

EXPANDING THE MTCT-PLUS INITIATIVE

SOUTH TO SOUTH (S2S) PARTNERSHIP  
FOR COMPREHENSIVE FAMILY HIV CARE AND  
TREATMENT PROGRAM

Final Report  
2006–2010

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# ACRONYMS

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ANC	antenatal care
APS	adherence and psychosocial support services
ART	antiretroviral therapy
ARV	antiretroviral
BANC	basic antenatal care
BRHC	BroadReach Health Care
CCMT	comprehensive care management and treatment
CTX	cotrimoxazole
DHMT	district health management team
DOH	Department of Health
ECHO	Enhance Children’s HIV Outcomes
FPD	Foundation for Professional Development
FXBC	François Xavier Bagnoud Center
HCW	health care worker
IEC	information and education communication
IMCI	integrated management of childhood illness
INH	isoniazid
M&E	monitoring and evaluation
M2M	Mothers 2 Mothers
MaTCH	Maternal, Adolescent, and Child Health
MDR-TB	multiply drug-resistant
MDT	multidisciplinary team
MMC	medical male circumcision
N/A	not available
NVP	nevirapine
PACE	Performance and Capacity Enhancement
PHRU	Perinatal HIV Research Unit
PMTCT	prevention of mother-to-child transmission
RTC	Right to Care
S2S	South to South
SOC	standards of care
TWG	technical working group
USAID	United States Agency for International Development
VCT	voluntary counseling and testing
WHO	World Health Organization

# SOUTH TO SOUTH PROGRAM OVERVIEW

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An estimated 5.5 million South Africans are living with HIV. South Africa has made tremendous strides since the initiation of antiretroviral therapy (ART) into the public sector in 2004. Indeed, national antiretroviral (ARV) coverage has increased from 2.7 percent in 2003 to an estimated 32 percent in 2006.<sup>1,2</sup> Yet due to a lack of resources and specialized training, high risk and vulnerable populations such as pregnant women and children have eluded many public health programs. For instance, although coverage for prevention of mother-to-child transmission (PMTCT) in South Africa reached 57 percent of the 220,000 pregnant women living with HIV in 2007, an increase from 15 percent in 2004,<sup>3</sup> only 12 percent of pregnant HIV-infected women were assessed for ART eligibility.<sup>4</sup> And despite collaborative efforts by funders and implementing partners to prevent HIV infection in children, an estimated 370,000 children became newly infected with HIV in 2007, mostly through mother-to-child transmission (MTCT).

The scale-up of PMTCT and pediatric ART care and treatment services at health facilities is challenged by several factors, including limited human resources; perceived complexity of treating pregnant women and children; inadequate pediatric and PMTCT clinical skills; and gaps in referral systems and linkages among services. To continue to build on successes of South Africa's ART program, the capacity for HIV disease management must be enhanced. It is essential that HIV disease management transition from a model focused on individual case management to take a family-centered and chronic-care approach, targeting and prioritizing pregnant women and children. Enrolling pregnant women and children into HIV care and treatment early and regularly can prevent new HIV infections and reduce morbidity and mortality, effectively sustaining the quality of life of mothers, their children, and their families.

In May 2006, in response to the urgent need to build pediatric HIV care and treatment capacity among African health care professionals, the International Center for AIDS Care and Treatment Programs (ICAP) at Columbia University and Tygerberg Children's Hospital at the University of Stellenbosch partnered to launch the South to South Partnership for Comprehensive Pediatric HIV Care and Treatment Program (S2S). The aim of S2S was to support indigenous capacity building whereby country specific multidisciplinary health care teams throughout Africa learn from another African institution and staff experienced in successfully implementing pediatric HIV care and treatment services.

In March 2008, the international component of S2S's activities ended and S2S relaunched as the South to South Partnership for Comprehensive *Family* HIV Care and Treatment Program (S2S), broadening its activities to respond to specific clinical and systems strengthening needs within South Africa exclusively. S2S began working synergistically and in close collaboration with other USAID-South Africa implementing partners to initiate, expand, deepen, and link relevant family-centered services to rapidly increase the uptake of HIV prevention, care, and treatment services for women, children, and families. S2S accomplished this by providing comprehensive technical, programmatic, capacity building, and systems support.

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<sup>1</sup> WHO. *Universal Access: Scaling Up Priority HIV/AIDS Interventions in the Health Sector. Progress Report, 2007.* [http://www.who.int/topics/hiv\\_infections/en/](http://www.who.int/topics/hiv_infections/en/)

<sup>2</sup> WHO/UNAIDS. *Progress on Global Access to HIV Antiretroviral Therapy: A Report on '3 by 5' and Beyond.* 2006. Geneva, Switzerland: World Health Organization. [http://www.who.int/topics/hiv\\_infections/en/](http://www.who.int/topics/hiv_infections/en/)

<sup>3</sup> Children and AIDS. *Third Stocktaking Report.* United Nations Children's Fund. 2008.

<sup>4</sup> WHO. *Universal Access: Scaling Up Priority HIV/AIDS Interventions in the Health Sector. Progress Report, 2008.* [http://www.who.int/hiv/pub/towards\\_universal\\_access\\_report\\_2008.pdf](http://www.who.int/hiv/pub/towards_universal_access_report_2008.pdf)

# SOUTH TO SOUTH I: 2006-2008

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## Goals and Objectives

In 2006, South to South, in close partnership with Tygerberg Children’s Hospital, initiated a training program to build pediatric HIV care and treatment capacity among African health care professionals. The goal of the training program was to develop the technical and practical skills of health care teams throughout Africa to successfully initiate and implement comprehensive pediatric HIV services. S2S aimed to achieve the following objectives:

- To transfer knowledge and skills to doctors, nurses, and other members of country-specific multidisciplinary teams in all aspects of pediatric HIV care and treatment using a comprehensive, family-focused model of care.
- To implement a follow-up system for trainees to ensure continued support upon course completion.

## Program Implementation

S2S focused specifically on supporting indigenous human resource capacity by inviting health care teams from countries throughout Africa to learn from another African institution that continued to successfully implement pediatric HIV services, namely Tygerberg Children’s Hospital at Stellenbosch University. Tygerberg was selected as the ideal training site because of its reputation as an effective teaching institution; its utilization of a multidisciplinary approach to pediatric HIV service delivery; its expertise in handling complex pediatric HIV cases; and its comprehensive virology and microbiology laboratories.

From 2006 to 2008, a series of two-week trainings was held at Tygerberg for participants from countries throughout Africa (Tables 1 and 2). Participants of the S2S training included multidisciplinary teams of pediatricians, doctors, medical officers, nurses, social workers, counselors, and pharmacists.

## Practical Training

At each training event, participants received targeted didactic training emphasizing comprehensive care and treatment for infants, children, and adolescents. The training course covered the following topics:

- Basic HIV virology and disease pathogenesis
- Basic HIV epidemiology
- Children are not small adults
- Prevention of transmission/PMTCT
- Approach to diagnosis and staging of disease
- Infant issues—diagnosis, feeding options
- Growth and nutrition in HIV
- Psychosocial issues and disclosure/acceptance
- Managing the HIV-infected infant (wellness)
- Tuberculosis, including multiply drug-resistant tuberculosis (MDR-TB)
- Antiretroviral drugs
- Complications of treatment
- Adherence
- Initiating treatment and follow-up
- Diagnosing and managing co-morbid conditions
- Managing opportunistic infections (OI)
- Sexual abuse
- Waste management and infection control
- Program implementation
- Monitoring and record keeping
- Managing occupational HIV exposure
- Resource library

## **Clinical Mentorship and Supportive Supervision**

To enhance S2S participants' self-efficacy to initiate skills learned during didactic training sessions, participants were given practical, hands-on experience. Multidisciplinary teams participated in ward rounds with on-site clinical mentors, focusing, for instance, on the daily care and treatment of children (eg, screening, diagnosis, ART initiation). Clinical mentors provided supportive supervision and modeled appropriate skills and behaviors during the practical sessions. Participating health facilities included Tygerberg's HIV Family Clinic, Brooklyn Chest TB Hospital, Michael Mapongane ART Clinic in Khayelitsha, and the Khayamandi Primary Health Center. The practical component of the S2S training was a highly useful forum for participants to discuss and build skills in treating complex pediatric cases and other challenges.

The mentorship and supportive supervision capacity of clinicians facilitating the practical component of the training was a key priority of the S2S program. To enhance mentorship skills, a clinical mentoring and supportive supervision program, facilitated by clinical psychologist and clinical mentoring expert Vernon Solomon, was implemented. Between 2006 and 2008, 20 clinic staff from Tygerberg Children's Hospital HIV Family Clinic and Khayelitsha's ART clinic participated in six workshops lasting two days each. Workshop content included mentoring, supervision, and communication skills; management/leadership styles and skills; and managing time, conflict, and stress. These workshops provided a platform for mentors to improve their skills in case review and in supporting participants in applying information acquired in didactic sessions to clinic settings.

## **Participant Feedback Post S2S Training**

Upon completing the course, the S2S training team conducted follow-up questionnaires to track S2S participant progress and training outcomes. Three-, six-, and 12-month post-training questionnaires were used to systematically capture qualitative and quantitative data, which were then compared with baseline questionnaires and analyzed to identify program progress and additional training and capacity building needs.

Participants responses within the perception section of the questionnaires indicated that, overall, participants found the S2S course a stimulating method of sharing expertise, advice, and guidance on improving the team approach to pediatric HIV services. Feedback also suggested that S2S was essential in developing and refining participants' skills in pediatric HIV care and treatment. The importance of growth monitoring and neurodevelopmental assessment was overwhelmingly identified as the most useful and helpful skill acquired. Participants reported high levels of confidence in delivering pediatric HIV services after the training and indicated that, upon return to their respective work environments, they immediately applied skills acquired at S2S. Participants reported that, since they attended their respective S2S training, they place more emphasis on identifying HIV-exposed infants and -infected children and entering them into pediatric HIV care and treatment programs. Participants suggested that an additional focus on adherence support, disclosure, second line ART treatment and toxicities, program implementation, and data monitoring and evaluation could be included in future S2S trainings.

Country team leaders charged with providing program support to training participants in their home countries reported observing a significant change in HIV knowledge, behavior, and attitude in participants following the S2S training. These observations were sustained 12 months post training. Health workers who participated in the S2S training were reported to be more confident in discussing and advising on pediatric HIV issues, with a high sense of urgency to properly handle observed pediatric care and treatment issues. Following S2S training, it was also noted that participants developed a more comprehensive family approach to HIV care and treatment, rather than focusing solely on index cases. Country team leaders also observed S2S training participants taking the initiative to improve the quality of services, with improved linkages

between PMTCT and pediatric services, growth monitoring and administration of cotrimoxazole (CTX), communication between health providers, and regular discussions of pediatric cases at general multidisciplinary team meetings.

## 2006–2008 Achievements

### S2S Pediatric Training

From Year 1 to Year 2, S2S held 32 two-week training courses at University of Stellenbosch Faculty of Health Science, Department of Paediatrics and Child Health, and trained 279 health workers from 11 countries throughout Africa. Of those trained, 39 participants were health workers from South Africa’s Western Cape Province (Tables 1 and 2).

### Collaborative Pediatric HIV Strategic Planning Workshop

The first ICAP Collaborative Pediatric HIV Strategic Planning Workshop, hosted in partnership with S2S, brought together 60 delegates from ICAP country programs from April 15–19, 2007, in Cape Town, South Africa. Following the success of this first event, a second workshop was held, with 55 delegates, from April 13–17, 2008 (Tables 1 and 2).

During both events, participants discussed approaches to continued successful expansion and implementation of pediatric HIV and PMTCT workplans and considered the state and status of their pediatric HIV strategic plan. Delegates also shared experiences, better practices, and lessons learned across countries and programs to support the (re)design of strategies to address specific pediatric HIV challenges.

### Procurement of Minor Pediatric-Related Clinic Equipment

To support S2S participants’ needs during precepting sessions, x-ray boxes for viewing chest x-rays, otoscopes, ophthalmoscopes, tape measures, patella hammers, weighing scales, and other items of medical equipment were procured.

TABLE 1: TRAINING EVENTS HELD DURING YEAR 1 AND YEAR 2

COORDINATING/ SPONSORING AGENCY	DATE
ICAP-Ethiopia	September 25–October 6, 2006
ICAP-South Africa	October 23–November 3, 2006
ICAP-Mozambique	November 13–24, 2006
ICAP-Nigeria	December 4–15, 2006
Provincial Government Western Cape	January 15–26, 2007
ICAP-Ethiopia	February 5–16, 2007
ICAP-Zambia	February 26–March 9, 2007
ICAP-Swaziland/Lesotho/Rwanda	March 19–30, 2007
ICAP-Ethiopia	April 30–May 11, 2007
ICAP-Tanzania	May 21–June 1, 2007
ICAP-Kenya	June 4–15, 2007
ICAP-Lesotho, Nigeria, Rwanda	July 23–August 3, 2007
ICAP-South Africa	August 13–24, 2007
ICAP-Tanzania	September 3–14, 2007
ICAP-Ethiopia	September 17–28, 2007

COORDINATING/ SPONSORING AGENCY	DATE
Ethiopia	September 24–October 5, 2007
Nigeria	October 22– November 2, 2007
Kenya	November 12–23, 2007
South Africa	December 3–14, 2007
Ethiopia	January 14–25, 2008
Tanzania	January 28–February 8, 2008
Lesotho and Kenya	February 18–29, 2008
Rwanda	March 10–21, 2008
Mozambique	March 31–April 11, 2008
Nigeria	May 5–16, 2008
South Africa	May 26–June 6, 2008
Ethiopia	June 16–27, 2008
Tanzania	July 7–18, 2008
Cameroon/Rwanda	July 28–August 8, 2008
Mozambique/Ethiopia	August 18–29, 2008
South Africa	September 8–19, 2008
Nigeria	September 29–October 10, 2008

TABLE 2: YEAR 1 AND YEAR 2 COMBINED S2S TRAINING PROGRAM TARGETS AND ACHIEVEMENTS, OCTOBER 1, 2006–SEPTEMBER 30, 2007

	FY07/08 TARGETS	ACHIEVED
Courses held	32	32
Total persons trained	320	291
<ul style="list-style-type: none"> <li>• Western Cape provincial health staff trained</li> <li>• South African health staff trained (including Western Cape)</li> <li>• Non-ICAP staff trained (total)</li> </ul>	-	39 100 179
Total persons trained at ICAP Collaborative PMTCT and Pediatric HIV Strategic Planning Workshops, in partnership with S2S (2)	-	115



# SOUTH TO SOUTH II: 2008-2010

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In March 2008, the South to South Partnership for Comprehensive Family HIV Care and Treatment Program (S2S) relaunched and broadened its activities to respond to specific clinical and systems strengthening needs within South Africa. From 2008 to 2010, S2S worked synergistically and in close collaboration with other USAID-South Africa implementing partners to advance HIV/AIDS and STI Strategic Plan (2007–2011) of the South Africa National Department of Health to reduce the number of HIV infections and the impact of HIV on individuals and families. S2S’s aim was to provide comprehensive technical, programmatic, capacity-building, and systems support to select implementing partners to initiate, expand, deepen, and link comprehensive family-centered services to rapidly increase the uptake of HIV prevention, care, and treatment services for women, children, and families.

## Goals and Objectives

TABLE 3: S2S GOALS AND OBJECTIVES

<b>GOAL #1</b>
To support the implementation of integrated, family-centered HIV prevention, care, and treatment services amongst USAID implementing partners.
Objective 1: Establish collaborative partnerships with USAID implementing partners and the national DOH.
Objective 2: Jointly prioritize the relevant technical, program, capacity building and systems support needs to increase uptake of HIV prevent, care, and treatment services by families.
Objective 3: Document and entrust long-term follow-up, implementation, and monitoring plan to USAID implementing partner.
<b>GOAL #2</b>
To enhance the activities and achievements of USAID implementing partners by ensuring improved uptake of HIV prevention, care, and treatment services by high risk and vulnerable populations such as pregnant women and children.
Objective 1: Assess, plan, and implement optimal activities, interventions, and changes at site level that will ensure that support is successfully provided.
Objective 2: Design and offer customized skills-building and performance-improvement events, tools, and resources to transfer skills and knowledge that will support ongoing program implementation.
Objective 3: As necessary, provide additional technical, program, systems, and commodity procurement support to ensure continuation and improvement of family-centered services.
<b>GOAL #3</b>
To enhance the achievements of USAID implementing partners in South Africa.
Objective 1: Establish and coordinate systems for USAID implementing partner sharing and communication.
Objective 2: Procure equipment and supplies to support progress of USAID implementing partners: Right to Care (RTC), BroadReach Health Care (BRHC), Keth Impilo, Foundation for Professional Development (FPD), Perinatal HIV Research Unit (PHRU), Maternal, Adolescent and Child Health (MaTCH), Anova Health Institute, and Mothers to Mothers (M2M).

## Program Implementation and Achievements

As a capacity building program, S2S did not have direct service delivery targets. Collaborative partnerships were established with USAID-South Africa implementing partners and the DOH to jointly prioritize relevant technical, program, and systems support needs. Collaborative S2S/USAID partnerships included FPD, BRHC, RCT, Enhance Children's HIV Outcomes (ECHO), Maternal, Adolescent and Child Health (MaTCH), and Anova Health Institute.

### On-Site Technical and Program Capacity Building

S2S operationalized its approach to five key phases.

#### Phase I: Preparation and Prioritization

In this phase, S2S engaged FPD to identify stakeholders in newly supported districts, including local partners and focal persons from the DOH. S2S hosted three pre-entry seminars to introduce stakeholders to the S2S program and approach and to establish a framework of collaboration through which the prime service provider, the DOH, and S2S would achieve results at health facilities identified for support.

#### Phase II: Introduction, Assessment, and Planning

This phase was accomplished by means of an entry seminar and baseline assessment conducted by the S2S technical team. Each facility identified in Phase I was introduced to the S2S program and oriented to the site support process through an entry seminar. Three entry seminars were held between FY08 and FY10. Together with operations managers, HIV service providers, and district health managers, the S2S technical team collaboratively discussed and agreed upon approaches to be used to enhance the quality of services at the respective facilities. S2S conducted 45 baseline assessments to identify health facility capacities, barriers, and opportunities for improving uptake of quality HIV services and to track outcomes and progress. Following the baseline assessments, the S2S technical team provided feedback to the facility staff on findings and, in collaboration with health facility workers, discussed and confirmed priorities, supported the development of workplans and timelines to achieve targets, and agreed on a schedule for ongoing site support.

#### Phase III: Implementation and Monitoring

During this phase, S2S technical teams supported partners and health facilities to implement their specific facility workplans through a site support process consisting of ongoing clinical mentoring and modeling, skills building, knowledge transfer, and supportive supervision to improve quality of care. Site support activities were conducted regularly with individual health workers or in small groups (ie, cluster implementation workshops) to introduce new competencies and reinforce specific areas of need and national guidelines, with the aim of rapidly enhancing site performance. S2S conducted the following skills building and implementation training events:

- **Pediatric HIV cluster implementation workshops** on the management of HIV-infected children were offered to staff at under-five and ART clinics from S2S-supported sites. The aim of the workshops was to address pediatric HIV care and treatment knowledge and skills gaps, with the goal of increasing the uptake of children into HIV care and treatment services. The workshops were held as a one-day event, or as a multiple, two-hour modular series.
- **A PMTCT cluster implementation workshop** was offered to staff at antenatal, postnatal, and labor and delivery ward staff at S2S-supported sites. The workshops focused on implementation of the DOH's Accelerated Plan for PMTCT and focused on increasing the quality of the package of care for HIV-infected pregnant women and HIV-exposed infants. Further workshops on infant feeding and HIV

counseling were conducted in the Moretele subdistrict. The workshops were typically held over two days.

- **Adherence and psychosocial support cluster implementation workshops** were offered to lay counselors from antenatal, postnatal, and labor and delivery wards, as well as ART/wellness centers, at S2S-supported sites. The aim of the workshop was to identify and address knowledge and skills gaps related to the counseling and psychosocial and adherence support (APS) offered to pregnant women, children, and their caregivers. The seven APS workshop modules were typically covered in one full day.

Complementing all workshop events, S2S technical teams provided in-service follow up, on-the-job mentoring, and supporting supervision. S2S focused on strengthening health facilities' programs and systems by initiating and/or enhancing service quality; the multidisciplinary approach to service delivery; the maximization of human resources; client flow; and the implementation of referral systems and linkages to and from primary health centers and PMTCT and ART sites; and other relevant services. S2S continued to assess and document the effectiveness of each facility's workplan activities until service workplans were successfully implemented.

In total, S2S conducted 984 individual mentoring sessions related to PMTCT, APS, and pediatric ART service delivery in the S2S-supported districts. Additionally, S2S conducted 56 cluster implementation workshops during the reporting period.

#### **Phase IV: Follow-Up**

This phase included regular progress assessments of site progress to ensure facilities' continued successful implementation of activities and, where necessary, the design and implementation of supportive action steps to strengthen implementation. S2S conducted 11 semiannual progress assessments during the reporting period. Assessments showed that improvements were made, particularly in documentation of PMTCT service delivery, but that graduation of sites was not possible.

#### **Phase V: Transitioning**

Finally, in this phase, S2S finalized documentation surrounding the site-level support provided to an individual health facility, generated recommendations and action plans for implementation by relevant USAID implementing partners, and debriefed relevant stakeholders on transitioning activities.

The most significant finding that occurred during this phase was the realization that sites could not be transitioned within the expected time period allotted by the program. Ending site support prematurely would potentially undo the work that had been accomplished so far. Thus, the recommendation is that similar site support continues until a sustainable transition can occur.

By employing the phased approach described above, in collaborative partnership with FPD, S2S supported 36 health facilities in Tshwane and Metsweding districts (Gauteng Province) and Moretele subdistrict and Bojanala district (North West Province).

TABLE 4. SUMMARY OF ON-SITE TECHNICAL AND PROGRAM CAPACITY BUILDING ACTIVITIES 2008–2010

PERFORMANCE MEASURE	ACHIEVED	TARGET FY08-10
<b>PREPARATION AND PLANNING</b>		
Number of pre-entry seminars held	3	N/A
Number of entry seminars held	3	N/A
<b>SITE SUPPORT AND FOLLOW-UP</b>		
Number of sites supported	54	55
Number of biannual progress evaluations	11	27
<b>TRAINING AND HEALTH WORKER SUPPORT</b>		
Number of health workers trained in the provision of family centered HIV services (PMTCT, pediatric care and support, pediatric treatment, TB/HIV, performance and capacity building)	2,310	2,688
Number of on-site skills building events held (cluster implementation workshops)	56	93
Number of health care workers trained on site	1,015	1,170
Number of individual on-site mentoring sessions supported	984	2,000

### Off-Site Capacity Building Activities

As part of its broad package of support, S2S offered distinct offsite capacity building events, including the Comprehensive Pediatric HIV Care and Treatment Training, the Performance and Capacity Enhancement (PACE) Workshop, and other S2S-supported meetings and events.

#### Comprehensive Pediatric HIV Care and Treatment Training

The two-week Comprehensive Pediatric HIV Care and Treatment Training program, which began in 2006, was condensed to a single week beginning in 2008. S2S trained delegates identified by the DOH, FPD, BRHC, RTC, and ECHO on comprehensive pediatric HIV care and treatment. From 2008 to 2010, 20 training events were held (Table 5) at the University of Stellenbosch, Cape Town, and 182 participants received the comprehensive training. Specifically, 28 delegates were recruited through FPD, 31 through BRHC, three through ECHO, 29 through RTC, and 55 through the DOH.

The training utilized a variety of training platforms, including a targeted didactic program that emphasized case management and service implementation, as well as practical, hands-on experience wherein participants and clinical mentors participated in ward rounds to reinforce skills learned during the didactic portion of the training. After the course, S2S conducted on-site follow-up visits with participants from S2S-supported sites to provide additional support customized to participant and site needs.

Training topics included:

- Overview of pediatric HIV
- Care of the exposed infant and infant diagnosis
- Management of the HIV-infected child
- Growth and neurodevelopmental monitoring
- Pediatric ART
- Art follow-up: toxicities and second-line regimens
- Pediatric tuberculosis
- OIs (respiratory, oral, gastrointestinal, neurological, dermatological)
- Treatment adherence
- Psychosocial support and counseling
- Pediatric disclosure, adherence, and care
- Caring for adolescents

Following the course, participants provided feedback via an anonymous questionnaire. Overall, they found the course useful and reported that the training had a positive impact on their knowledge and ability to implement comprehensive pediatric HIV care and treatment services at facility level. Most useful course features were reported to be its practical components (ie, ward rounds, the visit to Brooklyn Chest Tuberculosis Hospital, attending the HIV Family Clinic) and coverage of growth and neurodevelopmental monitoring, psychosocial support and disclosure in children, the care package for HIV-exposed and HIV-infected children, and ART management (ie, toxicities and first- and second-line regimens).

When participants were asked about the course’s most useful component, comments included:

- “Very friendly staff, the manner in which the training is structured is small. Group good/flexible lecturers with different strategies of teaching ward rounds, lecturers, discussions and hands on all this kept me awake with sustained concentration and having answers to all my questions.”
- “Small group makes it much easier to interact with lecturers, one gets undivided attention.”
- “Various experiences from different lecturers as well as from other people attending the course most useful.”

TABLE 5: COMPREHENSIVE PEDIATRIC HIV CARE AND TREATMENT TRAINING EVENTS HELD

DATE	NUMBER OF PARTICIPANTS
November 17–21, 2008	7
November 24–28, 2008	6
January 12–16, 2009	7
February 23–27, 2009	10
May 11–15, 2009	9
June 22–26, 2009	9
August 3–7, 2009	10
August 31–September 4, 2009	10
October 12–16, 2009	8
November 9–13, 2009	10
December 7–11, 2009	9
January 25–29, 2010	9
February 22–26, 2010	10
April 12–16, 2010	9
May 24–28, 2010	10

DATE	NUMBER OF PARTICIPANTS
June 21–23, 2010	12
July 5–7, 2010	7
July 26–30, 2010	10
August 23–27, 2010	9
September 13–17, 2010	11
<b>TOTAL PARTICIPANTS TRAINED</b>	<b>182</b>

### Performance and Capacity Enhancement Workshop

Between 2009 and 2010, nine Performance and Capacity Enhancement (PACE) Workshops, each lasting one week, were hosted (Table 6). The focus of PACE was to support health workers and foster the skills that would enhance their capacity to work effectively while remaining engaged in their work, motivated, and healthy. PACE Workshop content included health worker well-being, job satisfaction, communication skills, team building, managing conflict, motivation, coping with change, and managing stress. A total 29 health workers attended PACE during FY2008–FY2009, and 100 health workers attended PACE during FY2009–FY2010. PACE participants were nominated by the DOH district management teams from S2S-supported sites in Tshwane and Moretele districts.

On the final day of the retreat, participants provided feedback on the course by completing an anonymous questionnaire. Overall, participants found the workshop useful in dealing with the day-to-day challenges at facility and management levels in HIV care and treatment services in South Africa.

Comments describing the training’s most useful components noted:

- “The retreat did motivate me as a person. South to South, at least you care about us counselors.”
- “It taught me that while you work, you must also have fun in order to enjoy what you are doing.”
- “I’ve learned a lot, especially about what motivates me to work—job satisfaction.”
- “The material and content is useful not only for health care workers in the field of HIV but for all people.”
- “I now know how to change someone’s life and even myself. I can now stand for whatever situation.”

TABLE 6: PACE WORKSHOPS OCTOBER 2008–SEPTEMBER 2010

DATE	NUMBER OF PARTICIPANTS
March 23–27, 2009	12
July 12–16, 2009	15
August 17–21, 2009	12
November 16–20, 2009	16
February 22–26, 2010	15
April 12–16, 2010	14
May 24–28, 2010	15
July 26–30, 2010	15
September 13–17, 2010	15
<b>TOTAL PARTICIPANTS TRAINED</b>	<b>129</b>

## S2S-Supported Meetings and Events

S2S supported PEPFAR Implementing Partners and the National DOH by hosting a number of important events in 2009 and 2010. In September 2009, S2S hosted a meeting entitled, *USAID Implementing Partners' Response to the Need for Rapid Scale-Up/Implementation of the South African Accelerated PMTCT Plan*, with partners to inform best practices and approaches in the implementation of comprehensive PMTCT services.

In 2010, S2S also hosted four single-day PMTCT partner meetings, attended by 266 delegates from eight provinces throughout South Africa. The meetings allowed PEPFAR PMTCT partners to discuss and evaluate various approaches to the National PMTCT Program's Accelerated Plan and align their activities to national DOH provincial and district workplans.

- May 27, 2010–Northern Cape and Free State (Bloemfontein)
- May 28, 2010–Gauteng and North West Province (Johannesburg)
- June 8, 2010–Eastern Cape and Kwa-Zulu Natal (Durban)
- June 9, 2010–Limpopo and Mpumalanga (Polokwane)

## Enhancing Programs through Monitoring and Evaluation

S2S implemented a robust program quality monitoring and evaluation (M&E) plan aimed at documenting the impact of the S2S programs' technical assistance. This included qualitative and quantitative components that documented and monitored inputs, activities, outputs, and outcomes. S2S did not work on set treatment targets, but rather filled gaps and optimized opportunities for enhanced, family-centered HIV prevention, care, and treatment services, in support of USAID implementing partners' activities. S2S did not impose any additional reporting burden on supported sites; instead, it utilized existing systems to document outputs and outcomes. *See Appendix 1 for a full summary of program targets and achievements.*

## Support to the DOH, PEPFAR, and Implementing Partners

### *Coordination and Support of PEPFAR Implementing Partner Activities*

S2S was asked by USAID to coordinate several PMTCT-related activities, including:

- **PMTCT Workgroup Informational Database:** S2S developed an informational database, accessible to all partners, as well as PEPFAR and DOH leadership, via a website. The database captured partner information, sites supported, activities/practices, data and tools, training curricula, and job aids, with an aim of limiting duplication of effort, increasing experience-sharing, and forming networks to leverage partner expertise. S2S maintained the database and extracted summary reports on: partner PMTCT coverage per province and district; site outcome data at baseline and over time; and various partner specific PMTCT quality improvement practices. These data was presented to the national Department of Health PMTCT program and USAID Technical team. The database was not intended as a research tool. Its aim was to enable PEPFAR and the DOH to access activities planned at various PEPFAR partner-supported sites to determine whether activities align with the National PMTCT program.
- **National PMTCT Register Printing:** S2S support for the National PMTCT Program included the printing of government facility PMTCT registers and best practices, which reflected the revised 2010 PMTCT guidelines and indicators. Printing and dissemination of these materials strengthened the standardization of monitoring and documentation tools, as well as scale up the implementation of best practices.



- **North West Province Pre-ART Register Printing:** S2S support for the North West ART Program included the printing of government facility pre-ART registers. Printing and dissemination of these materials strengthened the standardization of monitoring and documentation tools.
- **National DOH PMTCT Best Practice Document “Tried and Tested” Printing:** S2S support for the National PMTCT Program included the printing of a PMTCT best practices document to strengthen and scale up the implementation of best practices.
- **Pediatric HIV Technical Assistance and Coordination Support for the National DOH and Implementing Partners:** A large pediatric HIV knowledge and skills gap exists among health care workers at the frontline of HIV care and treatment services, and implementing partners themselves may need support. In response to this need, S2S provided technical support to the National DOH integrated management of childhood illnesses (IMCI) team to revise the content of the IMCI pediatric ART supplement for nurses (in partnership with ECHO); technical support and training at an IMCI training of trainers events held nationally (in partnership with ECHO); technical support for development of a pediatric HIV management toolkit for health care workers (in partnership with ECHO); and initiation, chairing, and other support of the pediatric technical working group in Tshwane district, consisting of DOH and other key partners.
- **Procurement of Vehicles:** PEPFAR and the National DOH completed a rationalization exercise to support the South African government’s Accelerated Plan for PMTCT. As part of this plan, PEPFAR partners became responsible for supporting and enhancing programs and activities at an estimated 1,800 additional sites offering PMTCT and ART services. To support this expansion, S2S procured eight vehicles, which were transferred to partners to enhance partner achievements.
- **Procurement of Equipment and Supplies:** S2S supported HIV prevention through the procurement of 22,000 male circumcision packs and 61 diathermy machines, which were transferred to MaTCH and Anova Health Institute, the implementing organizations coordinating and implementing national medical male circumcision (MMC) rollout. S2S also procured medical supplies and equipment to support S2S-supported health facilities, including scales, stadiometers, thermometers, and stethoscopes. S2S did not use or distribute these supplies.

### Family-Centered Performance and Training Support Tools and Resources

S2S developed and adapted useful and focused tools and materials to enhance the family-centered HIV services provided at supported health facilities. Implemented tools provided performance and program support to individual health workers and multidisciplinary teams at health facilities. S2S extended circulation of tools to additional stakeholders in South Africa to improve program delivery. A summary of tools developed is listed below. For a complete list of materials, *see* Appendix 2, Compendium of Tools and Materials.

- **S2S Lay Counselor APS in PMTCT Training:** To enhance the skills of lay counselors at S2S-supported sites, an expert consultant was engaged to support the development of a training focused specifically on APS in PMTCT services and on disclosure. Eight modules were developed and several modules were pilot-tested and revised based on participant and facilitator feedback. Training modules included: Introduction to Psychosocial and Adherence Support in PMTCT Programs, Review of Basic Counseling and Communication Skills, Improving Pre-Test and Post-Test Counseling in ANC, Conducting a Psychosocial Assessment and Providing Referrals and Linkages to Social Support, and Providing Supportive PMTCT Counseling, among others.



- **Targeted Tools and Materials:** The S2S technical team developed various performance tools, job aids, community referral and support tools, appointment registers, and tracking and tracing tools to support health workers in offering and documenting quality, family-centered services.
- **S2S Website:** A Stellenbosch University-based Web site was developed as a platform for sharing S2S goals and objectives, partnerships, program areas, on-site and off-site activities, performance and training support tools and resources, and upcoming quarterly newsletters. The Web site is accessible at [www.sun.ac.za/southtosouth](http://www.sun.ac.za/southtosouth).

S2S continued its partnership with the François Xavier Bagnoud Center (FXBC), School of Nursing, University of Medicine and Dentistry of New Jersey, a center that regularly leads the development of performance and training tools and resources to support the scale-up of family-centered HIV prevention, care, and treatment services. Tools developed in partnership with FXBC included:

- **PACE Workshop:** The PACE Workshop package consisted of a facilitator manual, participant manual, and participant journal covering each of the 10 workshop modules. The PACE package was pilot-tested in March 2009 and adjusted in response to qualitative and quantitative participant, facilitator, and observer feedback collected before, during, and after the pilot event.
- **S2S Pediatric Training Modules:** Pediatric training modules were developed to support trainings related to implementation of comprehensive, family-centered pediatric HIV care at S2S-supported sites. Five comprehensive modules were completed, including Basic Pediatric Care; Prevention of Mother-to-Child Transmission of HIV; Infant Feeding and HIV; Disclosure of HIV Diagnosis to Children; and Nutritional Support.
- **Health Worker Support Tools:** Several tools were created.
  - A PMTCT wall chart describing care and treatment of HIV-infected pregnant women and HIV-exposed infants was developed for use at S2S-supported sites and updated to include information from the new South African guidelines.
  - Development began on a clinical guide to pediatric HIV care and treatment in South Africa to serve as a reference for health workers caring for HIV-exposed infants and children living with HIV. The tool's finalization was delayed with the intent of integrating the tool into the current South Africa IMCI training materials but is expected to be finalized after project closeout.
  - An illustrated pediatric disclosure flip chart was developed for use by health workers to guide discussions of caregivers of HIV-infected children. The flip chart, which provided information and guidance on how caregivers can speak with children about disclosure, was used at S2S-supported sites to build counselor and social worker capacity.

# CHALLENGES AND CONSTRAINTS

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S2S was faced with a variety of challenges during project initiation and implementation. At the facility level, the capacity of sites to launch or enhance family-centered HIV prevention, care, and treatment programs varied, yet the majority of facilities experienced human resource shortages, poor infrastructure, and underdeveloped medical record systems. S2S used Standards of Care (SOC) in its baseline site assessments and progress reports, yet poor documentation and records systems at many sites resulted in difficulties obtaining even basic information. As a result, S2S's initial site support activities included technical support to strengthen documentation and records systems. These and other gaps identified at S2S-supported sites, coupled with revised South African treatment guidelines for PMTCT, pediatric HIV treatment, adult HIV treatment, and TB guidelines (announced in April 2010), resulted in slower-than-anticipated progress of S2S's phased approach to site support.

Additionally, facilities that received S2S technical support were slow to transition out of the phased S2S site support process as a result of a DOH decision to realign partner support in August 2009. The realignment resulted in a discontinuation of S2S site support in Metsweding and Tshwane districts, where S2S had been active for seven months. The decision to harmonize partner activities was a strategic decision made by the DOH and was not associated with S2S's implementation activities or its capacity to provide support to the districts.

S2S activities were affected in 2008 and 2009 because the S2S team was not yet fully staffed. The incomplete staff complement limited S2S activities. Most S2S staff were appointed by October 2009, with the pediatric clinical advisor position following in February 2010.

Lastly, national events in 2010, limiting S2S access to supported sites, hindered S2S's ability to continue activities as planned. These events included the World Cup (June–July 2010) and the National Public Service strike (August–September 2010).

# KEY RECOMMENDATIONS

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As a capacity building organization and specialist in comprehensive PMTCT and pediatric HIV services, S2S has made great strides in support of quality, comprehensive, family-focused HIV care and treatment services at facility, district, provincial, and national levels. In some cases, barriers to implementing this important work has resulted in a need to delay implementing activities fully and realign workplan priorities. Key recommendations on areas to strengthen include:

## USAID Partner-Level Recommendations

### **Collaboration and Coordination to Achieve Sustainable Interventions and Outcomes**

Collaboration and coordination among USAID and implementing partners will be key in working effectively with district-level counterparts in the planning and implementation of sustainable programs. The focus should be on supervision and quality improvement at site level to improve district-level outcomes. This collaborative effort could include:

- The joint uptake of better practices.
- Partner activities in specific districts should mirror or support DOH objectives.
- All training events should continue to include a mentorship component to strengthen knowledge and skills transfer.

### **A Standardized Approach to Implementation Based on Proven Best Practices**

- The emphasis of capacity building efforts should be the creation of a sufficiently large pool of trained multidisciplinary teams to provide PMTCT, pediatric HIV care and treatment services, and psychosocial support at all health facilities. A group of training facilitators to engage in supervisory, mentoring, and training activities should be maintained.
- Capacity-building activities should be standardized, with the development of a standard package of quality improvement activities based on best practices to be used by all partners to support facilities.
- Standardization among partners on information and education communication (IEC) materials, trainings, and tools will avoid duplication. These materials should be reviewed regularly by DOH counterparts, partners, and peers to inform process, content, impact, and distribution.

## National-Level: Recommendations

### **Creating a Pool of Trained DOH Health Care Workers**

- Creating a sufficiently large pool of trained DOH health care workers to provide PMTCT and HIV care and treatment services at all health facilities, and maintaining a group of training facilitators to engage in supervisory, mentoring, and training activities, should be prioritized.

### **Monitoring Program Progress—Moving from Process to Outcome Indicators**

- Current national and district-level M&E systems do not capture data necessary to effectively monitor and evaluate PMTCT, pediatric HIV care and treatment services, and psychosocial support. Strengthening these M&E systems will help accurately assess program gaps and improve service delivery at district and national levels.
- Standardization of monitoring, evaluation, and reporting activities is needed.

- Mentorship for reporting data must continue and be strengthened. Data-reporting mentorship should include a mechanism that feeds data back to the facilities to inform their own quality improvement plans.

## District-Level Recommendations

### Building the Capacity of District Health Management Teams

- Building capacity of District Health Management Teams (DHMTs) will aid in systematizing PMTCT, pediatric HIV, and psychosocial support service provision at district level.
- Developing standardized supervisory tools and supporting DHMTs to create supervisory schedules (including joint supervisory visits by both DHMTs and S2S staff) will strengthen the supportive supervision provided to site-level staff.

### Need for Ongoing Supervision, Refresher Trainings, and Feedback

- Although health care workers at S2S-supported sites have expressed confidence in their skills and ability in their respective roles, ongoing supervision, refresher trainings, and feedback are needed.

### Institutionalized Technical Working Groups

- S2S initiated the Pediatric HIV and data management technical working groups for DHMTs and partners in S2S-supported districts. Technical working groups such as these provide a useful platform for DHMTs and partners to share and be updated on the latest technical information, identify implementation challenges, collaborate on implementation of best practices, and collectively work toward achieving district outcomes. Due to the value of these technical working groups, it is recommended that their frequency and scope be increased.

## Facility-Level Recommendations

### Ongoing Technical and System Support

- Providing ongoing support to ensure utilization of the multidisciplinary team approach at facility level, and ensuring adequate supervision by DHMTs, will continually enhance the ability of site-level staff to provide quality services to clients.
- Introducing and implementing a comprehensive training curriculum for all APS staff working at facility level as well as standardized APS tools will enhance staff capacity and thereby improve APS support services to clients.

### Ongoing On-Site Training, Supportive Supervision, Clinical Mentoring, and Training on Job Aids

- On-site training, supportive supervision, and clinical mentoring, along with training on the use of job aids, should be an ongoing strategy to build health care worker capacity.

### Realistic Timeframes for the Transfer of Knowledge and Skills

- Realistic timeframes based on achievements of milestones are needed to implement sustainable programs.

# THE WAY FORWARD

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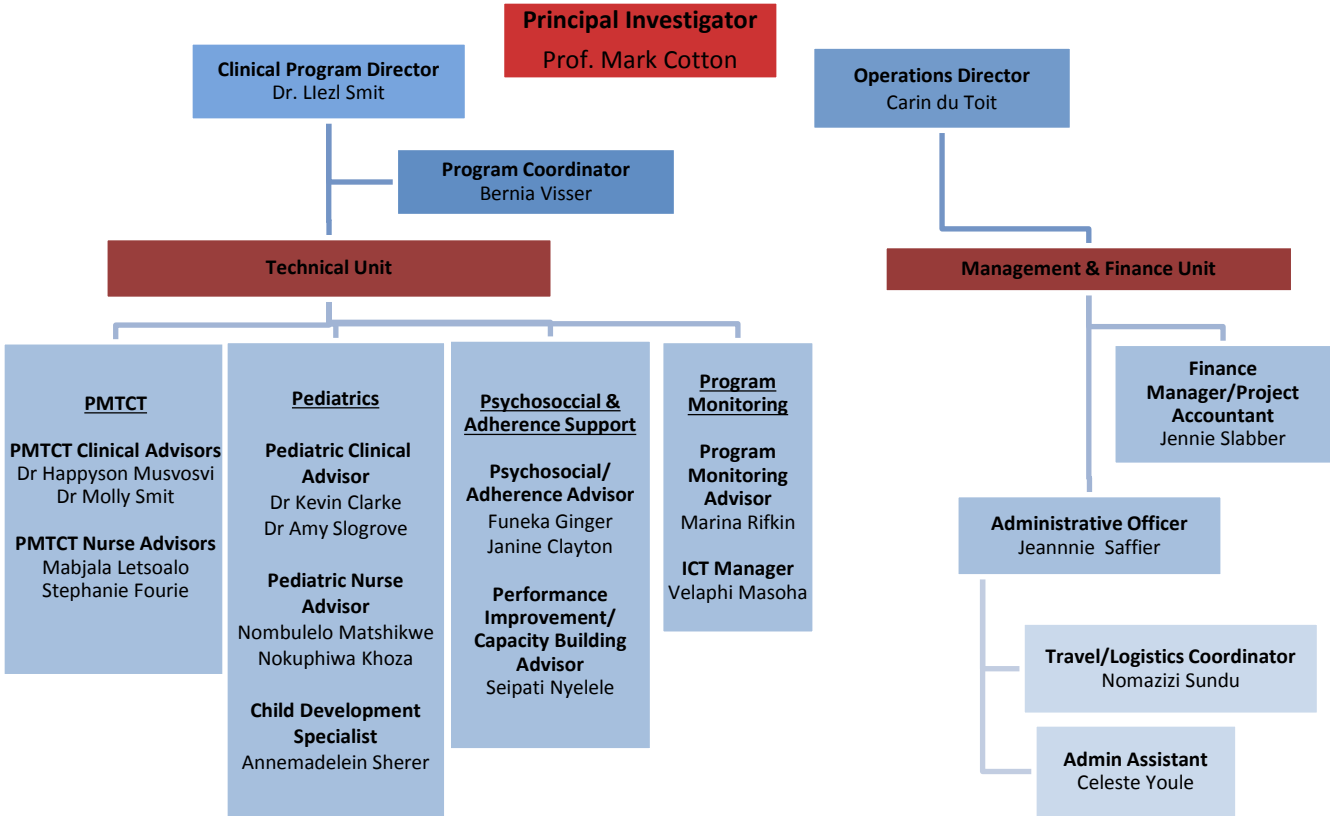
S2S will continue collaborations with PEPFAR, USAID-South Africa, implementing partners, and the South Africa DOH after the project period closeout in September 2010.

As of October 1, 2010, the S2S mechanism will transition from ICAP to Right to Care. It is anticipated that S2S program implementation activities will not be interrupted or affected by this transition.

# Overview

## MANAGEMENT STRUCTURE AND STAFF

The S2S program was managed and implemented collaboratively and in partnership between ICAP and University of Stellenbosch, Tygerberg Children’s Hospital. The current S2S staffing structure is represented in the organizational chart below. Under this award, overall strategic direction and planning for the program was provided by ICAP via ongoing conference calls and regular site visits to enhance technical, programmatic, and administrative elements of the program. The clinical program director provided leadership and maintained close collaboration and communication with PEPFAR, USAID-South Africa, and USAID implementing partners.



# Appendix 1

## M&E SUMMARY

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APPENDIX 2 TABLE A: PERFORMANCE MEASURES 2008-2010

SITE SUPPORT AND FOLLOW-UP	TARGET	ACHIEVED	TARGET	ACHIEVED
	FY2008-2009	FY2008-2009	FY2009-2010	FY2009-2010
Number of sites supported	30	33	55	35/TBD
Number of bi-annual progress evaluations	N/A	N/A	27	11
<b>Training and Health Worker Support</b>				
Number of health workers trained in the provision of family centered HIV services (PMTCT, pediatric care and support, pediatric treatment, TB/HIV, performance and capacity building)	1,040	308	1,648	2,002
<ul style="list-style-type: none"> <li>• <b>On-site</b> skills building events held (cluster implementation workshops)</li> </ul>	45	5	48	51
<ul style="list-style-type: none"> <li>• Health care workers trained <b>on site</b></li> </ul>	450	55	720	960
<ul style="list-style-type: none"> <li>• Individual <b>on-site</b> mentoring sessions supported</li> </ul>	350	146	1650	838
<ul style="list-style-type: none"> <li>• <b>Off-site</b> training events held</li> </ul>	16	11	19	22
<ul style="list-style-type: none"> <li>• Health care workers who attended <b>off-site</b> trainings</li> </ul>	240	107	235	204

## Progress at Site Level: PMTCT

Baseline assessments were conducted in June 2009 (Tshwane sites) and November 2009 (Moretele sites). Reassessments were conducted in April 2010 (Tshwane sites) and May/June 2010 (Moretele sites). The results of these assessments are presented in Table B below.

TABLE B: PROPORTION OF PREGNANT WOMEN AND HIV-EXPOSED INFANTS RECEIVING ADEQUATE PMTCT SERVICES AT SELECTED S2S-SUPPORTED SITES

FACILITY	BASELINE				RE-ASSESSMENT			
	% PREGNANT WOMEN RECEIVING HTC	% HIV-INFECTED PREGNANT WOMEN WITH CD4 RESULT	% HIV-INFECTED PREGNANT WOMEN NOT ELIGIBLE FOR HAART RECEIVING ANTE-NATAL AZT	% HIV-EXPOSED INFANTS RECEIVING PCR TESTING AROUND 6 WEEKS	% PREGNANT WOMEN RECEIVING HTC	% HIV-INFECTED PREGNANT WOMEN WITH CD4 RESULT	% HIV-INFECTED PREGNANT WOMEN NOT ELIGIBLE FOR HAART RECEIVING ANTE-NATAL AZT	% HIV-EXPOSED INFANTS RECEIVING PCR TESTING AROUND 6 WEEKS
Bopelong	100%	100%	Data N/A	Data N/A	100%	100%	Data N/A	Data N/A
KT Motubatse	Data N/A	Data N/A	Data N/A	Data N/A	100%	85%	Data N/A	Data N/A
Laudium		Data N/A	Data N/A	Data N/A	89%	100%	Data N/A	Data N/A
Soshanguve 3	Data N/A	Data N/A	Data N/A	Data N/A	93%	40%	100%	Data N/A
Bosplaas	Data N/A	Data N/A	Data N/A	Data N/A	77%	100%	67%	Data N/A
Kutlwanong	>100%?	69%	Data N/A	Data N/A	84%	96%	56%	Data N/A
Makapanstad	Data N/A	Data N/A	Data N/A	Data N/A	85%	77%	50%	Data N/A
Mathibestad	Data N/A	Data N/A	Data N/A	Data N/A	90%	82%	100%	Data N/A
Maubane	Data N/A	Data N/A	Data N/A	Data N/A	100%	100%	100%	Data N/A
Moretele	100%	100%	Data N/A	Data N/A	90%	100%	100%	Data N/A
Sediane	100%	100%	Data N/A	Data N/A	100%	100%	Data N/A	Data N/A

*Note:* Although most sites have PCR data in a PCR book, the data does not include the proportion of HIV-exposed infants receiving PCR tests, because the books cover only *infants tested*, not *all HIV-exposed infants*.



## Progress at Site Level: Pediatric ART

S2S aimed to support ART sites in the initiation of eligible children on ART. During the reporting period, S2S supported four ART clinics, namely KT Motubatse (Tshwane District), Laudium (Tshwane district), Mathibestad (Moretele subdistrict), and Soshanguve 3 (Tshwane District). Although all these facilities provided adult ART services, neither KT Motubatse nor Soshanguve 3 provided ART services to children aged 0–14 years prior to S2S support. Although Soshanguve had initiated six children on ART since 2006, none of these children were active at the ART clinic at the time S2S started support at this facility. As of July 2010, Soshanguve 3 has initiated 28 new children on ART and KT Motubatse is preparing to initiate its first pediatric ART patient. Furthermore, through S2S support and the dedication of the facilities' staff, these clinics have been able to increase the number and proportion of children initiated on ART (Table B).

TABLE C: NUMBER AND PROPORTION OF CHILDREN INITIATED ON ART AT S2SSUPPORTED SITES

FACILITY	BASELINE (JUNE 2009*)		RE-ASSESSMENT (JULY 2010)	
	NUMBER OF CHILDREN (AGE 0-14) EVER INITIATED ON ART	% CHILDREN INITIATED AS A PROPORTION OF ALL PATIENTS INITIATED	NUMBER OF CHILDREN (AGE 0-14) EVER INITIATED ON ART	% CHILDREN INITIATED AS A PROPORTION OF ALL PATIENTS INITIATED
KT Motubatse	0	0%	0	0%
Laudium	49	Data N/A	130	3.67%
Mathibestad	57	Data N/A	102	2.49%
Soshanguve 3	6**	Data N/A	32	0.90%

\* Baseline data for Mathibestad was collected in November 2009.

\*\* Although six children had been initiated on ART at Soshanguve between 2006 and July 2009, none of these children were receiving ART services at Soshanguve 3 as of July 2009.

## *Appendix 2*

# COMPENDIUM OF MATERIALS AND TOOLS

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### **PMTCT Training Materials**

- Implementation workshop: PMTCT–Antenatal, Delivery, and Postnatal Care (3 day training)
- Implementation workshop: HIV Counseling and Testing (2 day training)
- Prevention of Mother to Child Transmission of HIV (PMTCT) Facilitator and Participant Manual [HIV Care & Treatment Training Series with FXB/UNJ]
- Care of the HIV Exposed Infant Facilitator and Participant Manual [HIV Care & Treatment Training Series with FXB/UNJ]
- Infant Feeding in the Context of HIV Facilitator and Participant Manual [HIV Care & Treatment Training Series with FXB/UNJ]

### **PMTCT Tools**

#### **PMTCT Toolkit for South African Healthcare Workers**

- PMTCT process map
- Algorithm for HIV testing in pregnancy
- VCT testing sheet
- Review of routine testing in ANC determine rapid test
- Symptomatic screening for TB
- ART and PMTCT regimens for HIV-infected pregnant women
- WHO clinical staging of HIV/AIDS case definition 2006
- CTX prophylaxis dosing chart in pregnancy
- Eligibility criteria for ARV therapy in pregnancy
- Monitoring schedule for ARV treatment in pregnancy
- Tuberculosis screening for adults
- INH preventative therapy
- Infant NVP prophylaxis flowchart
- Infant CTX prophylaxis flowchart
- Replacement feeding–key counseling questions
- Infant diagnosis flow chart
- Care package of the HIV-exposed infant
- Follow up schedule for the HIV-exposed infant flowchart
- PMTCT counseling checklist (pre & post test counseling)
- PMTCT psychosocial assessment form
- Clinical checklists: Basic antenatal care (BANC), ANC follow up, PMTCT

- Referral to comprehensive care management and treatment (CCMT) initiation
- ANC PMTCT register
- ANC PMTCT Poster
- PMTCT Pregnancy Wheel (adapted from ICAP)
- PMTCT Package of Care (adapted from ICAP)

## Pediatric Care and Treatment –A Toolkit for South African Healthcare Workers

*Produced in collaboration with ECHO, endorsed by the National Department of Health*

- IMCI & ART
- HIV care packages
- Diagnosis
- ART eligibility
- Pictionary of pediatric WHO staging
- Psychosocial support
- Antiretroviral therapy (ART)
- Prophylaxis
- TB/HIV
- Nutrition
- Development
- Additional resources

## Pediatric Care and Treatment Training Materials

- *Comprehensive Pediatric HIV Care & Treatment Training* course at Tygerberg Children’s Hospital (one week, 22 module training series with practical component)
- *Pediatric HIV Care and Treatment* in-service training course for the multidisciplinary team at S2S–supported facilities (10 module training series)
- *Introduction to Pediatric HIV* (1 day implementation workshop)
- *Neurodevelopment in HIV infected children—for Allied Healthcare Workers* (1 day implementation workshop)
- Clinical Skills Building for Child health Facilitator and Participant Manual [HIV Care & Treatment Training Series with FXB/UNJ]
- Nutritional Support from Birth through Adolescence Facilitator and Participant Manual [HIV Care & Treatment Training Series with FXB/UNJ]

## Other Pediatric Materials

- Normal developmental milestones of the young child–poster
- Pediatric pre-ART mastercard (adapted from Baylor College)
- HIV-exposed infant mastercard (adapted from Baylor College)

## Psychosocial and Adherence Tools

### Psychosocial and Adherence Counseling Support Training Toolkit

- Counseling & communication skills checklist
- PMTCT psychosocial assessment guide & reporting form
- HIV counseling & testing checklists for use in ANC settings
- Community referral directory template
- PMTCT counseling cue cards

### Other APS Materials

- PMTCT Basics
- Staying healthy during your pregnancy
- Adhering to your PMTCT care plan
- Disclosing your HIV status
- Having a safe labor and delivery
- Taking care of yourself after your baby is born
- Caring for your HIV-exposed baby and adhering to care and medicine
- Safely feeding your baby
- Exclusively breastfeeding your baby
- Exclusively replacement/formula feeding your baby
- Introducing complementary foods to your child at 6-months
- Testing your baby for HIV
- Caring for your HIV-infected baby or child and adhering to care and medicines

### Disclosure Process for Children and Adolescents Living with HIV Booklet Series [with FXB/UNJ]

- How to Keep Healthy Disclosure Booklet (1 in series of 3)
- Knowing about myself Disclosure Booklet (2 in series of 3)
- Living a Life of Health Disclosure Booklet (3 in series of 3)
- How to Keep Healthy–Cue cards for Healthcare Workers (1 in series of 3)
- Knowing about myself–Cue cards for Healthcare Workers (2 in series of 3)
- Living a Life of Health–Cue cards for Healthcare Workers (3 in series of 3)

### Psychosocial and Adherence Training Materials

- Psychosocial and Adherence Counseling Support Training Facilitator and Participant Manual
- Disclosure Process for Children and Adolescents Living with HIV Facilitator and Participant Manual [HIV Care & Treatment Training Series with FXB/UNJ]

## Monitoring and Evaluation Tools

- PMTCT standards of care (adapted from ICAP)
- Care of the HIV-exposed infant (adapted from ICAP)
- Pediatric standards of care (adapted from ICAP)
- Care of the HIV-infected child pre-ART (adapted from ICAP)

- Care of the HIV-infected child on ART (adapted from ICAP)
- TB/HIV integration standards of care (adapted from ICAP)
- Referral to CCMT initiation–form
- PCR result tracing card for facilities

## Leadership and Performance Training Material

- Performance and Capacity Enhancement (PACE) Facilitator and Participant Manual [with FXB/UNJ]  
(10 module training series)

## Appendix 3

# LIST OF POSTERS AND ICAP-E NEWS PUBLICATIONS

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Arakaki-Sanchez D, Polejack L, Mello M, Lima JN, Thompson A, Hoos D, El-Sadr W. South-to-South Collaboration Helps Scale Up ART in Mozambique [poster]. International Center for AIDS Care and Treatment Programs Conference Posters, Abstracts, and Presentations [database online]. New York, NY. Available at: <http://cumc.columbia.edu/dept/icap/news/posters/Implementers2006/index.html>.

Costa C, Smit L, Rabie H, Barnard R, Dugan K, Cotton M, Abrams E. The South-to-South Partnership for Comprehensive Pediatric HIV Care and Treatment Initiative (S2S): Increasing Capacity in Southern Africa by Transforming Training into Performance and Service Delivery [poster]. International Center for AIDS Care and Treatment Programs Conference Posters, Abstracts, and Presentations [database online]. New York, NY. Available at: <http://www.hivimplementers.com/2007/pdf/poster/POSTER%20Costa-Smit%20Abstract%20288.pdf>.

Tafesse M, Melaku Z, Cotton M, Smit L, Rabie H, Bernard R, Costa C, Colton T, Abrams E. South-to-South Exchange Improves Pediatric Care and Treatment Service in Ethiopia [poster]. International Center for AIDS Care and Treatment Programs Conference Posters, Abstracts, and Presentations [database online]. New York, NY. Available at: [www.columbia-icap.org/news/posters/.../S2S%20Poster,%20Final.ppt](http://www.columbia-icap.org/news/posters/.../S2S%20Poster,%20Final.ppt).

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## ICAP-E News

### April 2010

#### South-to-South Partnership Bolsters Pediatric HIV Care

When Gilbert Tene first examined Joseph, the nine-month old baby was quite ill. His short life had already been marked by repeated episodes of fever, diarrhea, and coughing. He was severely malnourished, weighing no more than 12 pounds, and was struggling to sit steadily by himself. Dr. Tene, a pediatric HIV care and treatment advisor for ICAP-Rwanda, diagnosed Joseph with advanced HIV disease.

Managing HIV/AIDS in resource-limited settings presents multiple challenges, such as health worker shortages and patients' lack of access to health facilities. But caring for an HIV-infected child is even more daunting. "Obstacles span the spectrum from difficulty in diagnosing HIV in infants to the need for special clinical skills to care for children,"



said Dr. Tene. “In addition, children have special medication formulations and families must be engaged in the care of children.”

These challenges are compounded by misconceptions that caring for children with HIV is too difficult. Some feel that children are simply doomed to succumb to the disease. In addition, most HIV programs are designed to meet the needs of adults, not children.

In 2006, Elaine Abrams, MD, Senior Research Director at ICAP, and Mark Cotton, Director of the Children’s Infectious Diseases Clinical Research Unit at South Africa’s Stellenbosch University, set out to change the face of pediatric HIV care and treatment in Africa by launching a unique cross-continent collaboration called the South-to-South (S2S) Partnership. The program combines the unique strengths of ICAP and Stellenbosch in HIV program development and pediatric HIV care and treatment to train multidisciplinary teams from HIV programs across Africa.

Rather than utilize physicians from high-resource countries to provide this training, S2S taps local expertise at Stellenbosch, where a multidisciplinary pediatric HIV program already exists with highly experienced mentors. ICAP works with Ministries of Health and national HIV/AIDS programs in several African countries to identify health care providers who would best benefit from this type of training. Selecting staff from countries where ICAP works, including Kenya, Ethiopia, Rwanda, Mozambique, and South Africa, S2S draws participants from across the region to come together with pediatric HIV experts from Stellenbosch University and ICAP headquarters in New York.

S2S applies both didactic and hands-on clinical experiences to strengthen providers’ skills in pediatric HIV care and treatment. “We help ignite the flame for these teams to build their own pediatric programs,” explained Liezl Smit, MD, S2S Program Clinical Director. “Participants also share their own ideas and experiences, and continue to support one another after they complete the program.”

In addition to an emphasis on building capacity to implement pediatric HIV programs, Dr. Smit said S2S is distinguished for the clinical experiences that participants receive at Stellenbosch’s Tygerberg Hospital. “S2S is not just about hearing and knowing about pediatric HIV care and treatment, but doing it,” said Dr. Smit. “They see patients and learn about how to manage complicated cases. This practical component really makes a difference.”

The challenge of treating infants and children with HIV is one that wealthy countries, for the most part, do not have to face. This is because of wide access to medical specialists, HIV testing, and drugs to prevent transmission of the virus to newborns.

“But in resource-limited settings, HIV is an ongoing epidemic, affecting hundreds of thousands of children,” said Dr. Abrams. In 2008, about 230,000 children died of AIDS-related causes, and an estimated 430,000 babies and children were newly infected with HIV, accounting for about 16 percent of all new infections. The vast majority of those occurred through preventable mother-to-child transmission. At the end of 2008, only about 275,700 children were receiving lifesaving antiretroviral therapy (ART), less than 40 percent of those in need.

The consequences of inadequate or inaccessible pediatric HIV treatment are dire, particularly in young children. Worldwide, an estimated 2.1 million children were living with HIV/AIDS in 2008. Without treatment, half of all HIV-infected children will die before they reach their second birthday, and nearly three quarters of these children will die before they turn five.

S2S has helped make significant inroads in building the capacity to respond to this urgent need. In the program's first four years, more than 400 health care workers—from, Nigeria, Ethiopia, Zambia, Rwanda, and South Africa—have come to Stellenbosch. “S2S has helped to put pediatric HIV care and treatment on the map in Africa,” said Dr. Smit. “In part because of S2S, pediatric programs now exist in some countries that previously lacked them.”

One of the fruits of S2S is a recently established Pediatric Center of Excellence in Rwanda. A collaboration with Kigali Central University Hospital, the center is modeled after the comprehensive HIV program at Stellenbosch and provides high-quality HIV care to about 250 children, as well as training and site support to increase the number of infants and children receiving comprehensive HIV/AIDS care and treatment across Rwanda. “The S2S program helped to constitute a pool of trainers who have been, in turn, training other care providers on pediatric HIV care and treatment in Rwanda,” said Dr. Tene. Building on this framework, a pediatric practical training program has been established in Rwanda to enhance implementation of high-quality care for children across the entire country.

Although his treatment was rough going and included some setbacks, Joseph is now doing well on ART after two years on treatment, along with nutrition counseling and psychosocial support for his family. Dr. Tene reports that he weighs 30 pounds and is an active little boy.

This article was adapted from a piece by IDSA's Center for Global Health Policy. Visit [www.idsaglobalhealth.org](http://www.idsaglobalhealth.org).

*Photo caption: In a hands-on practical experience, Dr. Helena Rabie (left) of Stellenbosch University and a S2S program participant examine an infant infected with HIV.*

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## April 2009

### A New PACE for Healthcare Providers in South Africa

As part of its expanded focus on health systems strengthening in South Africa, the South-to-South (S2S) Partnership for Comprehensive Family-Focused HIV/AIDS Care and Treatment Program recently held the first Performance and Capacity Enhancement (PACE) Retreat for health care providers. The program focuses on developing strategies for improving motivation, communication, teamwork, conflict and stress management.

In recent years, public health care workers have had to cope with increasing responsibilities and patient workloads that have resulted, in part, from the scale-up of HIV services.

“As health workers, we get very stressed,” said Sophy Lerumo of South Africa's Kekana Gardens Clinic. “The coping skills that we learned through PACE will help to manage that stress. We even plan to pass these skills on to our colleagues and patients.”

Added PACE facilitator Annemadelein Scherer, “We all know how huge the need is to give care to the caregivers. PACE is a structured, formal way of addressing this need.”

The retreat concluded with participants setting personal objectives and developing individualized plans for professional growth and action.



ICAP and S2S collaborated with the François-Xavier Bagnoud Center at the University of Medicine and Dentistry of New Jersey in piloting PACE and developing the training materials.

S2S, a collaboration between South Africa's Stellenbosch University and ICAP, is funded by the U.S. Agency for International Development.

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## November 2008

### A New Chapter for the South-to-South Partnership for Comprehensive Pediatric HIV/AIDS Care and Treatment

Since its launch more than two years ago, the South-to-South Partnership for Comprehensive Pediatric HIV/AIDS Care and Treatment (S2S) has hosted 31 training sessions for 275 health care workers from 11 African countries. The program, a collaboration between ICAP and Stellenbosch University's Tygerberg Children's Hospital in South Africa, is designed to build the capacity of clinicians to deliver pediatric HIV care and treatment based on a comprehensive, family-focused approach.



In October, the partnership entered a new phase. The program will now shift to providing direct technical support in pediatric HIV care and treatment to service sites and partner organizations in South Africa.

S2S, supported by the U.S. Agency for International Development, was instrumental in spurring the development of pediatric HIV care and treatment programs throughout Africa. Through didactic training and clinical immersions at Tygerberg Hospital's Family HIV Clinic, participants developed skill sets to implement pediatric HIV programs at their own sites.

Participants lauded the program's emphasis on the multidisciplinary approach and psychosocial care, as well as building clinical skills, such as monitoring growth and neuro-development.

Said one S2S participant, "For me, S2S was a strong reminder that children are not 'small adults' and that their care, especially the management of HIV and its complications, is both an art and a science."

For the Stellenbosch S2S team, the program will be remembered for the friendships formed and the lively exchanges of experiences and knowledge.

Said S2S Program Manager Liezl Smit, MD, "The S2S program contributed to the strengthening of pediatric HIV care and treatment throughout Africa and I believe participants will continue to do remarkable work for children and families living with HIV."

*Photo caption: Clinical experiences at Tygerberg Children's Hospital were a hallmark of the South-to-South program.*

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May 2008

## ICAP Teams Assess Strategies for ‘Keeping Families Healthy’ at PMTCT and Pediatric HIV Strategic Planning Workshop in South Africa



In mid-April, multidisciplinary teams of ICAP staff from nine country programs came together in Cape Town, South Africa, to critically examine and develop strategies to address the challenges to implementing comprehensive and coordinated prevention of mother-to-child transmission (PMTCT) of HIV and pediatric HIV services.

During the second ICAP Collaborative PMTCT and Pediatric HIV Strategic Planning Workshop, held with the University of Stellenbosch and the South-to-South Partnership for Comprehensive Pediatric HIV/AIDS

Care and Treatment, participants reviewed the latest guidelines for PMTCT and pediatric HIV care and treatment. They also shared their own experiences and considered how to address country-specific PMTCT and pediatric HIV program challenges.

“The workshop provided a terrific forum for staff to share their experiences and learn from one another,” said Elaine Abrams, MD, director of ICAP’s MTCT-Plus Initiative. “It was exciting to have so many professionals devoted specifically to issues related to women and children coming together to focus on keeping families healthy.”

In sessions developed and led by many of the participants themselves, a variety of topics were examined, including how to ensure follow-up of all HIV-exposed infants born to HIV-infected women, providing more efficacious antiretroviral regimens for PMTCT, optimizing PMTCT and maternal health services during labor and delivery, and achievements and challenges in pediatric adherence with treatments.

Participants described the four-day workshop as “inspiring and informative” in showing the “way forward” in facing challenges to care for children, pregnant women, and families.

Photo caption: ICAP-Ethiopia Country Director Zenebe Melaku (left) participates in a small group discussion on knowledge for success: better services through better information.

## September 2007

### South-to-South Partnership Plans Nurse Training Component

With the completion of its eleventh workshop this summer, the South-to-South Partnership for Comprehensive Pediatric HIV/AIDS Care and Treatment (S2S Program) has trained 106 health care providers from ICAP-supported country programs in the family-focused model of pediatric HIV/AIDS care and treatment.

A collaborative endeavor between ICAP and Stellenbosch University in South Africa, the S2S Program enters its second year with plans to host 16 new teams of multidisciplinary providers and to launch a new nursing component that will focus on building cadre-specific skills and knowledge for delivering pediatric HIV/AIDS care and treatment. In addition, a new partnership between the S2S Program and the Michael Mapongwana Clinic in Khayelitsha Township will provide new precepting opportunities for program participants at primary care centers.

“The success of the S2S Program is a testament to the strong partnership between Stellenbosch University and ICAP,” said Elaine Abrams, MD, director of ICAP’s MTCT-Plus Initiative. “We are excited that the program continues to grow and look forward to the participation of many more multidisciplinary teams committed to the care of children.”

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## March 2007

### ICAP Programs To Share Experiences and Forge Strategic Plans for Pediatric HIV/AIDS Care and Treatment

Representatives from seven ICAP country programs will meet April 15-19 at South Africa’s Stellenbosch University to share their experiences and develop strategic plans for pediatric HIV/AIDS care and treatment. The workshop, sponsored by ICAP and the South-to-South Partnership for Comprehensive Pediatric HIV/AIDS Care and Treatment, will focus on defining the ICAP Pediatric Model of Care and using this model to forge country-specific pediatric HIV/AIDS strategic plans. In addition, the workshop will serve as a forum for participants to share their program experiences, including lessons learned, successes, and failures. Participants will also learn basic mentoring skills for supporting site level staff in the implementation of pediatric services.

### Pediatric Programs Continue to Strengthen Through South-to-South Partnership

Since December 2006, the South-to-South Partnership (S2S) for Comprehensive Pediatric HIV/AIDS Care and Treatment, a joint program between ICAP and South Africa’s Stellenbosch University, has led training programs for 49 health care workers from ICAP-supported programs in Nigeria, South Africa, Ethiopia, Zambia, Rwanda, Lesotho, and Swaziland. Launched last fall, S2S brings multidisciplinary teams of providers to Stellenbosch University where they share their



experiences and learn technical and practical skills for improving their pediatric HIV/AIDS programs. Trainees also learn about HIV care and antiretroviral therapy management of children through rotations at Tygerberg Children's Hospital at Stellenbosch University.

# Appendix 4

## S2S SUCCESS STORY

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### Implementation of a Longitudinal PMTCT Register

#### Background

Site support in Tshwane District commenced with the engagement of the district management for HIV, STI, and TB (HAST) services via a S2S-facilitated pre-entry meeting. Facility managers from Tshwane District engaged in the March 5<sup>th</sup>, 2009 pre-entry meeting. Baseline site assessments were subsequently conducted between May 5<sup>th</sup> and June 6<sup>th</sup>, 2009. Bophelong clinic was one of 17 S2S-supported sites in Tshwane District in 2009.

#### Intervention and Outcome

S2S shared site assessment feedback report with Bophelong facility management. The ANC/PNC staff and the S2S team then discussed ways in which challenges at the facility could be addressed. An action plan was developed and included modifying data elements recorded in the self-made ANC/PMTCT register, as well as training and mentoring ANC nurses in components of PMTCT care. Data elements captured in the ANC/PMTCT register prior to S2S support included the clients' personal information, HIV test results, CD4 test request barcode information, the sputum specimen barcode, and a section for provider remarks. In the remarks section, the CD4 count results and referral to ART for eligible women was recorded. The challenge for the clinic was to implement the additional care components previously not included in the package of care for HIV-infected pregnant women and also document those care components in a format that would be easily retrievable. To address this, S2S and Bophelong clinic staff agreed to hold a two-day PMTCT workshop, facilitated by the S2S team, targeting staff from clinics which make up the referral network. The facility manager and ANC/PMTCT nurses agreed that this strategy would help Bophelong and other clinics within the referral network meet the challenge of introducing additional care components and complete documentation.

S2S held the PMTCT Implementation Workshop and covered topics such as the “why” and “how” of clinical staging of HIV disease, CD4 interpretation, fast tracking of referral for HAART, and TB and STI screening in antenatal care. Following the workshop, the S2S team visited sites to assist health workers with the implementation of care components covered in the workshop. Specifically, the S2S multidisciplinary technical team supported the Bophelong clinic in modifying data elements in the ANC/PMTCT register (see example in Tables A and B below).

TABLE A: BOPHELONG ANC/PMTCT REGISTER PRIOR TO MODIFICATION.

DATE	AGE	FILE #	NAME	ADDRESS + TEL	HB	RH	RPR BARCODE	VCT	REMARKS

TABLE 2: BOPHELONG ANC/PMTCT REGISTER FOLLOWING MODIFICATION

DATE	AGE	FILE #	NAME	ADDRESS + TEL	HB	RH	RPR BARCODE AND RESULT	PICT 1 <sup>ST</sup> ANC	PICT 32 WKS	CD4 BARCODE AND RESULT	DATE REFERRED ART	DATE STARTED ART	DATE STARTED ARV PROPHYLAXIS	SPUTUM B/CODE	REMARKS

The clinic nurses recorded the expanded data elements shown in Table 2 on September 1, 2009. By the end of September, 56 new ANC clients had been entered into the ANC/PMTCT register. All 56 new clients had HIV tests at entry into ANC and 11 positive HIV test results were entered into the registry. These 11 clients had CD4 counts completed and results were returned to the clinic within one week. Clients who had CD4 tests completed were requested to return for results in one week instead of the routine ANC appointment. One client with a CD4 below 200 was referred to ART 10 days after the CD4 was drawn (prior to the intervention, ART eligible clients were referred to ART four to five weeks after the CD4 test since they had been given routine ANC return dates). ANC clients were screened for TB with a contact and symptom checklist and sputum examination.

The key to this success was obtaining buy-in from Bophelong clinic staff and a commitment from the facility management and ANC/PMTCT staff. Tshwane District management’s upcoming plans include piloting a standardized ANC/PMTCT register. Bophelong clinic’s experience demonstrates that results can be achieved with relatively small interventions and minimal resources.