Introduction
The South African (SA) country program was started by the Institute for Healthcare Improvement (IHI) in 2005. Over the past six years, the IHI-SA team has worked closely with a growing group of local partners and the Department of Health (DoH) to help save South African lives and improve the experience of patients interacting with the health system.

Overall Goal
The IHI-SA country program is intended to accelerate sustainable improvement in health and health outcomes for individuals and communities nationwide. IHI-SA partners closely with local, regional and national health system leaders in the Department of Health and with a dynamic group of South African non-governmental organizations (NGOs), thereby influencing the thinking and practice of health at a large scale. IHI-SA has two clear goals: increasing the number of patients on life-saving HIV therapy and decreasing the number of babies born with HIV. The aims are simple: Save the most possible lives in the shortest possible time and learn as much we can along the way.

Highlights from this quarter:
IA Course Wave 22
IHI-SA is hosting it’s first Improvement Advisor (IA) Professional Development Program in Durban, South Africa, from August 2011 to May 2012. The South Africa offering follows on the heels of two successful IA trainings in Accra, Ghana. Led by Brandon Bennett with support from Lloyd Provost, Michele Youngleson, and Ron Moen, these faculty will be teaching the essentials of Quality Improvement (QI) over 10 months to 26 participants from Malawi, the United States, India, and South Africa. This course is intended to provide QI capacity to our partner organizations in SA.

IHI Open School Chapter at UCT
The first IHI Open School Chapter in South Africa was started at the University of Cape Town medical school in June 2011 under the leadership of 4th year medical student Wazha Senyahale. The Chapter has registered with IHI and will be featured on the IHI global website. The Dean of the UCT Health sciences, Professor Marion Jacobs, has endorsed the chapter has strongly supported the chapter. Faculty advisors have been appointed to the group and a charter is in the process of being completed. Pierre Barker gave a presentation to the OS chapter in October.
and together with Michele Youngleseon, met with senior faculty to discuss ways to enable QI options for student electives and introduce QI content into the medical school syllabus. To the right is a picture of four of the six members core team with Wazha standing center.

**Notable Results from this Quarter:**

- **Develop Capacity:**
  - South Africa IA program: August 2011-May 2012
  - New Open School Chapter at UCT
  - 150 DoH staff trained in basic QI methods through 2 day teaching session

- **Team Vitality:**
  - Farzaneh Behroozi and DeAnna Heaney were added to the IHI-SA team.

- **Dissemination:**
  - 5 abstracts submitted and accepted to the SA AIDS Conference
  - 9 abstracts submitted to the 2012 International Forum
  - 2 Speaker Presentations
  - 1 published article

- **Get Results:**
  - Detailed below by project

### 20,000+ Partnership

**Overview of the Partnership:**

20,000+ is a partnership between the Kwa-Zulu Natal (KZN) Department of Health, the University of KZN and IHI which aims to decrease perinatal transmission of HIV to less than 5% by 2011 and has already shown a decrease of MTCT rates to below 3%. The project has expanded from 3 initial Districts to all 11 Districts in KZN Province and has launched an effort to improve infant and young child feeding. We have also started the Nompilo research project aimed at examining the impact of interventions to improve childhood survival through community health workers enabled to use QI.

**Highlights from this Quarter:**

- Atlantic Philanthropies awarded 20,000+ a three-year grant to develop a quality improvement resource center for South Africa. IHI worked with 20000+ to develop the proposal.
- The National Department of Health has called upon 20,000+ to assist QI partners to roll out the National Core Standards.
- Over 150 DoH (Department of Health) staff were trained by 20,000+ in September. We conducted 2-day courses for District Information Officers (DIO), Facility Information Officers (FIO) and M&E Managers from all 11 Districts to strengthen data quality and use dashboards.
- 20,000+ measurement strategies on Infant and Young Child Feeding have influenced Provincial leaders to include key data elements in monthly collection across the Province.
- Four staff from 20,000+ are participating in the Improvement Advisor course.
Key Results:

**Legend:** Figure 1 is of PCR testing rates across the entire catchment area of the 20,000+ Program (3 districts) and Figure 2 shows the HAART to pregnant women Campaign in Ugu District. The lines converging indicate that women who are eligible for HAART are now receiving it consistently.

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**Wits Reproductive Health Institute (WRHI)**

**Overview of the Partnership:**
WRHI of the University of Witwatersrand is one of the largest training and research units in the country. WRHI is a world-recognized leader in HIV/AIDS and reproductive health research, and has been designated a WHO Collaborating Centre. Since 2005, IHI and WRHI have worked together to improve access and quality of HIV care and treatment services in Johannesburg’s Inner City. These efforts have resulted in a major increase in clinical care capacity and accelerated efforts to achieve universal HIV coverage in the region. Building on these successes, WRHI expanded its efforts to the neighboring Ekurhuleni health district (population 2.6 million) in 2009. Recently WRHI have added QI to the core functions of all of the district health improvement staff. Over the last several months IHI has focused on supporting the development of a sustainable, independent HSS/QI unit to support QI capacity building and coordination of QI activities within WRHI.

**Highlights from this Quarter:**
- HSS director Winnie Moleko co-chairs Track 5 of SA AIDS conference ("Health systems, programs, human rights and ethics"); IHI serves on abstract review and rapporteur committees
- Winnie Moleko is seconded to NDoH as QI technical advisor to DG office; IHI supporting development of QI work plan, NDoH QI planning and implementation guidance publication, and partner coordination for National Standards roll out and preparation for NHI
- IHI-SA provides on-site IA support with a specific focus on the NW Province.
- 3 WRHI staff start IA course in Durban

**Key Results:**
- Specific program data from WrHI sites not available; WrHI in process of redesigning systems for tracking and reporting specific project results.

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**Best Care Always!**

**Overview of the Partnership**
The “Best care...Always!” (BCA) campaign is an initiative aimed at supporting SA hospitals to implement evidence-based interventions to reduce healthcare associated infections (HAI) and
ensure the judicious use of antibiotics. Patterned after the IHI's "100K lives" campaign, the Canadian "Safer Healthcare Now" initiative, and WHO's World Alliance for Patient Safety, BCA was launched in August 2009 to support SA’s private hospitals, and spread in May 2010 to include public sector hospitals. BCA seeks to enhance patient safety and improve quality in hospital care through partnership with major public and private healthcare providers, funders and professional societies. Thus far, 202 private and public hospitals are enrolled each implementing at least one intervention bundle.

BCA works in two Provinces thus far in the public health sector: Gauteng and the Western Cape. 

**Gauteng Province (GP):** The BCA campaign launched in April 2010 in thirteen Gauteng public-sector hospitals but was unexpectedly interrupted in October 2010.

**Highlights from this quarter (GP):**

- Participating hospitals were assessed to review the implementation status ten months after the interruption and to assess the impact the short exposure to the campaign as well as to establish needs for the proposed second wave.
  - 2 hospitals had continued implementation, had some form of measurement in place, and had spread the improvement work to other units.
  - 5 hospitals that had continued implementation, had some form of measurement in place with no further spread.
  - 6 Hospitals had large lapses in implementation.

**Central Line Associated Bloodstream Infections**

Neurosurgery ICU - Steve Biko Academic Hospital - Pretoria

Month: April 2010 - December 2010

![Graph showing Days between infections](image)

*Figure 1 shows the improvement in Central Line Blood Stream Infections at Steve Biko Academic Hospital using a 'Days Between Infection' graph*

**Next Steps (GP):**

- The Gauteng project was re-launched in October 2011.
Shortcomings from the earlier project will be addressed including: setting realistic time frames, assigning a mentor for on-site support, further support in measurement, implementing monthly reporting to the province and adapting the interventions to address local priorities.

*Western Cape Province (WC)*: The BCA campaign was launched in nine hospitals public-sector hospitals in the Western Cape in May 2011 using the BTS Collaborative design.

**Highlights from this quarter (WC)**
- In the first quarter, hospitals have concentrated on forming improvement teams and establishing measures for HAI.
- Seven have established outcome measures and two have established measures of bundle compliance.

**Next Steps**
- The second Learning Session (LS) for the public-sector hospitals is scheduled for early November and will include private sector participants. The LS will be supported by Dr Carol Haraden, Vice President at IHI and an international expert in patient safety. The LS will include a session on ‘leading improvement’ for senior leaders. The meeting will be attended and addressed by IHI and the DoH.

**Overall BCA Highlights from this Quarter:**
- Two Abstracts were submitted to the International Forum on Quality and Safety in Healthcare on BCA.
  - “Lessons for Learning Collaboratives from Best Care Always ... Campaign in South Africa”
  - “From research to improvement - changing the data mind-set in a teaching hospital” - looks at the challenge academic hospitals have in establishing measurement for use at the frontline of care.

**South to South**

**Overview of the Partnership:**
South to South (S2S) is a NGO providing expert pediatric HIV care and training throughout the southern African region. S2S is developing a sub-district-based model for pediatric HIV prevention, treatment and care support program that has been supported by IHI since early 2011. The project located in Moretele district in NW Province, involves 10 primary care facilities and sub-district management, and uses a Breakthrough Series Collaborative model to bring the facilities into a Learning Network. Quarterly meetings have been held focusing on aspects of the PMTCT and HIV treatment pathway in a stepwise way along the progression of the PMTCT care pathway.

**Highlights from this quarter:**
- Excellent results have been achieved in reducing MTCT and increasing follow-up of HIV exposed infants in the sub-district.
- The NDoH has shown interest in learning more about the model for improving PMTCT data developed through the project.
- The third LS was held in September focusing on the follow-up of HIV exposed infants and their mothers and in case-finding and management of HIV positive children in the community.
To further capacity building in QI, two members of the S2S team are participating in IHI’s Improvement Advisor training course.

**Key Results:**

![Figure 1 - Moretele: % PCR positive at 6 wks](image1)

*Figure 1 shows the improvement in PCR positivity in the sub-district after the start of the project from a median of 4.8 to 1.75% (median 1.7%)*

![Figure 2 - Moretele: % expected monthly PCRs done (6 wks)](image2)

*Figure 2 shows the increase in HIV exposed babies receiving a PCR at six weeks. The percentage is expected to rise with the introduction of a new postnatal six week clinic for mother and infant supported by a new post-natal register.*

**Next Steps:**

- The next steps are consolidating the models of care and spreading them to all facilities in the sub-district through:
  - Partnering facilities in the project with those that are not in the project and
  - By supporting sub-district supervisors and program managers to take full responsibility for mentoring the facilities through the process.
  - Capacitating partner organization to mentor facilities
- The NDOH will visit the sub-district in the last quarter of the year to assess the PMTCT data support systems developed through the projects for possible spread to other provinces.
- The 4th LS will be held in early 2012 and focus on infant feeding.

**Chronic Care Clubs**

**Overview of the Project:**

IHI’s Western Cape Project won a 2010 Impumelelo Award for excellence in service delivery. This money was used to seed a project to achieve District-wide scale up of the “ARV Chronic Care Clubs” model, a best practice model for managing large cohorts of patients on life-long ARVs, using a collaborative QI model. The project is a collaboration between the municipal and provincial departments of health and IHI in the Cape Town Metro District. Recent analysis shows that half of Cape Town’s 47 ART facilities had over 1000 patients on life-long ART (range 1025-5266). The need for an efficient and effective model for managing these large patient loads, within current resource constraints, is pressing. The ARV Chronic Club model uses limited resources in an efficient and effective way enabling stable patients to be managed in groups of 30 by a counselor and supportive clinical team. Outcomes in the prototype facility had been excellent with 97.6% of patients still in care after 2 years. The project started in Dec 2010 with 14 ARV clinics. The aim is to start 360 clubs for 10,000 stable patients, 30% of all patients on ARVs in the participating clinics.
Highlights from this Quarter:

- The number of clubs is growing steadily in the collaborative and two additional large facilities have spontaneously introduced the club system. They have been included in the BTS and LSs (but are not included in the project data).
- The facility that initially developed the club systems has begun moving the clubs off-site into the community to reduce congestion at the clinic. Lessons learned from this initiative will later be spread to other facilities.
- The provincial and municipal DOH’s are planning a second wave to spread the model to many more ARV facilities in the Metro District. A second, rural district may also be included.
- Registers for managing clubs are being standardized and M&E systems to link club patient data into the routine provincial M&E system are being developed.
- Systems are currently being piloted for the Chronic Dispensing Unit, an outsourced pharmacy service that pre-dispensed chronic medication for public health patients, to include the ARV Chronic Clubs. This will markedly decrease the pressure on facility-based pharmacies.
- An abstract was submitted to the International Forum on Safety and Quality in Health on the ARV Chronic Club project titled “Spreading a model for managing large numbers of patients on Antiretroviral Therapy”

Key Results:

- Eight months into the project, 62% (206/334) of the target number of clubs had been established with 46% (4611/10000) of the target number of patients enrolled.

Next steps:

- The second wave of scale up will be planned with the first Learning Session planned for February 2012
- The Chronic Dispensing Unit services will be rolled out to more project facilities.

Witkoppen

Overview of the Partnership:

IHI was invited to add a QI component to an NIH funded project on TB/HIV integration at Witkoppen clinic, a privately funded public health facility in Johannesburg. The QI aspect of the project was limited to reducing waiting and transit times for patients in the ARV clinic.
Key Results:
 The number of patients processed within the first 90 minutes of the day increased 2.3 times (from a baseline mean of 29 to a mean of 67) and included all patients who had presented to clinic before 06h00 as well as additional number of patients who arrived after opening time.
 Staff are now applying the skills learnt in this project to address the additional bottlenecks to further improve flow and reduce transit time through the clinic.

CAPRISA
Overview of the Partnership:
The Centre for AIDS Research in South Africa is a leading global HIV research organization. Together with CAPRISA, we teach a CDC-sponsored “Implementation Science” course at the University of KZN to develop new cadres of researchers with skills in doing practical operations-oriented research for improvement. This work has kindled interest in using QI methods to more rapidly bring clinical research findings into common practice in public health settings.
Based on the success of tenofovir, a microbicide gel that women can use to prevent HIV infection during intercourse, IHI is working with CAPRISA at two pilot facilities to strengthen the quality of reproductive health services so that this new drug can someday be utilized in the public health service more effectively.

Highlights from this Quarter:
 Increase volume of clients seeing Family Planning services from 55 (baseline six months) to 187 (average of last 6 months), We believe that this may represent saturation of the clinic at this point.
 The focus will now shift from improving volume to improving the quality of each of these FP visits.

Key Results:

![Graph showing effects of QI on women accessing family planning services at Mafakathini PHC.]

IHI- South Africa Team

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