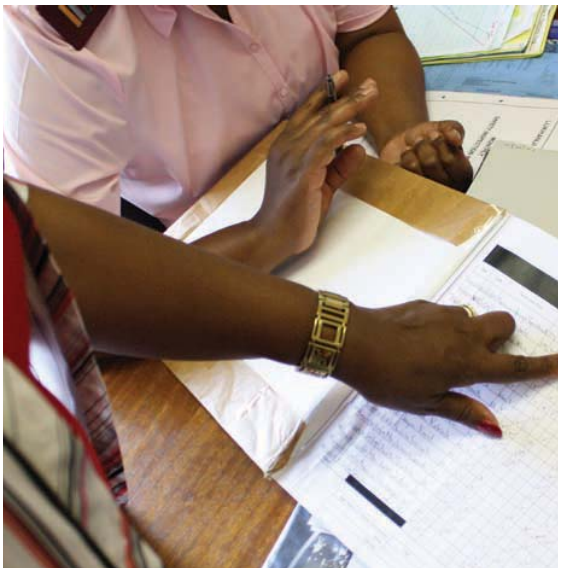
Sr Vellem, TB programme manager in the facility, Mrs Manjiya URC QAP district coordinator and Mrs Likobo, HIV/AIDS programme manager at Nomzamo community health centre

Sr E Swaartbooi of the Gardens Clinic, proudly wearing her new uniform and showcasing their PMTCT outcomes.

changed their image to become more 'patient friendly' and the inherent rewards of quality improvement have been identified as intrinsic motivation for facility staff. A mini survey conducted at four facilities (Gardens Clinic, Ekuphumleni Clinic, Nomzamo CHC, Philani Clinic) yielded the following results on client perceptions of the contribution of the photo project to health care:

Clinic name	The way nurses dress	Impressions on photo project	Difference made by photos in health care	What could be added to these photos
Ekuphumleni	'Good' all respondents	'Highly significant' 'Highly impressed'	'So that you may know the name of the person who attended you' 'They help the clients a lot' 'To be able to know the staff'	'May be to indicate who is in or out each day' 'Nothing' 'Nurses to always wear name tags'
Gardens	'They are all neat in their uniform' 'They dress nice and neat, their uniform symbolises their clinic'	' In case you had a complaint and the sister is not there you are able to show who' 'It is good for the clinic and also the nurses to feel appreciated'	'Looking at the photos makes us feel that we know them and we get used to their faces'	'Nothing' 'Everything fine the way it is'
Philani Clinic	'Banxiba kakuhle kakhulu'/They dress very appropriately 'Good' ' Always neatly dressed'	'Its important to know the clinic staff' 'They are beautiful' 'Highly significant" 'Important'	'One is able to refer to the person who has helped her before even when she is not there' ' For nurse identification' ' They make you know exactly who you deal with or helped you' 'It helps us know the service providers without doubt'	'May be it could help more when their positions were stated' 'Nothing' 'They are just enough as they are'

Other health providers from the nearby hospital are already taking a lesson from this LSA PHC initiative and will start this in their wards. After a recent visit, Sr E Jegels from the Eye Clinic at Frontier Hospital wrote this note to the URC QAP coordinator after their outreach programme to five PHC clinics in Lukhanji LSA: 'The Frontier Hospital Eye Unit visited the following clinics: Gardens, Parkvale, Lizo Ngcana, New Rest and Philani during the period 19 to 23 February 2007. The purpose of the visit was to empower the clinic sisters with 'eye' knowledge, teach about different aspects of eye care and tune up the referral system. I am writing to inform you that I was most impressed by the very high standard of practice in attitude, dress code and performance of duties that I found in all these clinics. The clinics well deserve the certificates of merit and trophies received for excellence of care and improvement of the general facilities of clinic care. The clinic sisters spoke admirably about URC QAP and the way it assists them in reaching their many goals. I wish you well in your activities, as it is difficult to effect changes in health. As the Eye Team we congratulate you on being able to make a difference to the rural poor.'



Discussions around registar entries at Philani Clinic in the Eastern Cape's Lukhanji District, March 2009..

Eastern Cape

INSTITUTIONALISING QUALITY

Ngqeleni Sub-district, OR Tambo District Municipality, Eastern Cape (2007)

Ngqeleni sub-district is one of the many extremely disadvantaged areas in the Eastern Cape Province, characterised by dire poverty, lack of human resources and bad infrastructure. The area also has high rates of sexually transmitted infections (STIs), HIV and AIDS and migrant labour which exacerbate these health concerns. Access to most health facilities are problematic due to bad roads, resulting in limited or no access at all, particularly during rainy seasons.

In 2007 USAID identified the area as needing support in quality assurance, and approached the district office with an offer to assist needy areas. Ngqeleni sub-district was identified as one area that had the most serious challenges in the whole district. In June 2007 URC was mandated to start working in the area, through Mrs Nomso Arosi. Within Ngqeleni sub-district there are ten clinics, one community health centre, one accredited ARV clinic and one hospital. The main objective is to improve the continuum of care for People Living with HIV/AIDS (PLWHA) and the extension of Prevention of Mother-to-Child Transmission (PMTCT), voluntary counselling and testing (VCT), tuberculosis (TB)/HIV and HAART services to the community. This is done through the introduction and application of quality assurance/quality improvement (QA/QI) methodologies, based on continuous monitoring, mentoring and evaluation.

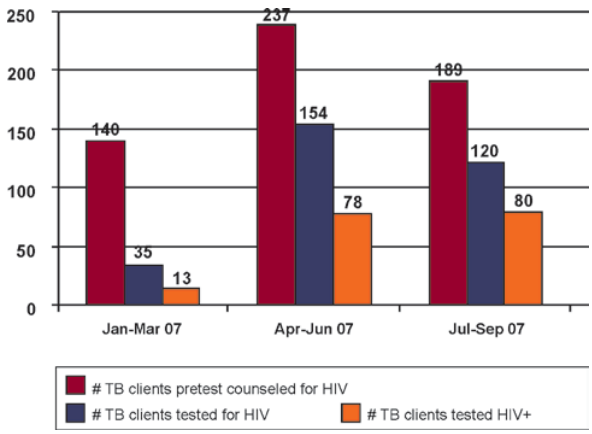
To date, in excess of 40 nurses, clinic supervisors and programme managers have been trained on quality management and improvement methodologies. A baseline survey was conducted in these facilities, as a yardstick against which to measure the value added by URC's Quality Assurance Project (QAP) interventions.

Results of the baseline assessment demonstrated the following:

- Pre-test counselling was done but post-test counselling was very low both to clients for PMTCT and VCT.
- Poor management of records made it difficult to collect data for measuring performance.
- There was very low VCT uptake in TB/HIV clients.
- HIV-positive clients were referred for CD4 cell count, but numbers were very low.
- PCR testing for HIV exposed babies was done in only two feeder clinics.
- Basic health care was not routinely monitored, i.e. PLWHA receiving ongoing counselling/screened for opportunistic infection (OI) and referred for treatment for OIs.
- In-service training and clinic nurses' meetings were not regular.
- Communication between the Local Service Area (LSA) and clinic supervisors, middle managers and clinic supervisors was also very in frequent.

Interventions by URC:

Figure 1: Improved uptake of HIV testing by TB clients (Ngqeleni sub-district, 2007)



- Initial training of nurses and clinic supervisors on QA/QI principles and application thereof.
- Feedback on findings of the baseline assessment.
- Initiation and commitment for scheduling and convening clinic nurses' and supervisors' meetings.
- Facilitation of the establishment of quality teams.
- Two monthly support visitations per facility.
- Attendance at every HAST meeting.
- Participation at HIV/TB activities like DRAT rounds.
- Provision of feedback to clinics and supervisors – verbally and graphically.
- Provision of on-site training for staff on various services.

Achievements:

- The sub-district has regular, monthly clinic nurses' and supervisors' meetings convened by the URC coordinator, at which all clinics are given feedback on their performance. Mrs Arosi has regular on-site in-service sessions with individual clinics. HAST meetings are utilised as a platform to report progress and challenges and as a unit, share successes. All clinics are provided with reports in graphs on a quarterly basis to enable them to measure comparatively how well or how badly they are performing. The sub-district has allocated a staff member that partners with Mrs Arosi during facility visits, as an effort to empower someone within the DoH. Supervision to clinics by programme managers and clinic supervisors has improved. For continuity purposes, Mrs Arosi recommended inclusion of the Canzibe Hospital at these meetings, and that was implemented immediately, with very positive results on referrals.
- Mrs Arosi has provided on-site training to lay counsellors of all supported facilities, as a result of which VCT uptake has improved dramatically. There is an increase in the number of babies born of HIV-positive mothers that are receiving Co-trimoxazole prophylaxis. Nevirapine issuing to pregnant mothers has also improved. More unbooked patients are issued with Nevirapine before delivery.
- PMTCT clients receive a comprehensive package of care, namely pre-test counselling, testing for HIV, post-test counselling and if tested positive, and referred for CD4, receive Nevirapine at 28 weeks and are screened for TB. The number of babies having PCR tests at six weeks is increasing gradually.
- VCT: Uptake for VCT was at 92% in the baseline results and in the last quarter of 2007 it was at 99%.
- TB/HIV: Referral of TB patients for counselling and testing for HIV has improved, with most clients accepting testing for HIV with more than 50% testing HIV positive. The TB/HIV clients are also provided with Co-trimoxazole prophylaxis. This TB/HIV collaboration has increased the suspect rate from 2% in the second quarter to 4% in the third quarter 2007. There is a marked improvement in capturing of information onto registers, and staff are gradually learning to understand the importance of data, to analyse it and identify gaps that need quality improvement, then use it to plan for programmatic improvement.

RAPID EXPANSION OF UNIFORM QI THROUGH BENCHMARKING

Lukhanji Sub-district, Eastern Cape (2008)

By definition, benchmarking is a tool or technique generally used in quality improvement (QI) in order to learn from the successes of others. Learning from those peers who have made greater strides has proven very valuable in Lukhanji's USAID supported facilities.

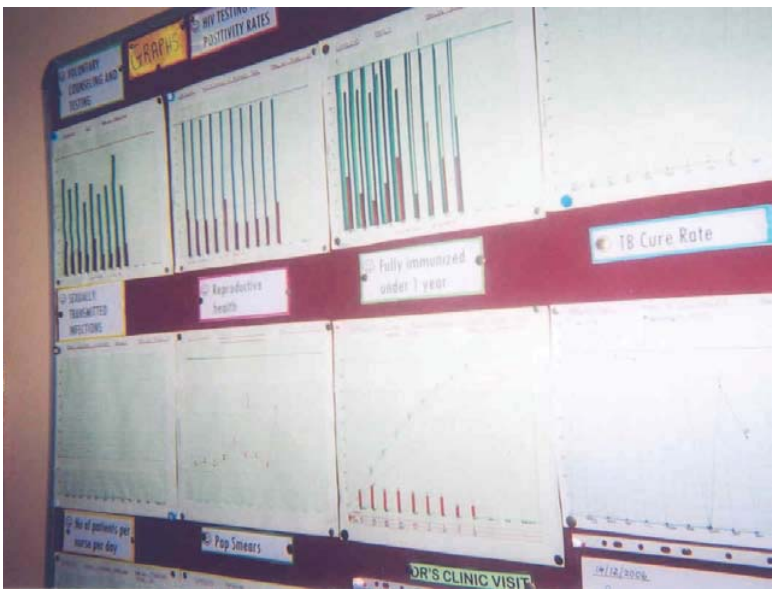
The 13 facilities are performing at different levels of excellence. Whilst some have reached their level of maturity in QI, others are still working very hard to reach that level. As a means of institutionalising and sustaining the gains made by the support from URC in the past three/four years, the URC district coordinator recommended to the Lukhanji sub-district management that all 13 facilities conduct benchmarking visits to four facilities identified as model facilities to learn and share best practices in the process. This proposal was approved and two days were set aside for this session. The following facilities were identified:

- Philani Clinic – for sustaining QI even after reduced support.
- KB Siswana – as a fairly new facility on the programme (started last year).
- Ezibeleni Clinic – for continuous year-on-year QI.
- Ilinge Clinic – a facility with challenges after being quality assured (QA) supported throughout.

All 13 facility representatives were transported to these facilities for a two-day excursion. The process was clearly outlined to all members: the objective of the visitations was to learn new lessons, and plan how they would implement those lessons in their environments to improve quality of health services. At the end of each day the team sat together with the visited site manager and to discuss lessons learnt, identify challenges and ways to tackle them.

Successes:

- Philani Clinic was the most inspirational facility, motivating all delegates to commit to pursuing its standards in striving for QI. This facility has earned itself the status of being a centre of excellence in the Lukhanji Local Service Area (LSA).
- The objective of the visits was achieved, and a number of lessons were learnt in the process, and delegates were able to identify their own quality gaps, and learn good practices from one another. They learnt that quality can be achieved through creativity and innovative thinking, irrespective of financial constraints.



One of the graphic displays of programme outcomes at one of the Lukhanji LSA facilities supported by HCI.

- There were also specific individual goals by different representatives, for example Sr Mali of Shilo Clinic commented on the lessons she was taking with her to her facility:
  - drawing up a contingency plan for vaccines;
  - periodic clinical record audits against guidelines;
  - identification/labelling of all consulting rooms;
  - a rainbow book for all blood results and action taken.

Sr Cingo of Parkvale Clinic saw this visit as:

- a great learning curve and motivating situation;
- an opportunity to change the attitude of both staff and clients.

She added that the following lessons learnt from these two days should be implemented:

- notice boards should talk to both internal and external customers;
- clinic managers should take time and do introspection.

Added value:

- This activity has confirmed the need for benchmarking as a means of scaling up QA and QI, also enabling URC to showcase the relevance and value added by the organisation's work in a particular area. The strong support base for URC's work has seen the strengthening of relations between programme managers at the LSA office. Non-URC supported facilities have now requested that URC takes them on at the next level of scaling up.
- The strengths and weaknesses possessed by some managers were noted and this exercise has given the LSA a base on which decisions for scaling up will be based. The team undertook to embark on immediate remedial measures, which had to be put in place immediately.

In conclusion, the exercise has strengthened URC's position in the LSA and there is a very good working relationship with the Department of Health staff.

Sr Scharneck, Philani clinic manager with her proud VCT team.

3 Success Stories: KwaZulu Natal

Introduction to the province

QAP, and subsequently HCI, began to institute its programmes in Uthungulu District at Eshowe Hospital in 2002, and eventually extended support to three more hospitals and several clinics in the within the District.

HCI staff include Mrs Pretty Harrison, Ms Margaret Ngewe and Ms Vayiswa Dladla. With help from HCI, various health facilities have seen vast improvements in screening for TB, performance of CD4 counts, data collection, analysis and management, and community awareness programmes. Crucially the delay between diagnosis of HIV and initiation of ART has been reduced to as litle as two weeks in many instances.

Another huge success has been the establishment of ART outreach teams, an innovation that is expected to grow and be adopted in other provinces.

IMPROVING PMTCT SERVICES

Lower Umfolozi District War Memorial Hospital, KwaZulu Natal (2007)

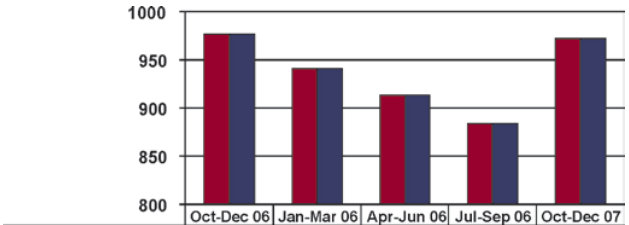
The Lower Umfolozi District War Memorial Hospital (LUDWMH), previously known as Empangeni Hospital, is a secondary-level referral hospital for maternity services. The hospital is situated in the Uthungulu District within KwaZulu Natal Province, and serves a population of 800,000 people. The HIV prevalence in this area is estimated at between 35% and 40%. The surrounding hospitals and clinics refer high-risk pregnant women (including HIV-infected pregnant women) to this hospital for delivery, resulting in a very high number of deliveries by HIV-infected women. The maternity services provided by the hospital, the busiest in the province, record between 1,000 and 1,500 deliveries per month.

HCI has been providing support to LUDWMH in improving the quality of voluntary counselling and testing (VCT), Prevention of Mother-to-Child Transmission (PMTCT) and antiretroviral therapy (ART) services since 2005. Improving the quality of PMTCT services in a hospital that delivers approximately 900 babies to HIV-infected mothers per quarter has been challenging for various reasons. One of the greatest challenges is related to the need for strengthening the health system itself due to a lack of effective supervision, due to a lack of supervisory staff. In addition, negative attitudes, a lack of dissemination of information received during meetings and training, poor recording of information and incorrect data recording and compilation, as well as a general lack of knowledge and skills regarding PMTCT contributed to quality gaps in the PMTCT service. Client ignorance, lack of knowledge, negative attitudes and the use of traditional medicine, such as *izihlambezo* (which induces early labour) contributed to poor health outcomes within the community.

Upon recognition of all these needs within LUWMH, Mrs PB Harrison, the HCI district coordinator for Uthungulu, adopted a comprehensive approach and worked closely with the district Department of Health (DoH) maternal and child health coordinator and Quality Assurance (QA) coordinator to improve the quality of the PMTCT service.

In-service training on the PMTCT programme and QA awareness workshops were provided to the hospital staff by the DoH and URC/QAP coordinators. Continuous quality improvement strategies were employed with the implementation of the PDSA (plan, do, study, and act) cycle and monitored through monthly monitoring and evaluation of facility data. Record audits were commenced and are done on a monthly basis by Mrs Harrison in collaboration with the DoH PMTCT coordinator and hospital staff. The result is that a team approach is now implemented and hospital staff attitudes to HIV and AIDS have vastly improved. The DoH PMTCT coordinator has developed great passion for her work and visits every HIV-infected woman that delivers at LUWMH. Supervision has improved with the appointment of a dedicated PMTCT coordinator and a QA nurse at the hospital.

Figure 1: Number of babies receiving Nevirapine (LUDWMH, 2006/7)



	Oct-Dec 06	Jan-Mar 06	Apr-Jun 06	Jul-Sep 06	Oct-Dec 07
# Babies born to HIV+ mothers	977	941	913	884	972
# Babies received NVP	977	941	913	884	972

Improved record keeping ensures that there is accurate data which is used to strengthen the programme

Community awareness programmes, the establishment of support groups for HIV-infected pregnant women and ongoing health education for all pregnant women has improved community knowledge of HIV/AIDS. All this has contributed to a significant improvement in the uptake of HIV testing amongst pregnant women and better PMTCT services.

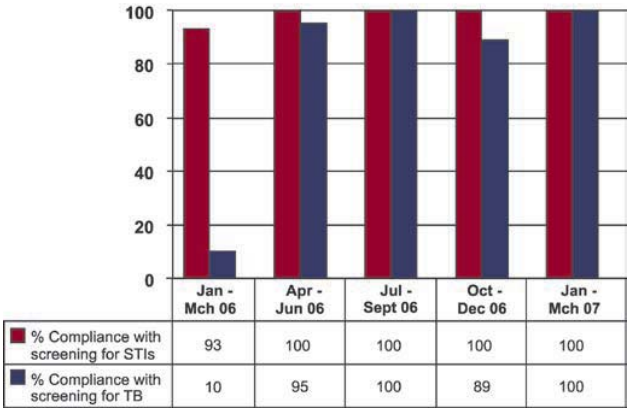
Major improvements have been achieved in compliance with national PMTCT guidelines. Compliance with screening every pregnant woman for sexually transmitted infections (STIs) has improved from 63% in the first quarter of 2005 to 93% in the second quarter of 2006. This has been sustained at 100% from April 2006 to March 2007. Since January 2006 every HIV- exposed baby within the PMTCT programme has received Nevirapine – indicating 100% compliance with the guidelines. This has been sustained to date.

One of the major causes of maternal mortality amongst HIV-infected women currently is tuberculosis (TB). To address this Mrs Harrison worked with DoH staff to create awareness of the importance of screening all clients, especially HIV-infected pregnant women, for TB. In 2006 only 10% of HIV-infected pregnant women were screened for TB. Through training and monthly monitoring, TB screening of HIV-infected pregnant women has improved to 95% in the third quarter of 2006 and to 100% in the first quarter of 2007.

Clinical staging of HIV-infected pregnant women has increased from 7% in the first quarter 2005 to 20% in the second quarter 2006; since April 2006 the compliance has been sustained at above 90% with 100% in the first quarter of 2007. The compliance for performing CD4 counts for all HIV-infected pregnant women has shown annual improvement of 33% in the first quarter of 2005 to 70% in the first quarter of 2006 and 100% in the first quarter of 2007. Compliance with the provision of advice on family planning, infant feeding and the importance of the six-week follow-up visit for mother and baby and PCR testing has also shown significant improvement.

Within the Uthungulu community, HIV-infected pregnant women have benefited immensely from the improvements in the quality of PMTCT services due to the commitment of both HCI and DoH staff. The HCI programme is firmly committed to providing ongoing monitoring and strengthening of this partnership.

Figure 1: Compliance with screening for STIs and TB among PMTCT clients (LUDWMH, 2006/7)



	Jan - Mch 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07
% Compliance with screening for STIs	93	100	100	100	100
% Compliance with screening for TB	10	95	100	89	100

WORKING TOGETHER FOR QUALITY PREVENTION, CARE AND TREATMENT SERVICES

Ngwelezane Hospital, Uthungulu District, KwaZulu Natal (2007)

Ngwelezane Hospital, situated in Uthungulu District in KwaZulu Natal Province is a referral hospital. The hospital serves a population of approximately 80,000 people. Mrs PB Harrison, the Quality Assurance Project (QAP) district coordinator, has been supporting Ngwelezane Hospital to improve the quality of HIV and AIDS services since 2005.

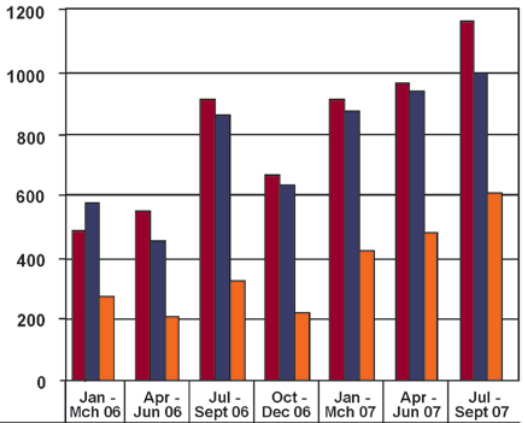
When Mrs Harrison started working with hospital staff, she noted that there were relatively low numbers of clients counselled and tested for HIV, despite the extremely high patient load at the hospital. Also, there was a significant delay in preparing eligible clients for antiretroviral treatment (ART), which had a major impact on the community's perception of the ART care and treatment services available to them. Upon further enquiry, it was found that the main challenges included a shortage of human and material resources, poor adherence counselling and poor recording and management of data.

Armed with this new information, Mrs Harrison organised a feedback meeting with the district health manager and programme managers in the district, where she recounted the difficulties being faced by hospital staff. To her surprise, many of the programme managers present echoed her sentiments and said that although they were aware of these problems, they felt helpless.

To address these concerns, she conducted a quality awareness workshop where knowledge and skills on basic quality assurance technology were transferred to district managers and hospital staff. This was seen as a milestone by the hospital staff, who, sharing a mutual understanding of quality concepts, soon established a quality assurance team that actively worked towards improving the quality of services within existing resources.

The team set about creating awareness for quality improvement by engaging hospital management and suggesting possible solutions. In-service training was conducted for all hospital staff to address shortcomings within the tuberculosis (TB), voluntary counselling and testing (VCT) and ART programmes. Staff also received formal training on data recording, collection, analysis and interpretation, which was reinforced by the ongoing onsite mentoring

Figure 1: VCT uptake (Ngwelezane Hospital, 2006/7)



	Jan - Mch 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07
# Clients pre test counseled for HIV	486	548	914	662	908	963	1167
# Clients tested for HIV	577	453	859	631	875	936	1002
# Clients tested HIV+	272	211	320	221	422	478	609

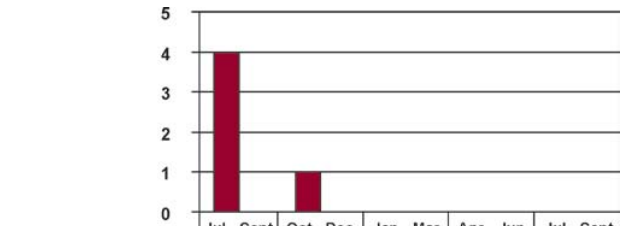
Mrs Harrison provided. With help from the district programme managers, the team also initiated regular HAST and quality assurance meetings, where challenges are discussed, improvement interventions identified and progress evaluated. Integrated district meetings are also held to improve continuity and integration of care within all health-care programmes.

The main result of these interventions has been a significant improvement in hospital and district staff motivation. At Ngwelezane Hospital, this has contributed significantly to visible improvements within the VCT and ART programmes.

Within the VCT programme the most evident changes include significant improvements in data management and the quality of counselling provided. The number of clients counselled for HIV testing has doubled from 486 in the second quarter 2006 to 1,167, in the fourth quarter 2007, with consequent improvements in the VCT uptake rate from 82% to 86% within the same period.

Within the ART programme, the number of clients completing adherence counselling has increased from an average of 55 adults and 20 children per quarter to 148 adults and 67 children in the third quarter 2007. This has resulted in significant increases in patients receiving ART from 1,114 adults and 412 children to 1,929 adults and 513 children in September 2007. All the clients on ART are linked to treatment supporters and receive regular opportunistic infection (OI) screening, ongoing counselling and nutritional support. The improvement in the quality of ART services at Ngwelezane Hospital is best demonstrated by the fact that only five adult clients out of 1,929 interrupted their ART treatment within the last six months of 2006, with no subsequent interruptions to date. Notable among these achievements is the fact that there have been no interruptions among the paediatric patient population and only four of the ART clients stopped treatment during this period.

Figure 2: Number of HIV infected clients (adults and children) who interrupted ART treatment (Ngwelezane Hospital. 2006/7)



	Jul - Sept 06	Oct - Dec 06	Jan - Mar 07	Apr - Jun 07	Jul - Sept 07
# HIV+ adult clients that interrupted treatment	4	1	0	0	0
# HIV+ clients <15 yrs that interrupted treatment	0	0	0	0	0

QUALITY IS KEY TO IMPROVEMENT IN SERVICE DELIVERY

Thokozane Clinic, Uthungulu District, KwaZulu Natal (2007)

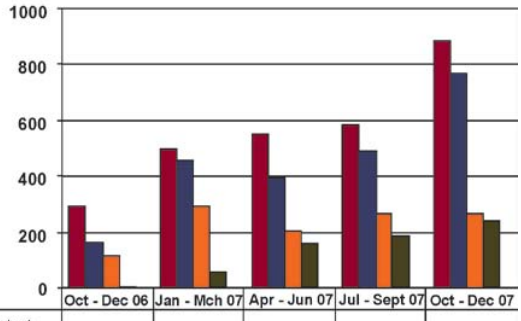
Thokozane Clinic, a primary health care (PHC) clinic located within a densely populated semi-urban area in Uthungulu District in KwaZulu Natal Province serves a catchment population of approximately 40,000. There are about 6 staff members which illustrates the huge workload

Mrs PB Harrison, the Health Care Improvement project (HCI) Quality Assurance (QA) provincial coordinator has provided support and mentorship to clinic staff since January 2007 in order to improve the quality of care provided. This has been done in collaboration with the district clinical manager (DCM) for all programmes. In-service training on all the PHC programmes, including HIV and AIDS and quality assurance awareness workshops were provided to the clinic staff. Continuous quality improvement strategies were employed with the implementation of the PDSA (plan, do, study, and act) cycle and monitored through monthly monitoring and evaluation of facility data. Record audits were commenced and are done on a monthly basis by Mrs Harrison in collaboration with the DCM and clinic staff. The result is that a team approach is now implemented and clinic staff attitudes to quality improvement initiatives have improved vastly.

Major improvements have been achieved in compliance with national HIV and AIDS and TB-HIV guidelines. Previously, there was limited integration of HIV and tuberculosis (TB), with very few TB clients being tested for HIV and even fewer HIV-infected individuals being tested for TB. This resulted in unnecessary and preventable deaths as some TB clients died without being tested for HIV. In addition, the quality of life for co-infected HIV-TB clients was compromised, as staff were not aware of the comprehensive package of services to be offered.

The allocation of a professional nurse for TB and HIV has brought about much improvement with better screening and treatment of opportunistic infections for all clients with TB including co-infected TB-HIV patients. Recording and reporting of co-infected patients have also improved within the programme, from zero to 174, within one quarter. Another important development has been early referral of all co-infected patients for CD4 counts and ongoing HIV care and treatment. Co-infected clients are now commencing antiretroviral treatment (ART) earlier. The voluntary counselling and testing (VCT) uptake for TB clients in the last year quadrupled from 21 per quarter to 95 in the quarter October to December and TB case detection in HIV positive individuals increased from 9 per quarter to 73 in the quarter October to December, as a result of improved staff attitudes, insight and enthusiasm.

Figure 1: VCT uptake (Thokozane Hospital, 2006/7)



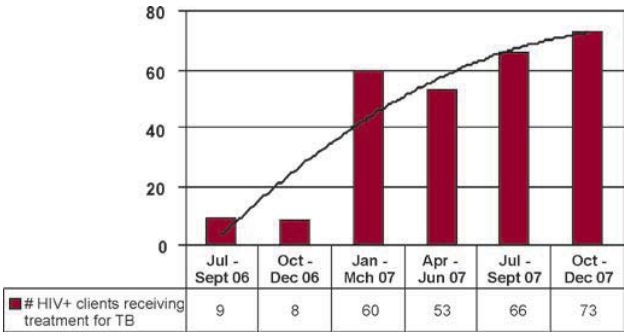
	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07	Oct - Dec 07
# Clients pre test counseled for HIV	293	496	549	582	884
# Clients tested for HIV	166	451	398	490	767
# Clients tested HIV+	116	292	202	264	262
# HIV + clients referred for CD4 count	1	55	156	185	240

Data capturers are trained to collect and capture data accurately. They know that this will enhance the quality of the programme and strengthen the systems.

The increased numbers of new HIV positive clients diagnosed with TB and started on TB treatment is a direct consequence of improved recording as well as tracing of HIV positive diagnosed TB clients on a suspect register. Sometimes staff experienced frustrations because of clients being lost due to high mobility and use of wrong addresses, which made tracing difficult. However, the team made concerted efforts to improve the care for all HIV positive clients.

Within the VCT programme, there has been a rapid increase in the actual number of clients tested for HIV, from 166 in the first quarter of 2006 to 767 in the first quarter of 2007, with a corresponding increase in VCT uptake from 60% to 87% within the same period.

Figure 2: HIV+ clients receiving treatment for TB (Thokozane Hospital, 2006/7)



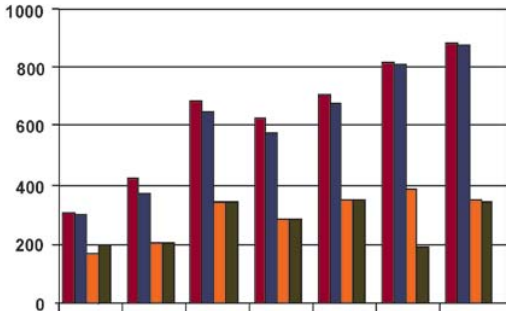
HEALTH CARE IMPROVEMENT IS A KEY TO SUCCESS

Kwamagwaza (St Mary's) Hospital, Uthungulu District, KwaZulu Natal (2008)

Kwamagwaza (St Mary's) Hospital is situated in the middle of Uthungulu District surrounded by Ngwelezane and Lower Umfolozi District War Memorial Hospitals in the east, Eshowe Hospital in the south, Nkandla and Mbongolwane Hospitals in the west.

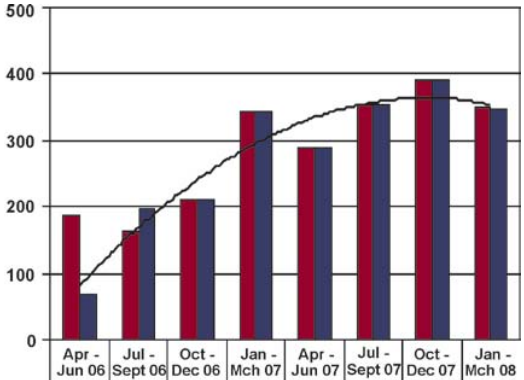
Mrs PB Harrison has been a Quality Assurance (QA) technical advisor in Uthungulu District since 2002. Kwamagwaza (St Mary's) Hospital has been one of the facilities that the Quality Assurance Project (QAP) has supported since the highly active antiretroviral therapy (HAART) programme was started in the district. As the gateway to HIV services, voluntary counselling and testing (VCT) played a major role in the identification of HIV-infected clients.

Figure 1: VCT uptake (Kwamagwaza Hospital, 2006/7/8)



	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07	Oct - Dec 07	Jan - Mch 08
# Clients pre tested counseled for HIV	309	427	685	628	707	818	880
# Clients tested for HIV	302	375	652	578	678	807	870
# Clients tested HIV+	165	210	342	290	352	391	349
# Clients referred for CD4 count	198	210	342	290	352	191	345

Figure 2: Compliance with CD4 cell count in HIV+ clients (Kwamagwaza Hospital, 2006/7/8)



	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07	Oct - Dec 07	Jan - Mch 08
# Clients tested HIV+	186	165	210	342	290	352	391	349
# HIV+ clients referred for CD4 count	69	198	210	342	290	352	391	345

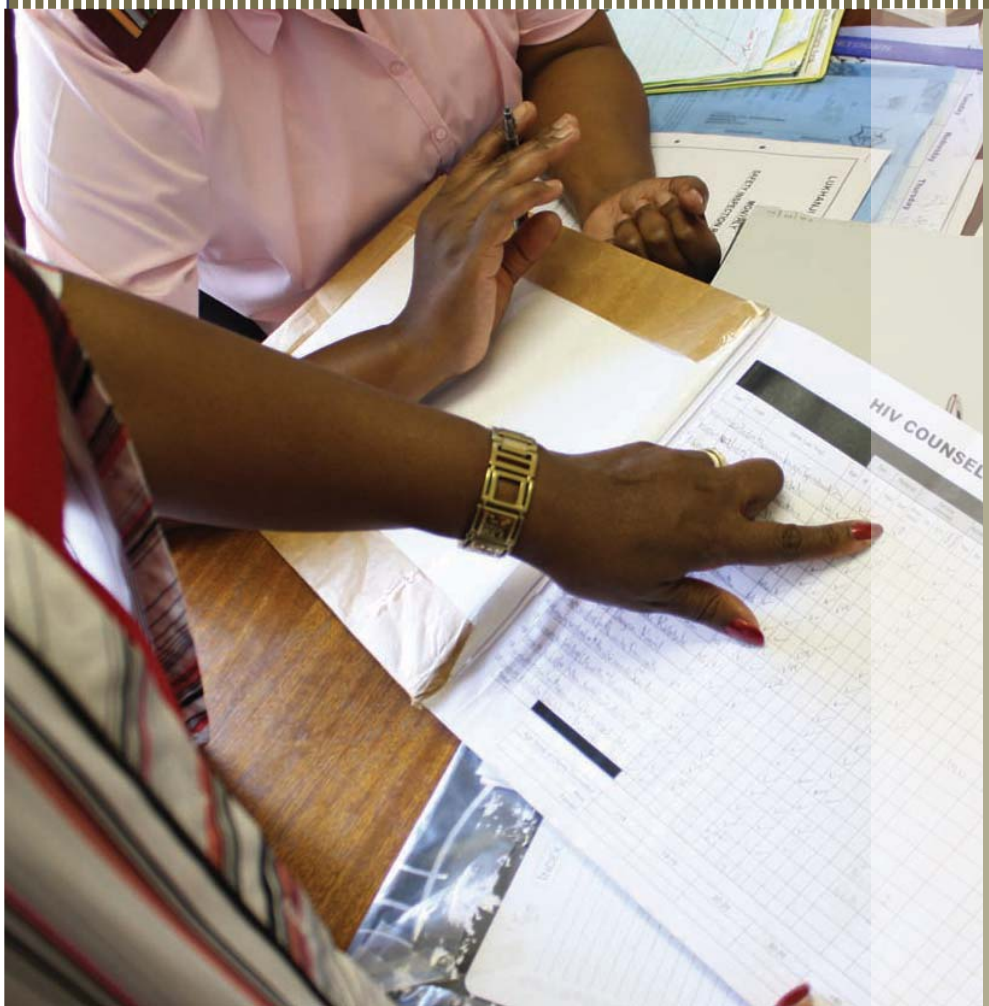
In spite of the crucial role of VCT, many of the staff were not very enthusiastic about the program and numbers of clients tested for HIV remained low though a slight increase was noted. The overall quality of the VCT program offered was inadequate, with high refusal rates. Additionally, not all clients found to be HIV positive were being referred for CD4 counts or ARV readiness counselling.

To address these shortcomings, Mrs Harrison conducted a Quality Assurance Awareness Workshop. Participants were trained in basic quality assurance concepts, how to use data to identify gaps, how to analyze problems and identify appropriate improvement interventions, which led to counsellors ensuring that the improvement strategies were applied. Mrs. Harrison also played a major role in continuous quality supervision and mentoring through monthly visits to the facility where data was collected and analyzed. She monitored progress in quality improvement and discussed planned interventions.

These interventions resulted in re-energizing and motivating staff to improve all HIV programs, especially VCT. The enthusiasm of the team, together with highly motivated and skilled counselors has greatly improved the services provided. Currently all HIV positive clients are referred for CD4 counts, with ongoing counselling and screening for opportunistic infections.

The counselors are now interested in demonstrating their results graphically and look forward to Mrs Harrison's mentoring visits as a way of showing off their progress. There is also great commitment and excitement amongst the professional nurses towards the program, illustrating greater motivation and team work.

Success Stories: Mpumalanga



Introduction to the province

The QAP project and subsequently HCI commenced support to Mpumalanga in 2001. The support was provided to improve quality of HIV and AIDS prjects and focuses on 43 facilities in three districts.

HCI staff in Mpumalanga have also improved the continuum of care for PLWHA by providing support to two HBCs in order to reduce defaulter rates and improve follow up of patients on TB and ARV treatment.

QAP INTERVENTIONS MEAN BETTER CARE FOR TB PATIENTS

Lebohang, Embhalenhle, Carolina Nhlazatse CHCs, Gert Sibande District, Mpumalanga (2005)

The Quality Assurance Project (QAP) coordinator working in Gert Sibande District in Mpumalanga Province noticed that many of the tuberculosis (TB) patients died before completing their treatment. This contributed to a low TB cure rate for the district. The QAP coordinator, Maria Fakude, worked closely with Lebohang, Embhalenhle, Carolina and Nhlazatse Community Health Centres (CHCs) on improving the quality of TB/HIV care. Meetings were held at each of the facilities to discuss the problems in the TB/HIV service. Contributing factors that were identified included:

- There was no specific person responsible for the TB programme at a facility level.
- Staff were unaware that TB patients should be screened for HIV, and vice versa; that TB/HIV co-infected patients should receive Co-trimoxazole prophylaxis, as per national guidelines or that HIV-infected patients with latent TB should receive isoniazid (INH) prophylaxis

The QAP coordinator, in collaboration with the Department of Health (DoH) quality assurance (QA) coordinator, arranged a meeting with the CDC coordinator for the area and requested that staff should receive in-service training on the TB/HIV guidelines. The CDC coordinator provided the in-service training.

The QAP coordinator also requested that the nursing sisters in charge of these facilities nominate a specific person to take responsibility to ensure that the TB register and client records were completed accurately, that all staff were aware of the content of the TB/HIV guidelines and that TB patients were followed up frequently.

Since the interventions initiated by the QAP coordinator there has been a significant improvement in the quality of care provided to patients at this facility. The number of patients with TB who were tested for HIV doubled from 56 in the first quarter of 2005 to 119 in the third quarter of 2005. There was also a ten-fold increase in the numbers of TB/HIV co-infected patients receiving Co-trimoxazole prophylaxis, from six in the first quarter to 60 in the third quarter, as well as a dramatic increase in HIV-infected clients with latent TB receiving INH prophylaxis from zero in the first quarter to 60 in the third quarter.

Figure 1: Number of TB clients testing for HIV (Gert Sibande District, 2005)

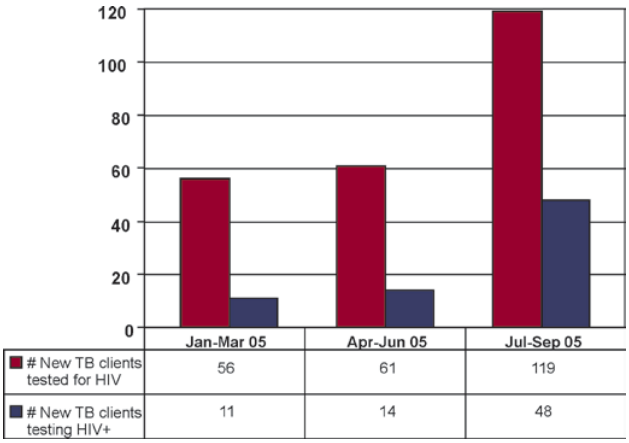
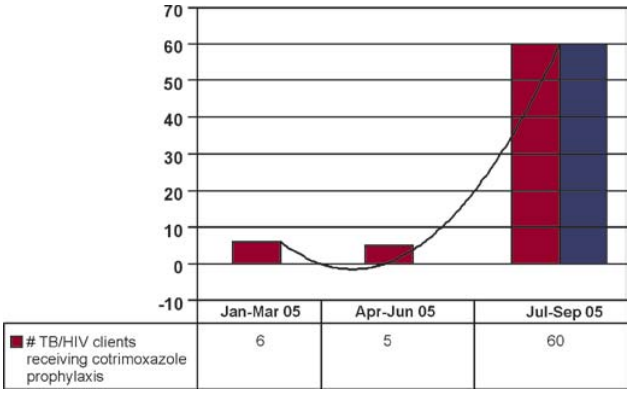


Figure 2: Number of TB/HIV clients receiving Cotrimoxazole prophylaxis (Gert Sibande District, 2005)



QAP INTERVENTIONS LEAD TO IMPROVEMENTS IN PMTCT SERVICES

Ka Nyamazane CHC, Ehlanzeni District, Mpumalanga (2005)

The Ka Nyamazane Community Health Centre (CHC) in the Ehlanzeni District in Mpumalanga Province serves a population of approximately 80,000 people. Within the CHC, the Prevention of Mother-to-Child Transmission (PMTCT) unit has two professional nurses and two lay counsellors responsible for providing care.

During the first quarter of 2005, the Quality Assurance Project (QAP) coordinator, Ms Agness Mndawe, in collaboration with facility staff, recognised that although there were a large number of pregnant women receiving antenatal care at the facility, the proportion of those who received pre-test counselling and testing for HIV throughout their pregnancy was unjustifiably low. Further analysis revealed that only 23% were tested for HIV at their first antenatal visit. The team further noted that there was poor follow up of babies born to HIV-positive mothers, within the facility.

Extensive discussions between the QAP coordinator and facility team led to identification of several reasons for the poor PMTCT service. Professional nurses were frequently moved from one service area to another within the CHC. This led to problems of continuity of care and service delivery, and meant that new staff rotating through the PMTCT clinic required ongoing in-service training in quality assurance methods. In addition, there was minimal communication between the CHC and the hospital, especially within the maternity, paediatric, antiretroviral treatment (ART) and primary health care services. A further problem involved the issue of confidentiality and communication of antenatal care clients' HIV status between the CHC and hospital, which had severe repercussions on Nevirapine uptake for both HIV-positive women and their babies. An important shortcoming of the programme was that only a limited number of professional nurses were trained in PMTCT, therefore, if these nurses were on leave or had resigned, there was minimal provision of PMTCT services, within the facility.

In order to remedy the situation, the QAP coordinator actively motivated management to train more nurses in PMTCT, as well as recommending that at least one professional nurse remained permanently in the PMTCT service, without rotation through the various services. This would improve the continuity of care as well as the knowledge and skill level of the PMTCT staff.

To further capacitate and ensure sustainability of the programme, the QAP coordinator also arranged a meeting at Rob Ferreira Hospital between the district PMTCT coordinator, district antiretroviral (ARV) unit, maternity unit and paediatric unit in order to initiate and improve dialogue and integration between these services. During this meeting, it came to light that approximately 50% of all paediatric in-patients were HIV-infected babies who were admitted for opportunistic infections, especially pneumonia. This news came as a great shock to all who were present, as it was a direct reflection on the care of HIV-exposed babies born to women who had attended the antenatal clinic within the facility. It also revealed the dire consequences of inadequate counselling and testing of pregnant women and a lack of active follow up of their babies, with provision of prophylaxis for opportunistic infections, such as PCP pneumonia and other chest infections.

At this point very few HIV-exposed babies were followed up at the facility and none received Co-trimoxazole prophylaxis. The outcome of the meeting was that the PMTCT coordinator was tasked with working with the different units to establish better referral and communication between the different services and to facilitate training in the use of the national PMTCT code.

As a result of these interventions, initiated by the QAP coordinator, significant improvement was demonstrated within the PMTCT service at Ka Nyamazane CHC. Overall, the number of pregnant women offered counselling and testing for HIV increased, within the facility. The proportion of women tested for HIV at their first antenatal visit, in particular, increased from 22% (33/148) in the first quarter of 2005 to 72% (106/148) in the third quarter of 2005. This resulted in better knowledge about the disease and greater acceptance of the HIV test within the community.

In addition, the facility started actively following up HIV-exposed babies and providing prophylaxis for opportunistic infections, especially Co-trimoxazole syrup. The magnitude of this intervention is markedly evident when one notes that the number of HIV-exposed babies provided with Co-trimoxazole syrup more than quadrupled, as it increased from zero in the first quarter to 43 in the third quarter!

A client record audit conducted in the facility, at the end of September 2005 indicated that national PMTCT guidelines are available at facility level and sustained improvements in compliance with these guidelines had been maintained.

Figure 1: Percent of ANC clients tested for HIV at first visit (Ka Nyamazane CHC, 2005)

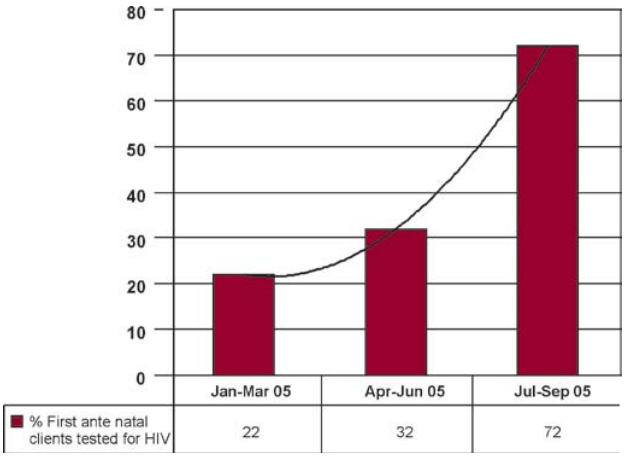


Figure 2: HIV exposed babies receiving Cotrimoxazole (Ka Nyamazane CHC, 2005)

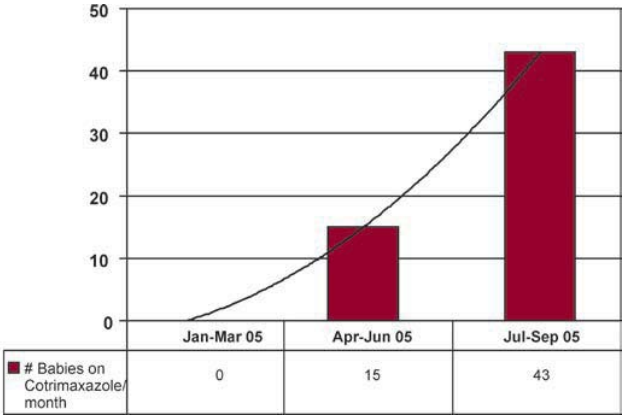
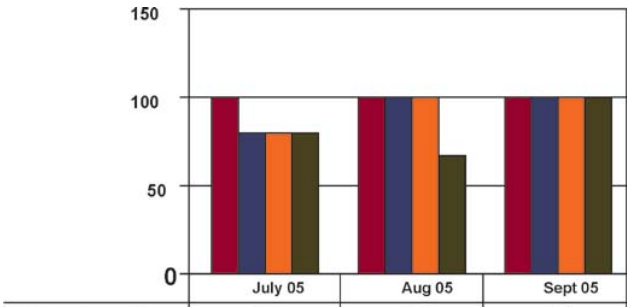


Figure 3: Compliance with provision of family planning, infant feeding, screening for STIs and post-natal follow-up got PMTCT clients (Ka Nyamazane CHC, 2005)



	July 05	Aug 05	Sept 05
% Compliance with advice on family planning	100	100	100
% Compliance with advice on infant feeding	80	100	100
% Compliance with screening for STIs	80	100	100
% Compliance with advice on follow up of baby at six weeks	80	67	100

QA ENSURES BETTER COMMUNICATION BETWEEN HEALTH FACILITIES

Rob Ferreira Hospital, Ehlanzeni District, Mpumalanga (2006)

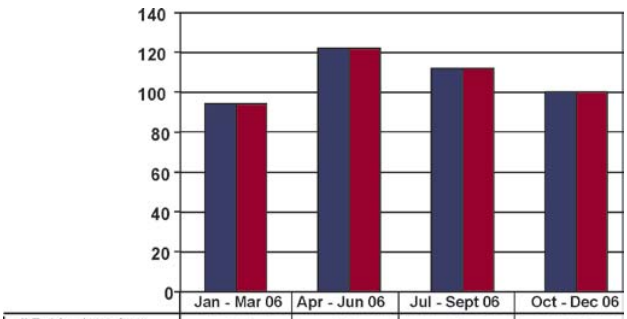
Rob Ferreira Hospital is the largest hospital in Ehlanzeni District in Mpumalanga Province. It is a referral hospital for the whole of Ehlanzeni with a population of 82,000.

Its feeder hospitals include: Themba, Shongwe, Tonga, Barberton, Sabie and Lydenburg hospitals. Agnes Mndawe is the Quality Assurance Project (QAP) coordinator working closely with provincial, district and facility staff. Agnes visits Rob Ferreira twice a month for quality mentoring and support.

QAP started working with Rob Ferreira in 2001 focusing on improving maternal and neonatal care. With significant improvement in maternal and neonatal care, the focus of QAP support changed to improving quality in counselling and testing (C&T), Prevention of Mother-to-Child Transmission (PMTCT), tuberculosis (TB)/HIV and antiretroviral treatment (ART) services (2004). Implementation of quality assurance (QA) technology and strategies have resulted in:

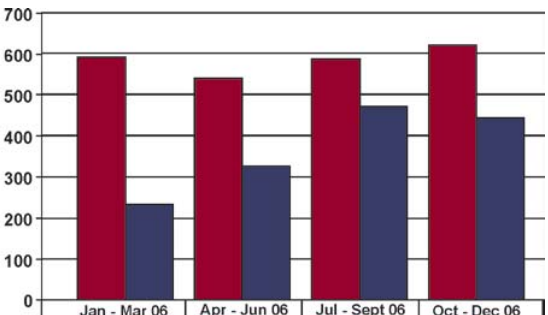
- Improved performance of laboratories and diagnostic services and better integration of C&T, PMTCT, TB/HIV, basic health care and palliative care (BHC) for HIV-positive clients and ART services.
- Improvement in the VCT service. The number of clients tested for HIV increased from 593 in January to March 2006 to 623 in October to December 2006. CD4 counts are done for every HIV-positive client.
- Establishment of a PMTCT site has
  - encouraged screening of all pregnant women for HIV;
  - encouraged PMTCT mothers to bring their children for six week follow up for assessment of mother and baby and PCR testing for baby;
  - improved screening of all HIV-positive mothers for TB;
  - reduced HIV/AIDS stigma;
  - improved screening for opportunistic infections (OIs) and clinical staging of clients as the centre is solely dealing with HIV-positive pregnant women and long waiting period have been eliminated.
- 100% Nevirapine administration rate to babies for the whole of 2006 as every baby born from a HIV-positive mother received Nevirapine prophylaxis. Compliance with national PMTCT guidelines has been good. Data collected from record audits demonstrated evidence that for every quarter in 2006 more than 90% of HIV-positive pregnant women received health education on family planning and infant feeding. Compliance with screening all pregnant women for sexually transmitted infections (STIs) has increased from 80% in October to December

Figure 1: HIV exposed babies receiving Nevirapine (Rob Ferreira Hospital, 2006)



	Jan - Mar 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06
# Babies born from known HIV+ mothers	94	122	112	100
# Babies received NVP	94	122	112	100

Figure 2: Number of clients tested for HIV (Rob Ferreira Hospital, 2006)

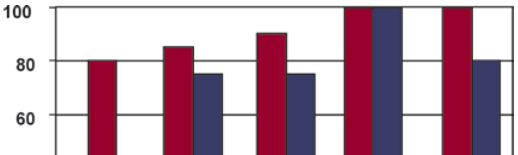


	Jan - Mar 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06
# Clients tested for HIV	593	541	589	623
# Clients tested HIV+	233	327	472	445

2005 to 100% in October – December 2006 and screening of all HIV-positive pregnant women for TB increased from 0% to 80% . Clinical staging and CD4 counts for HIV-positive pregnant woman are sustained at above 90%.

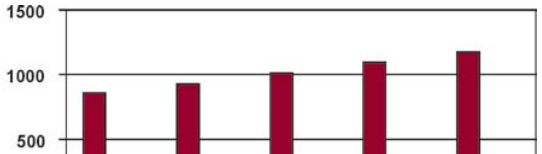
- Improved integration of TB with HIV services – QAP has emphasised the need for all TB patients to be screened for HIV and all HIV-positive clients to be screened for TB. In accordance with national guidelines QAP has also motivated staff to provide all HIV-positive TB patients with Co-trimoxazole prophylaxis. The Department of Health (DoH) has been struggling to implement the provision of Co-trimaxazole prophylaxis for HIV-positive TB clients and the recording of TB/HIV data. QAP introduced a system for recording this data in the facilities supported by QAP and it was adopted by Mpumalanga for all facilities. A column was added to the existing TB register where testing for HIV and HIV status is indicated as well as Co-trimoxazole prophylaxis.
- Establishment of an ART site, which implements high quality HIV/AIDS services. QAP has supported Rob Ferreira Hospital on QA in the ART service since establishment of the service. The number of clients on ART is increasing consistently and the proportion of clients that interrupted or stopped treatment is below 1%. All clients on ART are receiving ongoing counselling and nutritional support.

Figure 3: Compliance with screening for STI and TB (Rob Ferreira Hospital, 2005)



	Oct - Dec 05	Jan - Mch	Apr - Jun	Jul - Sept	Oct - Dec
% Compliance with screening for STIs	80	85	90	100	100
% Compliance with screening for TB	0	75	75	100	80

Figure 4: Number of clients on ART treatment (Rob Ferreira Hospital, 2005))



	Jan - Mch	Apr - Jun	Jul - Sept	Oct - Dec	Jan - Mch
# HIV+ adult clients on ART	857	927	1018	1098	1179
# HIV+ <15 clients on ART	36	85	87	100	114
# HIV+ pregnant women on ART	0	0	0	3	6

The intervention of QAP in strengthening collaboration with community clinics and hospitals has resulted in better communication between facilities and other hospitals have conducted benchmarking exercises at Rob Ferreira Hospital.

Rob Ferreira Hospital has also implemented down referral of selected HIV-positive clients to clinics where a doctor and a pharmacist visit the clinics once a month to provide care. This has reduced the numbers of AZT 'interruptions' by clients due to lack of transport fees and also lessens the stigma attached to HIV/AIDS as the group socialise freely without fear in their communities.

LIVING FOR TOMORROW

Barberton Hospital, Ehlanzeni District, Mpumalanga (2006)

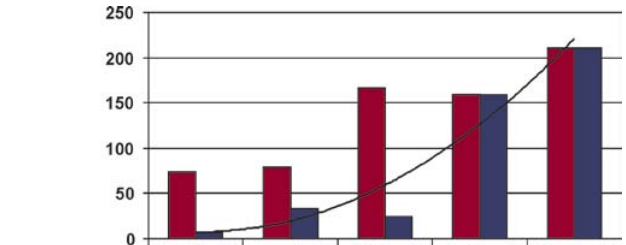
Barberton Hospital is a small district hospital situated in the Ehlanzeni District in Mpumalanga Province, serving a community of approximately 78,000 people. The integrated model of care at the antiretroviral treatment (ART) clinic known as 'Living for Tomorrow' for HIV-infected individuals is offered at Barberton Hospital. This is a culmination of ongoing and sustained quality improvement (QI) initiatives by the USAID Quality Assurance Project (QAP), in conjunction with the Department of Health (DoH).

Mrs Agness Mndawe, the URC QAP provincial coordinator, has been working with the Barberton Hospital quality assurance (QA) team since 2003, in collaboration with the DoH district QA coordinator. Together, they have provided technical support for quality improvement in various HIV and AIDS programmes.

Based on the knowledge acquired from QA training and mentorship during monthly QA meetings and QI interventions, facility staff were aware of the urgent need to educate all clients about HIV and AIDS, offer HIV testing and follow up HIV-infected clients with clinical staging and CD4 counts.

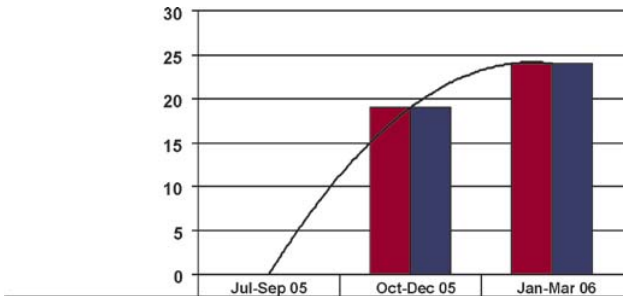
However, as the hospital was not accredited to provide ART, those clients requiring ART had to be referred to Rob Ferreira Hospital, 45km away. This was very trying for both clients, most of whom could not afford to travel so far for monthly refills of their medication, and staff, who felt frustrated and helpless in this situation. However, buoyed by ongoing support from QAP, staff at Barberton Hospital continued to improve their care for HIV-infected individuals

Figure 1: CD4 uptake in HIV+ clients (Barberton Hospital, 2006/7)



	Jan-Mar 05	Apr-Jun 05	Jul-Sep 05	Oct-Dec 05	Jan-Mar 06
# Clients testing HIV+	74	79	166	159	211
# HIV+ clients referred for CD4 count	7	33	25	159	211

Figure 2: Number of co-infected HIV-TB clients receiving cotrimoxazole (Barberton Hospital, 2006/7)



	Jul-Sep 05	Oct-Dec 05	Jan-Mar 06
# HIV+ TB clients	0	19	24
# HIV+ TB clients receiving cotrimoxazole	0	19	24

and began renovating rooms and garages for an ART site. On 17 November 2005, their efforts were rewarded with the accreditation of Barberton Hospital as an ART site. Clients who had lost all hope could now start attending the ART clinic, aptly named 'Living for Tomorrow'.

From the onset, Mrs Mndawe worked closely with the hospital QA team to integrate counselling and testing (C&T) and ART services with maternal and child health, primary health care, tuberculosis (TB) care and home-based care services. This has helped facility staff to improve screening for and treatment of OIs, including TB, amongst people living with HIV/AIDS (PLWHA).

Facility staff are aware that all PLWHA should be screened for OIs at every visit, a fact evidenced by the increase in the number of patients screened for OIs from zero in October 2005 to 75 in March 2006. At the same time, screening of HIV-infected clients for TB has increased from zero to 38 and screening of TB patients for HIV has improved from zero to 41. The quality of care provided to HIV/TB co-infected patients has also improved significantly, with an increase in the provision of opportunistic infection prophylaxis from zero to 24 clients at the end of March 2006.

In addition, the number of adult clients on ART has increased rapidly from 34 in November 2005 to 143 in March 2006. In order to improve adherence, all these clients are linked to treatment supporters and are receiving ongoing counselling and nutritional support. Improving the quality of life and the continuum of care for their patients is a major priority for the staff at the ART clinic, who feel that with the positive attitude of the team, their clients will certainly be 'Living for Tomorrow!'.

Mrs Agness Mndawe with proud members of the Barberton Hospital QA team.

PMTCT PROGRAMME IMPROVEMENTS

Driefontein Health Centre, Gert Sibande District, Mpumalanga (2006)

Driefontein Health Centre is situated in Gert Sibande District, within Mpumalanga Province, serving a community of approximately 50,000 people. Within the province, the HIV sero-prevalence rate amongst pregnant women in 2006 was 30.8%, indicating a dire need for improvement and strengthening of the Prevention of Mother-to-Child Transmission (PMTCT) programme. Through the leadership of Mrs Maria Fakude, the provincial Quality Assurance Project (QAP) coordinator, in collaboration with the Department of Health (DoH) Quality Assurance (QA) coordinator, the quality of the PMTCT programme has improved significantly. QAP has promoted the provision of a continuum of care to all pregnant women and their babies through strengthening of referral between clinic, health centre, hospital and community-based services. This has been done through facilitation of meetings between staff from the different levels of care.

By promoting counselling and testing for HIV for all pregnant women at their first antenatal visit, the HIV testing rate has improved from 23% to 78% between October and March 2006. Facility staff were also encouraged to identify all the expected HIV-positive cases amongst pregnant women, in line with the provincial antenatal sero-prevalence rate. During the first two quarters of 2006, the percentage of HIV positive pregnant women identified by facility staff improved from 41% to 86%, a fact that impacts significantly on the quality of care provided to these women and their unborn babies.

In addition, the emphasis on compliance with guidelines for facility staff led to an increase in the administration of Nevirapine to all HIV-infected pregnant women and their babies from 151 to 207 in the first two quarters of 2006, indicating a 25% increase. According to data collected from registers and from patient record audits, all babies born to HIV-infected mothers received ARV prophylaxis at Driefontein Health Centre.

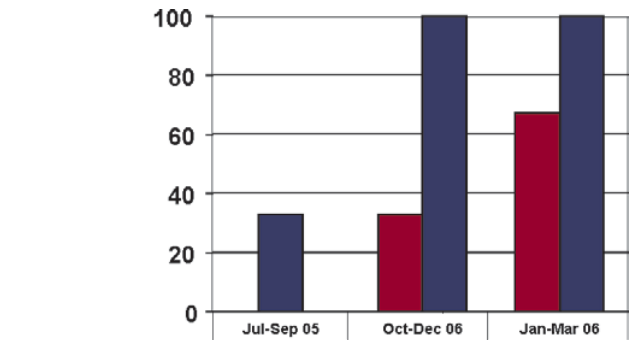
The continuum of care model promoted by Mrs Fakude further emphasises that all HIV-positive pregnant women should receive advice on infant feeding choices in order to further reduce transmission of HIV, as well as advice on postnatal follow up, family planning and immunisation. Monthly record audits reveal that compliance with nutritional counselling, provision of health education, family planning and immunisation has remained at 100%, with all HIV-positive pregnant women identified being offered education and support of their individual choices.

In line with the national PMTCT guidelines, facility staff were educated about the need to perform clinical staging and CD4 counts on all HIV-infected pregnant women and to refer for antiretroviral treatment (ART) when appropriate. Through ongoing support and mentoring, the compliance with clinical staging of HIV-infected pregnant women increased from zero at the end of 2005 to 67% in the second quarter of 2006, and CD4 count testing increased from 33% to 100% in the same time period.

Facility staff were educated about the need to provide opportunistic infection prophylaxis to all HIV-exposed babies at six weeks and to inform mothers about PCR testing of their babies. The initiation of this service showed some improvement from eight to 28 infants in the first two quarters of 2006.

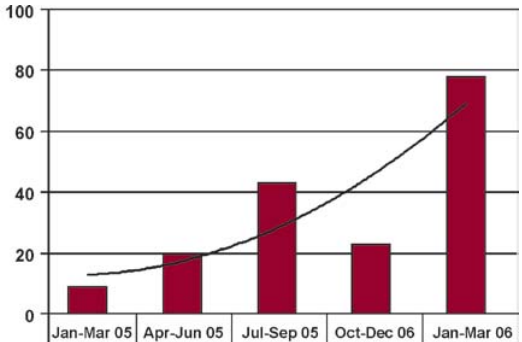
During assessment of the value added by QAP, the Driefontein Health Centre manager made the following comments: 'Through the monthly support visits QAP has provided guidance, information and training on national guidelines. This has resulted in improved record keeping, improved compliance with national guidelines, improved management and care of mothers and children and better insight into the care of HIV/AIDS clients and the correlation between [tuberculosis] TB and HIV. QAP has also influenced improvement in all programmes at the facility such as chronic care, family planning and minor ailments.'

Figure 1: Compliance with clinical staging and CD4 cell counts of HIV+ pregnant women (Driefontein Health Centre, 2006)



	Jul-Sep 05	Oct-Dec 06	Jan-Mar 06
% Compliance with clinical staging of HIV+ pregnant women	0	33	67
% Compliance with referring HIV+ pregnant women for CD4 count	33	100	100

Figure 2: Percentage of first ANC clients tested for HIV (Driefontein Health Centre,2006)



	Jan-Mar 05	Apr-Jun 05	Jul-Sep 05	Oct-Dec 06	Jan-Mar 06
% First ante natal clients tested for HIV	9	20	43	23	78
	(9/101)	(22/110)	(38/88)	(27/119)	(125/161)

Number tested/Number of 1st ante natal visits x 100

Mpumalanga

QI ENSURES INTEGRATION OF SERVICES AT ALL LEVELS

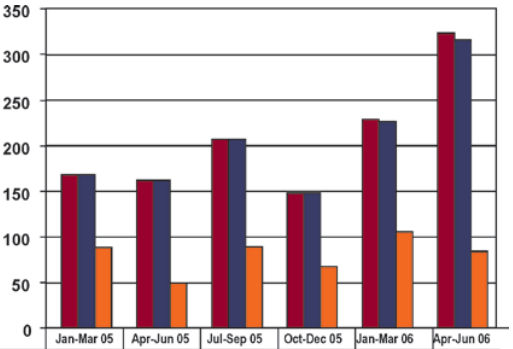
Themba Hospital, Kabokweni CHC and Phaphamani HBC, Ehlanzeni District, Mpumalanga (2006)

Within Kabokweni in the Ehlanzeni District of Mpumalanga Province, the catchment population is approximately 90,000. All health services in this community are provided by three major facilities:

- Themba hospital – a regional level referral hospital.
- Kabokweni Community Health Centre (CHC) – a primary health care facility.
- Phaphamani home-based care (HBC) – a community level, voluntary organisation.

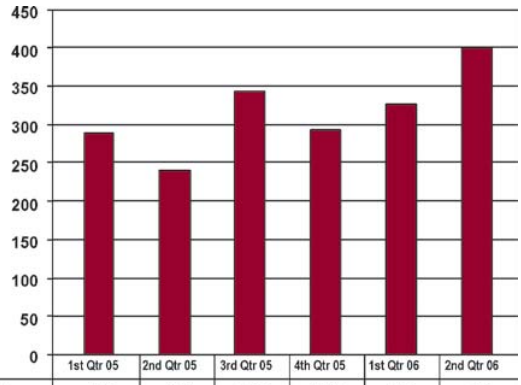
From 2004, the USAID Quality Assurance Project (QAP) district coordinator, Ms Agness Mndawe has been supporting Themba Hospital and Kabokweni CHC to implement a continuous quality improvement model of care in all HIV and AIDS programmes. Within this context, Ms Mndawe's efforts focused on prevention of HIV transmission and improvements in the quality of life of People Living With HIV and AIDS (PLWHA). As a result of extensive training and ongoing support, staff at the two facilities, in collaboration with Ms Mndawe, identified that although HIV-infected patients received high quality services while attending Themba Hospital and Kabokweni HC, there was little or no follow up of patients once they were discharged and as many as 65% of all patients were lost to further follow up and care. It was also noted that there were unacceptably high defaulter rates for patients on antiretroviral treatment (ART) and tuberculosis (TB) treatment.

Figure 1: VCT uptake (Kabokweni CHC, 2006)



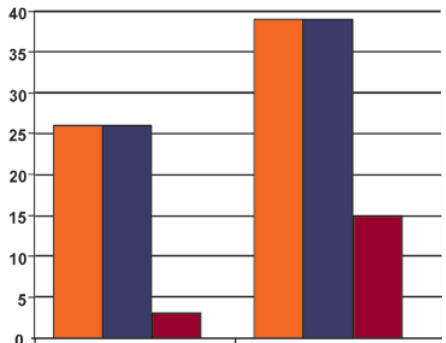
	Jan-Mar 05	Apr-Jun 05	Jul-Sep 05	Oct-Dec 05	Jan-Mar 06	Apr-Jun 06
# Clients pre test counseled for HIV	168	162	207	148	229	324
# Clients tested for HIV	168	162	207	148	226	316
# Clients tested HIV+	88	49	89	67	106	84

Figure 2: VCT uptake (Themba Hospital, 2006)



	1st Qtr 05	2nd Qtr 05	3rd Qtr 05	4th Qtr 05	1st Qtr 06	2nd Qtr 06
# Clients tested for HIV	288	240	344	293	327	401

Figure 3: VCT uptake (Phaphamani HBC, 2006)



	Apr - Jun 06	Jul - Sept 06
# Clients pre test counselled for HIV	26	39
# Clients tested for HIV	26	39
# HIV+ clients referred for CD4 count	3	15

Furthermore, there were low Prevention of Mother-to-Child Transmission (PMTCT) and voluntary counselling and testing (VCT) uptake rates at both facilities and there was little or no integration of different services. The team realised that there was a need for collaboration between Themba Hospital, Kabokweni CHC and Phaphamani HBC to improve follow up of patients and continuity of care for the Kabokweni community.

To this end, URC-QAP staff facilitated several meetings between different role-players within various services to establish linkages between TB, sexually transmitted infection (STI) and HIV and AIDS programmes, specifically counselling and testing (C&T), TB/HIV, PMTCT, ART and HBC services. Ms Mndawe also provided extensive training and mentoring for staff within the different facilities, in the integration of services and use of a continuum of care model. A key feature of the intervention was the involvement of district management to identify barriers and support integration of these services.

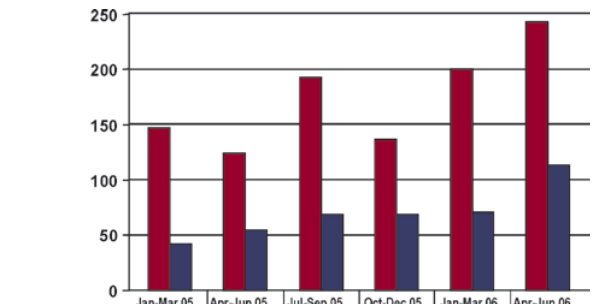
As a result of these interventions, initiated by the QAP coordinator, collaboration between the different services has increased significantly. With Phaphamani HBC caregivers actively tracing clients on ART and TB treatment, loss to follow up of patients at Kabokweni CHC and Themba Hospital have decreased significantly to below 20%. Referral between the different services has also improved considerably, with upward referrals to Themba Hospital for ART care and treatment and downward referrals to Kabokweni CHC and Phaphamani HBC for further follow up and ongoing support.

To address the low VCT and PMTCT uptake, a holistic approach was necessary. Nurses at Phaphamani HBC were trained to offer VCT at a household level, while HBC caregivers actively participated in community mobilisation to improve HIV counselling and testing. This was done by visits to local schools, with counselling of teachers and pupils on the importance of knowing their status. Furthermore, Phaphamani marketed the service on Radio Gwala Gwala and during Kabokweni community meetings, on a regular basis. An article was also published in the August 2006 edition of the *Mpumalanga News*, promoting the VCT services at the three facilities. The collaboration between the three facilities has resulted in a significant increase in HIV VCT uptake since January 2006 at all three facilities, where testing rates have increased three fold. In addition, collaboration between the facilities also involved creating awareness of the PMTCT programme and the necessity of Co-trimoxazole prophylaxis for babies born to HIV-infected women. This has resulted in an increased PMTCT uptake and larger numbers of infants being provided with Co-trimoxazole at the two facilities. This has further resulted in an increased number of clients having CD4 count tests and referral for ART services at Themba Hospital where necessary.

Overall, marked improvement has been demonstrated within the ART and TB programmes, where HBC caregivers actively trace defaulters within the community, educate patients with TB and HIV about the need for opportunistic infection (OI) prophylaxis and provide Directly Observed Treatment, Short-course (DOTS) support for patients on TB treatment and ART, thus providing a valuable resource. Phaphamani HBC caregivers are currently providing DOTS support to 98 patients on TB treatment and 19 patients on ART.

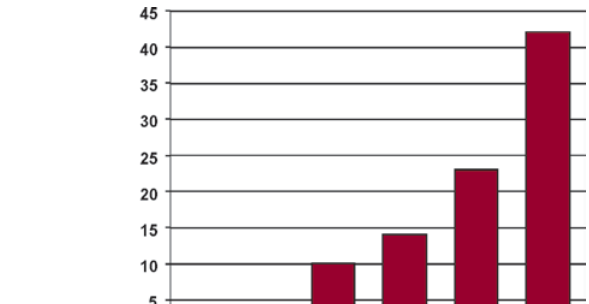
Endeavours to strengthen the continuity of care within these three facilities have improved the accessibility, utilisation and efficiency of the health services provided to the Kabokweni community. The value of the ongoing QI initiatives by URC-QAP staff culminating in integration of services has been hailed as a success within the Ehlanzeni District, with the chief executive officer of Phaphamani HBC, Ms Charlotte Mtetwa, being widely recognised and nominated for the Shoprite-Checkers Woman of the Year award in August 2006. Within this context, URC-QAP remains firmly committed to providing ongoing monitoring and strengthening of this collaborative partnership.

Figure 4: PMTCT uptake (Kabokweni CHC, 2006)



	Jan-Mar 05	Apr-Jun 05	Jul-Sep 05	Oct-Dec 05	Jan-Mar 06	Apr-Jun 06
# First ante natal clients	147	124	193	137	200	243
# First ante	42	55	69	69	71	114

Figure 5: HIV+ Clients on TB Prophylaxis (Phaphamani HBC, 2006)



	Apr 06	May 06	June 06	July 06	Aug 06	Sept 06
# HIV+ clients on DOT support	0	3	10	14	23	42

Mpumalanga

QUALITY IMPROVEMENT IN TB/HIV IN BARBERTON

Barberton Hospital and Barberton Specialised TB Hospital, Ehlanzeni District, Mpumalanga (2007)

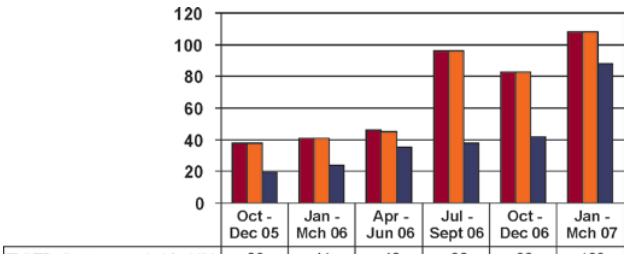
Barberton is a small town located in Ehlanzeni District in Mpumalanga Povince. Barberton has a catchment population of approximately 64,000 people. Barberton Hospital and Barberton Specialised TB Hospital are both situated in the area. Tuberculosis (TB) and HIV/AIDS are both national and provincial priority focus areas due to the devastating effects of the diseases and the high co-infection rate between TB and HIV.

The Barberton TB Specialised Hospital was established in 1956. The hospital specialises in the management of TB clients that require hospitalisation or other specialised care.

Prior to the Quality Assurance Project (QAP) involvement at the hospital, the TB mortality rate was very high, with many patients responding poorly to treatment, despite adequate adherence levels. When Agness Mndawe started working with facility staff in 2005, she noted that many of the hospitalised TB patients did not know their HIV status. Additionally, during their hospitalisation, they were neither offered a HIV test nor educated about HIV and AIDS despite constant daily contact with the staff at the hospital. Upon further enquiry, it was noted that staff were reluctant to talk about HIV, saying that it would stigmatise and demoralise their patients further, as being infected with HIV was akin to a death sentence for anyone!

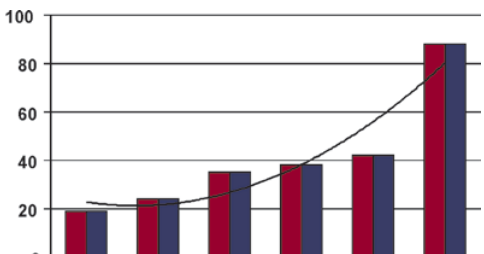
To address these negative attitudes, Agness conducted an initial quality improvement (QI) workshop, in collaboration with the Department of Health (DoH).

Figure 1: Uptake of HIV counselling and testing for TB clients (Barberton Specialised TB Hospital, 2005/6/7)



	Oct - Dec 05	Jan - Mch 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07
# TB clients counseled for HIV	38	41	46	96	83	108
# TB clients tested for HIV	38	41	45	96	83	108
# TB clients tested HIV+	19	24	35	38	42	88

Figure 2: HIV-TB co-infected clients receiving Cotrimoxazole (Barberton Specialised TB Hospital, 2005/6/7)



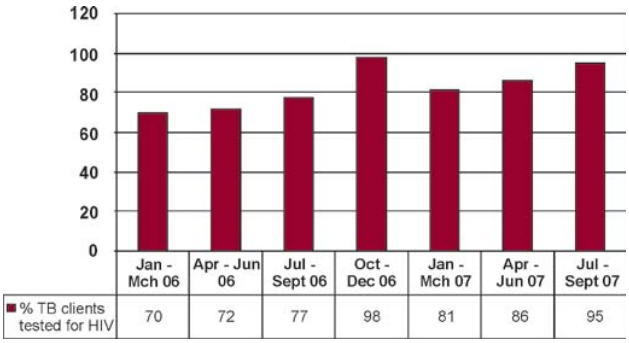
	Oct - Dec 05	Jan - Mch 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07
# HIV+ TB clients	19	24	35	38	42	88
# HIV+ TB clients receiving cotrimoxazole	19	24	35	38	42	88

Following on this workshop where knowledge and skills regarding the application of quality assurance (QA) technology was transferred to participants, Ms Mndawe also raised issues pertaining to a lack of compliance with the national TB/HIV guidelines emphasising the need for screening all patients infected with TB for HIV and TB screening for all HIV-infected patients. Additionally, staff were also advised on the importance of performing CD4 counts for all HIV-positive clients, referral to antiretroviral (ART) sites for early treatment and the provision of opportunistic infection (OI) prophylaxis for all co-infected patients.

Although initially reluctant, staff at the hospital started to offer voluntary counselling and testing (VCT) to some of their TB patients, with surprisingly good uptake rates. From a 0% VCT uptake in early 2005, the VCT uptake improved to 100% within just one quarter, and was sustained at 100%. In terms of actual numbers, there was demonstrable improvement with 38 TB patients agreeing to being tested between October and December 2005, to 108 TB patients being tested between July and September 2007. In addition, the provision of Co-trimoxazole prophylaxis for all co-infected clients is actively promoted within the facility.

Overall, the percentage of TB clients being tested for HIV at Barberton Specialised TB Hospital has increased from 70% in January-March of 2006 to 95% in July-September 2007.

Figure 3: Percentage of TB clients tested for HIV (Barberton Specialised TB Hospital, 2006/7)



	Jan - Mch 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07
% TB clients tested for HIV	70	72	77	98	81	86	95

Despite these successes, however, Ms Mndawe was not satisfied and organised in-service training for lay counsellors and allied health staff to understand the benefits of a continuous daily pre-counselling health talk for those clients who had refused testing previously. Initially, TB clients were very reluctant to be tested for HIV, insisting that they only suffered from TB. However, after continuous counselling, more and more TB patients came forward for HIV testing.

Recognising the need to create a sustainable system, Ms Mndawe then facilitated a meeting between Barberton Specialised TB Hospital and Barberton Hospital, an ART accredited site, to strengthen referral and collaboration between the two hospitals. Staff within the two hospitals were enthusiastic about the collaboration and have ensured that the referral networks are well organised and efficient. Co-infected patients diagnosed at either site are clinically and immunologically staged, referred to the ART clinic and to the TB hospital and their treatment regimen optimally managed. Ms Mndawe has also been instrumental in initiating the formation of support groups at the two hospitals, an initiative that was welcomed by both patients and staff.

The USAID QAP interventions have contributed a great deal in improving the quality of TB/HIV services in the Barberton community and reducing the TB mortality rate at the Barberton Specialised TB Hospital. The impact of Ms Mndawe's interventions within the Barberton community have resulted in early screening, comprehensive diagnosis, early referral for ART care and support and a more positive outlook for co-infected patients within this community.

SUCCESS THROUGH A DEVOTED AND COMMITTED QA TEAM

Barberton Hospital, Umjindi Sub-district, Ehlanzeni District, Mpumalanga (2007)

Barberton Hospital falls under the Umjindi sub-district of Ehlanzeni District. The Umjindi sub-district has one district hospital, one private hospital and one tuberculosis (TB) specialised hospital, two municipal clinics, two community health centres, seven clinics and a fleet of mobile clinics delivering a health service to the community. Barberton Hospital is one of the oldest hospitals in the country, which was started in 1884 as a tent hospital catering for the 'Gold Mine' which is the oldest known in the world, started by the Barber brothers. It is situated close to the Swaziland border, the Kruger National Park Game Reserve and Mozambique. The population is approximately 78,000.

QAP started supporting Barberton Hospital with quality improvement in Prevention of Mother-to-Child Transmission (PMTCT), voluntary counselling and testing (VCT), TB/HIV and antiretroviral (ARV) programmes in 2005. Quality was institutionalised through training in basic quality assurance (QA) technology and processes, the formation of a QA team and monthly support visits by the URC QA coordinator.

Barberton has a devoted, committed and strong QA team. The Barberton QA team integrated the different services through collaboration with staff from all units and by continuous in-service training on the national guidelines and monthly support visits by the URC QA coordinator where progress is evaluated and improvement interventions accordingly adapted.

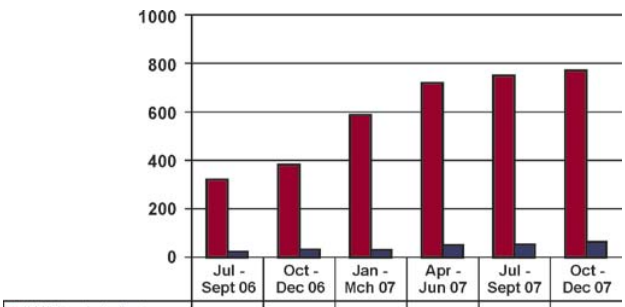
Barberton started having an escalating number of HIV-positive clients, who were screened and prepared in OPD and referred to Rob Ferreira Hospital, which is 45km away. Some of the clients could not afford the transport fee and some due to lack of knowledge of the seriousness of the disease, went to traditional healers instead. URC QAP trained the staff and management on the importance of giving the community an appropriate health education – an awareness campaign preferably in their own language. Pamphlets were distributed in all public places and Barberton Hospital acquired their own time slot in the local radio station, broadcasting medical news twice a month. With this information people started understanding more about HIV/AIDS. To make ARVs accessible to all clients who were HIV positive Barberton Hospital renovated two garages and a veranda as a Wellness clinic to accommodate the ARV clients. They established the multidisciplinary ARV team, and in November 2005 this facility was accredited as an ARV clinic, to the joy of the community.

Barberton Hospital is on the verge of rolling out ARVs to Low's Creek Clinic due to shortage of space at the hospital and the increasing number of clients on antiretroviral treatment (ART).

The number of adult clients on ART increased from 321 in September 2006 to 768 in December 2007 and the number of children on ART, in the same period, increased from 15 to 59.

At Barberton Hospital HIV-positive clients are routinely screened for TB and other OIs and TB clients are screened for HIV, while CD4 counts are done for clients testing positive and ART is started early.

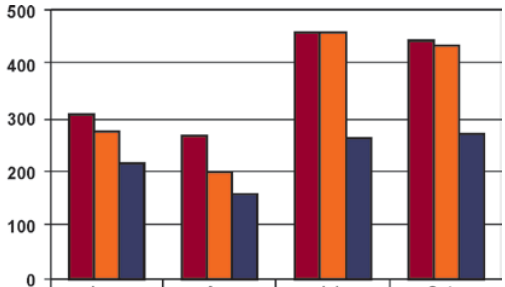
Figure 1: Number of clients on ART treatment (Barberton Hospital, 2006/7)



	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07	Oct - Dec 07
# HIV+ adult clients on ART	321	384	590	717	747	768
# HIV+ < 15 clients on ART	15	24	35	46	51	59

Since the onset of the ART service and initiation of community awareness campaigns more clients are coming forward for HIV testing. The number of clients provided with VCT and tested has increased from 275 per quarter in January to March 2007 to 433 in October to December 2007. National guidelines and policies are available in all units and adherence is very good.

Figure 2: VCT uptake (Barberton Hospital, 2006/7)



	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07	Oct - Dec 07
# Clients pre test counseled for HIV	304	267	459	443
# Clients tested for HIV	275	199	458	433
# Clients tested HIV+	214	155	260	267

Community participation through HBC and CBO organisations plays a large role in the success of service provision.

On the 13 November 2007 Barberton Hospital received three provincial Service Excellence Awards, awarded by the provincial health MEC on who praised the DoH staff and URC QAP for their contribution in Barberton Hospital's success.

Through their commitment Barberton Hospital was awarded:

- Trophy for best HIV counselling and testing (C&T) hospital.
- Best PMTCT hospital.
- Best district hospital in service delivery.

The secret of their success is the strong commitment of the hospital QA team and the intervention of URC QAP in training, monitoring and assisting where it is needed. This hospital is now proud to assess and analyse their performance on a monthly basis.

QI IN COUNSELLING AND TESTING FOR HIV

Bethal Hospital, Gert Sibande District, Mpumalanga (2007)

Bethal Hospital, situated in Gert Sibande District in Mpumalanga Province serves a catchment population of over 65,000 individuals.

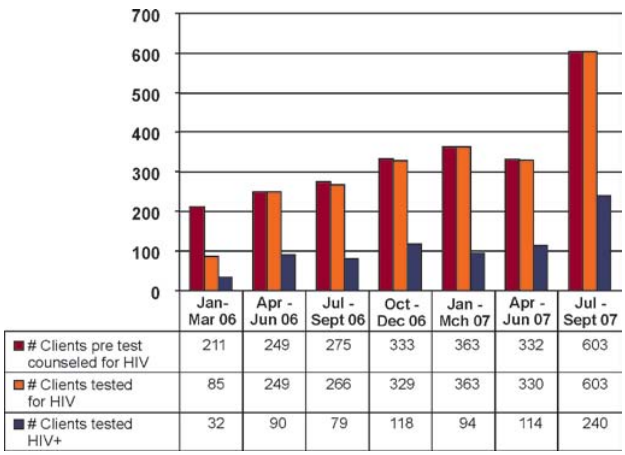
From 2005, Ms Maria Fakude, the Quality Assurance Project (QAP) coordinator for Gert Sibande District has been supporting staff at Bethal Hospital to improve the quality of health care. Under Ms Fakude's leadership and the Department of Health (DoH) quality assurance (QA) coordinator, the quality of health care in the hospital has improved remarkably, which has contributed significantly to improvement in staff morale and motivation. This is especially evident in the HIV and AIDS programmes, particularly the voluntary counselling and testing (VCT) programme, which has been successfully integrated into high volume services, such as sexually transmitted infection (STI), antenatal care and family planning (FP), within Bethal Hospital and its' referral clinics.

When Ms Fakude initially started supporting Bethal Hospital, there was significant resistance and apathy from the hospital staff, as they felt that this would increase their already challenging workload. However, after attending the first QA training, which was followed up by onsite mentoring and supportive training sessions, hospital staff realised that the application of QA technology did not increase their workload, instead it capacitated them to work in a more efficient and effective manner.

The VCT lay counsellors, in particular, utilised these instances as opportunities to air their grievances and involve hospital staff and senior management in the VCT programme, which was performing very poorly. This was an important breakthrough, as many of the staff were unaware of the challenges facing the VCT programme, including a lack of community cooperation and participation due to mistrust and suspicion of the VCT counsellors, inadequate referral and feedback within the hospital and a lack of interaction with and support from other hospital staff.

Following on the QA training sessions, the hospital staff and VCT counsellors resolved to conduct a community awareness programme, which provided basic health information and informed the community of the role the VCT counsellors played and how important it was to work together. The result of this initiative – seen as a milestone in the fight against HIV and AIDS in this community – is profound support, gratitude and buy-in from community members for the VCT programme. This has resulted in an improvement in the quality of the VCT service and seamless integration of the VCT programme with all other health programmes within the hospital.

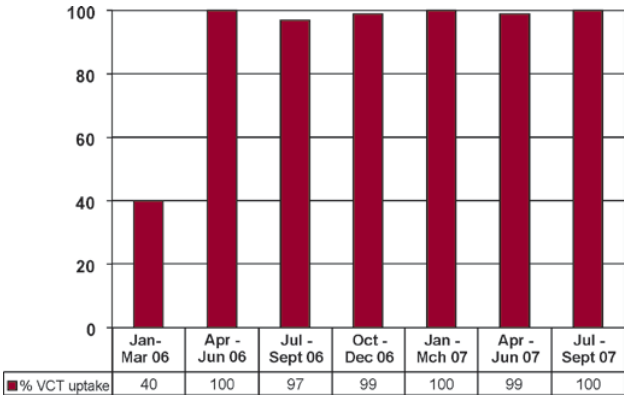
Figure 1: VCT uptake (Bethal Hospital, 2006/7)



	Jan-Mar 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07
# Clients pre test counseled for HIV	211	249	275	333	363	332	603
# Clients tested for HIV	85	249	266	329	363	330	603
# Clients tested HIV+	32	90	79	118	94	114	240

The VCT counsellors and hospital staff are now able to analyse their data and are proud of the fact that their cumulative efforts have resulted in an increased number of clients seeking HIV testing, from 211 clients receiving pre-test counselling in the first quarter of 2006 to 603 in the fourth quarter of 2007. However, they are even prouder of the fact that there has been a significant improvement in the VCT uptake, from 40% in the first quarter of 2006 to 100% in the second quarter of 2006 and has been sustained above 97% from the third quarter of 2006 to date!

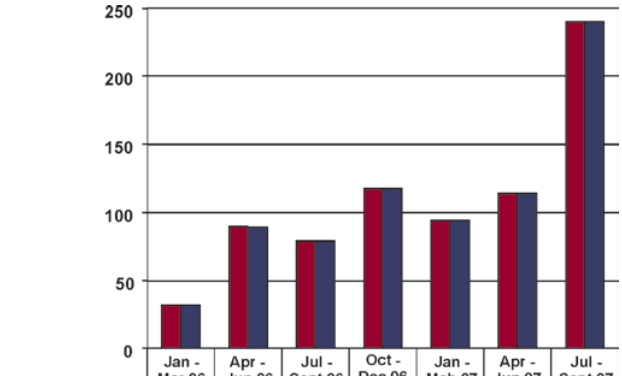
Figure 2: VCT uptake (Bethal Hospital, 2006/7)



	Jan-Mar 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07
% VCT uptake	40	100	97	99	100	99	100

During this period, analysis of compliance with national guidelines has been sustained at 100%, with all HIV-infected individuals being referred for CD4 counts and wellness management, with a corresponding improvement in the numbers of clients' CD4 count done from 32 to 240.

Figure 3: Uptake of CD4 cell count for HIV+ clients (Bethal Hospital, 2006/7)



	Jan - Mar 06	Apr - Jun 06	Jul - Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07
# HIV+ clients	32	90	79	118	94	114	240
# HIV+ clients referred for CD4 count	32	89	79	118	94	114	240

Buoyed by the success of this initiative, hospital staff and VCT counsellors are also implementing further QI initiatives, evident in the improvements in record keeping and use of facility-level data to evaluate the programme and inform management decision-making. Ms Fakude and the QAP are firmly committed to ensuring that there is further improvement of the quality of services and that these initiatives are sustained, by encouraging interaction with facility staff and fortnightly support visits to provide onsite mentoring and ongoing guidance and information sharing regarding national guidelines.

INTEGRATING PMTCT INTO ROUTINE HEALTH SERVICES

Matsulu CHC, Ehlanzeni District, Mpumalanga (2007)

The Matsulu Community Health Centre (CHC) in the Ehlanzeni District in Mpumalanga Province serves a population of approximately 23,660 people. The CHC is located in Mbombela sub-district, bordered on the east by the Skukuza National Park and Mozambique. The community in this region, comprising people from various African countries, including refugees from Mozambique and Zimbabwe, is characterised by illiteracy, unemployment and poverty.

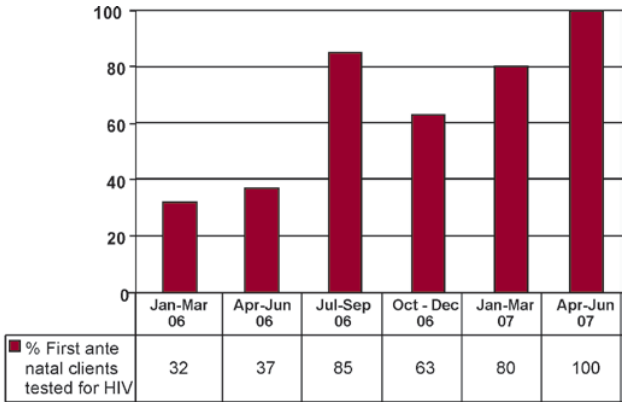
When the Quality Assurance Project (QAP) coordinator, Ms Agness Mndawe started supporting Matsulu CHC during 2005, she recognised that although there were a large number of pregnant women receiving antenatal care at the facility, the proportion of those who received pre-test counselling and testing for HIV throughout their pregnancy was unjustifiably low. Further analysis revealed that only 32% were tested for HIV at their first antenatal visit. She further noted that there was poor follow up of babies born to HIV-positive mothers, within the facility.

Extensive discussions between the QAP coordinator and facility health-care workers led to identification of several reasons for the poor Prevention of Mother-to-Child Transmission (PMTCT) service. While ignorance, suspicion and stigma played a large role in the poor PMTCT uptake, it was also noted that PMTCT services were only provided on one day of the week and none of the professional nurses at the facility were trained in the national PMTCT guidelines. This of course led to problems of service delivery and continuity of care, as nurses only provided VCT services to antenatal patients who specifically requested to be tested for HIV. In addition, there was minimal communication between the CHC and the referral hospital, especially within the maternity, paediatric, antiretroviral treatment (ART) and primary health care services. A further problem involved the issue of confidentiality and communication of antenatal care clients' HIV status between the CHC and hospital, which had severe repercussions on Nevirapine uptake for both HIV-positive women and their babies.

In order to remedy the situation, Ms Mndawe actively motivated management to train more nurses in PMTCT, and contacted the Department of Health (DoH) QA deputy director and informed her of the need for training the facility staff in the PMTCT guidelines. She also recommended that at least one professional nurse remained permanently in the PMTCT service, without rotation through the various services. This would improve the continuity of care as well as the knowledge and skill level of the PMTCT staff.

Ms Mndawe then conducted a QA workshop for health staff and lay counsellors with emphasis on the provision of high quality health care, focusing not only on the content of care, but also on the processes involved. To further capacitate and ensure sustainability of the programme, the QAP coordinator also arranged a meeting between the facility and district staff in order to initiate and improve dialogue and integration between all services. During this meeting, a number of issues were discussed, with all participants committing themselves to progress within the HIV

Figure 1 : Percent of ANC clients tested for HIV at first visit (Matsulu CHC, 2006/7)



	Jan-Mar 06	Apr-Jun 06	Jul-Sep 06	Oct - Dec 06	Jan-Mar 07	Apr-Jun 07
% First ante natal clients tested for HIV	32	37	85	63	80	100

and AIDS programmes. The outcome of the meeting was that two nurses were sent for PMTCT training and the district PMTCT coordinator was tasked with working with the different units to establish better referral and communication between the different services and to facilitate training in the use of the national PMTCT code. It was also resolved that the community would be better educated and facility staff were tasked with supplying information to the public by distributing HIV/AIDS informative pamphlets and posters. This was followed by scheduled awareness campaigns regarding HIV and AIDS, with emphasis on PMTCT and ART accredited sites within the district. The local media Ligwalagwala also became involved in raising HIV and AIDS awareness on radio by granting interviews and listener phone-in slots. Members from local churches also joined the drive to raise HIV and AIDS awareness by giving generously of their time and energy to support this cause.

As a result of these interventions, initiated by the QAP coordinator, significant improvement has been demonstrated within the PMTCT service at Matsulu CHC. The PMTCT programme has now been integrated into routine health services – PMTCT is no longer only provided on specified days but on any day. Overall, the number of pregnant women offered counselling and testing for HIV has increased, within the facility. The proportion of women tested for HIV at their first antenatal visit, in particular, has increased from 32% in the second quarter of 2006 to 100% in the third quarter of 2007. This has resulted in better knowledge about the disease and greater acceptance of the HIV test within the community. The Nevirapine coverage rate for pregnant women at Matsulu CHC has improved from a dismal 17% in the second quarter of 2006 to 100% in the third quarter of 2007, and has been sustained to date.

Ms Mndawe also initiated the establishment of support groups for postnatal mothers within the PMTCT programme, to share their experiences with pregnant women accessing antenatal care services at the facility. This has been a fantastic initiative for women who have been through the PMTCT programme to share their experiences and encourage discussion and dialogue. This has worked to allay the fears and anxieties of antenatal clinic attendees by encouraging openness and honesty, thus minimising the stigma attached to being infected with HIV and AIDS and encouraging discussion on infant feeding choices and other important topics.

These interventions have served to educate and unite the community, which is now less suspicious and more receptive of facility staff interventions. HIV and AIDS is no longer a taboo subject, with maternal care and nutrition, sexually transmitted infections, family planning, infant feeding options and ART being discussed on an almost daily basis during the morning health talk.

In addition, monthly record audits are done to monitor compliance with national guidelines, checking various indicators such as the provision of advice on family planning and infant feeding choices, clinical staging, CD4 count, screening for sexually transmitted infections (STI) and tuberculosis (TB), Nevirapine administration to pregnant women and their babies, use of the national PMTCT code on client records and completeness of the client record. Matsulu CHC staff compliance with the national guidelines has improved dramatically, as a result of the Basic QA training, PMTCT training and continuous monthly support visits by Ms Mndawe, with an improvement from 50% of HIV-positive pregnant women being screened for TB in the first quarter of 2006 to 84% in the third quarter of 2007, which has been sustained to date.

Figure 2: Proportion of HIV+ women receiving Nevirapine (Matsulu CHC, 2006/7)

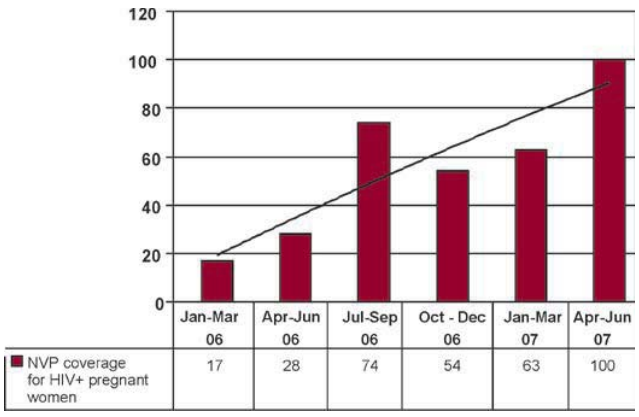
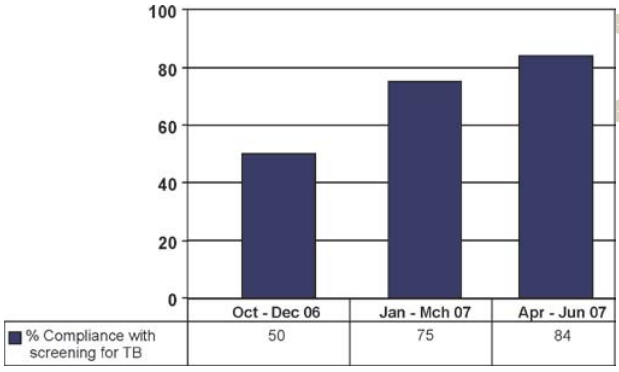


Figure 3: Compliance with screening for TB in PMTCT services (Matsulu CHC, 2006/7)



IMPROVED QUALITY IN THE HIV/AIDS PROGRAMME

Piet Retief Hospital, Gert Sibande District, Mpumalanga (2007)

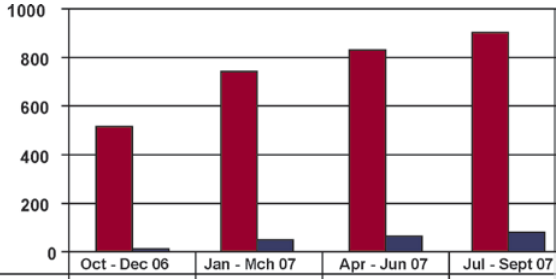
Piet Retief Hospital, located in Gert Sibande District in Mpumalanga Province, is a 230-bed facility, serving a population of approximately 80,000 people. Ms Maria Fakude, Quality Assurance Project (QAP) district coordinator has been working with the hospital and primary health care quality assurance teams since 2001, in collaboration with the Department of Health (DoH) district quality assurance (QA) coordinator. Between 2001 and 2003, the focus of these teams was on maternal and neonatal care and tuberculosis (TB) management. However, in 2005, in recognition of the rising HIV pandemic, the focus shifted to improving the quality of life of clients infected with HIV and AIDS. This was done through quality initiatives, raising awareness and ensuring compliance with national and provincial DoH HIV and AIDS guidelines.

Ms Fakude and her DoH QA counterpart worked very hard to support the hospital management and QA team to ensure that Piet Retief Hospital received antiretroviral (ART) accreditation in 2006. As a result of initial QA training, onsite coaching, stakeholder meetings and quality improvement interventions, suitable staff for the ART clinic was identified from within the hospital and underwent training on HIV and AIDS issues, including ART provision. Recognising that much of the training was clinical, Ms Fakude emphasised that integration of services was essential to maintain the continuity of care for these patients, while social and psychosocial issues were critical to ensure adherence with treatment. The staff was encouraged to promote HIV counselling and testing for the whole community, TB/HIV integration and care for co-infected patients, integration of paediatric ART services with maternal and child health care services and the role of home-based care in the continuum of care for People Living With HIV/AIDS (PLWHA).

Fortified with their newly acquired knowledge and unflagging support from the hospital management and the QA team, staff working within the ART clinic started initiating ART for qualifying clients from October 2006. Between October and December 2006, there were 516 adult and 13 paediatric clients initiated on ART. Over time, the numbers increased to reach 903 adults and 82 paediatric clients – a fact that made hospital management very proud. Despite this success, however, Ms Fakude noted that there were quality issues that were being overlooked, such as the screening of clients for opportunistic infections (OIs), including TB, prior to ART initiation. This was an important issue, as staff was not recording whether or not this was being done.

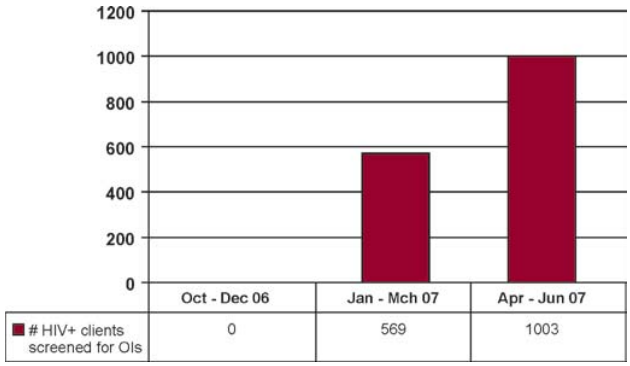
To further capacitate and ensure sustainability of the programme, Ms Fakude arranged a meeting between the QA team, hospital management and staff at the ART clinic at Piet Retief Hospital, where this and related issues were discussed. The outcome of this meeting was that staff developed a protocol to record screening and management

Figure 1: Number of clients on ART treatment (Piet Retief Hospital, 2006/7)



	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07
# HIV+ adult clients on ART	516	742	830	903
# HIV+ <15 clients on ART	13	48	66	82

Figure 2: Number of clients screened for opportunistic infections (Piet Retief Hospital, 2006/7)



of opportunistic infections in all their clients, in compliance with the National guidelines. Demonstrable by the improvement in the number of clients being screened for OIs from zero in October to December 2006, to 569 in January to March 2007 and 1,003 in April to June 2007. All clients are also screened for TB, prior to ART initiation, as evidenced by an improvement from zero to 100% within the same period, to date.

Staff within the ART clinic have continued to provide an excellent service to PLWHA, gradually increasing the number of clients on ART to 903 adults and 82 children between July and September 2007. They have ensured that all these clients receive ongoing counselling and nutritional support and are linked to treatment supporters in order to improve adherence to treatment. This has been a major feat within the programme, where only 8% (61 out of 791) of clients interrupted treatment during January to March 2007, only 1% (9 out of 896) interrupted treatment during April to June 2007 and during July to September less than 1% interrupted treatment (7 out of 985). To date only two clients have stopped ART, within this period.

The QAP programme, with Ms Fakude at it's helm, is firmly committed to providing ongoing monitoring and strengthening of this partnership. A client record audit conducted in the facility, at the end of July 2007 indicated that national ART guidelines are available at facility level and sustained improvements in compliance with these guidelines has been maintained.

Ms Fakude will continue to support this hospital to improve their care for HIV-infected individuals, as she believes that 'Quality in an ART service improves the quality of life of people living with HIV/AIDS'.

PROVIDING QUALITY SUPERVISION TO MOTHERS AND BABIES

Bethal Hospital, Gert Sibande District, Mpumalanga (2008)

Bethal Hospital is situated in a small town providing health care to approximately 65,000 people. Since 2001 QAP coordinator, Maria Fakude has been supporting facilities in Gert Sibande District with institutionalising quality assurance (QA) systems in facilities. Ms Fakude works closely with the Department of Health (DoH) QA coordinator Ms A Mkhize. Since 2005 the focus of support to facilities has shifted from maternal and neonatal care to HIV/AIDS related care including Prevention of Mother-to-Child Transmission (PMTCT). Bethal Hospital maternity staff has however sustained the QA process in the maternity unit. Records are still audited for compliance with national guidelines on maternal and neonatal care and PMTCT.

At the onset of the PMTCT programme at the hospital there were constraints such as a lack of PMTCT guidelines, a shortage of PMTCT-trained nurses, limited numbers of staff were trained in QA and record keeping was poor. The URC QA coordinator obtained national PMTCT guidelines for the facility, negotiated with district management to train more nurses in PMTCT and involved the student midwives in the monthly record audits to monitor compliance with national guidelines. This exercise serves as a motivation to improve compliance with guidelines and as in-service training on national PMTCT guidelines and accurate record keeping. The availability of guidelines is checked monthly, as the guidelines have a tendency of disappearing from time to time. As a result of the URC support 45% of the maternity staff is now trained in PMTCT and compliance with guidelines is good.

Every baby born to a HIV-positive mother receives antiretroviral (ARV) prophylaxis, as per the guidelines. In December 2006 Bethal Hospital received the award for best PMTCT hospital in Gert Sibande District at the MEC's Service Excellence Awards.

Encouraging to note is the fact that the maternity service in general has benefitted from the QA support. In January 2008 a newspaper article described the excellent care that little Nomusa Xaba received. She was born at the hospital at six months of gestation, and weighed only 880 grams. As Bethal hospital has no neonatal intensive care unit and the refferal hospital would not accept the baby, the maternity staff committed themselves to ensuring her survival. This not only stimulated praise for HCI from the local community, but also ensured continued and sustained community participation in all Bethal hospital initiatives.

RIDGE TIMES News

EBRUARY 29, 2008

Nomusa is a little miracle

Baby born at six months weighs only 880g

BETHAL - Little Nomusa Xaba is a month-old baby with a difference.

She was born at Bethal Provincial Hospital at six months and two weeks, weighed 880g and was perfectly healthy.

If Nomusa had not been born prematurely, her mother would now have been seven and a half months pregnant.

Ms Nomusa Xaba said premature births run in her family.

"My two sisters were born prematurely.

"They were both born at seven months," she said.

Medical personnel did not believe little Nomusa would survive.

They said it is rare that a child born that prematurely survives.

They said however, little Nomusa is doing well, but will be monitored until she is discharged.

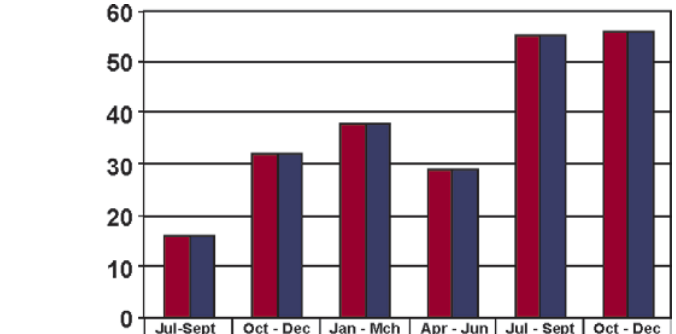
The pediatrician said this little girl will one day become the president of South Africa.

It also appears the endless debate about who the stronger sex is, has finally been answered.

According to the maternity medical staff at Bethal Hospital, the chances that a girl would survive a premature birth like this, is much higher than that of a boy. The staff said it was a miracle that this bundle of joy entered the world, and hoped joy will be plentiful in her life.

Little Nomusa Xaba weighs a mere kilogram after her birth a month ago. She weighed 880g at birth.

Figure 1: Number of babies receiving Nevirapine (Bethal Hospital, 2006/7)



	Jul-Sept 06	Oct - Dec 06	Jan - Mch 07	Apr - Jun 07	Jul - Sept 07	Oct - Dec 07
# Live births from HIV+ mothers	16	32	38	29	55	56
# Babies received NVP	16	32	38	29	55	56

Success Stories: North West

Introduction to the province

QAP, and subsequently HCI, began support to North West Province in April 2006, beginning with Matlosana, and extended to Potchefstroom in March 2007.

HCI's efforts in the province are currently focused on two districts, Southern District, (including Matlosana and Potchefstroom), Bojanala district. HCI technical staff include Mr Enoch Manyame and Ms Tutu Mokau. Thus far, some of the best outcomes include the standardisation of data collection methods in the Southern District and improvements in VCT and integration of services.

DATA IMPROVEMENT MEANS PROGRAMMATIC IMPROVEMENT

VCT and PMTCT programmes in Southern District, North West (2007)

Southern District, located in the North West Province is reported to have the second highest HIV prevalence within the province. According to the Antenatal Sero-prevalence Survey 2006, the HIV prevalence among antenatal attendees in the North West Province was 29%, of this, Southern District contributes 31.5%.

Enoch Manyame, the North West Province Quality Assurance Project (QAP) coordinator commenced support to health-care facilities within the Matlosana (formerly Klerksdorp) sub-district in April 2006. Matlosana, a peri-urban sub-district in Southern District has a catchment population of 375,819 people. He then expanded QAP support to include Potchefstroom, with a catchment population of 134,464, in March 2007. After conducting baseline surveys within the HIV and AIDS programmes at all the QAP-supported facilities, Mr Manyame noted that there were a number of quality gaps related to the management of facility-level data and the recording and reporting systems in place, which had serious implications for district and provincial-level data.

The quality gaps identified included the use of different registers for the same programme, at facilities within the same sub-district and severe shortage of registers within facilities, necessitating the use of loose papers and/or exercise books for recording services rendered to patients. There was also a serious discrepancy between the data reported to the sub-district information officers, and that at facility level, which compromised data integrity. In addition, there were several instances of over and under reporting coupled with a lack of evidence supporting patient management, due to loss of source data. At times, various data elements were not captured, as columns drawn in exercise books or loose papers were not always consistent. All these posed a serious threat to the integrity, reliability and validity of the facility level data.

Mr Manyame saw this as an opportunity to raise awareness about quality within the facilities and thus improve the functioning of the HIV and AIDS programmes as a whole. He provided a report of these findings to the management of the sub-district, district and the provincial Quality Assurance (QA) directorate, where it was met with significant consternation and disbelief. At the feedback meeting, Mr Manyame volunteered to lead the process of standardising provincial registers for the HIV and AIDS programmes, commencing with the voluntary counselling and testing (VCT) and the Prevention of Mother-to-Child Transmission (PMTCT) registers. Within a month after receiving approval, he presented a draft of the new VCT and PMTCT registers, incorporating inputs from facility staff and management. This presentation was well received, with senior management approving printing and dissemination of the registers.

Figure 1: VCT uptake rate (Potchefstroom Gateway Clinic, 2007)

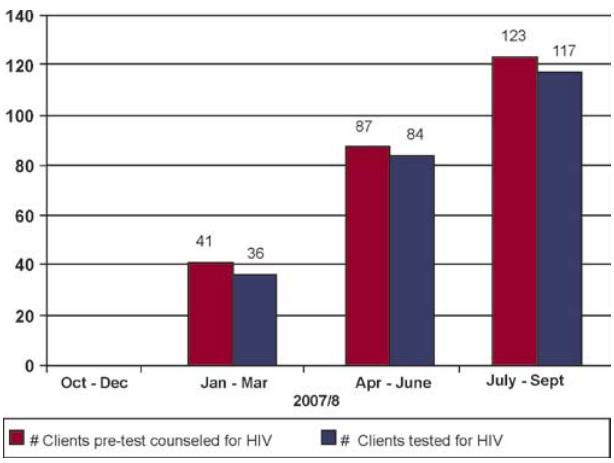
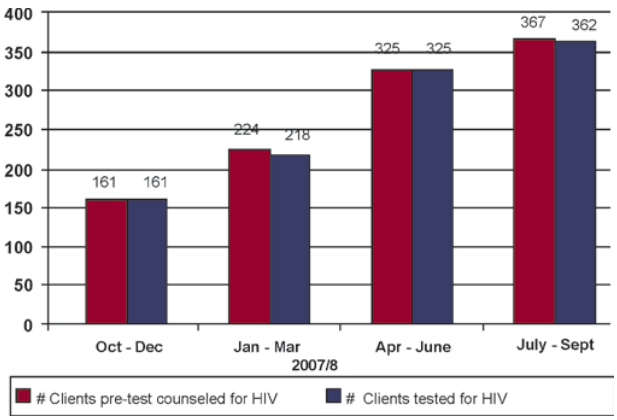


Figure 2: VCT uptake rate (Digane Clinic, 2007)



The new provincial VCT and PMTCT registers were made available to all five sub-districts within Southern District, and have been rolled out to four sub-districts thus far. Facility staff have welcomed the new registers, as they feel they are a part of the development process and the new registers are more comprehensive and responsive to their needs.

Along with the roll out, Mr Manyame has led the process of training facility staff on the use and implementation of these new registers. Facility staff within Matlosana and Potchefstroom sub-districts now utilise a uniform register for recording of PMTCT and VCT data and are confident of the data they submit to the district office. The data at facility level is reliable and verifiable, with all the data elements being captured accurately and source data being readily available. In addition, systems are being put into place to ensure adequate stock and timely delivery of registers to prevent shortages and use of miscellaneous material for recording purposes.

The implementation of the new registers and setting up of sustainable systems has served to reduce the frustration of facility staff and improve their motivation.

Mr Manyame himself has renewed commitment to building sustainable systems within the North West Province and remains optimistic about improving the quality of care in HIV and AIDS programmes.

Mr Manyame during one of the consultative discussions with facility staff

INTEGRATION OF VCT IN FP SERVICES

Steve Tshwete Clinic, Potchefstroom Sub-district, North West (2007/8)

The Steve Tshwete Clinic is a primary health-care facility located in the Potchefstroom sub-district, southern district in the North West Province. The catchment population in this sub-district is 134,464, with Steve Tshwete Clinic providing comprehensive services to the residents of Ikageleng Township Extension 6-11, serving almost a third of the sub-district population. According to the DoH Antenatal Sero-prevalence Survey 2006, the HIV prevalence among antenatal attendees in the North West Province was 29%, almost a third of whom (31.5%) were from southern district.

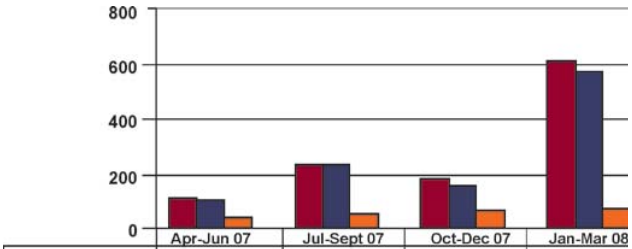
Enoch Manyame, the provincial Health Care Improvement (HCI) coordinator in the North West Province, commenced support to seven health-care facilities in the Potchefstroom sub-district in March 2007, providing technical assistance, mentoring and coaching to facility staff on Quality Assurance issues within HIV and AIDS programmes.

From the onset, Mr Manyame was well liked and respected within the facility, not only for his insight and problem-solving abilities, but also for his optimism and commitment to improving quality. After conducting baseline surveys and register audits, within the HIV and AIDS programmes at Steve Tshwete Clinic, Mr Manyame noted that although there was a relatively good uptake of voluntary counselling and testing (VCT) within the facility, this service was not integrated with other services, especially Family Planning (FP) services. Even more alarming was the fact that the clinic offered FP services to over 300 clients each month, most of whom were between 15 and 29 years, but none of these clients were offered VCT. When Mr Manyame investigated the reasons for this, he discovered that many of the staff felt that they had limited time for counselling and testing clients who were not ill and the clients themselves were often fearful of testing or believed they were not at risk. This had serious implications for the quality of care being rendered to these patients and illustrated several missed opportunities within the programme.

Armed with this information, Mr Manyame initiated a meeting with the facility manager in order to highlight the problem and create awareness among the staff about the benefits of integrating VCT services within all the primary health care (PHC) programmes, especially FP. He then facilitated a number of meetings and in-service trainings to raise awareness and knowledge about quality improvement (QI), integration of services and the importance of offering VCT routinely to all clients in order to reduce missed opportunities for HIV diagnosis, care and treatment, especially within the context of the FP service.

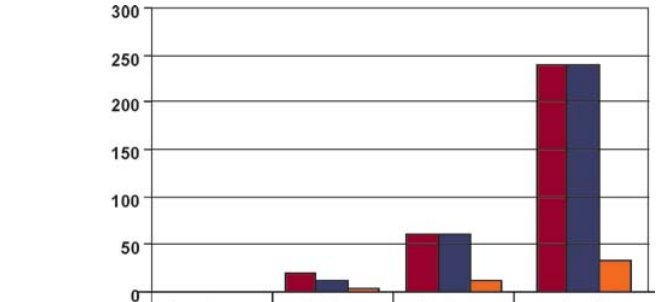
Following on these interventions, facility staff agreed to prioritise the integration of VCT within all programmes, especially FP, by performing group HIV counselling sessions, individual HIV counselling and testing, chart audits of all

Figure 1: VCT uptake (Steve Tshwete Clinic, 2007)



	Apr-Jun 07	Jul-Sept 07	Oct-Dec 07	Jan-Mar 08
# Clients pre test counseled for HIV	108	233	177	610
# Clients tested for HIV	105	233	160	575
# Clients tested HIV+	37	58	59	69

Figure 2: VCT uptake in Family Planning services (Steve Tshwete Clinic, 2007/8)



	Apr-Jun 07	Jul-Sept 07	Oct-Dec 07	Jan-Mar 08
# Clients pre test counseled for HIV	0	20	61	240
# Clients tested for HIV	0	12	61	240
# Clients tested HIV+	0	3	12	33

patients in order to identify those who were never offered VCT, re-counselling and testing of those who had initially refused HIV testing, motivation to retest those who tested negative after three months and adequate counselling for them to remain HIV negative and standardised recording on relevant registers and patient records. Additional resources, such as job aids, pocket guides and reference material regarding HIV and AIDS care, treatment and support, developed by HCI, were also made available to staff. Encouragingly, the facility manager volunteered to oversee these efforts towards VCT integration, note all changes and participate in monthly feedback discussions.

Along with the facility manager, Mr Manyame has led the process of conducting monthly register audits to evaluate the progress made. Thus far, facility staff have responded very positively to this initiative, with triple-fold improvement in the number of clients provided with VCT from 108 in Q3 07 to 610 in Q2 08, within the facility.

Within the FP services specifically, there has been significant improvement in the number of FP clients offered VCT over the last year, from zero in Q2 07 to 240 in Q2 08. The VCT uptake rate has been maintained at 100% over six months, within the FP services, with an HIV positive rate below 20%, indicating widespread testing of the majority of FP clients. All HIV positive clients are referred for clinical assessment including HIV staging and CD4 counts, with all eligible clients being referred for further ART care and treatment. Ongoing counselling, support, education and follow-up form important aspects of the continuum of care offered to all HIV infected clients.

Mr Manyame himself has renewed commitment to building sustainable systems within the North West Province and remains optimistic about improving the quality of care in the other facilities within Southern district. He plans to share this best practice and the lessons learnt with his counterparts and colleagues, to create awareness regarding the benefits of using data for quality improvement and integration within all programmes, especially critical ones such as tuberculosis (TB) and sexually transmitted infection (STI) services.

6 Research Reports

ASSESSMENT

This assessment was conducted by QAP under the auspices of the NDOH. The purpose of the research was to provide the DOH and relevant stakeholders with a reference document focusing on initial ART provision in selected facilities.

1. ART Service Provision in Selected Facilities

The government of South Africa issued its 'Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment' in November 2003. The plan 'envisions significant investments to ensure that the highest available quality of care is provided to the people of South Africa' and includes programmes for the prevention of human immunodeficiency virus (HIV) infection, counselling and testing, nutrition, traditional medicine, and accreditation of providers of services related to HIV and acquired immunodeficiency syndrome (AIDS).

The Quality Assurance Project (QAP), managed by the University Research Co., LLC (URC) and funded by the United States Agency for International Development (USAID), undertook a six-week, system-level assessment of service provision in select 'facilities'[1] that offer antiretroviral treatment (ART) as part of the Comprehensive HIV and AIDS Management, Care and Treatment Programme for South Africa (CHAMCTPSA). Examining nine facilities, the research found varying levels of preparedness and capacity in terms of organisation, service provision, and resource utilisation. An earlier, September 2004, report by the national Department of Health (DoH) on the implementation of CHAMCTPSA had highlighted key accreditation process areas that needed strengthening: personnel issues, structural renovations, pharmacy modifications, patient-tracking mechanisms, data management and information systems, referral systems, and civic involvement. This assessment gauged progress towards improvements in those areas to illuminate both the successes and shortcomings of the ART facilities and their effects on the quality of patient care.

Progress included advancements in procurement procedures and storage practices in pharmacies, innovative patient-tracking systems, referral systems, engagement with civil society, and staff understanding of government-issued care and treatment protocols. More effort is needed in staff recruitment, information access and sharing, and financial accountability and control. Data collection, synthesis, and application remained weak throughout the system due to lack of capacity or technology. More information about the accreditation criteria and targets must be shared with the facilities so they can better monitor and evaluate their activities.

In summary, immediate action must be taken to strengthen the CHAMCTPSA, especially the ART programme through cost-effective, quality-focused interventions that address the needs of both providers and patients. A summary of major assessment findings follows.

Highlights

Service provision: All services required for accreditation (antenatal care, family planning, Prevention of Mother-to-Child Transmission [PMTCT], and Post-Exposure Prophylaxis [PEP]) were available either at the site or within reasonable distance. Hours and days of availability ranged from two to five days, depending on a site's staffing capacity. Social and nutrition services were often not well integrated into a facility's ART delivery system, and HIV/AIDS training did not cover these topics. Social services and nutrition staff worked for the whole hospital and were consulted only when patients had acute needs for food or money.

Accreditation criteria: Staff at two-thirds of the facilities were not aware of the targets for patient enrolment, although this was part of the accreditation criteria (targets were based on the sero-prevalence rates in the area served by the facility), so the facilities could not know whether they were moving toward such targets. Whether the patient enrolment targets are realistic is an open question. Also, staff were concerned that with patient load increases, they will be overwhelmed and that resources will become insufficient.

Referral systems: Challenges existed in the patient referral system in that receiving sites lacked adequate preparation to serve AIDS patients. The assessment found that patients referred by private medical practitioners were unprepared more than 89% of the time. The late referral of patients, most commonly made by traditional health practitioners, complicated treatment and follow up. Another problem was that internal referrals from service providers within the facility were not properly integrated. For example, no facilities had systems that record which referred patients accepted tuberculosis, sexually transmitted infection, or nutrition services. It was evident that the existing information management system had several gaps.

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[1] *The term 'facility' is used in this report to refer to a single hospital or group of health-care sites within a defined geographic area that, independently or when combined, is capable of meeting the requirements of accreditation, including support services (e.g., laboratories, referral systems, transport, voluntary counselling and testing, etc.). This definition includes hospitals and clinics supported by the government, non-governmental organisations (NGOs), and private organisations (DoH [South Africa]). 2003. 'Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa'). The full version of this report is available from URC on tel +27 (0) 12 342 1419.*

Adherence: Overall adherence exceeded 90% at the time of the study. Anecdotal evidence suggests that this achievement might be partially attributed to the success of the treatment readiness programme, a six-week period when a client, having been declared legible to commence treatment, is prepared to do so. However, only one facility had data on people who dropped out of the readiness programme, suggesting that while those who are on ARVs are tracked, those who drop out before starting ARVs are not documented. For those patients for whom information was available, the most common reason for dropping out was lack of transport (89%). Facility staff do not conduct home visits due to inadequate staff or transportation resources; NGOs partially fill this gap.

Pharmaco-vigilance: The most common side effects of ARVs are nausea, rash, headache, and vomiting. D4T neuropathy was common, reported by five out of nine facilities. A major concern is that no facility met the requirement to report side effects to the pharmaco-vigilance centre. In fact, only staff at two facilities were aware of the procedure for reporting side effects.

Human resources: Respondents acknowledged that staff shortages in the health-care system are chronic and must be addressed at the national level. A third of the facilities listed staff shortages as a major issue negatively affecting their work. Staffing patterns reflected a mix of practices, with the general practice of part-time and seconded staff: only a few facilities had full-time staff. Only two facilities had a complete roster of the recommended staff. There were also significant delays in filling positions: facilities lack authority to recruit, which in all cases except one was handled by the provincial health departments. Staff shortages contributed to waiting periods – ranging from one to three months – before treatment starts.

Counselling patients will be increasingly important as numbers of clients increases, but these services were jeopardised in some facilities by reported failures to pay some lay counsellors their stipend for many months. Proactive measures such as appointing staff at higher salary levels, providing more training and paying for overtime were adopted in some facilities to try to retain staff.

Lastly, there was some difficulty in recruiting key personnel, especially nurses and doctors, as a result of their mass exodus to developed countries. Vacancies were advertised without success in attracting appropriately qualified applicants.

Financial management at the facility level: Financial management shows weaknesses in the areas of general knowledge regarding financial allocations and accountability. Only two facilities knew the exact ART budgets and expenditure and had been given full responsibility for the budget. Since budgets were controlled at the provincial level, procurements are delayed and facility managers were unable to fully manage their budgets.

Information management: Over half the surveyed facilities still recorded information manually, and computer-based information systems (and appropriate training) were critically needed. In facilities without dedicated and trained personnel, already-overburdened nurses performed record keeping. Information moved from facility to the province, but province-wide information was not fed back to the facilities. Such feedback would enable better health systems management. Some facilities had responded by innovating forms to collect the data that would be helpful to them.

Laboratories: There were no dedicated phlebotomists as required by the accreditation system. Turnaround times for viral load tests were longer (minimum one week) in urban areas; CD4 count tests take longer at rural facilities (two days minimum).

Pharmacies: Over half of the facilities experienced drug stock-outs, since the ARV programme had begun. These generally ranged from two days to three weeks, in one exceptional case, a facility experienced a drug stock-out for over six weeks. All facilities use a common procurement system. Proactive responses to stock-outs included giving patients a two-week supply or borrowing stock from other facilities.

Relations with NGOs and Traditional Health Officers/Practitioners (THOs/THPs): All the facilities except one have relations with NGOs, but only half have relations with THOs. The operational plan (DoH 2003, footnote 1 above) requires that traditional health practitioners be integrated into the health-care system. NGOs generally provided home-based care and training for caregivers; in exceptional cases, patients were referred back to NGOs for care or treatment. Limited funding for NGOs was problematic as was recognition of THOs/THPs, although it was not the objective of this study to ascertain whether relations with these entities affected facility efficiency.

Technical support: As part of the QAP, all facilities receive technical and mentoring support from URC's provincial technical advisors. This assistance is provided in partnership with DoH quality assurance (QA) coordinators.

Conclusion

Although South Africa is making great strides in addressing the growing AIDS crisis, this report reveals areas where improvements in the quality of ART service delivery could be made quickly and without great cost. The recommendations must be given careful consideration and the problems addressed promptly and systematically, both to ameliorate the current situation and to enhance service quality in the near and distant future. Making appropriate, effective, and site-specific changes will significantly improve service delivery and have positive effects on both patient care and support. Special consideration must be given to the diverse nature of the facilities and communities they serve.

ASSESSMENT

2. Sustaining Improvements in Neonatal and Perinatal Health Services: A Case Study of the South African Programme[1]

Summary

In 2001, the Quality Assurance and Workforce Development Project (QAP) began providing technical assistance to strengthen quality assurance (QA) interventions in maternal and neonatal care in health centres and hospitals in one district in Mpumalanga. By late 2002, these interventions were expanded to cover the entire province of Mpumalanga and one district in KwaZulu Natal. Starting in mid-2003, quality improvement interventions were rolled out to Limpopo, Eastern Cape, and North West provinces. The introduction of evidence-based guidelines, changes in service delivery procedures, and regular performance review resulted in significant increases in compliance with guidelines, which led, in turn, to significant declines in peri and neonatal mortality. QAP support to these facilities ended in mid-2004. In December 2005, interviews were conducted in three of the districts that had been supported by QAP to assess whether selected facilities had continued to use QA interventions and whether improvements in service delivery had been sustained. The 40 facilities visited as part of this assessment showed that improvements had been sustained and there were continued declines in mortality.

Background

The main health sector challenge facing South Africa is to provide equity in basic health care for all South Africans while resolving underlying inequities in health services provision that are the legacy of the past. The health needs of the poor and historically disadvantaged groups have been given the highest priority since the 1994 elections. To address the needs of these populations, new clinics have been located in underserved areas and old ones upgraded or renovated. The national health programme is devoting a greater proportion of resources to programmes that target vulnerable groups and diseases of poverty, including measures to promote maternal, child and women's health, and the control of tuberculosis (TB) and other communicable and infectious diseases, including hepatitis, polio, measles, sexually transmitted infections (STIs), and HIV/AIDS. Although access to care has improved, as reflected by higher rates of utilisation of services since 2000, the health programme faces a long journey towards its objectives of achieving improved health for all. Quality of services remains a major challenge for the health programme.

Approach

In order to instil a culture of quality and continuous improvement, QAP started its work in South Africa's Mpumalanga Province in early 2001. The programme was initially piloted in a small geographic region with focus on a few clinical services. However, gradually the programme was expanded to cover a number of districts within Mpumalanga as well as other provinces within the country. The key elements of QAP's improvement approach in South Africa included:

- An emphasis on meeting the needs of the target population (women and children, TB patients, and STI clients, among others) through the integration of services, using the continuum of care model;
- Improving management capacity of health managers so that they can better assess needs, develop responsive plans, monitor planned activities, and evaluate performance;
- Introducing the methods of continuous improvement, with an expected marked improvement in programme performance: greater effectiveness, greater efficiency, more responsiveness to the needs of the population, and long-term sustainability;
- Fostering leadership skills for change and improvement;
- Strengthening the supervision system to develop a system where quality of care is monitored at the facility level;
- Supporting and strengthening the use of the NDHIS, so that feedback on data collected is provided to facility level and planning is based on data.

QAP worked closely with the Department of Health (DoH) in developing a model and strategy to institutionalise quality improvement tools and approaches in the health system. The provincial management decided which districts and facilities should be used for piloting the project. The focus programmes included maternal and neonatal care

[1] *The full version of this report is available from URC on tel +27 (0) 12 342 1419.*

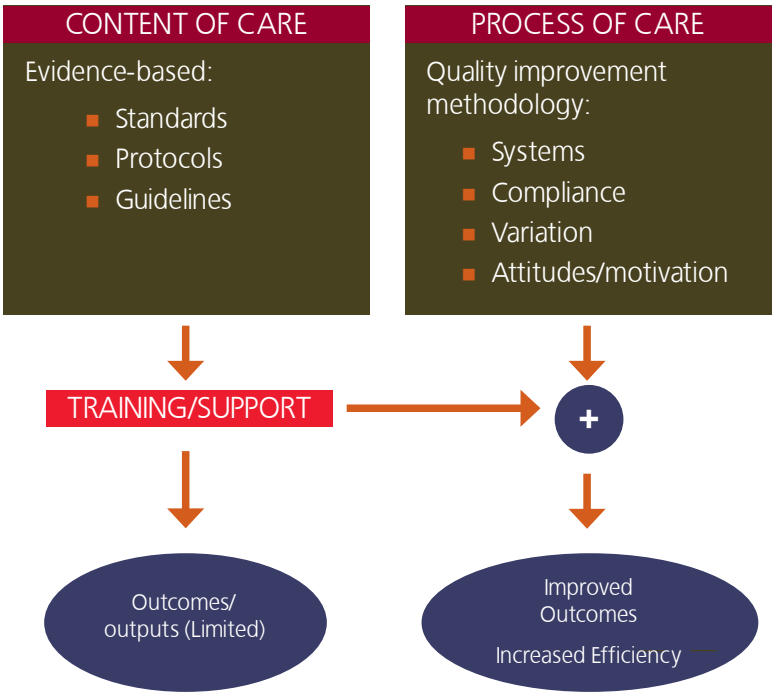
and TB case management.

The health-care facilities were responsible for identifying specific clinical services for improvement. In each facility, an inter-disciplinary team was identified to work on a specific quality issue related to a clinical service. Many facilities had TB and maternal and neonatal care quality improvement (QI) teams working on specific quality issues. QAP trained these teams in basic QI tools and approaches, which included: the concept of quality and what quality means in the work situation; how to institutionalise a QA system and which elements needed to become part of the daily service provision, how to design quality through policy, protocols and guidelines; how to measure quality and what to measure; how to identify and analyse problems in the quality of a service; and how to develop solutions for quality problems and implement interventions for QI.

In collaboration with DoH staff, baseline assessments were conducted for the different programmes through interviews with providers, facility 'walk throughs', focus group discussions, patient record audits and analysis, and interpretation of data. Results from the baseline assessments formed the basis for developing improvement packages.

Figure 1: Improvement strategy

A QI strategy was used for developing the improvement package. The strategy included improving the content as well as the process of care (see Figure 1). Improving content of care involved ensuring that policies, protocols, and



guidelines were available at the facility level to guide staff regarding the expected performance. Often, policies and guidelines were available, but staff did not know the content of these policies/guidelines/protocols. It was therefore emphasised that policies, protocols, and guidelines should be communicated to all staff members. In-service training was provided where a gap was identified in knowledge and/or skills required to implement the policies. But the availability of guidelines and adequate knowledge and skills do not by themselves guarantee quality services. Improvement interventions were also needed to address the processes of care, such as poorly functioning support systems (administration, transport, equipment and supplies, patient information processing, record review and analysis, staff motivation, etc.); issues affecting compliance to national and provincial standards; and performance variation and staff attitudes and motivation.

The health facilities used such QI tools as cause and effect diagrams, flow-charting, and brainstorming to identify problems and develop solutions. Figures 2 and 3 highlight examples of the problem-solving and solution-development process.

Figure 2: Cause and effect diagram

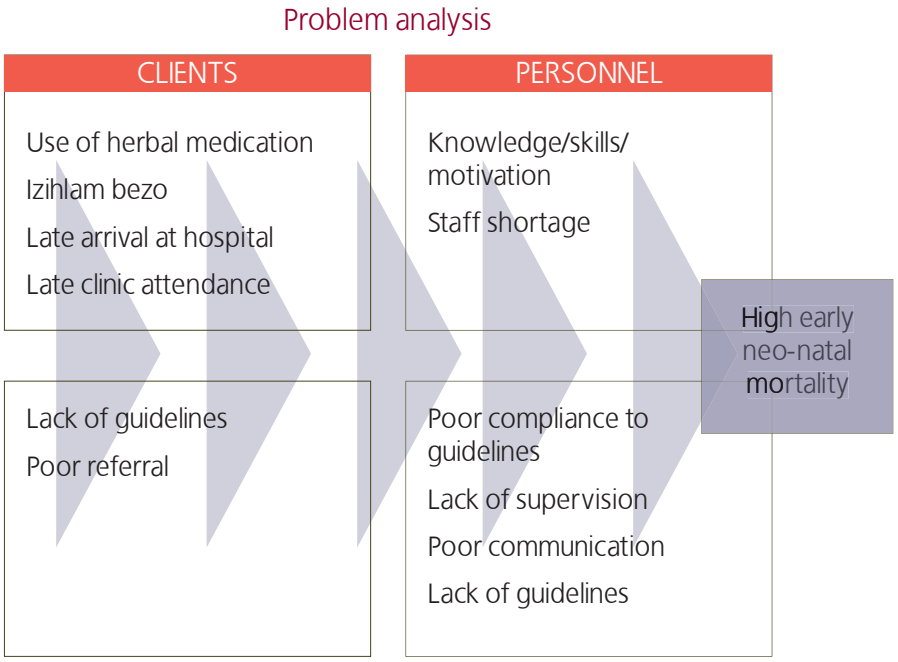
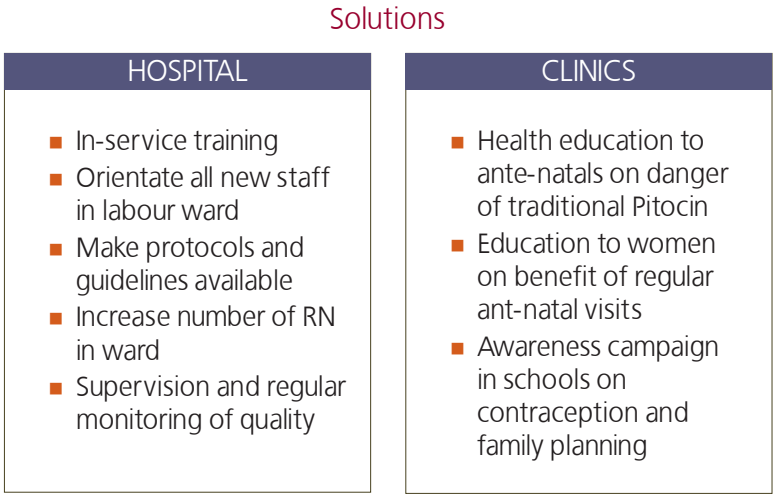


Figure 3: Solutions identified for improvement



Results from the baseline assessments were used in conjunction with the improvement strategy to develop improvement packages. Facility staff developed these packages with technical support from QAP staff. Many facilities also rearranged their clinical service delivery processes to further enhance effectiveness in delivery. Following the introduction of specific interventions, every quarter a PDSA (plan, do, study, act) cycle was followed where data from the previous three months were analysed and interpreted and appropriate adjustments were made to the improvement packages. In the initial phase of the programme, QAP staff played a central role in chart audits and analysis. Gradually this responsibility was shifted to the health facility team who were made responsible for continuous data review and analysis. On a regular basis, the participating facilities used storyboards to report project progress. The storyboards featured the names of the improvement team, the quality problems that they were working on, improvement interventions implemented and the monthly/quarterly graphs of data.

The project showed excellent results, and the Mpumalanga DoH requested that the project be extended to all hospitals, health centres and clinics in the province. The QA directorate of the national DoH also requested that QAP

roll out the programme interventions to other provinces. In November 2002, the project was rolled out to Uthungulu District in KwaZulu Natal, and in the following year QI interventions were rolled out to Eastern Cape, North West and Limpopo provinces.

In 2004, QAP's programme focus was redirected to the President's Emergency Plan for AIDS Relief (PEPFAR)-supported services. As a result, QAP stopped providing technical support for maternal and neonatal health issues to health-care facilities in all provinces by mid-2004.

QAP and the national DoH wanted to see if the interventions developed by the project were continued and whether the improvements had been sustained. To assess this, QAP commissioned an internal stainability assessment in December 2005, almost 24 to 36 months after the facilities had stopped receiving external technical support. The assessment tools included interviews with managers, district and provincial managers and facility record reviews, including patient chart audits.

Assessment results

In Gert Sibande District, in Mpumalanga, covering eight hospitals and three health centres, the PDSA cycle was sustained as part of the provincial QA system. Auditing and data analysis followed by discussion of problem areas and development and implementation of improvement interventions was performed monthly or quarterly. Every hospital and health centre implemented QI activities in collaboration with the district QA coordinator (DoH).

In Ehlanzeni District in Mpumalanga, most facilities (seven hospitals and three health centres) sustained QI activities on their own without support from the DoH QA coordinator. They performed monthly/quarterly audits and worked continuously on quality improvement. Themba Hospital developed and implemented a much more comprehensive monitoring system where facility staff performed clinical audits on a quarterly basis and mentor feeder clinics. The DoH QA coordinator who used to work with QAP was transferred to another service.

In Nkangala District in Mpumalanga, all the facilities (eight hospitals) assessed continued to carry out QI work but in an informal way. Hospitals such as Philladelphia performed monthly audits and provided weekly in-service training on problem areas. Improvements in maternal and perinatal mortality were sustained.

In KwaZulu Natal, all the facilities assessed in Uthungulu District sustained the QI programme. However, due to factors such as staff shortages, a few facilities experienced problems with this. Catherine Booth conducted monthly audits and in-service training on problem areas. Maternal and perinatal mortality meetings continued. St Mary's sustained the quality audits, though not always on a monthly basis due to a severe shortage of staff.

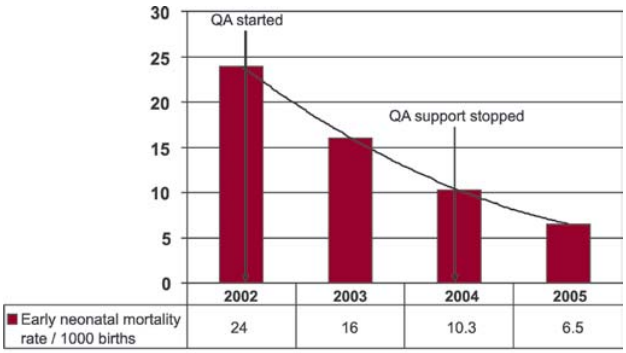
Summary

All facilities assessed for sustainability of the QA programme showed that quality improvement activities had been sustained. Gert Sibande District in Mpumalanga had formally sustained QA activities in all their hospitals and health centres. In this district, QAP provided support from 2001 to 2004 (June). In KwaZulu Natal, where the QAP programme was supported for approximately 20 months, facilities sustained QA activities on their own, contributing to a further decline in neonatal mortality, as shown in Table 1. Figure 4 shows continued reductions in early neonatal mortality, while Figure 5 shows continued decline in fresh stillbirths after the discontinuation of QA support. However, Figure 6 shows an increase in macerated stillbirth rates. Overall, perinatal mortality continued to decline after the end of QAP support (Figure 4). These declines were largely due to improved compliance with evidence-based guidelines at community health centres as well as at the time of labour at hospitals.

Table 1: QA Interventions

	MP: Ehlanzeni	MP: Gert Sibande	MP: Nkangala	KwaZulu Natal: Uthungulu	Eastern Cape	Limpopo	Total
Hospitals	7	8	8	7	20	4	54
CHC	5	3	0	0	5	0	13
Total	**12**	**11**	**8**	**7**	**25**	**4**	**67**
QA Interventions							
QA Activities that were sustained and at how many facilities	All are still implementing some activities. Some added indicators	All 11 plus 2 additional CHC: Official	All still implement some activities	All still implement some activities	Did not assess	Did not assess	

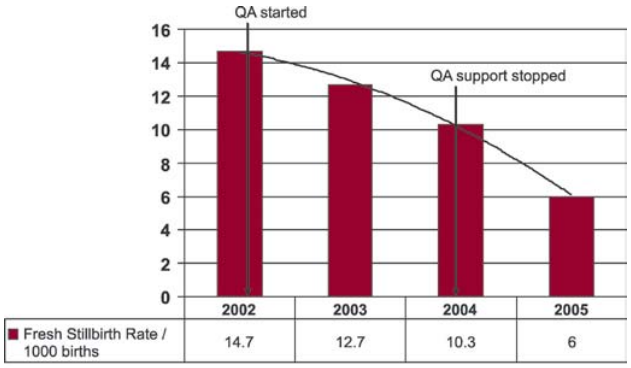
Figure 1: Early Neonatal Mortality Rate (St Mary's,Catherine Booth, Philadelphia and Carolina Hospitals, 2002-2005)



	2002	2003	2004	2005
Early neonatal mortality rate / 1000 births	24	16	10.3	6.5

Babies that were born alive but died within seven days after birth

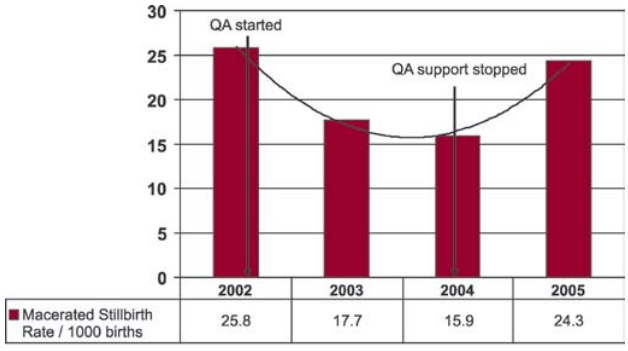
Figure 2: Fresh Stillbirth Rate (St Mary's,Catherine Booth, Philadelphia and Carolina Hospitals, 2002-2005)



	2002	2003	2004	2005
Fresh Stillbirth Rate / 1000 births	14.7	12.7	10.3	6

Babies that were alive at onset of labor but was stillborn

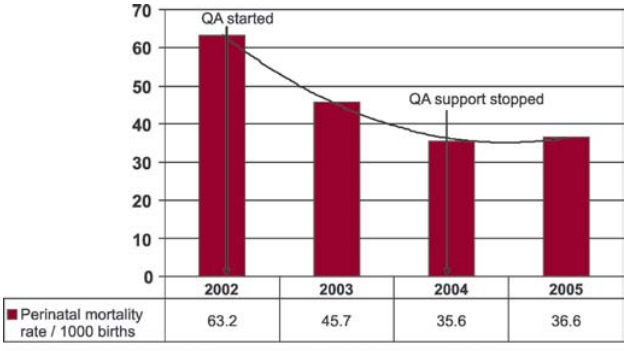
Figure 3: Macerated Stillbirth Rate (St Mary's,Catherine Booth, Philadelphia and Carolina Hospitals, 2002-2005)



	2002	2003	2004	2005
Macerated Stillbirth Rate / 1000 births	25.8	17.7	15.9	24.3

Babies that died before the onset of labor

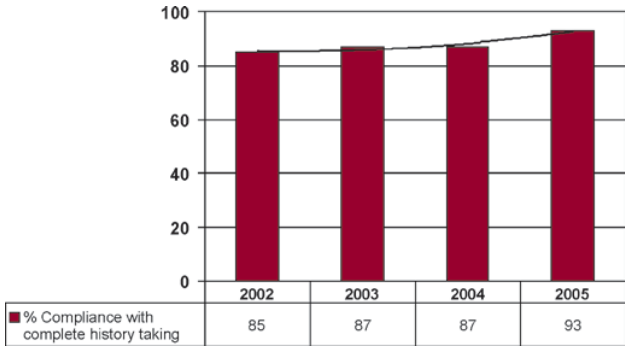
Figure 4: Perinatal Mortality Rate (St Mary's,Catherine Booth, Philadelphia and Carolina Hospitals, 2002-2005)



	2002	2003	2004	2005
Perinatal mortality rate / 1000 births	63.2	45.7	35.6	36.6

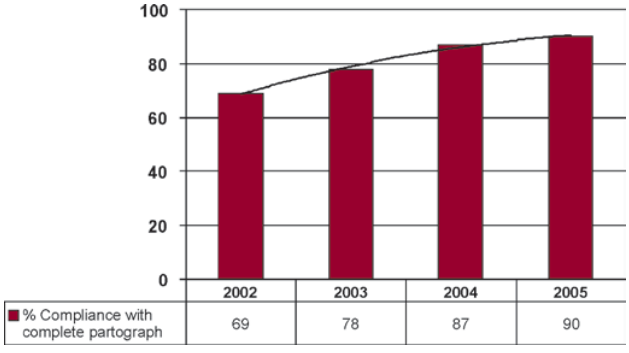
All babies that died from 24 weeks of pregnancy to seven days after birth

Figure 5: Compliance with complete history taking (St Mary's,Catherine Booth, Philadelphia and Carolina Hospitals, 2002-2005)



	2002	2003	2004	2005
% Compliance with complete history taking	85	87	87	93

Figure 6: Compliance with completion of partograph (St Mary's,Catherine Booth, Philadelphia and Carolina Hospitals, 2002-2005)



	2002	2003	2004	2005
% Compliance with complete partograph	69	78	87	90


HIV COUNSELLING AND TESTING REGISTER


SABC