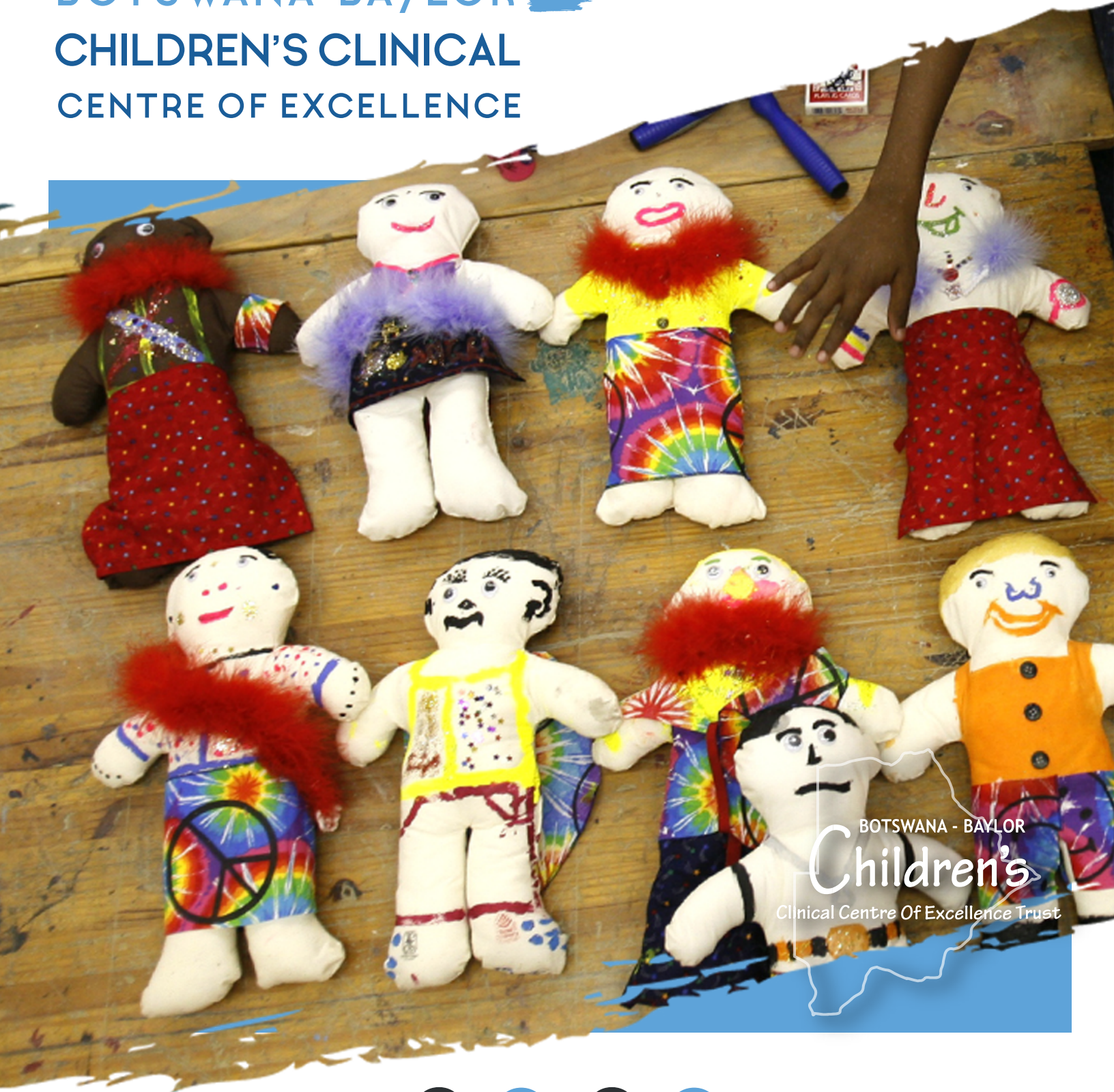


BOTSWANA-BAYLOR 
CHILDREN'S CLINICAL
CENTRE OF EXCELLENCE



BOTSWANA - BAYLOR
Children's
Clinical Centre Of Excellence Trust

2020

BIPAI Baylor International
Pediatric AIDS Initiative
at Texas Children's Hospital



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Prepared by:

Grace Karugaba-Training Coordinator

Thato Regonamanye-Development/Project Assistant

And Botswana-Baylor staff

Photo Credit:

Smiley N. Pool

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BIPAI

HISTORY AND SCOPE



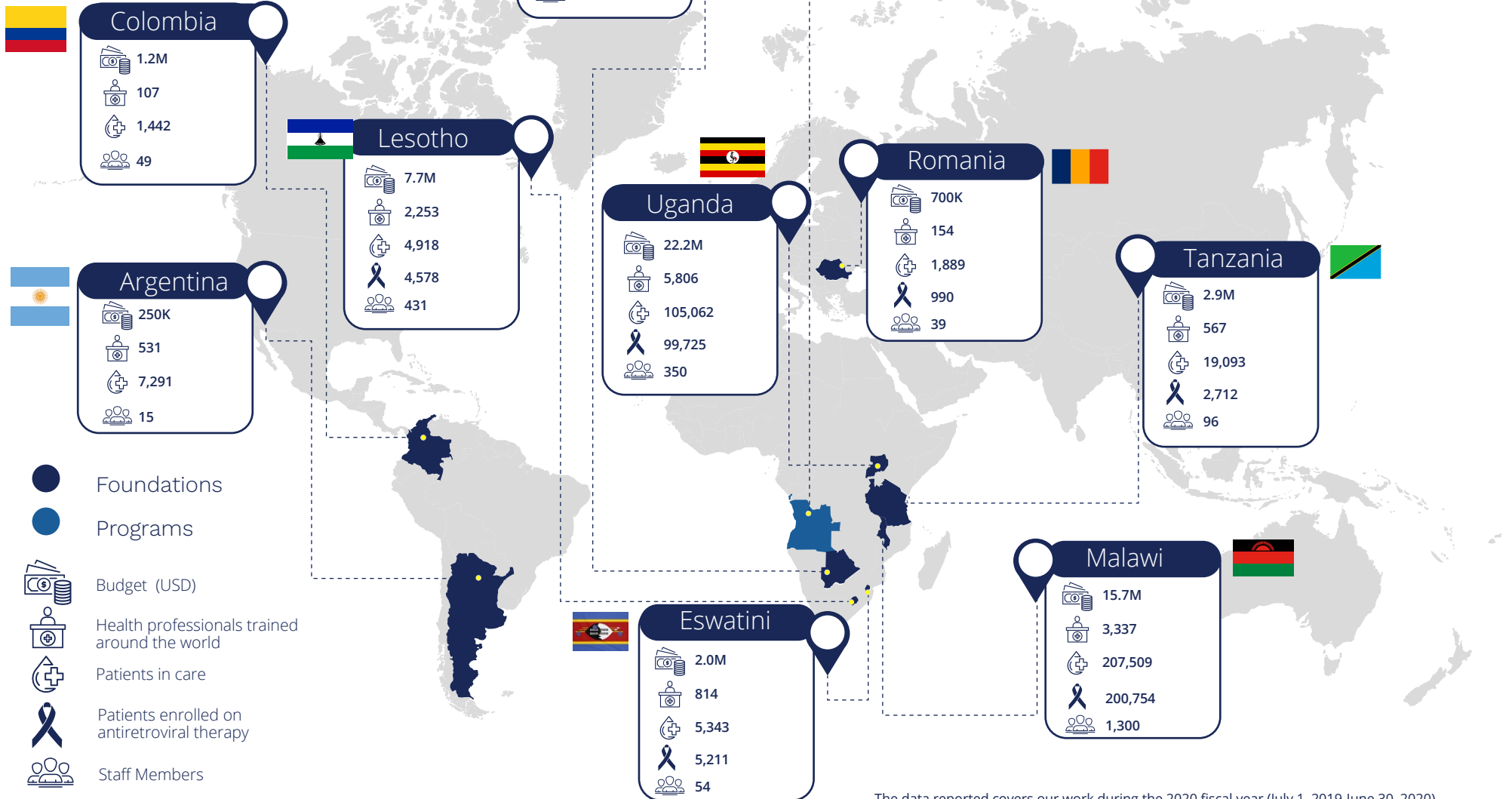
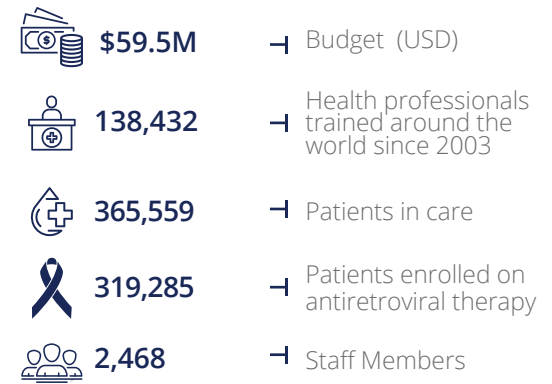
“I am extremely honored and proud of BIPAI’s accomplishments in its first 20 years. BIPAI is committed to its vision and mission and the people it serves despite the ongoing challenges presented by the COVID-19 pandemic and any other issues the future might bring. We have a strong foundation and a team of dedicated experts willing to care for those in need and to support and train others to do the same.”

Michael Mizwa
Chief executive officer

Baylor College of Medicine International Pediatric AIDS Initiative (BIPAI) at Texas Children's Hospital is the largest care and treatment network based at an academic institution supporting programs for HIV-infected and -affected children in the world. BIPAI consists of a network of nine independent, non-governmental organizations (NGOs) operating 14 Centers and Satellite Centers of Excellence that provide comprehensive outpatient care for more than 350,000 children and families worldwide. Over the past 20 years, BIPAI has also evolved its mission beyond HIV to include comprehensive health programs designed to work within the local health systems and improve maternal and child health outcomes. BIPAI provides technical assistance to its network to ensure the highest level of quality care and treatment, education and training for health professionals, and operational research to improve patient care.



BIPAI Network Statistics



- Foundations
- Programs
- Budget (USD)
- Health professionals trained around the world
- Patients in care
- Patients enrolled on antiretroviral therapy
- Staff Members

The data reported covers our work during the 2020 fiscal year (July 1, 2019-June 30, 2020).



EXECUTIVE DIRECTOR'S LETTER

This last year has been a trying one. COVID 19-happened. I would like to thank you all, friends of Botswana-Baylor Clinic. During trying times like these brought by the advent of COVID-19, it is important to remain hopeful. Change is never easy to accept but at times it is inevitable. We have had to adapt to these changing times and continue to offer unparalleled services as usual, following the newly introduced COVID-19 regulations.

Our clinic staff continue to play a leading role in response to the pandemic. I have been asked to join the Presidential COVID-19 Task Force, chaired by His Excellency, the President of the Republic of Botswana, Dr. Mokgweetsi Eric Keabetswe Masisi. The Task Force is a national response mechanism that leads the COVID-19 pandemic issues. In this role, I, and by extension, our organization has contributed significantly to the fight against COVID-19. Our CAFGEN trainees and equipment have also been engaged in the fight. Our trainees are leading in some of the COVID-19 research and interventions.

As part of the response, Botswana went into extreme social distancing, a form of lockdown, that has helped the country deal with the pandemic. I would also like to say thank you to Botswana-Baylor Children's Clinical Centre of Excellence staff for their continued excellent service. The staff of the two major programs, Paediatric Infectious Diseases and Paediatric Haematology/Oncology have continued to serve our clients. Support staff as well have been key in helping us continue to offer services.

On behalf of the Board of Trustees, Botswana-Baylor Management and staff, I would once again like to take this opportunity to thank all our partners for your unwavering support. Without you, we would not be celebrating these successes.

Stay safe, stay healthy, stay kind, and we look forward to brighter days ahead.

Pula!
Mogomotsi Matshaba
Executive Director



MISSION

To provide high-quality, comprehensive, family-centered health care, education, and clinical research.

VISION

A future where all children are living longer and healthier lives.

“Botswana-Baylor is an organization that really plays a good role in someone’s life because they are there and they support you. They are not only focused on your medication but also on your health generally. Also at Botswana-Baylor it is not only doctors that you see, there are people like social workers, psychologists, peer educators and others. If you have a problem, they can really support you and eventually you find you are able to live with this condition very well.” Female, 21 years.



BOTSWANA-BAYLOR

CHILDREN'S CLINICAL

CENTRE OF EXCELLENCE

Botswana-Baylor Children's Clinical Centre of Excellence (Botswana-Baylor) is a national general care and treatment facility that provides services in Gaborone, Botswana. We serve children, adolescents, and young adults and their families from around the country. Our services include treatment for HIV and associated infections and now extend to oncology care and treatment for patients nationally. Also, we act as a major research hub contributing valuable information to the international HIV and oncology communities. Botswana-Baylor is a public-private partnership between the government of Botswana and Baylor College of Medicine International Pediatrics AIDS Initiative, which was launched in June 2003. Botswana-Baylor is registered under the laws of Botswana as a Trust. It is located on the campus of the Princess Marina Hospital, the largest tertiary care referral hospital in Botswana. Botswana-Baylor provides free-of-charge, state-of-the-art pediatric HIV, oncology, and blood disorder care, treatment, and support to children, adolescents, and their families at the main clinic in Gaborone and through decentralized outreach services across the country. Botswana-Baylor is a leader in the field of pediatric HIV and cancer care in Botswana, the Southern Africa region, and beyond.

The Global HOPE (Haematology-Oncology Paediatric Excellence) initiative, a partnership between several institutions, including the Texas Children's Cancer and Haematology Centre and the Botswana-Baylor Children's Centre of Excellence Trust, has improved the care of children with cancer and blood disorders in Botswana since 2007. The Paediatric Haematology Oncology (PHO) program is located at Princess Marina Hospital, offering comprehensive PHO services. In June 2016, the Botswana Ministry of Health and Wellness formalized its partnership with Texas Children's Hospital to construct the Botswana Children's Cancer and Haematology Centre of Excellence (COE). Texas Children's Hospital and the government of Botswana will cooperate on scientific, technical, and medical initiatives to dramatically improve pediatric cancer and hematology care throughout the country. Plans are underway to build the PHO COE adjacent to Sir Ketumile Masire Teaching Hospital at the University of Botswana. Because the construction is expected to take over three years, hematology and oncology services will be relocated to Sir Ketumile Masire Teaching Hospital during 2020. These services are currently provided at Princess Marina Hospital Paediatric Ward.

HIGHLIGHTS 2020



• U.S. Ambassador visits the COE

The U.S. Ambassador to Botswana, Mr. Craig Cloud paid a visit to the COE on Nov. 6, 2019, accompanied by the USAID Country Director Alyson McFarland. The purpose of the visit was to recognize the work we do and learn about the center's work in providing quality care for children in Botswana. Presentations were made to the distinguished visitors on both the HIV and oncology programs. The Ambassador appreciated our contribution to society and committed their continued support.

• CAfGEN Launch Officiated by Health Minister

The CAfGEN study launched its second phase on Sept. 12, 2019. The event was held at Cresta Lodge, Gaborone, and the purpose was to update the stakeholders on the progress of the study. The occasion was officially opened by the Minister of Health and Wellness, Dr. Alfred Rabashemi Madigele, who stated, "We believe that with these investments, Botswana will again lead in the era of precision medicine. My ministry is proud to support further advances by His Excellency the President of Botswana, Dr. Mokgweetsi Eric Keabetswe Masisi toward his vision of a knowledge economy." Present were the board of trustees member Dr. Gaositwe Chiepe, Botswana-Baylor COE Executive Director Dr. Mogomotsi Matshaba, and representatives from various ministries, NGOs, and media houses. Also in attendance were the members of the CAfGEN Community Advisory Board, which was established in 2015. The primary objective of the Collaborative African Genomics Network is to create a collaborative, multidisciplinary, multi-institutional, inter- and intra-country network of African scientists, clinicians, and researchers using genomics approaches to study gene/environment interactions for HIV/AIDS, its co-morbidities, and other diseases among diverse pediatric African populations by 2022.

• Bioinformatics Equipment Handover Ceremony

The bioinformatics equipment amounting to BWP 883,387.76 was handed over to the University of Botswana (UB) on Feb. 10, 2020, for integration into the university's infrastructure. In attendance were senior UB management, including the Vice-Chancellor, Deputy Vice-Chancellor (Acting), Director Office of Research and Development, Head of Department Biological Sciences, and the Dean Faculty of Science. The Vice-Chancellor expressed his gratitude that the project would position the University of Botswana at the forefront of cutting-edge data science research to transform Botswana into a knowledge-based economy. Equipment is comprised of Dell PowerEdge R740 Twin Processor, 256 GB RAM Server, Dell Unity 300, with over 70 TB storage, Dell MD 1400 100 TB Backup Storage, APC 3 KVa Smart-UPS, and 3 Apple iMac Workstations.



U.S. Ambassador Mr. Cloud and COE Executive Director Dr. Matshaba



Delegates at the CAfGEN launch

• International Visits

From Nov. 1-3, 2019, the Lions Club International President, Dr. Jung-Yu Choi, and his wife visited Botswana to learn about the district. They visited Princess Marina Hospital and the Botswana-Baylor Children's Clinical Centre of Excellence on Nov. 3rd. Drs. Slone and Dunn had a chance to sit with him, along with a cadre of local Lions Club leadership to discuss the Global Hope program in Botswana.

• 21st Annual BIPAI Network Meeting

The 21st annual Baylor College of Medicine International Pediatric AIDS Initiative (BIPAI) network meeting was held on the 18th of November 2019, at Kopanong Hotel and Conference Johannesburg, South Africa. Representatives from each BIPAI network NGO and program, including Botswana, attended the conference where oral and posters were presented. In attendance from Botswana-Baylor was the Executive Director, monitoring and evaluation, social work, programs, and Pediatric Infectious Disease Clinic (PIDC) teams. The team was joined by Individual Findings in Genetic Research in Africa (IFGeneRA) Ph.D. Trainee.

• International Childhood Cancer Day Dinner Event hosted by Botswana First Lady

The First Lady of Botswana, Mrs. Neo Jane Masisi, hosted the Global HOPE Dinner on Feb. 19, 2020, to bring awareness to pediatric cancer in Botswana. It was attended by 150 people, including His Excellency, the President of Botswana, Dr. Masisi; former Botswana President Dr. Festus Mogae; U.S. Congressman Michael McCaul and his wife, Linda; numerous ministers and leaders of the Botswana government; leadership of Texas Children's Hospital, Global HOPE, BIPAI, Bristol Myers Squibb Foundation; and other local business and community leaders.



PROGRAMS

BOTSWANA BAYLOR CHILDREN'S CLINICAL CENTRE OF EXCELLENCE



**Paediatric Infectious
Diseases Clinic
(PIDC)**



**Botswana Paediatric
Haematology and
Oncology
Programme (PHO)**



**Collaborative African
Genomics Network
(CAfGEN)**



**Pediatric KITSO
Training**



**Outreach Mentorship
Programme**



**Visiting Scholars
Programme**



**Impact Evaluation of
an Intervention
Package for
Adolescents Living
with HIV in
Botswana**



**Adolescent
Programmes**



**Botswana
Comprehensive Care
and Support for
Orphans and
Vulnerable Children
Project**

KEY NUMBERS

2,516

Total Active Patients

95.2%

Suppression Rate

154

Healthcare Workers Trained

2,515

Patients currently on HAART

88.2%

Successful TB Outcomes



PROGRAMS

Paediatric Infectious Disease Clinic (PIDC)

The PIDC at Botswana-Baylor provides HIV testing, treatment, care, and support services to children, adolescents, and their families. Our current patient load is roughly 2,490 active patients, most of whom receive follow-up care every three months as recommended.

Achievements

- Improved communication with adolescents which makes it easier for them to open up to staff about their problems/ challenges
- Tracked LTFU through home visits by the Inreach team
- Reduced hospitalizations
- Challenge patients now achieving viral suppression rates

Challenges

-  Adolescents and young adults struggled with adherence to their medications due to challenges including mental health disorders, poor family support, and stressful relationships.
→ **Botswana-Baylor provided resources and enhanced interventions to promote long-term adherence in this population.**
-  Growing numbers of adolescents and young adults experience mental health disorders, including depressive disorders, anxiety disorders as well as psychiatric symptoms.
→ **Botswana-Baylor dedicated personnel and other resources to enhance the screening and management of mental health disorders in this population.**
-  Many young adult patients were neither in school nor working, leading to financial challenges and inability to meet transportation costs to the clinic for medical appointments, resulting in occasional gaps in medication adherence.
→ **Botswana-Baylor provided transport support to extreme cases.**
-  Many of the young mothers were unemployed and experienced parenting challenges
→ **Botswana-Baylor supported young parents and their children through support groups and skills training through Finding the Leader within Program.**
-  Some adolescents and young adult patients despite multiple follow-ups refuse to return to care. Such cases are at high risk of mortality as they remain out of care for prolonged periods and tend to return to care when they are very sick.
→ **Botswana-Baylor social workers, nurses, and community health workers conduct multiple home visits to track and engage those patients.**



Botswana-Baylor nurse preparing equipment to perform a cervical cancer screening

The Screening Clinic serves as an entry point to the COE for all clients seeking to know their HIV status. Though some clients seen at the Screening Clinic are self-referrals, most are referred from other health facilities. Four to six weeks after birth, babies born at Princess Marina Hospital and other health facilities are referred to the COE's Screening Clinic for DNA/PCR testing.

Over the reporting period, **22** babies screened with DNA PCR tests. Of these, **2** tested HIV positive.

A total of **68** rapid HIV tests were done and only 3 people tested positive.

8 patients were diagnosed with TB

Cervical Cancer Screening

Cervical cancer is cancer arising from the cervix. It is due to the abnormal growth of cells that can invade or spread to other parts of the body. The screening test aims to detect changes early that could develop into cervical cancer if left untreated. Botswana-Baylor started the screening program in November 2016, targeting sexually active adolescents and young women who are older than 15 years. Cervical cancer screening is integrated into routine clinical services offered at the Botswana-Baylor clinic. When the program started, the Botswana national cervical cancer screening guidelines recommended screening only for women aged 30 – 49 years, but now, after reviewing screening results from different sites, the national guidelines have been reduced to 25 years of age.

screened
29
patients

During the reporting period, we screened 29 patients using Pap smear and visual inspection under acetic acid methods. Of these, three patients were positive for human papillomavirus, a cause of cervical cancer. In addition, three patients were diagnosed and treated for sexually transmitted infections, including genital warts and candida. Plans are to screen all sexually active adolescent girls and young women coming to the COE, and treat them appropriately to prevent cancer.

Cervical Cancer Screening Data

Two patients under 30 years were diagnosed with Genital warts and PV discharge. One patient under 30 years was diagnosed with Candida.

NB: Screening was suspended from March to June 2020 in compliance with COVID-19 and lockdown guidelines.

Clinical Psychology

Unsurprisingly, adherence challenges and depression remain the highest reported cases, indicating a strong relationship between the two. Patients, especially adolescents who are referred for persistent adherence challenges, report some signs of depression. This highlights the importance of depression and other mental health screening for all patients with adherence challenges. Therefore, mental health support for HIV infected youth is important not only for quality-of-life concerns but also regarding HAART adherence and biomedical and health outcomes. The total number reported is 3456, with the most reported pressing issue being adherence (622), depression (479), behavioral delinquent (346) and the least reported issues are acute psychosis (2) and ADHD (5)

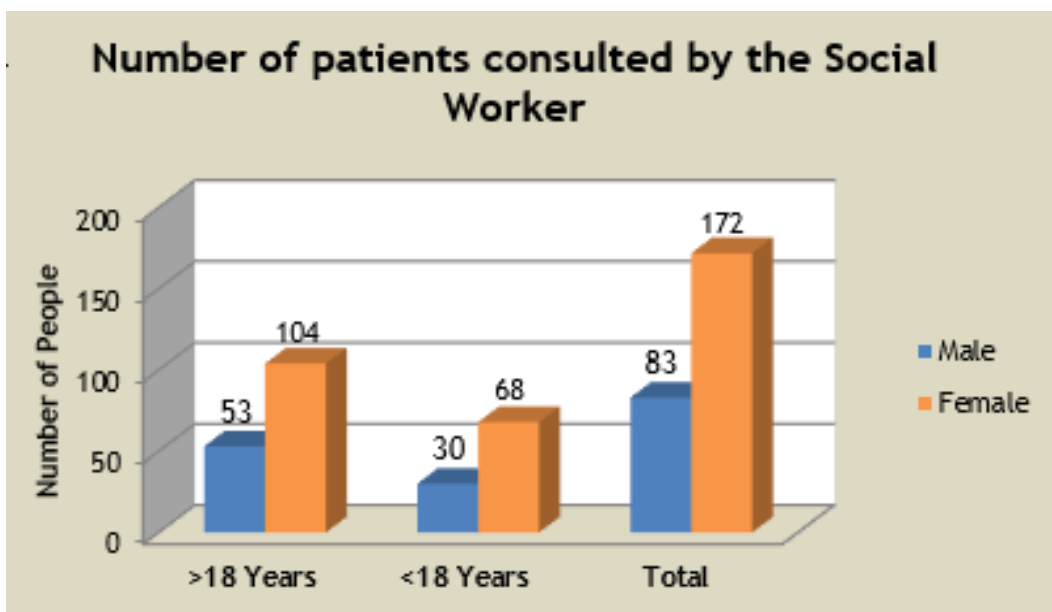


Participants during the Young Adults Support Group activity

Social Work

The social work department at the COE provides counseling, care, and support services to Botswana-Baylor patients and their families. Home visits for emergency cases, lost to follow-up patients, and adherence and supportive counselling are the main services provided by our social worker, Ms. Tapiwa Tembwe. With the support of a trained intern, Ms. Tembwe managed to multi-task in different spheres of work, including assisting clients referred through the PCI projects and participating in COE-run studies. Other services that Ms. Tembwe provided included conducting counseling sessions and home visits, mentoring Camp Hope activities, leading caregiver training for PCI and UNICEF, and coordinating the annual children's Christmas Party.

The social work office also serves as a liaison with relevant community-based stakeholders, such as the community social workers, the police, the magistrate, and community-based organizations, to identify and refer families with at-risk children for HIV testing and enrolment in care, address the needs of children and families living in difficult circumstances, and engage all family members including children in adherence counseling sessions at home. The most consulted cases by the social work office were adherence counseling (55), supportive counseling (29), and grief and bereavement support. She also conducts training activities, such as Stakeholders and UNICEF Teen club Caregiver training around Gaborone and other Districts. Training modules which include parenting, alcohol and substance abuse, disclosure, ART retention and care, PMTCT, SRH, and livelihood and income were much appreciated by the parents as they prompted more discussions and insights on their daily lives with adolescents living with HIV. Ms. Tembwe also participates in Focus Group Discussions under the PCI study for Early Infant Testing and diagnosis. The community provides donations, including toys, clothes, and toiletries to vulnerable patients. The most reported cases are adherence counseling and supportive counseling.



le

Adolescent programs

Camp Hope

173

participants in
Botswana-Baylor camps

Botswana-Baylor, in partnership with SeriousFun Network, held a Family Weekend camp in July 2019. The camp brought together caregivers and children to spend time together and improve their connectedness through collaborative problem-solving activities. The intended outcome is a strengthened caregiver-child bond, which is critical in improved adherence to treatment, mental health, viral suppression, and general quality of life. A total of 57 adolescents and 56 caregivers attended the camp, held at Oasis Motel. The Camp Hope residential camp, which was held at the Big Five Lodge in December 2019, brought together 60 children.

The major goal is to afford campers, particularly those with challenges, the opportunity to rediscover themselves, earn life skills, and enjoy playing with peers, all of which are facilitators of improved quality of life. Camp activities included social activities such as a campfire, where campers roasted marshmallows and shared stories about the struggles of living with HIV/AIDS, and arts and crafts, where they made friendship bracelets and photo frames. They also participated in life-skills sessions on nutrition, hygiene, and confidence. On the final night, there was an event to celebrate campers' achievements with a dance and a talent show. Camp Hope Botswana passed the Serious Fun Network Criteria reassessment, further cementing the credibility of our camps.

Teen Club

588

participants
across 18 sites in
the past year

Teen Club is monthly peer support established in 2005 for HIV-positive adolescents who are between 13-19 years old. Teen Club empowers youths to build positive relationships, improve their self-esteem, and acquire life skills through peer mentorship, adult role modeling, and structured activities. Teen Club creates a safe space for teenagers to form friendships with peers of similar life experiences while learning and acquiring important skills. Teen Club members are all HIV-positive and fully disclosed. Teen Club sessions are guided by an 11 month, standardized curriculum with broad themes such as adherence, love, sex, and healthy relationships, as well as activities such as a talent show.

The main Teen Club site is the Baylor Bristol Myers Squibb Phatsimong Adolescent Centre in Gaborone, which hosts about 160 teens on the last Saturday of each month. The COE also supported teen clubs at other satellite sites in Botswana. Active Teen Club attendance stood just below 588 across the 18 sites in the past year. The Teen Club was made possible through funding from PCI-Botswana and UNICEF.



Camp Hope participants during one of the camp activities

Painting activity during Teen-Club session



“Teen Club has also been amazing for me. It opened a lot of doors. I can’t even stop smiling when I talk about it. I started coming to Teen Club when I was 13 years old and ran for Teen Leader the following year. I wanted to be someone that kids could look up to. Once I was elected I started mentoring other kids. It was really wonderful because I got to acquaint myself with a lot of people. Everyone was able to see my transformation from a little girl starting junior secondary school to the woman I am today”. Teen-Club participant

“As soon as I got to Botswana-Baylor and started treatment, it didn’t take long for the staff to recognize how engaged and happy I was to be there. The following year, in May 2005, I became one of the founding members of Teen Club. With Teen Club I was able to say, ‘Oh, okay, I’m not the only person in this condition. There are all these people I can talk to, share information, and exchange advice here and there.’ I was able to see different children, with different issues, living in different places and conditions so it was very interesting for me”. Teen-Club participant

“When we started Teen Club it was only two boys and three girls. Nonetheless, it was a community that helped us learn that you are not going through this alone. There are more people in the same situation. We need to get to know each other.’ So we started having casual activities that allowed us to start interacting and connecting. We would paint, draw, go to Mokolodi Nature Reserve for camps, and a lot of other fun activities”. Teen-Club participant

Botswana Comprehensive Care and Support for Orphan and Vulnerable Children (OVC) Project

Botswana has a growing population of orphans, estimated at 6.28% of its entire population, according to the 2011 National Population Census. Children who are categorized as vulnerable in Botswana include those who are orphaned, living in abusive environments, living with a sick parent or guardian, living with HIV, living with a disability, or living outside of family care.

These cumulative risk factors may result in illness; withdrawal from services, including schooling and healthcare; emotional distress; trauma; abuse; neglect; and exploitation. Other challenges facing orphans and vulnerable children with HIV infection include adherence to medication and a lack of emotional support. Botswana-Baylor implemented the Botswana Comprehensive Care and Support project in six PEPFAR priority districts (Kweneng East, Gaborone, South East, Mahalapye, Kgatlang, Southern, and Kanye) with the PCI-Botswana serving as the main implementer.

4,000
clients covered
by project

The project aims to improve the health, well-being, and safety of these children and their families through direct service delivery, referral, and networking, and through capacity building for orphan and vulnerable children service providers. Botswana-Baylor's role in this project is to provide care and support services to OVC living with HIV, from birth to 17 years old, and their families. The project covered just over 4,000 clients comprising an average of 2,250 people living with HIV per quarter between July 2019 and June 2020. An average of 950 children and adolescents living with HIV were assisted during this period. Major challenges encountered included children without birth certificates, low rates of referral completion, and parents unable to supervise their children's medication. To address these challenges, Botswana-Baylor continually crafts quality improvement initiatives.



A participant during camp activity

Tutoring

Over
200
children and
adolescents
have received
free academic
assistance

The tutoring program was established in 2008 to support school-age patients with learning difficulties and/or poor academic performance. Over 200 children and adolescents have received this free academic assistance. COE patients often miss school time to attend clinic appointments. The academic consequences of such absenteeism are compounded over time. Also, there are difficult psychosocial implications: a vast number of these youths are unable to disclose their HIV status due to widespread societal stigma. Peers' frequent questioning of inconsistent attendance or the burden associated with asking permission from teachers for time away from school complicates a young person's academic experience.

Additionally, research suggests an increased risk of impaired neurological and psychiatric development in youth who acquired HIV perinatally. COE clinicians, community health workers, psychologists, and social workers assess patients' academic performance during consultations and those with grades of 'C' or below are referred to the program. The program enrolled youth in Standard 1 - Form 5 and averages 15-25 attendees per session on various subjects, with students often focused on maths, agriculture, sciences, or English. The tutoring sessions are led by dedicated volunteers who have either completed undergraduate studies, are still studying in surrounding universities and colleges, or are retired teachers. An average of 12 tutees attended the sessions per weekend between July 2019 and June 2020.

Finding the Leader Within

The COE continued its partnership with Stepping Stones International (SSI) to implement the Finding the Leader Within program. This program targets out-of-school and unemployed youth between the ages of 16-25. The six-months curriculum focused on leadership development, career and vocational guidance, healthy and productive lifestyles, financial literacy, and information and technology skills. Also, participants were trained on Ready To Work modules: entrepreneurship and employability pathways that empower them with skills and knowledge to approach the world of work with confidence.

Guest speakers often visit to share their experience and knowledge in their fields. The sessions run four days a week (Tuesday through Friday) and are facilitated by COE staff and volunteers. Seventy-eight youths (47 Females and 31 Males) were enrolled in the Leadership program sessions. Most of the participants were placed in jobs, which allowed them to experience the workplace.

Young Adults Support Group

1,125
young adults enrolled
in treatment at
the COE

120
Youth received
assistance through
"YASG"

The number of young adults between 19-25 years old at the COE has been growing significantly. By the second quarter of 2020, there were about 1,125 young adults enrolled in treatment at the COE. Modeled after Teen Club, Young Adults Support Group follows a structured curriculum that includes job readiness skills, personal finance training, emotional and mental health, sexual and reproductive health information, and self-care.

TELLING THE BOTSWANA- BAYLOR STORY

Friendships Forever:

A Botswana-Baylor patient reflects back on all the amazing people he has met through Botswana-Baylor: doctors, peers, volunteers, and more!

I was forced to grow up at a young age, the day I lost my mother. I was in Standard 5 at this time so I went to live with my aunt and her children. Although I didn't live with my dad, we were still close and he would come and spend the day with me, just the two of us having fun. However, in Form 1, I got really sick and he took me to the hospital. He was there when the result came that said I was HIV-positive. After that he changed in some way, I could feel it and see it. He was not the same person towards me that he used to be. It made me feel very neglected. Along with all of this, I was very sick when I came to Botswana-Baylor. I had seizures and would just blackout and not remember anything afterward. I couldn't stand up and had to be fed and bathed by my relatives. For the first two months that I came to Botswana-Baylor, I thought I was alone. However, coming here gave me hope. The seizures went away and I was able to meet a lot of people through Botswana-Baylor.

I am with people who understand my situation and want to help.

It was fun to meet a lot of kids my age that I could talk to and have fun with. They were all in the same situation as me, which gave me a sense of belonging and showed me that I wasn't an outcast. Botswana-Baylor has that feeling of home because when I get there, I feel like I am in the right place. I can be free and not fear anything because I am with people who understand my situation and want to help. Everyone is always patient and in a good mood, which makes me feel like I can open up to them.

The biggest challenge with taking my medication has been timing issues. I might still be doing a school project and far from finishing but it is time for me to take my pills so I would have to go home without submitting the assignment. Also side effects are tough. Sometimes I feel weird after taking them, like something is off. Often I will get really hot. Through Botswana-Baylor though I learned that I could avoid that by taking the pills with cold water.

To me, Botswana-Baylor is like a second home. Because of it, I know what I want to do when I get older. I want to help kids in the same situation as I was. I want to tell them, "I was there once and I can give you advice on how to overcome some of the challenges that you are dealing with." I see myself being a helping hand. Having this dream helps motivate me toward the future because there is so much I want to accomplish in life!

Male 23 years.

EDUCATION AND TRAINING



Pediatric KITSO training attendants in Maun

Pediatric KITSO Training Programme

Pediatric KITSO trainings are five-day workshops to build the capacity of healthcare workers to provide quality treatment and care services to pediatric, adolescent, and young adult patients. During the reporting period, two Paediatric KITSO workshops were conducted, reaching 81 health care professionals drawn from Greater Francistown DHMT, Tutume DHMT, and Ngamiland DHMT.

Two scheduled Paediatric KITSO Training workshops were canceled due to the COVID-19 outbreak. Botswana-Baylor staff revised the Paediatric KITSO Training Curriculum content to match changes in national treatment and care guidelines and the evolving needs of children as they grow into adolescence and young adulthood. Future trainings will continue to highlight the role of healthcare workers in supporting the achievement of the UNAIDS 95-95-95 global HIV campaign.

Visiting Scholars Programme

86

scholars visited Botswana-Baylor from various training programs in Botswana and around the globe.

The mission of the Botswana-Baylor visiting scholars' program is to increase understanding of and to build capacity for pediatric HIV and cancer treatment and care globally. 86 scholars, including medical students, residents, fellows, nurse prescribers, and other health professionals, visited Botswana-Baylor from various training programs in Botswana and from around the globe. The majority of the scholars were from the University of Botswana Medical School in Gaborone and Baylor College of Medicine in Houston, Texas. The visiting scholars spent most of their time in the COE and with the Paediatric Oncology and Haematology ward at Princess Marina Hospital, shadowing and working alongside experienced clinicians and researchers. Some of the scholars spent time with the outreach teams at other ART sites. Rotations by international scholars were temporarily suspended in March 2020 due to the Covid-19 outbreak. The rotations will resume when international travel restrictions are eased.



Yaseera visited a safari in the Okavango Delta in northern Botswana during her time as a Visiting Scholar.

“Baylor College of Medicine is an esteemed and world-renowned academic health centre and this is what convinced me to apply to their winter elective programme. As a medical student, I wanted to make my school holiday exciting but also informative, and Botswana-Baylor did not disappoint me. I spent four weeks working alongside the fantastic staff and incredibly knowledgeable doctors at the Botswana-Baylor Children’s Clinical Centre of Excellence. This centre is well equipped and specialises in paediatric HIV care, working alongside other government-appointed facilities in combating the HIV epidemic in Botswana. I was offered a well-rounded experience, from taking patient histories to performing physical examinations and investigating lab tests and drug interactions. I also conducted follow-up appointments and accompanied doctors on outreach visits. Botswana-Baylor far exceeded my expectations.” Yaseera Koya, MBBS Shanghai Medical College of Fudan University

Comprehensive Adolescent Care Training for Health Care Workers and other service providers

Since 2018, Botswana-Baylor partnered with the Ministry of Health and Wellness (MOHW) and UNICEF to design, implement, evaluate, and cost a model of comprehensive care for adolescents and young people living with HIV (AYPLH) in Botswana. The main purpose of this partnership is to improve the health, quality of life, and safety of young people living with HIV in six strategically selected District Health Management teams (DHMTs) to provide quality adolescent and young adult treatment, care, and support services. The DHMTs include Kweneng East, SelibePhikwe, Serowe, Boteti, and Tutume DHMTs. One key activity of this partnership is to conduct training workshops to build the capacity of healthcare workers and other service providers to offer effective and youth-friendly services to young people living with HIV.

173

service providers trained from the six target districts

Botswana-Baylor staff in collaboration with MOHW and UNICEF developed a curriculum and trained 270 service providers from the six target districts. These included healthcare workers in IDCCs and youth friendly clinics, social workers, psychologists, school guidance and counseling teachers, school nurses, NGO and CBO workers, and other cadres providing services to young people living with HIV. The training covered a broad range of topics including youth-friendly services, HIV clinical care, counseling, psychosocial support, adherence and disclosure support, sexual and reproductive health, and safe transitioning to adulthood. The curriculum also included modules on how to manage Teen Clubs, Young Adult Support Groups, and Caregiver Educational Sessions.

Botswana-Baylor Physician Outreach Program

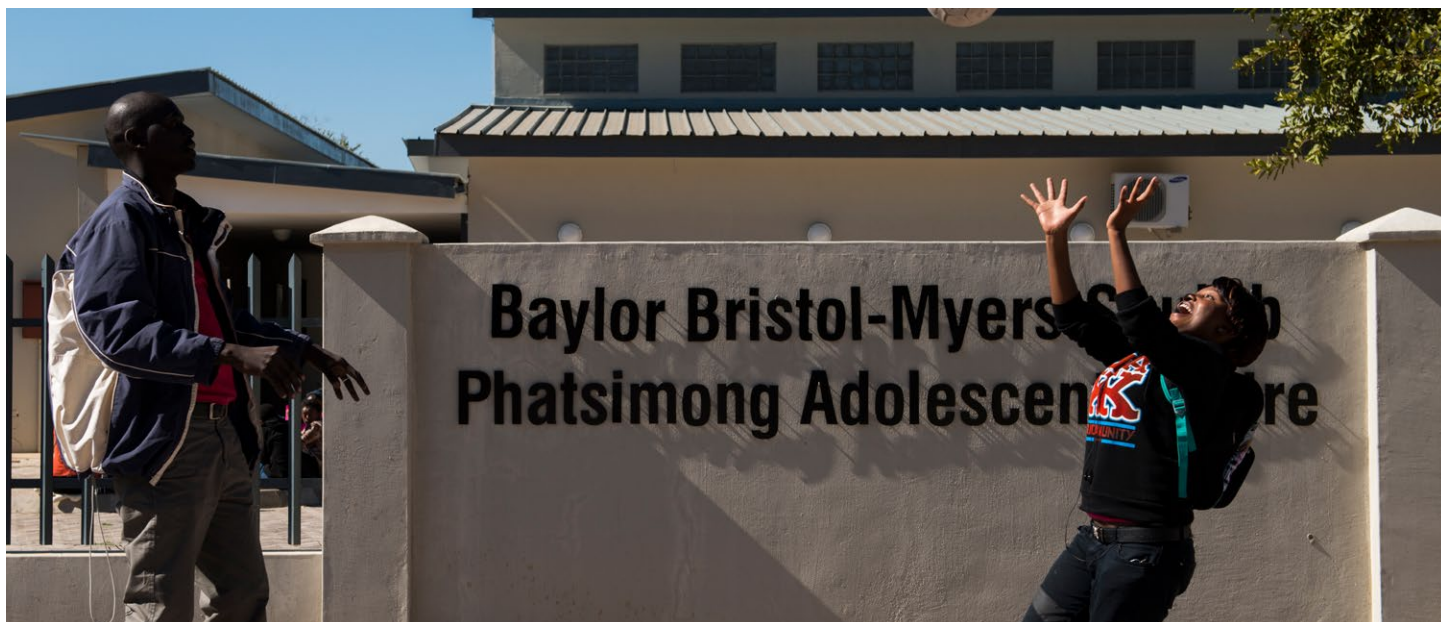
The outreach program aims to strengthen the capacity of peripheral health facilities across Botswana to optimize treatment and care services for HIV infected children, adolescents, and young adults through the clinical mentorship of healthcare providers. The outreach team composed of a nurse prescriber and physician visits the outreach sites once per month. During the visits, the team consults and supports patients with virological failure; attends to other patients that require special care in the IDCC and onwards; and conducts side-by-side mentoring of medical officers, nurse prescribers, and other healthcare professionals. Also, didactic sessions are structured around the fundamentals of pediatric and adolescent HIV treatment and care.

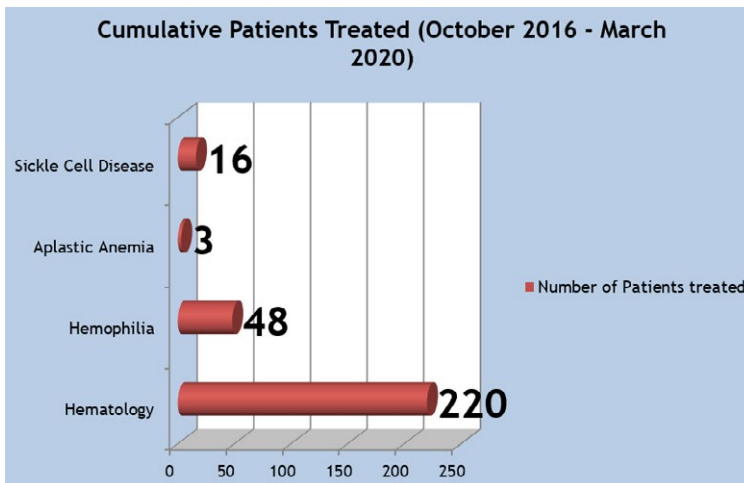
A total of
693
patient
consultations
were conducted.

The outreach team conducted monthly visits to Letlhakane Primary Hospital, Rakops Primary Hospital, Sefhare Primary Hospital, Mahalapye District Hospital, Shoshong Clinic, Kanye Main Clinic, Thamaga Primary Hospital, Scottish Livingstone Hospital, Goodhope Primary Hospital, Deborah Retief Memorial Hospital, Mabutsane Clinic, Khakhea Clinics, Kang Clinic, Hukuntsi Primary Hospital, Sedie Clinic, and Letsholathebe Memorial Hospital. A total of 693 patient consultations were conducted.

Of these, 157 were for failing patients and 536 not failing but with other challenges. A total of 55 healthcare workers were mentored including, doctors, nurses, social workers, pharmacists, and other professionals. The feedback from the outreach teams shows that the ART site managers and staff highly appreciate the mentorship and clinical support provided by Botswana-Baylor outreach teams.

Going forward, we expect increased numbers of referrals for failing patients from clinics in catchment areas, particularly in the newly established outreach sites.





There are several services offered through the Pediatric Oncology & Hematology program. We strive to provide services targeting patients, survivors as well as caregivers. There were 33 new cancer diagnoses, including lymphoma (2), Leukemia (8), and solid tumor (23). The table below shows cumulative number of patients treated to date.

Palliative Care Services

Through the leadership of Dr. Kamusisi Chinyundo, a Pediatric Palliative Care program has been established. During this reporting period, several palliative care clinics and home visits have been conducted with patients and caregivers. In January 2020, the Global HOPE Botswana Pediatric Palliative Care team conducted a palliative outreach visit to patients' homes in Good Hope Sub District. They visited a 14-year-old female who was diagnosed with inoperable vertebral osteosarcoma complicated by paraplegia and on palliative care. The outreach visit, in conjunction with the Good Hope Hospital outreach team, involved assessing and addressing physical needs and training the mother to provide further care at home. The Global HOPE Botswana Pediatric Palliative Care team extensively counseled a family of a child with a terminal brain tumor and helped facilitate the transfer of the child to a facility near the home village per the family's wishes. This is a pilot program to test the feasibility and needs of a nationwide mobile palliative care program to meet patients' needs in their homes.

Sickle Cell Awareness Day

Sickle Cell Awareness Day was commemorated on July 9, 2019. At the meeting, our group of nurses, doctors, patients, and family members discussed how to work together to improve awareness and early diagnosis. Six of our 15 patients attended the event.

Achievements

- On Dec. 17th, 2019 Global HOPE Botswana hosted the country's first-ever Remembrance Day to honor children who have lost their lives to cancer and to support their families. Eleven families came to hear encouraging messages.
- The Thrive volunteer program sponsored its first blood drive. 50 pints of blood were collected.
- A local group of motorcycle enthusiasts, called the Ulysses Club, visited the ward on Nov. 30, 2019, and brought toys and toiletries to all pediatric patients (60 in total).

Challenges

There has been a significant increase in the cost of labs – the Princess Marina Hospital (PMH) / Diagnofirm service contract has remained non-operational for some time now.

Botswana-Baylor procured labs, which are not provided through National Health Laboratory and PMH laboratory, through Diagnofirm.

COVID-19 has posed an enormous challenge to program implementation. Additionally, challenges in local transportation have prevented patients from coming for treatment or going home thereafter. Supply access presents another challenge.

Program staff implemented required social distancing which has impacted routine staffing plans and patient care delivery.

Training and Outreach

The Global HOPE Botswana program launched a Health Care Worker Training in Oct. 2019. This training is targeted to medical officers, nurses, pharmacists, physiotherapists, and other related health professionals. The training covers topics on the epidemiology of childhood cancer and the warning signs to look for, using a tool developed in 2014 by the Union for International Cancer Control (UICC). Below is a list of health facilities visited:

- Thamaga Primary Hospital
- Kanye SDA Hospital
- Deborah Retief Memorial Hospital
- Bamalete Lutheran Hospital
- Good Hope Hospital
- Nyangabgwe Referral Hospital, the second-largest hospital in the country
- Palapye Primary Hospital
- Tutume Primary Hospital
- Masunga Primary Hospital



Dr. Jeremy Slone shows medical officers and other clinicians how to access a port-a-cath. Some of our patients with cancer or bleeding disorders have ports placed for easier access



Art Day with Sky High for Kids Foundation

Each outreach training was attended by 20-60 hospital workers, a mix of pharmacists, physiotherapists, doctors, nurses, and more. Global HOPE Botswana received positive feedback and several workers asked if the team can come back again soon. We look forward to seeing if these training sessions improve early referral of children with suspected cancer or blood disorders.

Psychosocial Services

Three visitors from the Texas-based foundation, Sky High for Kids, visited Botswana Dec. 1 - 3, 2019, to learn about the work of Global HOPE. Sky High Founder, Brittany Hebert, along with two Board members, Greg Guidry and Brad Howell, were excited to learn about the Global HOPE Botswana program and brought art supplies and toys for our patients.

International Childhood Cancer Day

Global Hope Botswana held its annual celebration of International Childhood Cancer Day on Feb. 19, 2020. There were 25 patients and long-term survivors and their families in attendance. Other special guests included U.S. Ambassador to Botswana, Craig Cloud, U.S. Congressman Michael McCaul, and his wife, Linda, and paediatric cancer advocate Sadie Keller and her family.

Annual Childhood Cancer Survivor Party

After one year of planning and anticipating our biggest event, the Survivor Party finally arrived on Saturday, Sep. 21st, 2019. A local park provided a new and exciting venue, and with the help of many local sponsors, we had lots of activity stations, including face painting, art, traditional Setswana board games, cupcake decorating, a photo booth, a jumping castle, and many more. Over 250 people attended, including 61 survivors (the most yet at this event!), siblings, parents, grandparents, our Global HOPE Botswana team, and volunteers. A survivor of osteosarcoma gave a moving speech about how cancer never wins. We had a visit from the First Lady of the Republic of Botswana, Mrs. Neo Masisi.

Congressman McCaul engaged with children (left) and local Lions Club (right) during International Childhood Cancer Botswana

First Lady Mrs. Masisi kicked a soccer ball with patients and volunteers





RESEARCH AND PUBLICATIONS

The COE has continued to research several aspects of HIV care and treatment to inform practice and policies in Botswana and other countries and has seven on-going studies.

Impact Evaluation Focuses on Adolescents Living with HIV in Botswana

The Impact Evaluation research is a partnership between the Ministry of Health and Wellness (MoHW)/ District Health Management Teams (DHMTs), Botswana-Baylor, UNICEF, and NGOs, and CBOs. The mixed-methods evaluation measures the effectiveness of a multipronged intervention package on clinical, psychosocial, and behavioural outcomes of a cohort of adolescents living with HIV (ALHIV) on antiretroviral living in six DHMTs in Botswana (Selibe-Phikwe, Boteti, Tutume, Serowe, Gaborone, and Kweneng East) for a 24-month follow-up period. Both quantitative and qualitative evidence will be collected to evaluate the intervention package. Botswana-Baylor entered into memorandums of understandings with local Non-Governmental Organisations in BONEPWA and Tebelopele to implement the interventions for some of the activities of the project. UNICEF continued to provide funding and technical support.

The intervention package includes Teen Clubs and healthcare worker and caregiver training. For Teen Clubs to be formed, there was the enrolment of teens aged 13-18 into the study. The baseline data was collected using a study register and ALHIV survey. Pre-enrolment consisted of capturing of general health facility information, identifying the eligibility of all adolescents living with HIV in care at targeted health facilities and documenting basic demographic and clinical information using clinic folders as well as contact details, contacting the caregivers of eligible ALHIV, and inviting them and their child to attend an enrolment day.

Multiple factors contributed to over 300 teens not enrolling: caregiver consent could not be obtained, some declined, teens not available either for enrolment and/or for the dates or sessions, contacts being wrong, the family had migrated, and teens not turning up for the enrolment dates.

Following enrolment, key study activities launched; however, Teen Clubs were interrupted by the COVID-19 pandemic as sessions could not be held in compliance with pandemic prevention methods. Healthcare worker training, and an important part of Impact Evaluation, was conducted. The training empowers providers with requisite knowledge of appropriate and adolescent-friendly HIV treatment and care and allows healthcare workers to create a conducive environment and procedures for adolescents living with HIV when they visit health facilities. In addition, healthcare workers receive training on effective parenting practices, so that they can equip parents and families to support their adolescent.

Impact evaluation update by March 2020



Challenges encountered;

Some teens missed Teen Club sessions because they went to school on the day earmarked for Teen Club sessions. Some teens were challenged by transportation costs. COVID-19 interrupted the continuation of Teen Club sessions as they could not be held due to social distancing and prohibition of gatherings of people requirements.

Collaborative African Genomics Network (CAfGEN)

The mission of the CAfGEN study, part of the H3Africa Consortium, is to create a collaborative, multidisciplinary, multi-institutional, inter- and intra- country network of scientists, clinicians, and researchers who use genomics approaches to study gene/pathogen interactions for HIV/AIDS, its co-morbidities, and other diseases among diverse pediatric African populations. Started in 2014, CAfGEN has accomplished most of its aims during the first phase of funding and now is on the second phase of the project, funded by the U.S. National Institutes of Health.

Study Recruitment

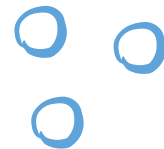
Recruitment for the second phase of the study started in May 2018. So far, 503 participants for the retrospective cohort have been recruited, and of those, 365 participants were in CAfGEN 1,138 new participants, three TB cases, and three TB Controls for CAfGEN 2.

Training

CAfGEN supports the training of African genomic scientists. So far, there are two Ph.D. trainees from Botswana based at Baylor College of Medicine in Houston, Texas focusing on genomics and bioinformatics. CAfGEN hosted a Masters scholarship ceremony in Eswatini and two candidates were awarded the sponsorship to study genetics and bioinformatics at Makerere University, Uganda. In attendance was the lead principal investigator, Eswatini site investigator, and other CAfGEN team members, as well as the U.S. Ambassador to Eswatini.



A CAfGEN briefing during the Master's program award ceremony in Eswatini



CAfGEN and SARS CoV-2/COVID 19 COUNTRY Support

The CAfGEN trainees are currently working on a protocol to detect SARS CoV-2 in sewage as a sentinel surveillance option. They are based at the University Of Botswana and are providing SARS CoV-2 testing to the Botswana COVID-19 response. The CAfGEN site principal investigator and CAfGEN trainee Gaone Retshabile are part of the Botswana National Health Laboratory and Testing Partners Technical Working Group. The technical working group is tasked with providing recommendations in best practices laboratory testing algorithms for the detection of SARS CoV-2.

Of note, the CAfGEN lab equipment in Botswana was repurposed and used for the COVID-19 response. This was done in collaboration with the grant manager and with the approval of the director of the U.S. National Human Genome Research Institute. Dr. Mogomotsi Matshaba, CAfGEN principal investigator, has been appointed as the scientific advisor for the Botswana COVID-19 Task Force by the Botswana President.

Reducing Stigma to Improve HIV/AIDS Prevention, Treatment, and Care among Adolescents Living with HIV in Botswana.

This study is a collaboration of a multidisciplinary team of researchers from the University of Botswana, the University of Pennsylvania, and Botswana-Baylor. The study aims to design and evaluate a theory-based developmentally, and culturally appropriate stigma-reduction intervention for adolescents living with HIV (ALWH) in Botswana. The HIV stigma-reduction intervention will be an adaptation of Teen Club, an existing intervention that has been implemented with ALWH 13 to 17 years of age by Botswana-Baylor since 2005. The two-year program, funded by the NIH, will collect baseline data from adolescents living with HIV, peer educators, and caregivers of ALWH on their experiences and perspectives regarding the effects of stigma on the health and wellbeing of ALWH. We will target the registered adolescents at Botswana-Baylor COE and the Molepolole Satellite Teen Clubs. The findings from this mixed-methods research, conducted in both rural and urban areas (Molepolole and Gaborone), along with input from a Community Advisory Board will be integrated with Social Cognitive Theory to adapt the existing intervention. This will be followed by a randomized controlled trial to determine the adapted intervention's feasibility and acceptability. Another important goal is to build capacity at the University of Botswana and Botswana-Baylor to develop interventions to improve HIV prevention, treatment, and care. We will also conduct a series of Science of Behavior Change workshops for healthcare workers and other service providers in Gaborone and Molepolole.

Friendship Bench Study

The Friendship Bench study achieved one of the aims, which was to assess the acceptability of the intervention with youth. The study showed that they found the intervention acceptable, and they preferred to participate with younger people. They did not express any specific difficulties around the intervention. We have screened about 1,700 participants in the clinic since the study began about a year ago. We are currently analyzing the data to provide an update of the rates of different categories of mental health diagnoses (mild, moderate, severe depression, etc). We submitted two abstracts for a major conference and had them accepted for the preliminary screening data and a review of the stakeholders' feedback. They were accepted for poster presentations at Pediatric Academic societies. We have one paper that is currently being reviewed related to stakeholder feedback and another being completed now about setting up the screening program.

The Ntemoga study/PCNB

The introduction of combined antiretroviral therapies has reduced the incidence and severity of HIV-related encephalopathy in youth living with HIV. However, neurodevelopmental delays and cognitive impairment are nonetheless still common in this population. Unfortunately, in resource-limited settings (RLS), where HIV infection impacts millions of children, cognitive and neurodevelopmental disorders commonly go undetected because of a lack of appropriate assessment instruments and local expertise.

In this project, we build on the synergistic work of two research groups to (1) culturally adapt and validate the Penn Computerized Neurocognitive Battery (CNB) and examine its validity for detecting both advanced and subtle neurodevelopmental problems among school-aged HIV-infected and HIV-exposed children in RLS; and (2) simultaneously fine-tune a brief screening instrument (Pediatric Symptom Checklist, PSC) to prioritize children most likely to benefit from further cognitive assessments. The CNB is a well-validated battery of neurocognitive tests that assesses all major domains of cognitive functioning in adults and children as young as 5 years of age. It has shown sensitivity to mild cognitive deficits and has been applied in large-scale studies and multiple cultural contexts. We aim to validate the CNB in youth in Botswana, an RLS with high rates of perinatal exposure to HIV and limited neurocognitive assessment tools and expertise, by culturally adapting and then administering the adapted version of the CNB to approximately 200 HIV-infected, 200 HIV-exposed uninfected, and 200 HIV-unexposed uninfected children.

A series of analyses will be conducted to examine the reliability and construct validity of the CNB in these populations. Since a one-hour comprehensive cognitive assessment may not be feasible to implement among all children in many busy clinics in RLS, we will also adopt a rapid psychosocial screening tool, the Pediatric Symptom Checklist to make it suitable for identifying children who are most likely to benefit from a further neurocognitive assessment. This project will apply procedures for effective translation and cultural adaptation that have been developed through extensive collaborations of our group with international researchers from both Western and non-Western cultures (e.g., in South Africa in an adult Xhosa-speaking population). If successful, the proposed tools would provide practical screening and streamlined, comprehensive assessments that could be widely used in RLS to identify children with cognitive deficits within programs focused on the care and treatment of children living with or affected by HIV. The utility of such assessments could extend well beyond children affected by HIV and increase general access to pediatric cognitive assessments in RLS.

Leaders

Board of Trustees:

- Michael B. Mizwa - BIPAI Senior Vice President and Chief Executive Officer - Chairman
- Dr. Gaositwe Chiepe - Vice Chair
- Dr. Diane Nguyen - BIPAI - Member
- Richard Matlhare - NAHPA Coordinator, MoPAGPA - Member
- Dr. Mogomotsi Matshaba - Executive Director, Ex-Officio

Botswana-Baylor COE Management:

- Dr. Mogomotsi Matshaba - Executive Director and Chairman
- Olekantse Molatlhegi - Finance and Administration Manager
- Ontibile Tshume - Clinic Manager- Member
- Dr. Jeremy Slone - Medical Director, Global HOPE Botswana - Member
- Naomi Mochabo - Executive Secretary - Secretary

Financials

Consolidated Financials – BWP

(Fiscal year ending 30 June 2020)

Income

- Gross Income → **33,656,714**
- Expenses → **33,656,714**
- Surplus → **0.00**

Balance Sheet

Assets

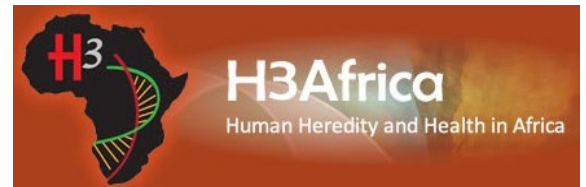
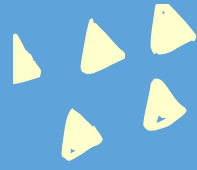
- Non-current → **9,703,213**
- Current → **17,665,172**
- **TOTAL** → **27,368,385**

Donor	Amount (BWP)	Activity
Government Subvention	13,365,012.00	HIV and Oncology
NIH	7,468,383.00	CAFGEN
Saurin Perkh Villa	571,775.00	Funds raised by First Lady of Botswana for Cancer Centre
UNICEF	950,360.00	Teen Activities
PCI	3,632,627.00	OVC Project
De Beers	30,000.00	Donated from the First Lady walk towards HIV and Cancer
SeriousFun	456,828.50	Camp Hope Family Weekend Camp
University of Cape Town-IFGeneRA	340,045.54	
Children's Hospital of Philadelphia-PCNB and Friendship Studies	772,965.00	(Research)
University of Botswana-Stigma Study	13,084.00	
Stepping Stones	44,119.20	Finding a leader within activities
MOHW	100,000.00	Outreach
Jannah Hodges and Rachel Bowers	19,047.62	Children's Christmas party
Abdulla	20,000.00	Donation for Oncology patients

IN KIND

- Civil Aviation Authority of Botswana- 2 Non-contact infrared thermometers
- Shoprite-Food, cake, Dj, tent towards children's Christmas party
- Broadhurst Primary School- 150 gifts
- Lebani Mazhani- Cancer survivor; daughter of former head of pediatrics department at PMH; has donated time, counseling, and personal funds to support patients including some wishes
- Northside Primary School- Standard 7 class annually has a cancer focus; raises money for various cancer organizations
- Ladies Circle of Botswana- Have made donations to ward (clothing, toys, etc); also working on Happy Hearts project (house for families of children receiving treatment)
- Ulysses Club - toys
- Rotary Club-wheelchairs
- Spar Retails Store- refreshments to Sickle Cell Awareness Day
- Mosha Spa- Canvas bags
- Dinesh Textiles- T-shirts for Survivor Party 2019
- Coman Photography- Photography services at Survivor Party 2019
- First National Bank- Donated park venue for Survivor Party 2019
- Botswana Life Insurance- Refurbished procedure room on the ward for haematology/oncology program

SPONSORS AND DONORS



BOTSWANA-BAYLOR CHILDREN'S CLINICAL CENTRE OF EXCELLENCE



Plot 1836, Hospital Way, Princess Marina Hospital

Private Bag BR 129, Gaborone, Botswana

<https://bipai.org/botswana>

www.botswanabaylor.org