# BIPAI Baylor International Pediatric AIDS Initiative

20

Headquarters

2013-2014 Annual Report

## TRANSFORMATION

Cover photo:

BIPAI programs help mothers give birth to healthy, HIV-free babies.

## TABLE OF CONTENTS

Letter from the President1
2013-2014 Highlights3
Prevention
Care and Treatment5
Clinical Care, Transition Medicine, Satellite Centers, Outreach, Support Groups
Education
Research8
Glossary9
Key Staff & Board of Directors10
Partners & Supporters11

## VISION

A healthy and fulfilled life for every HIV-infected or affected child and his family.

## MISSION

To provide high-quality, high-impact, highly ethical pediatric and family-centered health care, health professional training and clinical research, focused on HIV/AIDS, tuberculosis, malaria, malnutrition and other conditions impacting the health and well-being of children and families worldwide.

## VALUES

We are:

- 1. Collaborative
- 2. Complimentary
- 3. Comprehensive
- 4. Care and treatment focused
- 5. Centered on the family
- 6. Capacity enhancement

## LETTER FROM OUR PRESIDENT

Dear Friends,

The Lazarus Effect is a well-known phenomenon in the world of HIV. It refers to what happens when a child who is terribly sick begins taking antiretroviral medication and within three months looks like any other well child, having put on weight and shed the numerous infections that accompany full-blown AIDS.

That kind of transformation lies at the heart of what BIPAI does every day. Yes, we still treat pediatric HIV/AIDS and its comorbidities. But we now also treat pediatric malaria, malnutrition, tuberculosis, hepatitis and cancer, screen for sickle cell, and work to reduce maternal mortality. We even treat the adults of a child's family when and where that makes sense.

Over the years, BIPAI has become the partner of choice for non-governmental organizations and corporations who wish to operate first-class health programs in resource-limited settings. We help countries improve the lives of their children through our health professional training, capacity building programs and vital research into pediatric infectious diseases.

We spread the effects of good health and functioning health systems to places in desperate need through our partnerships with governments, corporations and other non-profits.

Where BIPAI operates, we transform health systems and people's lives. Within these pages, you will read about our success in expanding care to remote areas of the developing world; about our educational efforts that build capacity for local health professionals to treat their own people; and about our research that furthers knowledge of the host of diseases we treat in our clinics.

I ask you to join us as we continue to work for the better health of children everywhere.

Very best wishes,

#### Mark W. Kline, M.D.

President, Baylor College of Medicine International Pediatric AIDS Initiative

Physician-in-Chief, Texas Children's Hospital

J.S. Abercrombie Professor and Chairman Department of Pediatrics, Baylor College of Medicine





## CENTERS & SATELLITE CLINICS

- 1 Romania, COE
- 2 Botswana, COE and teen center
- 5 Lesotho, COE and 4 satellites
- 3 Swaziland, COE and 2 satellites
- 1 Malawi, COE
- 2 Tanzania, 2 COEs
- 1 Uganda, COE
- 15 Total

## OFFICES

- 1 Angola
- 1 Colombia
- 1 Ethiopia
- 1 Liberia
- 1 Papua New Guinea
- 1 United States
- 6 Total

## **BIPAI AT A GLANCE**

BIPAI is the largest university-based care and treatment program for HIV-infected and -affected children in the world.

Budget	\$38.9 million
Patients in care	216,000*
Health professionals trained	74,000
Active research projects	40
Local employees	1,800
Centers & clinics	15
Offices	6

\*Patients in care at BIPAI clinics and outreach sites.



Sputum induction training helps health workers accurately test for tuberculosis.

## 2013-2014 ACCOMPLISHMENTS

- Expanded TB programs in Malawi, Lesotho and Swaziland, and broke ground on the network's first TB center of excellence in Swaziland
- Expanded cervical cancer screening programs in Lesotho and Uganda
- Launched a multi-year program to stabilize and expand faculty working at Port Moresby General Hospital and the University of Papua New Guinea (UPNG) School of Medicine and Health Sciences
- Established The Collaborative African Genomics Network, a \$3 million research initiative to study the genetic factors that affect the progression of TB and HIV in sub-Saharan Africa
- Launched its first program in Latin America, a pediatric and OB/GYN program in the poor and remote region of La Guajira in Colombia
- Expanded hepatitis C programs in Romania to address a common co-infection to HIV; Romania has the highest incidence of hepatitis infection in Europe
- Launched or expanded pediatric oncology programs in Botswana, Malawi and Tanzania
- Expanded outreach services in Tanzania to outlying health facilities providing teaching and consultation on HIV and malnutrition, thanks to a partnership with UNICEF and USAID
- Established a new OB/GYN program in Liberia
- Recruited five new Global Health Corps physicians in 2013 and seven in 2014. These doctors work in BIPAI centers in Africa to treat patients and teach specialist care to health professionals in resource-limited settings
- Celebrated 10 years of operations in Botswana with the opening of the continent's first adolescent-only center for teens with HIV
- Expanded transition medicine program in Malawi with a toll-free Teen Support Line and T2 program, both helping adolescents transition to adult care while staying in school or joining the workforce

## PREVENTION

To prevent HIV in children, BIPAI relies upon a multi-faceted approach that includes testing and screening, early infant diagnosis, provider initiated counseling and testing, family planning, prevention of mother-to-child transmission and public education.

Early infant diagnosis and Know Your Child's Status campaigns conducted across the network focus on testing the children of HIV-infected adults. Any child found to be positive is quickly linked to comprehensive pediatric HIV care and treatment services. Early identification keeps children healthier, in school and growing. In Lesotho, nearly 2,000 children received testing and counseling, and over 500 children were also screened for tuberculosis. In Malawi, a much more populous country, nearly 50,000 were screened. In Tanzania, approximately 8,500 children were tested for HIV and screened for malnutrition.

**Provider initiated testing and counseling** (PITC) helps identify children who are HIV-exposed or -infected when they are admitted to hospitals and clinics for treatment of other conditions. In the countries where BIPAI operates, PITC offers a critical step in finding children and families in need of care, including antiretroviral therapy. BIPAI-Uganda has trained more than 500 volunteers to test and counsel throughout the country.

**Family planning** plays a significant role in preventing more children from being born HIV-positive. Mothers with children currently in care, and pregnant women throughout the countries where BIPAI operates, are encouraged to plan their pregnancies and take appropriate medications to prevent HIV infection in their unborn children. In addition, accurate and available family planning services help HIV-positive adolescents transition into adulthood safely.

**Prevention of mother-to-child transmission,** or PMTCT, is the cornerstone in the fight against pediatric HIV. In 2011, Malawi made news by implementing Option B+, a national policy for all breastfeeding and pregnant women who are HIV positive to take ART for life, a step directly aimed at reducing new pediatric infections. This year, Lesotho followed Malawi's lead in adopting Option B+. All BIPAI centers continue to research and implement best practices in PMTCT, particularly in ways to simplify HIV treatment and to expand access to ART in hard-to-reach areas.

Public education takes many forms throughout the BIPAI network, responding to the unique needs of each country where it operates. Regardless of location, the campaigns work to reduce stigma, encourage early testing, safe sexual practices and access to care and treatment.

Antenatal visits help ensure the health of HIV-exposed infants and their mothers.



Supplemental nutrition supports patients living in resource-limited settings.

## CARE AND TREATMENT

HIV infection is by its nature systemic and therefore requires a systemic approach to keep an HIV-positive child or adult healthy. That is why BIPAI provides specialized care and treatment to HIV-infected children and the family upon whom that child depends.

In 2013-2014, BIPAI cared for a record 216,000 children and family members. Its clinics commonly record 100-150 patient visits per day.

BIPAI centers and clinics offer HIV treatment in the form of antiretroviral therapies and care for common comorbidities such as malnutrition, malaria, tuberculosis and cancer. Psychosocial support also plays a critical role in helping children, teens and families improve and maintain their health.

#### Patients in Active Care - 2013-2014\*

Botswana	2,493
Lesotho	4,687
Malawi	3,263
Romania	811
Swaziland	5,246
Tanzania	4,042
Uganda	8,988

\*Patients at COEs and satellite clinics, including HIV-positive patients and HIV-exposed infants.

Since children are the primary focus of BIPAI centers and clinics, all care and treatment programs begin with a child. Each child acts as a gateway to health for the whole family. These diverse, interrelated services each play a critical role in helping clients reach wellness and preventing further infections.

Whole family care takes various forms throughout the BIPAI network. In Uganda and Lesotho, vibrant men's support groups help fathers become more involved in their family's health. Counseling for discordant couples helps keep HIV-negative partners negative and educates them on the needs of their positive family members.

Adherence counseling is essential to combat low rates of careseeking behavior, improper use of medication, and high rates of loss-to-follow-up, common problems for BIPAI patients and their families. Given that ART requires excellent adherence for the rest of ones' life, it is essential to invest in interventions that create and sustain demand for services, in addition to investing in the services themselves.

**Outreach** allows staff to see a patient's home situation. Children who miss appointments or who fail to adhere to treatment are targeted for outreach. Pioneered by the Botswana team, outreach has proven highly successful in improving children's adherence.

**Nutrition** plays a vital role in keeping HIV-positive children healthy. A new two-year program for severely malnourished children launched at the Mbeya, Tanzania center, saw dramatic results. More than 60 health care providers in surrounding districts were trained in feeding children ages 0-59 months, with special emphasis on breastfeeding and screening children with malnutrition for HIV and TB.

**Cervical cancer screening,** a program initially begun in Swaziland, has spread to other BIPAI centers as a mechanism to prevent early death of mothers.

**Immunizations** are critical for disease prevention and are administered routinely during appointments.

**Family planning** plays an essential role in preventing further spread of HIV and keeps patients healthy. Particularly in resource-limited settings, family planning helps families gain or maintain economic security, another component to successful care and treatment.

**Psychosocial support** plays a vital role in helping patients get healthy and stay healthy. This work varies widely, from individual counseling to support groups to crisis intervention. BIPAI support groups include meetings to help unique sub-groups, such as serodiscordant couples, fathers, teen mothers and grandparents caring for grandchildren.

**BIPAI's monitoring and evaluation (M&E) system** allows for regular, robust assessment of outcomes and impact by clinic. Accurate measurement also allows for the development of effective, efficient programs that respond to clients' needs. Each country reviews its M&E plan annually to incorporate lessons learned and new activities.



In 2014, BIPAI Botswana opened the first adolescent-only center for HIV-positive teens in Africa.



Teen clubs across the BIPAI network allow youths to develop leadership skills, promote healthy living habits and help teens transition into adulthood.

# 186,522

Number of active patients treated at outreach sites, as of June 30, 2014.

#### Focus: Tuberculosis Screening and Treatment

In many countries where BIPAI operates, HIV infection and tuberculosis go hand-in-hand. It is not unusual for a new HIV patient to be identified first as positive for TB, then tested and found positive for HIV too. By streamlining treatment for HIV and TB, BIPAI greatly increases the chances that patients will be successfully treated for both conditions.

To combat these co-infections, BIPAI hosts robust TB programs. During 2013-2014, this work included breaking ground on a separate tuberculosis center of excellence in Swaziland, hiring a director for the international TB programs, and expanding TB programs throughout the network. Educational materials in local languages were developed and local health care workers were trained in sputum induction techniques in order to improve testing accuracy.

While tuberculosis is common everywhere that BIPAI operates, Swaziland, Lesotho and Romania are particularly hard hit. In Swaziland alone, nearly 5,000 children and adults were screened.

#### Focus: Transitioning Positive Teens into Healthy Adults

To a Western audience, the name 'Teen Club' calls to mind adolescents sitting around talking, eating pizza and flirting. In a BIPAI setting, Teen Clubs are actually a function of an emerging area of medicine aimed at transitioning teens with complex medical conditions into healthy adults.

Called transition medicine by health professionals, and known as Teen Club by its young participants, this program takes an active role in helping tweens and teens learn more about their infection, how to care for themselves, how to deal with stigma and how to advocate for themselves with medical personnel and the public. Roughly 5,500 adolescents participate in BIPAI Teen Clubs in six countries, or nearly 71% of adolescents in active care.

Taught over the course of years, the Teen Club curriculum offers age-appropriate lessons on a wide range of topics – the basics of HIV, dating, nutrition, safe sex, leadership, and even job skills. Ultimately, Teen Club's goal is to guide teens on a path to adopting responsibility for their own complex healthcare needs.

BIPAI is internationally known for its leadership in developing Teen Club curricula and lessons learned from this program have been adopted by medical professionals worldwide.

## EDUCATION

BIPAI provides training in pediatrics and infectious diseases to health professionals and community workers, often in countries with severe human resource constraints. These educational efforts help ensure the sustainability of BIPAI programs as well as expand each country's capacity to care for its own. This fiscal year 9,697 health workers were trained didactically and mentored one-on-one.

Health care workers, including doctors, nurses, pharmacists and social workers, receive one-on-one and classroom training either in their home clinic or at a BIPAI center of excellence. BIPAI also funds the education of select professionals in their network who wish to earn an advanced degree in public health or pediatric infection diseases at Baylor College of Medicine or University of Texas Health Science Center in Houston.

Education for nurses and community health volunteers, in particular, helps BIPAI improve care and treatment for HIV-positive children and families in rural settings.

Testing and follow-up helps ensure that new skills are retained and implemented appropriately.

Training topics for local health professionals includes:

- Diagnosis of HIV infection in children
- Clinical staging of HIV infection in children
- Indications for cotrimoxazole prophylaxis
- ARVs and ART initiation in children
- Monitoring of and adherence to ART for children
- Disclosure of HIV status to children
- Malnutrition
- Exposed infant care and early infant diagnosis
- Infant feeding and HIV
- TB/HIV co-infection in children
- Treatment failure and second line ART for children

#### Focus: Training in Papua New Guinea

Papua New Guinea, a country with 16,622 people per physician, faces a critical shortage of faculty to train students in its medical schools. BIPAI partnered with Texas Children's Hospital, Papua New Guinea and Exxon Mobil to expand and improve medical student education at the University of Papua New Guinea (UPNG).

BIPAI recruited one pediatrician and one public health PhD to spend at least one year teaching, with the goal of substantially increasing and improving the university's baseline faculty. A robust M&E framework was developed to capture pertinent data in teaching, training and improved care outcomes. Additionally, one student is working toward a master's degree in public health at the University of Texas School of Public Health in Houston, Texas.

The goal: Ensure sustainable growth and capacity at UPNG and teaching hospitals across Papua New Guinea.

Annual network meetings allow BIPAI employees to share best practices on pediatric HIV care and treatment.





In 2013-2014, BIPAI launched an educational program in Papua New Guinea dedicated to training more doctors in that country.



# Focus: The genetics of TB and HIV in sub–Saharan Africa

In early 2014, BIPAI announced a \$3 million, three-year grant from the U.S. National Institutes of Health to study the genetic factors that affect the progression of TB and HIV in one of the largest, and largely unstudied, populations infected – children in sub-Saharan Africa.

Established as The Collaborative African Genomics Network (CAfGEN), BIPAI Botswana and BIPAI Uganda are participating in the study, in collaboration with Makerere University in Uganda, University of Botswana and Baylor College of Medicine in the U.S.

This team uses state-of-the-art genomic technologies to study a rare group of HIVinfected children who can control the infection for years without needing antiretroviral medicines. They are also following a group of HIV-positive children infected with TB to identify new genes associated with disease progression.

Previous genetic studies have been conducted in non-African, adult populations, yet the disease in children progresses much differently. The ultimate goal is to find improved diagnostics and new therapeutic avenues in tuberculosis and HIV/AIDS. Establishing core genomics facilities in Botswana and Uganda also offers improved knowledge and infrastructure that will serve Africa for years to come. The Collaborative African Genomics Network (CAfGEN) launched by BIPAI in 2013–2014, integrates genetic and genomics technologies to probe host factors important to the progression of HIV and HIV-TB infection in sub-Saharan African children.

## RESEARCH

Research, always a key component to the BIPAI culture, provides the evidence for improving care and treatment of HIV-positive patients in its network. BIPAI has become known for its evidence-based advances in the care and treatment of HIV/AIDS and related health conditions. BIPAI's research is as rich and varied as the cultures in which it operates with 40 active investigations as of January 2015.

This research focuses on:

- Provision of care and treatment for children and families infected or affected by HIV/AIDS
- The often concurrent comorbidities of tuberculosis, malaria, malnutrition and other diseases and how treatment for those diseases affect HIV treatment
- Success of various family planning options in stopping virus transmission
- Effectiveness of outreach programs, satellite clinics and community volunteer efforts



## GLOSSARY

AIDS	Acquired immunodeficiency syndrome		
ARV/T	Antiretroviral or antiretroviral treatment		
BIPAI	Baylor College of Medicine International Pediatric AIDS Initiative at Texas Children's Hospital		
CDC	U.S. Centers for Disease Control and Prevention		
COE	Center of Excellence		
HIV	Human immunodeficiency virus	A New Approach to	
PEPFAR	President's Emergency Fund for AIDS Relief	FIN All me many second provide the second to know a secon	
PMTCT	Prevention of mother-to-child transmission	Disconception of the second se	
ТВ	Tuberculosis	The second secon	
UNICEF	United Nations Children's Fund	and the second s	
USAID	United States Agency for International Development	Communications are targeted to populations with the goal of reducing mother-to-child transmission.	

## LEADERSHIP Board of Directors

Mark W. Kline, President and Chairman Michael B. Mizwa, Secretary Robert Corrigan, Jr., Assistant Secretary Joseph R. Kanewske, Treasurer Claire Bassett, Member Nancy R. Calles, Member Doug Spade, Member Susan MacDonald, Member John J. Scales, Member



BIPAI's dedicated employees extend across 13 countries.

## KEY STAFF Headquarters

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Hailu Nida Sarero, M.B.B.S., F.A.A.P. Executive Director, Swaziland

Mogomotsi Matshaba, M.D., Ch.B. Interim Executive Director, Swaziland

Ana-Maria Schweitzer, M.Sc. Executive Director, Romania

Ana Maria Galvis Executive Director, Colombia

## SPONSORS

All BIPAI programs are made possible through the generous support and close partnership of the following organizations and governments:



Back Cover photo:

The program Saving Mothers, Giving Life brings OB/GYN services and newborn care to rural areas of Uganda, reducing maternal mortality.



Baylor College of Medicine International Pediatric AIDS Initiative – Headquarters

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