Baylor College of Medicine

Abbott Fund Children's Clinical Centre of Excellence
MALAWI

BAYLOR COLLEGE OF MEDICINE
Children's Foundation
MALAWI

2009 Annual Report

BIPAI mission statement

To conduct a programme of high quality, high impact, highly ethical paediatric and family HIV/AIDS care and treatment, health professional training, and clinical research.

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Acknowledgements

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Glossary

ART	Antiretroviral Therapy
ARVs	Antiretrovirals
BIPAI	Baylor College of Medicine International Paediatric AIDS Initiative
CBOs	Community Based Organisations
CDC	Centers for Disease Control and Prevention
CHWs	Community Health Workers
CME	Continuing Medical Education
COE	Baylor College of Medicine-Abbott Fund Children's Clinical Centre of Excellence-Malawi
CoM	Malawi College of Medicine
CPD	Continuous Professional Development
DBS	Dried Blood Spot
EGPAF	Elizabeth Glaser Paediatric AIDS Foundation
EID	Early Infant Diagnosis
EMR	Electronic Medical Record
FBOs	Faith Based Organisations
GRS	Grassroot Soccer
HSAs	Health Surveillance Assistants
HTC	HIV Testing and Counseling
KCH	Kamuzu Central Hospital
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MBPFUC	Mother Baby Pair Follow-Up Clinic AO Non-Governmental Organization
OTP	Outpatient Therapeutic Programme
PAC	Paediatric AIDS Corps
PITC	Provider Initiated HIV/AIDS Testing and Counseling
PMTCT	Prevention of Mother to Child HIV Transmission
QECH	Queen Elizabeth Central Hospital
RUTF	Ready to Use Therapeutic Feeds
RCT	Routine Counseling and Testing
VCT	Voluntary Counseling and Testing
UNC	University of North Carolina
UNICEF	United Nations Children's Fund
WHO	World Health Organization
ZCH	Zomba Central Hospital

Message From
The Executive Director

Dr Peter N Kazembe, EXECUTIVE DIRECTOR

The past year has passed faster than was anticipated; perhaps confirming the well rehearsed adage of “time flies when you are busy”. It has certainly been a very busy and eventful year for all organisations as a result of the global financial crisis but we also had issues specific to our organization. We streamlined the services we offer with the goal of reducing our budget without compromising the service we have committed to provide.

As you go through the pages of this report you will see that we have continued to work with the mandate that we have in this country—to work with the Ministry of Health to assist with the national scale up of comprehensive paediatric HIV care. To do so we continue to work at the level of direct patient care especially at our flagship clinic within the grounds of Kamuzu Central Hospital, the Baylor College of Medicine–Abbott Fund Children's Clinical Centre of Excellence Malawi (COE). By the end of December 2009, a cumulative total of 4,926 children and some of their parents had been enrolled in our program; of which 2, 261 remain actively in care and 1,535 are on Anti-Retroviral Treatment (ART).

Our commitment to the paediatric ward at Kamuzu Central Hospital (KCH) remains strong, not only with HIV care on the ward and outpatient department but also to general paediatric care; emphasising our support to the philosophy that there is always “collateral benefit” to health services from resources that may primarily be sourced for HIV care. There cannot be a greater example of this than the $1.4 million dollar investment that Baylor College of Medicine Paediatric AIDS Initiative (BIPAI) has secured from our main funder Abbott Fund to carry out extensive and much needed renovation on the paediatric ward and the under five clinic, which will have a significantly positive impact on the care of patients as well as staff morale at this main referral centre for the central region of the country. Similar examples of this altruistic relationship between the COE and KCH are the attachment of two COE paediatricians and one clinical officer to the paediatric ward for this purpose; COE HIV counselors working on the ward and the paediatric outpatient department implementing the highly successful Provider Initiated Testing and Counselling (PITC) which after just two years of initiation has offered HIV testing to more than 27,000 mothers, fathers and children.

Recognising that we cannot achieve our mission of assisting with the national scaling up of paediatric HIV care by only working at the COE, we continued this year with our three-pronged outreach programs; (1) clinical work at the busy government health centres within the greater Lilongwe area (Area 25, Area 18 and Kawale) as well as Daeyang Luke Hospital; (2) on site multi-disciplinary training and mentoring in 5 districts of the Central region and 5 districts in the Southern Region in the name of Malawi Paediatric HIV/AIDS Treatment Support Outreach (MPHATSO) program and; (3) community activities for paediatric HIV sensitization as well as testing through our Tingathe and Grassroot Soccer (GRS) programs. All of these activities are described in detail in the pages of this report.

We continue to provide our technical expertise to various HIV Technical Working groups of the Ministry of Health as various policy issues and management guidelines in paediatric HIV are being considered. We have managed to run all these programs at no cost to the beneficiaries, only with the support of our multiple partners with the leadership of the Malawi Ministry of Health.

While we have already acknowledged all these partners who have made significant contributions to our work in the acknowledgements, we would like to give special recognition to our main funders this year; Abbott Fund, UNICEF, Clinton HIV/AIDS Initiative, Bristol-Myers Squibb foundation, Texas Children's Hospital and of course Baylor College of Medicine in Houston, Texas, USA and the BIPAI network family. We look forward to continuing the partnership in our work for the children and the families of Malawi who are infected and affected by HIV.

For more than 25 years, Abbott has made a significant contribution to the fight against HIV/AIDS through the development of innovative tests and medicines, including developing paediatric formulations for the treatment of children.

Through Abbott Global AIDS Care programs, Abbott and Abbott Fund have invested more than $175 million to advance HIV testing, treatment and support services in developing countries, including philanthropic programs targeting critical areas of need for children. Through partnerships in developing countries, Abbott Fund has helped more than 1,000,000 children and families.

Supporting Children Affected by HIV/AIDS

1. **Pioneering and Expanding a New Paediatric Treatment Model** – Abbott Fund supported the Baylor College of Medicine in establishing a paediatric HIV/AIDS treatment program in Constanta, Romania that reduced the death rate for children with HIV by more than 90 percent in three years. Baylor is now replicating this model program across Africa and opened the first paediatric treatment center in Malawi in 2006 with the support of the Government of Malawi and Abbott Fund and is building Tanzania's first paediatric treatment center with the support of the Government of Tanzania and Abbott Fund in Mbeya. The Baylor College of Medicine International Paediatric AIDS Initiative (BIPAI) Network has provided care and treatment to over 55,000 children, half of them initiated on ARTs for the first time, making it the largest cohort of HIV-infected and HIV exposed children in any care and treatment program worldwide.

2. **Training Health Professionals in Paediatric HIV Care** – Baylor and Abbott Fund also partnered to establish the Baylor College of Medicine Children's Clinical Centers of Excellence Network to train health professionals and share best practices in HIV care. Approximately 950 African professionals receive training in the centers each month. Additionally, Abbott Fund supports Baylor College of Medicine International Paediatric AIDS Initiative fellowship program, which allows physicians from developing countries to further their postgraduate education at Baylor with a focus on HIV/AIDS.

3. **Supporting Orphans and Vulnerable Children** – Abbott Fund is helping address the needs of orphans and vulnerable children affected by HIV/AIDS through community-based programs focused on health care, education and social services. Key community-based programs being

replicated in developing countries include legal protection for orphans and widows, fighting stigma by integrating AIDS-specific programming into long-standing community organizations, and child-led support groups that actively engage children in making decisions about their lives and needs.

4. **Helping Prevent Mother-to-Child Transmission of HIV** – The transmission of HIV from mother to child remains a significant problem in developing countries. Testing is the first step toward achieving prevention, and Abbott offers rapid HIV tests to enable pregnant women to know their HIV status in 69 countries, including all of Africa. Local programs can then provide HIV-positive mothers with free, convenient treatment to prevent transmission of the virus to their children. To date, Abbott has donated nearly 15 million rapid HIV tests.

1.1 Provider-Initiated HIV Testing and Counseling

In January 2008 the COE implemented a paediatric Provider Initiated HIV Testing and Counseling (PITC) system within the inpatient department of KCH. This has been recognized as the first inpatient paediatric PITC system in Malawi. The testing system is designed to improve parental HIV education, paediatric HIV testing access, inpatient HIV care, as well as strengthen linkages to HIV outpatient specialty treatment services at the COE. Building upon our successful 2008 inaugural year, the program offered HIV testing to more than 9,500 children and 6,700 mothers during 2009. Additionally, nearly 800 HIV-infected and HIV–exposed children identified at the hospital were successfully referred to and reviewed by our inpatient clinical team. Table 1 below summarizes the service indicators for the PITC program.

Table 1: Summary of Service indicators for the PITC programme

Year	Total paediatric admissions at KCH	Total children offered HIV testing (%)	Total children accepted HIV testing (%)	Total mothers received HIV testing	Total eligible children reviewed by inpatient team
2008	13 981	6 318 (45.2)	6 192 (98.0)	4 779	678
2009	16 792	9 578 (57.0)	9 449 (98.7)	6 745	779
TOTAL	30 773	15 896 (51.7)	15 641 (98.4)	11 524	1 457

Several important highlights of 2009 were the formal recognition of the PITC staff as best practice providers of PITC by the Malawi Ministry of Health in June; the provision of technical assistance to the Ministry of Health for national PITC expansion, which resulted in the drafting of work plans to integrate PITC in the paediatric health care continuum at referral and district hospitals throughout Malawi; the certification of our 6 volunteer mobile counselors as nationally recognized HIV counselors in October; and the expansion of a modified strategy of PITC to the Under-five clinic at KCH that began in December.

The care of HIV exposed and infected inpatients involve far more than just the HIV consultant. The program at KCH now boasts five fully staffed HIV testing and counseling rooms. One COE nurse, one COE clinical officer, one volunteer translator, three COE counselors, 6 Mobile Counselors, and two

social workers comprise the inpatient care and treatment team. The six mobile counselors have proven critical for the program's growth and success. On average the team cares for thirty-plus patients and evaluates five or more new patients per day.

During 2009 the leadership responsibilities of the PITC program at KCH were successfully transferred to the Senior Counselor Mrs. Deliwe Siwande. This has served to solidify the program and we are fortunate to have Mrs. Siwande's leadership and vision moving forward into 2010. While the environment within KCH can be difficult and the children exposed to and infected with HIV provide many treatment challenges, the care and treatment team continues to persevere and represent the standard of excellence so well associated with BIPAI.

In the coming year, the PITC programme will be established at the KCH under-five clinic. With the upcoming expansion of the PITC programme to the 3 other referral hospitals in Malawi, the COE—through the Senior Counselor—expects to continue providing technical assistance to MoH in establishing the PITC programme at these facilities.

COE HIV Counseling and testing providers preparing an HTC stand at the 2009 World Aids Day Event

1.2 TINGATHE

Tingathe Programme Coordinator Kondwani Kanjelo speaking at a large scale community sensitization event aimed at educating men about PMTCT in Area 25

Tingathe is a community outreach program initiated by the COE in 2008 with support from the Clinton Foundation HIV/AIDS Initiative. Tingathe aims to improve identification and early referral to care and treatment of HIV infected children and their families. Components of this program include community education and sensitization, HIV testing and referral to clinical health services, engagement of local NGO/CBO/FBOs, defaulter tracking, and adherence supervision. The program's community health workers are certified in HTC and have been trained in detail about services that HIV+ patients require.

This year, Tingathe has built upon its previous accomplishments with 25,923 people tested to date, over 13,000 of which were conducted at home, close to 10,000 children tested, and over 2,500 HIV infected people identified and referred for care. Currently, over 1,000 children are being followed monthly to ensure good adherence to medication and retention in care. Combined testing and patient identification efforts have led to an over 20-fold increase in the number of patients attending Anti Retroviral Therapy (ART) clinic at public health centers participating in the program.

In addition, based on the success of the Tingathe model, we received additional funding from Bristol Myers Squibb foundation and BIPAI to expand the focus of Tingathe to include Prevention of Mother-To-Child HIV Transmission (PMTCT) and Early Infant Diagnosis (EID). Using the Tingathe model, Community Health Workers (CHWs) offer HIV testing to pregnant women at Antenatal Care visits, Labor and Delivery visits and in the community. Pregnant women identified as HIV-infected are offered the services of a CHW and are followed throughout pregnancy and breastfeeding to ensure

that they receive all available PMTCT, Early Infant Diagnosis (EID), and general health services. The overall goal is to help reduce loss to follow up in PMTCT, improving efficiency of PMTCT and EID services, thereby reducing Mother To Child Transmission and improving the health of the mother and infant. This has been an extremely well received new program. Over 750 HIV infected pregnant women have been enrolled, over 85% of the women enrolled have received their CD4 results, and over 90% of women who have delivered have received a complete PMTCT drug regimen. These achievements represent a significant improvement from the national baseline according to a survey done between 2007-2008, where only 34% of eligible mother-baby pairs received partial PMTCT services and even fewer accessed all available services.

Lastly, Tingathe has partnered with Grassroot Soccer to provide an integrated model of HIV prevention education through the use of soccer, and HIV testing to these youth and their families. Tingathe continues to grow and develop. We believe our CHWs are truly transforming the care that is being offered HIV positive children and their families. We look forward to an even more successful second year.

1.3 Grassroot Soccer

In 2009, the Baylor College of Medicine Children's Foundation-Malawi Grassroot Soccer program (BCFM-GRS) delivered two cycles of its football-based HIV prevention program to 801 youth in primary and secondary schools, Community Based Organisations (CBOs) and HIV/AIDS support organizations in three communities of Lilongwe. In order to increase the overall impact of the program, BCFM-GRS Coaches, with support from Tingathe Community Health Workers (CHWs), conducted HIV counseling and testing sessions in the homes of participants. These home visits utilize the preexisting relationship between a GRS Coach and the participant to engage families in HIV education and testing. This innovative initiative was extremely successful as 577, or 72%, of graduates and 600 family members accessed the Voluntary Counseling and Testing (VCT) services. Those that tested positive were counseled about HIV treatment and care services available at Baylor and local health centres within their community. In 2010, BCFM-GRS will continue this model and aims to certify its coaches as HIV Testing Counselors.

In an effort to provide the broader community with HIV education and access to VCT services, BCFM-GRS conducted a series of VCT Soccer Tournaments. These tournaments engage youth in a formal

football tournament, GRS educational activities, pre-test HIV counseling and an optional HIV test. The collective enthusiasm and supportive team atmosphere of these events encourage youth participants, as well as community spectators, to test for HIV. Contributing to the excitement and impact of these events, soccer players from the local professional team CIVO United and village chiefs supported the teams and tested alongside the youth participants. In 2009, BCFM-GRS tested a total of 1,149 people and identified 25 as HIV-positive through VCT Tournaments. BCFM-GRS will run these events monthly over the course of 2010 with the goal of testing 2,400 individuals.

In addition to these programs, BCFM-GRS continues to support the Tingathe Outreach Program and Teen Club on various initiatives.

1.4 GRS Collaboration with Teen Club

GRS coaches have, since November 2008, played a significant role in the Baylor COE Teen Club, through monthly facilitation of the football-based Grassroots soccer curriculum activities plus additional topics that have ranged from adherence, career development, nutrition, relationships, and mentoring to developing a strong sense of support and coherence. These participatory and age appropriative lessons encourage the teens to empower themselves as advocates and peer educators in their communities by teaching others what they know about HIV and healthy living. BCFM-GRS recently received funding from the English Premier League Small Grants Fund to design a Grassroot Soccer curriculum tailored to the needs of HIV-positive youth. The program will be piloted in early 2010.

Chiefs pose with GRS staff at one of the youth VCT tournaments in November 2009.

Winning team member receives his prize after successfully going through testing and GRS activities

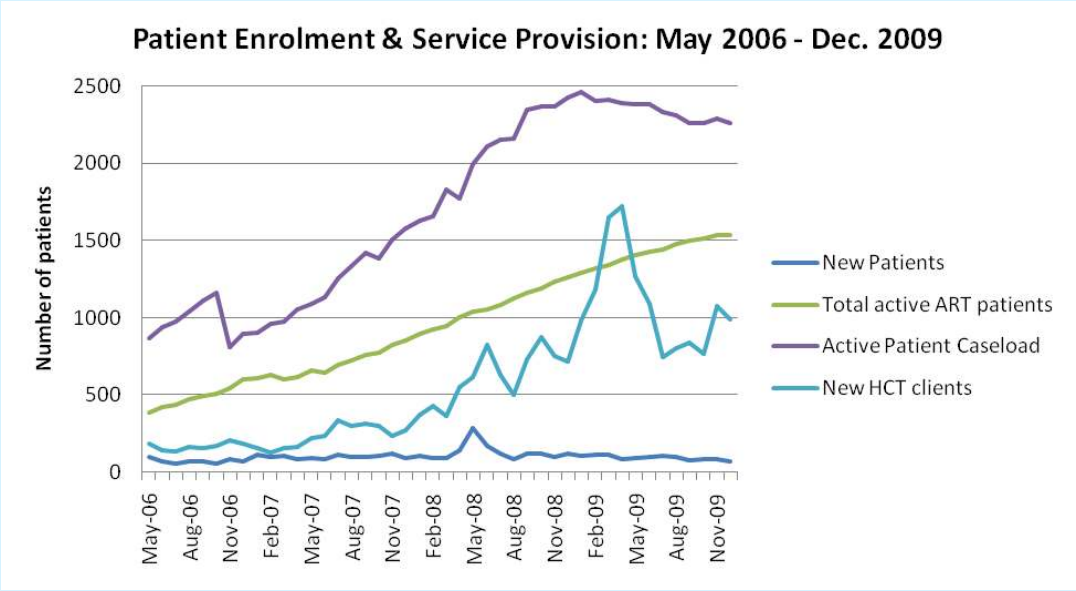
Youth discussing HIV facts during a GRS practice

2.1 Patient Enrolment and Service Provision

In 2009, there were a total of 45,706 patient encounters, including 13,107 clients offered HTC at the COE. Notably, we were able to stabilize the growth of our active patient caseload. Our active caseload actually peaked at 2,461 patients in January 2009 and gradually decreased to 2,261 patients in December 2009. The COE had seen constant, linear growth in our active patient population since opening in 2006, and there were concerns about sustainability of this growth given human resources, physical space, and budgetary limitations.

As of December 2009, the COE had 1535 patients active on ART. These numbers continue to increase while the total active caseload has stabilized, meaning a higher proportion of our active patients are on ART compared to previous years (68% in 2009, 44% in 2008) as shown in Figure 1. 513 patients were initiated on ART in 2009, and since opening, the COE has started 2,327 patients—2,103 children and 224 adults—patients on treatment. This represents approximately 10 percent of all children ever initiated on ART in Malawi.

Figure 1



We implemented a proactive transfer-out policy for stable patients to be transferred to care closer to their homes, particularly to outreach sites supported by Baylor clinicians. Through this initiative, 254 patients were transferred out over the year. The decreasing caseload might also be explained by a relatively higher proportion of patients lost to follow-up in 2009 (14.5%) compared to the prior year (11.9%). Our social workers have begun a push to trace defaulters and it is expected that the active caseload will increase as patients are brought back into care.

As evidenced by the figures in Table 2, the adaptation of the COE's service delivery systems has allowed us to successfully establish an equilibrium, such that the active patient caseload has now stabilized to a level that does not compromise the high quality of care provided and the COE may continue to offer its services to all children in need. One of our goals going forward is to maintain this balance.

Table 2: Patient indicators for COE Service Delivery in 2009

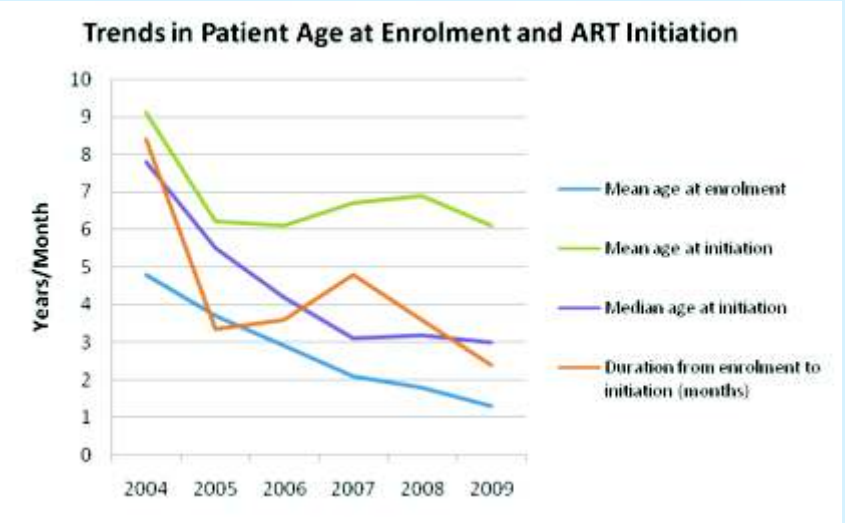
Month	Patient Encounters	New Patients	Unduplicated patients newly enrolled at COE: HIV-exposed	Unduplicated patients newly enrolled at COE: HIV-infected	New ART patients(COE)	Total active ART patients (COE)	Active Patient Caseload	Active patient caseload at COE:HIV-exposed	Active patient caseload at COE:HIV-infected	New HCT clients (COE)
January	2597	103	59	44	41	1287	2461	553	1908	984
February	2744	111	60	51	46	1318	2402	503	1898	1180
March	3288	113	64	49	51	1343	2407	507	1900	1652
April	3248	86	42	46	50	1375	2386	484	1902	1720
May	2816	88	39	49	42	1404	2379	443	1936	1268
June	2711	100	53	47	42	1423	2379	434	1945	1088
July	2550	108	50	58	45	1444	2330	363	1967	744
August	2476	96	43	53	44	1476	2308	302	2006	803
September	2545	74	39	35	38	1495	2256	280	1976	836
October	2486	84	39	45	47	1513	2261	274	1987	768
November	2710	87	35	52	37	1533	2287	283	2004	1077
December	2428	67	29	38	30	1535	2261	263	1998	987
TOTAL	32599	1117	552	567	513	1535	2261	263	1998	13107

In accordance with MoH requirements, outcomes for patients on ART are reviewed and reported quarterly. By the end of 2009, our cohort of 2,327 patients ever initiated on ART had the following outcomes: 1,535(66%) active; 466 (19.2%) transferred-out; 113(4.9%) lost-to-follow up; 231 (9.9%)

died; and 2 (0.09%) closed files for patients who had been initiated at other sites, transferred in, and were determined to be HIV-uninfected. A retrospective review completed in 2009 showed that the proportion of active patients on alternative first-line regimens due to toxicities from the standard first-line regimen of d4T/3TC/NVP was 2.0% and the proportion on second-line treatment due to failure was 1.8% These numbers are relatively low and we suspect we will see more toxicities as our patient population has more cumulative time on ART, and also that we are under-diagnosing first-line failure given limited access to viral load testing in Malawi.

Since 2004, the median age at which patients are enrolled in care has declined from 7.8 to 3 years; the mean age at enrolment has also declined from 4.8 to 1.3 years as shown in Figure 2. Similarly, the decline in the time elapsed between when our patients are enrolled in care and initiated on ART from 8.4 to 2.4 months is indicative of our increased capability to determine eligibility for ART. The continued downward trend in the ages at which patients are enrolled in care and initiated on ART demonstrates the effectiveness of the interventions put in place at the COE to identify children as early as possible via the Early Infant Diagnosis program (EID) and place them on appropriate treatment.

Figure 2

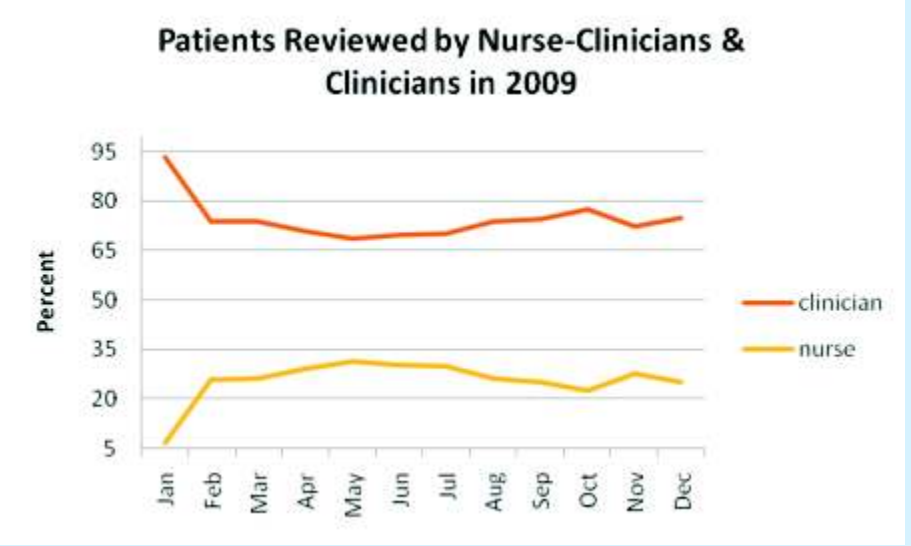


New patient enrollment has been relatively stable at just below 100 patients per month. Daily patient encounters have varied from approximately 90 to 120 per day over the course of 2009. This number is the best way to gauge our actual workload, and we have been working to improve efficiencies in clinic to be able to serve a larger total population with our finite resources. One particular strategy has been to increase the time interval between clinic visits for stable patients, and we have seen early success with this policy without compromising patient care. In addition we have also increased the follow up interval for our stable patients from monthly visits to every two monthly visits as another strategy to reduce the daily strain on our limited human resources.

2.2 Nurse Clinicians: A stepwise task-shifting approach

In order to address an increasing patient load at the COE, maintain a high-level of care for our patients and plan for long term sustainability of the COE we have instituted a stepwise task-shifting plan to increase the number of patients seen by "Nurse Clinicians." The goal of this plan has been to build the capacity of nurses to conduct clinical review of an increasing number of patients without compromising care. Nurse-clinicians formally began conducting clinical review of COE patients in January 2009 after completing in-house refresher training on clinical management of HIV-exposed and HIV-infected infants and children. Initially nurse-clinicians were mentored by a specified PAC physician for each patient visit; however, with increased experience, nurses are now seeing most patients independently. Integral to this task-shifting plan has been the implementation of a triage system which identifies those sick or complicated patients who would be most appropriately seen by a physician or clinical officer as opposed to more stable patients who can be reviewed by nurse-clinicians. In 2009, nurses clinically reviewed approximately 26 percent of COE patients. Figure 3 demonstrates the trend in the proportion of patients clinically reviewed by nurse-clinicians and clinicians over the past year.

Figure 3



Increasing the number of patients seen by nurse clinicians through this stepwise task-shifting model will not only meet increasing demands at the COE without compromising care, but it can free up time for PAC to participate in outreach, foster an atmosphere of learning at the COE, help create nurse leaders in paediatric HIV care, and add to a framework for long-term sustainability of the COE model.

A nurse-clinician conducting clinical review of a COE patient

COE nurses conducting a triage

2.3 Other Clinic Developments

In 2009, we became an integrated HIV and TB delivery site, as we are now dispensing TB medications from our pharmacy. Previously, patients diagnosed with TB had to register and receive their medications from separate government sites. A total of 228 patients received TB treatment from the COE in the past year. This is a significant accomplishment as donor and international advisory groups are increasingly recommending this model of integration, yet very few sites in Malawi actually offer them. The benefits to our patients include reduced transport costs and improved tracking of TB treatment adherence.

We also began recruiting patients into the TrioPed Trial in 2009. This a large clinical study evaluating the effectiveness of split-dose adult Triomune tablets compared to Triomune baby tablets in children, and also assessing the impact of PMTCT prophylaxis on outcomes after ART initiation. The Lighthouse Clinic and Martin Preuss Center are also recruiting patients for this study, and our ties to these treatment partners in Lilongwe have been strengthened as a result. As of Dec, 2009, we had 128 study patients at the COE. Overall enrollment should be completed in mid-2010 and the study will continue for one year after that. This research is consistent with our care and treatment mission as it is

only assessing the current MoH-recommended paediatric regimens (no experimental regimens) and the results will help inform national policy and procurement decisions for HIV-infected children.

Partnership with World Altering Medicine (WAM) and Breath of Life

In 2009 we initiated an important new partnership World Altering Medicine (WAM) to provide financial support for unique one-time patient care needs such as specialist referrals and hearing aids for children in need. With WAM, we also initiated another programme called Breath of Life which has brought 6 oxygen concentrators to the paediatric wards at KCH. The programme is now expanding to other sites in Malawi.

A patient with a new hearing aid purchased with funds from WAM

Fundraising poster for Breath of Life Programme

2.4 Improving Emergency Care for Children at the Under-5 Clinic

The Under 5 (U5) clinic at Kamuzu Central Hospital (KCH) in Lilongwe, Malawi is the main referral center for acutely ill children in the central region of Malawi. It is the first point of contact for most patients with serious medical conditions during the day, as well as a primary source of admissions to the inpatient unit. Consistent with its ongoing collaboration with KCH, during quarter 2 of 2009, the COE together with a working group of KCH clinicians, nurses and paeditricians and in partnership with Voluntary Service Overseas-UK (VSO) began a process to implement changes at U5 to improve emergency care services for children.

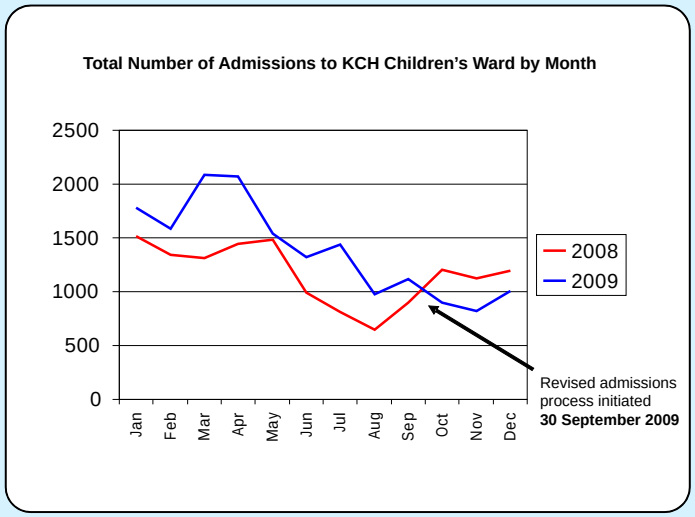
The early recognition and stabilization of acutely ill infants and children has been shown to improve outcomes, however with 200-400 patients seen per day at U5 and no formal system of triage, children often experienced significant delay in the institution of potentially life-saving treatment. The Emergency Triage Assessment and Treatment (ETAT) guidelines developed by the World Health Organization (WHO) have provided the framework around which changes at U5 have been implemented. Around this framework the focus at U5 has been shifted to the sickest patient with patients triaged on arrival, improved patient flow through clinic and plans for a complete renovation of the physical space made possible by a generous donation from the Abbott Fund.

The COE has dedicated one of its paeditricians to work specifically at U5. This allows ongoing, quality mentorship for KCH clinicians, nurses, medical interns and students of all cadres. It also provides a system by which emergently ill children and all candidates for hospital admission are evaluated and stabilized before admission by a senior level clinician at the initial point of care. The COE has also instituted on-site routine HIV testing at U5 providing the opportunity to build on the successful inpatient PITC program. Offering testing at U5 not only allows a clinician to make emergency treatment decisions in the light of a known HIV status, but children who do not meet criteria for admission can be identified and referred to definitive treatment sooner.

The initial benefits of this collaboration between KCH and the COE have been that admissions to the hospital have decreased by 23% as demonstrated in Figure 4, decongesting an inpatient service whose resources are limited. Additionally, a consistent downward trend in inpatient mortality and the percentage of deaths occurring within 24 hours of admission has occurred since implementation of these changes. With a continued partnership between the COE and KCH these trends will continue demonstrating that increased attention and resources for children at the initial point of care can

improve patient outcomes.

Figure 4



Comparative trend in admissions at the KCH paediatric ward before and after establishment of ETAT at U5

Baylor PAC physician providing consultation to KCH clinician and nurse in the paediatric ward

KCH Health Care Providers registering and triaging patients at the U5 clinic

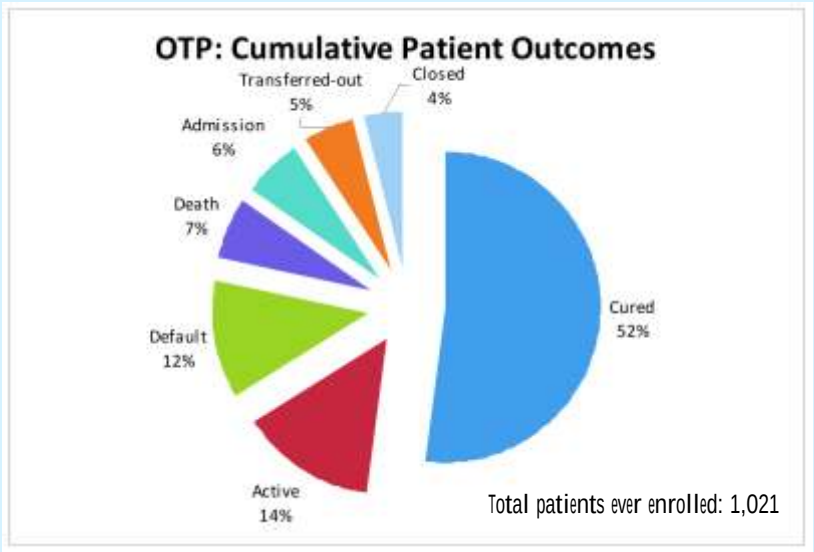
2.5 Outpatient Therapeutic Programme (OTP) for Malnutrition

The OTP program was established at the Baylor College of Medicine-Abbott Fund Children's Clinical Centre of Excellence (COE) in 2007, in collaboration with the Malawi Ministry of Health and Concern Worldwide (CWW). Over the past three years, the OTP program has provided life-saving Ready to Use Therapeutic Food (RUTF)—a highly nutritious form of peanut butter locally known as chiponde—to 766 children enrolled in care at the COE as treatment for malnutrition. The OTP program demonstrated considerable growth in 2009 enrolling 252 patients. Of those enrolled in 2009, their treatment outcomes were as follows: 117 were cured (reaching >85% weight-for-height), 61 remain active, 33 defaulted from care, 3 died, 12 were admitted to the hospital and 14 were transferred-out (opted to be referred to health centres nearer to their place of residence.

Cumulatively, 1,021 patients have ever been enrolled in the OTP program since its inception in 2007. The cumulative outcomes of these patients are as follows: 52 percent cured (reaching >85% weight-

for-height), 14 remain active, 12 percent have defaulted from care, 7 percent died, 6 percent were admitted to the hospital, 5 percent were transferred-out and 4 percent had their patient charts closed after their DNA-PCR was confirmed negative.. Figure 5 below illustrates the cumulative outcomes of COE patients ever-enrolled in the OTP program.

Figure 5



The OTP program continues to demonstrate a progressively increasing cure rate of malnutrition amongst COE patients. The OTP team remains tremendously dedicated to improving the effectiveness of the program and the health outcomes of children suffering from malnutrition. For the coming year, we plan to advocate for extension of this successful program to other national sites caring for children as we recognise how important attention to nutrition is to the comprehensive management of children infected with HIV.

2.6 Teen Club

Over the past 3 years the Baylor Teen Club has grown from a Saturday clinic for 3 children attending boarding school to a clinic and psychosocial support group for over 150 youth ages 11-21. Meeting once per month, Teen Club not only provides adolescent friendly comprehensive medical care, but also life skills and positive living curriculum with psychosocial support. Starting in January 2009, the Grassroot Soccer curriculum providing life skills and resiliency training to youth through football was adapted for teens living with HIV. Monthly, GRS coaches work as mentors to youth, delivering positive living and life skills lessons through the medium of games and sport. Knowing that adherence to medications and care during the adolescent years is a huge challenge, time is spent every month for teens to work together with peers and mentors to discuss and problem-solve adherence challenges.

In an effort to prepare teens for the technology filled world of the future, we have received a generous donation of introductory computer classes from Third Eye Corporation. Over 50 teens have already had the opportunity to learn and practice computer skills.

In 2010, we will share our Teen Club experience with other sites in Malawi through mentoring and developing new teen club sites with funding from National AIDS Commission (NAC). By providing developmentally appropriate comprehensive health care and psychosocial support to adolescents, we hope to give them the support they need to thrive during the challenging adolescent years.

Picturing Hope

Picturing Hope, a programme which is supported by the Abbott Fund, continues to empower teens to use photography to narrate their personal journey with HIV. In 2009, a group of 70 teens from both the COE and two community-based organizations working with children infected or affected by HIV in Lilongwe participated in Picturing Hope. The children experience psychosocial support from peers and teachers as they learn to express themselves through writing and photography as each picture is accompanied by a written story or a poem. Moving forward in 2010, the programme plans to allow 90 more teens, the opportunity to discover the power of photography and the written word.

Camp Hope

With generous support from AIDS Foundation Houston and Association of Hole in the Wall Camps, fifty-two teens experienced the joy of summer camp at Camp Hope this year. In cooperation with Children in the Wilderness, two sessions of camp were held during school holidays, at Malawi Children's Village and Chintheche Inn, respectively. Teens experienced the joy of a 5 night sleep-away camp with games, songs, sport and laughter while sharing experiences and learning more about growing and living with HIV in the safe, supportive camp environment.

Camp Hope allows kids to be kids and to share many new experiences. Teens not only had a chance to learn to swim, which was the highlight for many of them, but they also had the chance to splash in Lake Malawi which most of them were seeing for the first time. Teens formed strong bonds with one another as they solved challenges together, played sports and games as a team and performed for stage night with their cabin mates. They continued to learn from and support one another as they

shared their experiences and challenges of living with HIV at home, school and within their communities. Teens were always ready for the next amazing and surprising activity that camp provided, and were equally enthusiastic about quiet nightly flashlight- lit tent chats, that always lasted longer than expected, as teens reflected upon the surprises and successes of the day, with trusted counselors and fellow campers, sharing and creating memories for a lifetime.

Guardian's Club

The Guardian's Club, which began as an informal group organized by caregivers, was officially incorporated into Teen Club in 2009. It has continued to grow in size and purpose, supporting one another and learning from one another and Baylor staff as they continue to support their children throughout adolescence. Both teens and guardians are learning business skills with small income generating projects this year as they craft paper beads and crocheted items.

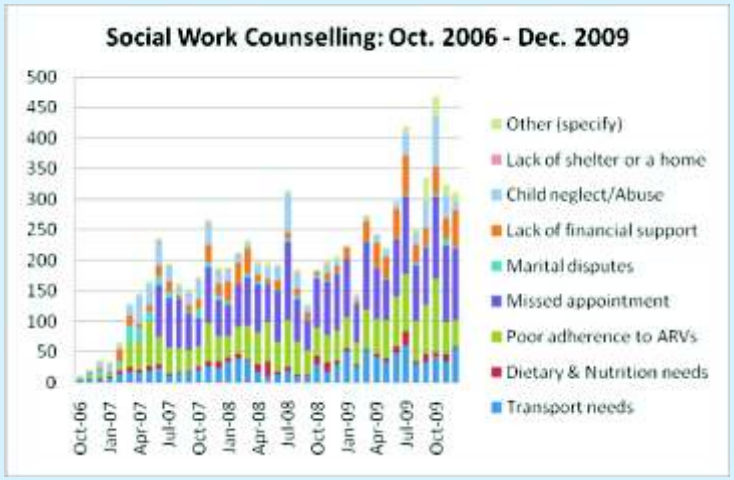
PAC physicians and staff during one of the Teen Club sessions

2.7 Social Work & Psychosocial Support

The past year saw a notable increase in the number of patients accessing the social and psychosocial support services provided by our Social Work office. In 2009, our social workers served a total of 2,025 patients representing 43 percent of the 4,657 of the patients ever-served by the social work office since we began offering the services in 2006. In line with the trends from previous years, the most common issues our social workers encountered as illustrated in Figure 6 were missed appointments (34%), poor adherence to ART (23%), transportation needs (15%) and guardian's lack of financial support to adequately care for the child (13%). The increase in subscription to the social and psychosocial services is due to the increased patient caseload and also the increased capacity of the social work office to provide these services. The expansion of social workers' service provision was made possible by monetary donations from private individuals and a grant from Global AIDS Interfaith Alliance (GAIA), which supplemented the office's operating funds.

The GAIA grant of MWK 700,000 primarily supported patients in need of financial support to meet their transportation costs (bus fare) at particular clinic visits. However, part of it was used to assist a 16 year old male child in procuring a pair of prosthesis and accessing the appropriate care. The child had outgrown his previous prosthesis and was failing to walk well because he had grown taller. The family is very grateful as the child is now able to walk properly and even running around and playing football.

Figure 6



In the coming year, we intend to re-apply for a grant with GAIA so that we may continue to assist our patients who are most in need of transport funds and our Teen Club children. We have also thought of assisting some children with hearing impairment with hearing aids. We will continue to seek to diversify our funding to ensure that our services are sustainable.

2.8 Laboratory Services

The COE laboratory, set up with direct funds from Abbott Fund, began processing samples in December 2008 for malaria screening only. By April 2009, we have increased the number of tests available at the COE to include malaria screening, urine analysis (dipstick and microscopy), CSF analysis (cell count, India ink and gram stain), Full Blood Count (FBC), and CD4 count analysis.

The operationalization of in-house lab services has created the following benefits for our patients:

- For routine laboratory tests, patients' waiting time has been reduced as there is a rapid turnaround time of results as compared to the previous arrangement of sending samples to the Kamuzu Central Hospital (KCH) laboratory.
- The Baylor COE lab also acts as a backup system to KCH Laboratory in situations of machine failure at KCH for tests like the FBCs; and playing a complementary role to KCH in as far as CD4 testing is concerned.

Much as we celebrate these achievements, the COE laboratory is not yet operating at full capacity, primarily due to difficulties in securing funding for a stable supply of reagents. In the future, we are hoping to increase the availability of reagents and to be able to expand our capacity to include utilization of the biochemistry machine to provide key laboratory tests which are not readily available to our patients.

A Laboratory Manager at work inside the COE laboratory

Section 3 Training, Outreach, Mentorship & Technical Assistance

3.1 Paediatric HIV/AIDS Training and Outreach

Training, outreach and mentorship of healthcare providers at health facilities throughout the country remain one of the COE's core objectives and key contributions to the Malawi Ministry of Health (MoH) in support of the country's national scale-up of paediatric HIV/AIDS. Table 3 shows the number of patients that were cared for by the outreach and mentorship healthcare providers. As of December 2009, the COE had either trained or mentored 313 healthcare providers throughout the country. From the end of 2008, there was a shift in implementation of the training and outreach program to focus on mentorship and supervision of staff at sites that had already been trained and new sites under the Malawi Paediatric HIV/AIDS treatment, Support and Outreach (MPHATSO) pilot project. In 2009, the COE provided support through continued permanent staffing of HIV clinics at Malawi's referral hospitals: Queen Elizabeth Central Hospital (QECH), and Zomba General Hospital (ZCH), the establishment of weekly HIV clinics at health centres in the greater Lilongwe urban area (Areas 18, 25 and 36—Partners in Hope; Kawale HC and Dae Yang Luke Hospital). The MPHATSO project was implemented at 5 sites in the central region—Likuni MH, Mitundu HC, Nathenje HC, Nkhoma HC and Salima DH—and at 5 sites in the southern region—Balaka DH, Chikhwawa DH, Chipini HC, Domasi HC and St. Luke's MH.

A total of 363 mentorship and follow-up visits were conducted by the COE's clinical staff to 23 'outreach sites' throughout the country. The 'outreach' sites were primarily health centres in the greater Lilongwe Urban area, ART clinics at Queen Elizabeth Central Hospital, Zomba Central Hospital and MPHATSO sites. However, during the first quarter of the year the COE activities in the northern region were still ongoing and we routinely conducted mentorship and follow-up visits to 10 health facilities in Mzimba, Likoma, Karonga and Nkhata Bay districts.

The mentorship and follow-up visits involved activities ranging from direct patient care and supervision to the provision of didactic training sessions on issues of patient care and service delivery pertinent to each site's needs. During these visits, COE staff provided direct patient care or supervised 10,631 patient encounters; provided 3,155 hours of direct clinical care and mentorship; mentored 696 health care providers and newly trained 313 in the care and treatment of HIV-infected and HIV-exposed children.

Table 3: Performance indicators for COE outreach and mentorship activities in 2009

	TOTAL # patients (direct care & supervision)	HIV-EXPOSED: # patients (direct care & supervision)	NOT ON ARVS: # patients (direct care & supervision)	ON ARVS: # patients (direct care & supervision)	# Total hours of clinical care	# Total hours of mentorship	# staff mentored	# hours didactic training	# NEW staff trained
Jan	405	69	127	218	106	70	42.5	6.25	12
Feb	546	146	159	241	130	81	43.5	44	26
Mar	212	46	82	84	32	29	35	8.5	9
Quarter1 Subtotal	1163	261	368	543	268	180	121	58.75	47
Apr	890	230	285	390	157	95	64	2.5	15
May	1021	224	244	594	167.5	82.5	50	6	18
Jun	848	240	217	391	148	89.5	46	9.5	56
Quarter 2 Subtotal	2759	694	746	1375	472.5	267	160	18	89
Jul	1193	365	241	587	229	136	70	6	12
Aug	975	296	184	495	139.5	90	53	15	45
Sep	1344	485	225	624	236	146.5	75	5.5	42
Quarter 3 Subtotal	3512	1146	650	1706	604.5	372.5	198	26.5	99
Oct	1287	449	247	652	213.5	143	82	5	69
Nov	1144	370	221	563	225	142.5	83	2	6
Dec	766	310	94	363	163.5	103	52	2	3
Quarter 4 Subtotal	3197	1129	562	1578	602	388.5	217	9	78
Annual Total	10631	3230	2326	5202	1947	1208	696	112.3	313

3.2 Malawi Paediatric HIV/AIDS Treatment Support and Outreach (MPHATSO)

The Malawi Paediatric HIV/AIDS Treatment, Support and Outreach (MPHATSO) mentorship pilot programme was launched in February 2009 with the support of Clinton Foundation HIV/AIDS Initiative (CHAI). The goal of the program is to strengthen the COE's existing mentorship activities in order to promote paediatric-focused care at ART clinics throughout Malawi. Prior to MPHATSO, the COE's outreach program primarily involved a PAC physician, occasionally with a COE nurse, mentoring their counterpart in paediatric HIV care and treatment at district and rural hospitals in all three regions of the country. MPHATSO has built upon the tools and approach developed under the Paediatric HIV Care and Treatment Training and Outreach Program between 2006 and 2008. Under

MPHATSO, mentorship has shifted focus from clinician-level mentorship to mentoring the ART clinic staff as a team using a multi-disciplinary team approach to facilitate cadre to cadre level mentoring. The multi-disciplinary teams comprise of a clinical officer, two nurses, a data officer and an HTC counselor, under the supervision of a PAC physician.

In 2009, MPHATSO had a presence at 10 sites, five in the central and five in the southern regions of the country. Of the ten sites, four were Early Infant Diagnosis (EID) sites at baseline, two in the central and two in the southern regions. Currently, the programme has five EID sites with the fifth in the central region becoming one mid-way through the programme. MPHATSO mentorship supports paediatric HIV care with an emphasis on PMTCT, care of exposed infants, care of children infected and on ART as shown in Figures 7 and 8, as well as TB treatment and malnutrition in context of HIV. Identifying those infected throughout the health facilities and linking them into care is an additional area of focus. Throughout the year, supportive mentorship is provided once a month by the MPHATSO teams to ART clinic teams— clinical officer, nurse, H.S.A and/or Data Clerk— at each site has fostered productive relationships that have improved the enrolment of children as well as the quality of care provided to children.

'Before you started coming in April, it was giving us a headache when we see the kids because we didn't know what to do. Now we are comfortable, so thank you' – Clinical Officer, Nkhoma Mission Hospital.

Figure 7

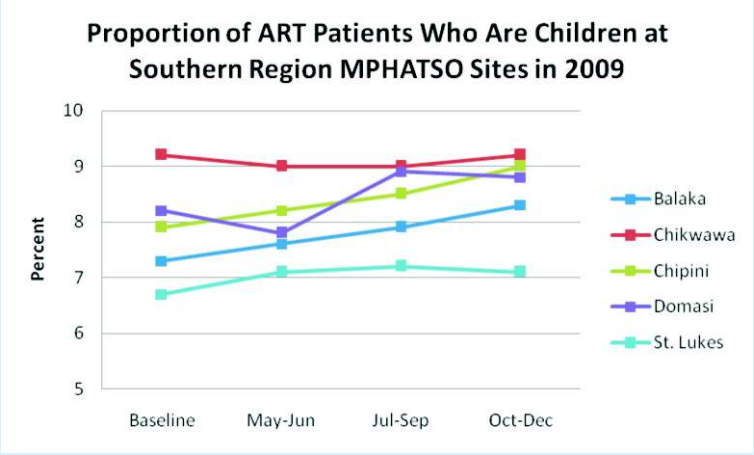
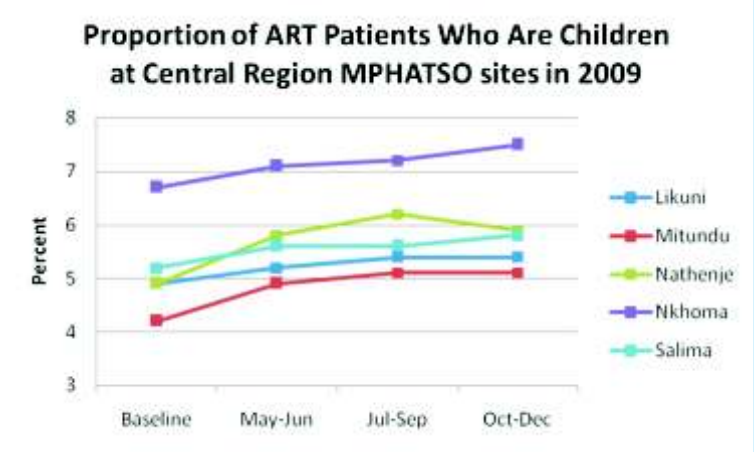


Figure 8



An important innovation of MPHATSO has been to work with the selected sites to establish clinic homes: the Paediatric ARV Clinic and the Mother Baby Pair Follow-Up Clinic (MBPFUC). Organizing care into specific Paediatric ARV clinics and MBPFUCs has assisted in regular patient follow-up and service provision. The Malawi Ministry of Health HIV Unit's 2012 goal states that nationally, 12% of all patients on ART will be children. MPHATSO strives to bring each mentorship site closer to that goal, acknowledging that baseline paediatric enrollment for many of the sites remains well below the national average. Along with those infected and already on ART, mentorship focuses on care of exposed infants as well. At the MBPFUCs, there is a continued upward trend in the number of exposed babies registered at all mentorship sites. The number of exposed babies has increased from an average of 79.8 at baseline (April) to 297.4 at Quarter 3 (December) in the central region, and 43.6 at baseline (April) to 169.2 at Quarter 3 (December) in the southern region. At baseline, exposed infant data was available only at the EID sites from each region.

With the start of MBPFUC at the mentorship sites, there have been rapid and impressive gains in the number of HIV-infected women and their infants accessing regular preventative and therapeutic HIV care. Nurses leading these clinics have reported to MPHATSO mentors on their increased satisfaction with the care they are able to provide these mother-infant pairs.

'You cannot see how much you've helped us but you really have. Where we were and where we are, there's a gap. You've really helped us.' Matron- Likuni Mission Hospital.

Since April 2009, MPHATSO has mentored 130 unduplicated Healthcare Providers (HCP) at the 10 selected sites in the provision of care and treatment of HIV-infected and HIV-exposed children. Table 4 illustrates the number of HCPs mentored under MPHATSO.

Table 4: Healthcare providers mentored under MPHATSO programme in 2009.

Cadre	Central Region	Southern Region	Total
Doctor	0	1	1
Clinical Officer	14	10	24
Nurses	25	23	48
Clerks	4	5	9
Health Surveillance Assistants	11	14	25
Counselors	13	10	23

The ten current sites are expected to graduate from MPHATSO in March 2010. In the site wrap-up process, MPHATSO will complete Site Report Performance cards for both ARV clinics and MBPFUCs to help identify specific site strengths and areas still needing improvement. After completion of mentorship, we are hopeful that each site will continue to have a relationship of referral and consultation with Baylor and the MPHATSO team. Additional on-site didactic lectures with topics selected by individual sites will be offered. Exit interviews will be conducted by an independent party, the COE's Coordinator, in order to obtain valuable mentee feedback with minimal bias. Six months after program completion, the sites will undergo review to assess the extent to which the improved systems have been sustained without continual mentorship.

Beyond the pilot year, MPHATSO plans to expand to fourteen new sites, seven each in the central and southern regions of the country. Some of the new sites selected will be referral clinics under the original MPHATSO outreach sites, thus helping to strengthen regional linkages and facilitate ongoing communication with all sites.

3.3 Continuing Professional Development

Continuing Professional Development (CPD) is an important element of the programme at COE. The cornerstone of these activities is Journal Club which is a weekly lecture/didactic session that is open to the entire local health care community. Every Friday morning, a BIPAI physician, COE staff member, visiting scholar or other invited guest presents to an audience of physicians, clinical officers, nurses, pharmacy staff, students and other health care professionals. Presentations are generally either 1) a review of a specific topic that is pertinent to paediatrics, HIV or practicing medicine in a resource-limited setting; 2) a systematic analysis of a recent peer-reviewed article from the literature; or 3) an update on one of the many outreach and community projects that the COE's clinicians and staff are involved in. Topics that have been discussed this year have included cardiac manifestations of HIV, Burkitt's lymphoma, disclosure of HIV status, and a review of the new triage

and emergency care system being piloted at KCH with the help of some of the PAC physicians. Journal Club has been very successful with a weekly attendance of 20-40 people, many of whom are local clinicians and students who are able to earn credit through the Medical Council of Malawi's CPD programme. In addition, presenters learn to analyze the validity and applicability of scientific papers and are able to delve more deeply into a topic that pertains to our patient population.

Other Professional Development activities at the COE include mentoring and lecturing for Clinical Officer students and Medical Interns rotating through the COE, giving Grand Rounds at KCH, and participating in Paediatric HIV Trainings for local clinicians in Malawi and throughout Southern Africa, including a series of EGPAF-sponsored trainings in South Africa.

3.4 Technical Assistance to the Ministry of Health (MoH)

Baylor paediatricians are actively involved in a number of Technical Working Groups within the Ministry of Health and have been able to help guide and inform national policy. We have provided in-depth technical consultation on a number of projects including:

- Development of a national pre-ART program
- Early Infant Diagnosis (including revised infant diagnosis algorithms)
- PMTCT expansion
- Procurement and dosing recommendations for alternative first-line and second-line paediatric ART regimens
- Development of Infant and Young Child Feeding Tools
- Development of updated Community Therapeutic Care (CTC) Guidelines for the management of children with acute malnutrition
- PITC expansion
- Development of new paediatric TB/HIV guidelines

These high-level activities allow us to promote and improve paediatric HIV care and treatment beyond the COE to the rest of Malawi and represent a strong ongoing collaboration with our partners in government and other NGOs.

The Monitoring and Evaluation (M&E) department of the Baylor College of Medicine-Abbott Fund Children's Clinical Centre of Excellence (COE) is responsible for tracking performance and providing evidence of achievement of results that guide organizational learning and evidence-based management in the institution's clinical and non-clinical endeavors.

The year 2009 brought about several significant modifications to the monitoring and evaluation systems at the COE. A second edition of the monitoring and evaluation framework was implemented in July 2009 replacing the initial framework which was put in place in December 2007. The revision of the M&E framework emanated from the decision by BIPAI leadership to utilize the Balanced Score Card (BSC) approach to performance management of operations at all COE's throughout its network.
The BSC is a strategic planning and management system used to align business activities to the vision and strategy of the organization, improve internal and external communications and monitor organization performance against strategic goals. The BSC provides for evaluation of the network activities according to four perspectives: Partner Satisfaction, Operational Excellence, Employee and Organizational Development and Financial Health. Under this approach, the monitoring and evaluation framework encompasses all aspects of COE operations and provides a more holistic view of the COE's progress and standing than was possible using the original M&E framework, which focused only on the clinical, training and mentoring components of the programme. The integration of the BSC in the Monitoring and Evaluation Framework now provides COE management and leadership a central tool with which to monitor how well the organization is running and how well we're meeting the needs of our beneficiaries and development partners. It has also promoted increasing accountability, feedback, knowledge sharing, inter-departmental communication and ownership of monitoring and evaluation at various programming levels

4.1 Summary of the COE Research Ongoing or Completed in 2009

Ongoing research at our centre includes the Trioped trial mentioned previously, retrospective and prospective reviews of ART outcomes as part of a BIPAI-wide initiative, and operational research on various topics including:

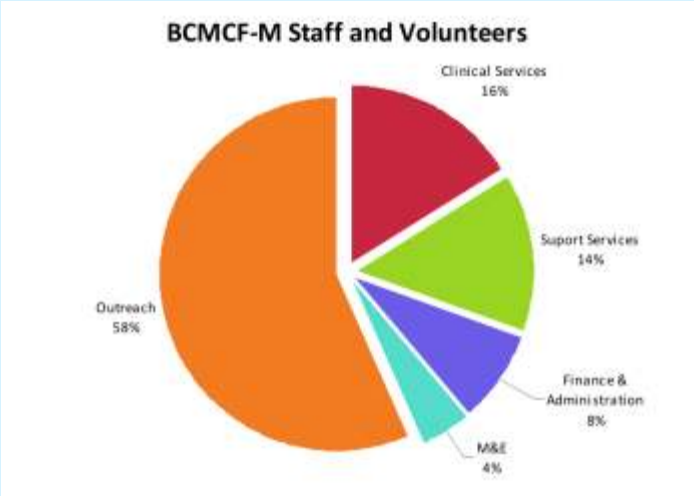
- Malnutrition
- Kaposi Sarcoma
- PITC
- Emergency care/ETAT
- Outreach and Mentorship Outcomes

Section 5 Finance And Administration

5.1 Administration

In 2009 administration at the COE has continued to manage some major outreach projects namely Tingathe, MPHATSO, PMTCT and GRS. These programmes currently represent a majority of our staffing as illustrated in Figure 9 and also recruited staff to carry out various assignments in complementing the staff strength from the core personnel. We also encouraged staff in various departments to meet regularly and discuss their work progress and share experiences.

Figure 9



Staff Development and Training

The COE recognises that well trained personnel execute their respective duties diligently and effectively. To this end the COE sent various members of staff to attend various courses. Members of staff are also encouraged to upgrade their qualifications in order to attain higher and greater responsibilities. Resulting pursuit of this, those who are affiliated to professional bodies have been assisted with yearly membership and registration fees.

Workforce Dynamics

Due to the expansion of the activities at the COE, in 2009 we hired the following personnel: Mangison Chipala, driver; Steven Mathuwa Lab Manager; Greem Sichone, Finance Assistant.

However, we had the following members of staff leaving the institution for various reasons in 2009: Chifundo Tsokonombwe-Administration Officer; Crispin Musicha - M&E Officer; Richard Mbewe-M&E Officer; Aaron Mdolo- Laboratory Technician; Takondwa Manda-Finance Officer; Mark Kabue-M&E Specialist. In addition, we said goodbye to three PAC physicians, namely: Kevin Clarke, Andy Smith, and John Bahling. The COE is grateful for the significant contributions these former members of staff made to our programs here in Malawi.

In 2010, resources permitting, we plan to introduce retention initiatives in order to retain staff and build capacity in all departments by engaging in team building activities and helping staff in their professional and career development through domestic and regional training.

We are currently working towards the restructuring of the COE to make sure that we achieve greater improvements in the performance of the institution. BIPAI and the COE are working towards the change of the employment status of all employees fro unspecified contracts effective of 1st July 2010. A comprehensive salary survey was conducted for the health sector and hopes to have competitive remunerations for all our staff with the revision of the salary structure for the 2010/2011 financial year. This will help in motivating members of staff and also act as a catalyst to staff retention. There are plans to undertake an employee satisfaction survey in the first quarter of the fiscal year in order to get feedback from staff on how the COE is fairing as an organisation and find ways to improve on areas that will be identified.

5.2 Finance

The year 2009 was a year of restructuring and retooling the department in order to adapt to the changed financial situations of our strategic partners as well as internally within BIPAI and the COE itself. The initial changes concerned staffing: the departure of the Finance Manager and Finance Officer in quick succession led to an inadvertent revitalization of the department with the addition of Mr. John Viyazyi as Finance Manager, the promotion of Mr. Isaac Muwalo to Finance Officer and the addition of Mr. Greem Sichone as a Finance Assistant. The current Finance team has seamlessly provided continuity of the Finance department's support of the COE's existing activities while facilitating the evolution of the COE's financial and accounting procedures to adapt to the changing donor environment that has taken place over the past year and the new reporting requirements instituted by the finance team.

Some of the major achievements of the Finance department in 2009 have been:

1. Training all COE department heads on the preparation of Business plans.
2. Successfully developing, in collaboration with department heads, business plans for all departments and sections.
3. Introduction of a Zero-based budgeting system based on the business plans.
4. Introduction of a budgetary control system.

5. Reviewing the approval process and payments documentation with a view to improve accountability, efficiency and emphasize on value for money.
6. Successfully negotiating, with the assistance of our external audit tax department, the award of a multi-million Malawi Kwacha tax penalties waiver by Malawi Revenue Authority.
7. Leading the process of preparing and implementing a Financial Recovery Assurance document which will see the COE completely wipe out the multi-million Malawi Kwacha operational deficit within one year.
8. Creation of project profiles in the accounting system and opening of separate bank accounts for projects to ensure that project funds are accounted for separately.

Despite the numerous successes achieved by the Finance department during the past year, it has not been a year without its challenges. The most notable challenges the Finance department has experienced in the past year have been 1) the limited capability of the Pastel accounting system to fully meet the information demands posed by the current budgetary control system. The inability of the accounting system to produce monthly actual per account code has been a major barrier to our ability to comply with the current accounting procedures required by BIPAI; 2) getting all members of staff to fully comply with the new approval and budgetary control systems. The second challenge is a typical initial consequence of a change; we fully expect to overcome this challenge as the new way of doing things becomes entrenched with our staff. The review of accounting processes and institution of new reporting requirements has created enormous amounts of work and this has created a capacity gap in terms of insufficient man-power in the finance department.

In 2010, we will implement the measures outlined in the Assurance document to BIPAI in order to closely monitor our budget performance as well as avoid accumulation of creditors. We have also made a commitment to prioritize mandatory payments, in particular tax and pension. To ensure good financial health and adherence to our commitments to minimize our exposure to debt and to wipe-out our operational deficit, we will continue to place added emphasis on controlling and monitoring the fiscal impact of all our actions on the budget.

Section 6 Conclusion And Way Forward

As we look forward to the year 2010, we anticipate that seeking new partnerships will continue to be a priority in order to be able to sustain our current levels of activity and to maintain the same standards of services to our beneficiaries. Over the past year we have managed to maintain a manageable ceiling of “active” patients at our COE without changing our open door policy of registering all patients who require access to our services.

Our strategies for this coming year will continue to be;

1) Moving from multi-tasking to task shifting; we will have more of our nurses taking on clinical responsibilities, increased roles for our volunteer/expert patients in the clinic , more HTC being done by lay counselors and promotion of Community Health Workers (CHW) in community and health facility patient follow up, HTC and PMTCT activities.

2) Actively transfer out eligible patients from the flagship COE clinic to clinics nearer to their own communities; preferably clinics where Baylor has a presence for those patients within the greater Lilongwe area.

3) Promotion of on –site mentorship using multidisciplinary teams as a way of shifting training from darkened rooms with power point presentation to the bedside, a better way to strengthen facility level systems of care spanning the spectrum from HIV testing to provision of ARV's.

4) Exploration of other funding partnerships such as USAID and NAC

By adhering to these strategies we expect that we will continue to fulfill our main mandate to assist the ministry of health in continuing to scale up paediatric HIV care in Malawi.

Section 7 Summary Of COE Staff Presentations And Publications In 2009

Presenter/Author	Title	Location / Journal	Date
NA Cunliffe, BM Ngwira, W Dove, O Nakagomi, T Nakagomi, A Perez, CA Hart, PN Kazembe, and CV Mwansambo.	Serotype G12 Rotaviruses, Lilongwe, Malawi	Emerging Infectious Diseases, 2009. Vol. 15(1):87-90.	January
G Malenga, J Wirima, P Kazembe, Y Nyasulu, M Mbvundula, C Nyirenda, F Sungani, C Campbell, M Molyneux, R Brozan, W Dodoli, D Ali, S Kabuluzi.	Developing a national treatment policy for falciparum malaria in Africa: Malawi Experience.	Transactions of the Royal Society of Tropical Medicine and Hygiene, 2009. Vol. 103S:S15-S18.	January
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C Chitsulo, MM Kabue, PN Kazembe	Defaulter Tracking To Improve Retention And Ascertain Patient Outcomes Of Children In A Paediatric HIV Care Facility	Presentation made at the National Aids Commission 2009 Dissemination Conference, Lilongwe Malawi	July
R Zule-Mbewe, C Cox	Adolescent & Psychosocial Support at Baylor Children's Foundation – Malawi	Presentation made at the National Aids Commission 2009 Dissemination Conference, Lilongwe Malawi	July
MM Kabue, WC Buck, PN Kazembe, MW Kline	Discontinuation of Standard First-Line Regimen in a Cohort of 1434 Malawian Children	Poster presentation made at the 5th International AIDS Society Conference, Cape Town South Africa	July
C Chitsulo, MM Kabue, B, Barr, PN Kazembe, NR Calles, MW Kline	Paediatric HIV Care & Treatment Program: Enrollment of Children on ART at District Hospital ART Clinics Through Training & Mentorship	Poster presentation made at the 5th International AIDS Society Conference, Cape Town South Africa	July
Saeed Ahmed, Maria Kim, Kondwani Kanjelo, Thomas Taimu, Mark Kabue, Peter Kazembe, & Mark Kline	Using community health workers to improve identification and early referral to care of HIV-infected children	Poster presentation made at the 5th International AIDS Society Conference, Cape Town South Africa	July
McCollum ED, Preidis GA, Kabue MM, Singogo EBM, Mwansambo C, Kazembe PN, Kline MW	Provider Initiated Testing and Counseling: An inpatient model utilizing task shifting in Lilongwe, Malawi	Presentation made at the National Aids Commission 2009 Dissemination Conference, Lilongwe Malawi	July
McCollum ED, Preidis GA, Kabue MM, Mwansambo C, Kazembe PN, Schutze GE	Hospital-based paediatric Provider Initiated opt-out HIV Testing and Counseling improves systems of PMTCT and identifies immunologically healthier HIV-infected children compared to Voluntary Counseling and Testing in Lilongwe, Malawi	Poster presentation made at the 5th International AIDS Society Conference, Cape Town South Africa	July


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