

BAYLOR COLLEGE OF MEDICINE  
CHILDREN'S FOUNDATION  
ESWATINI 



BAYLOR  
COLLEGE OF  
MEDICINE  
Children's  
Foundation  
ESWATINI

2020



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



## Embracing the new normal through excellence

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**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."

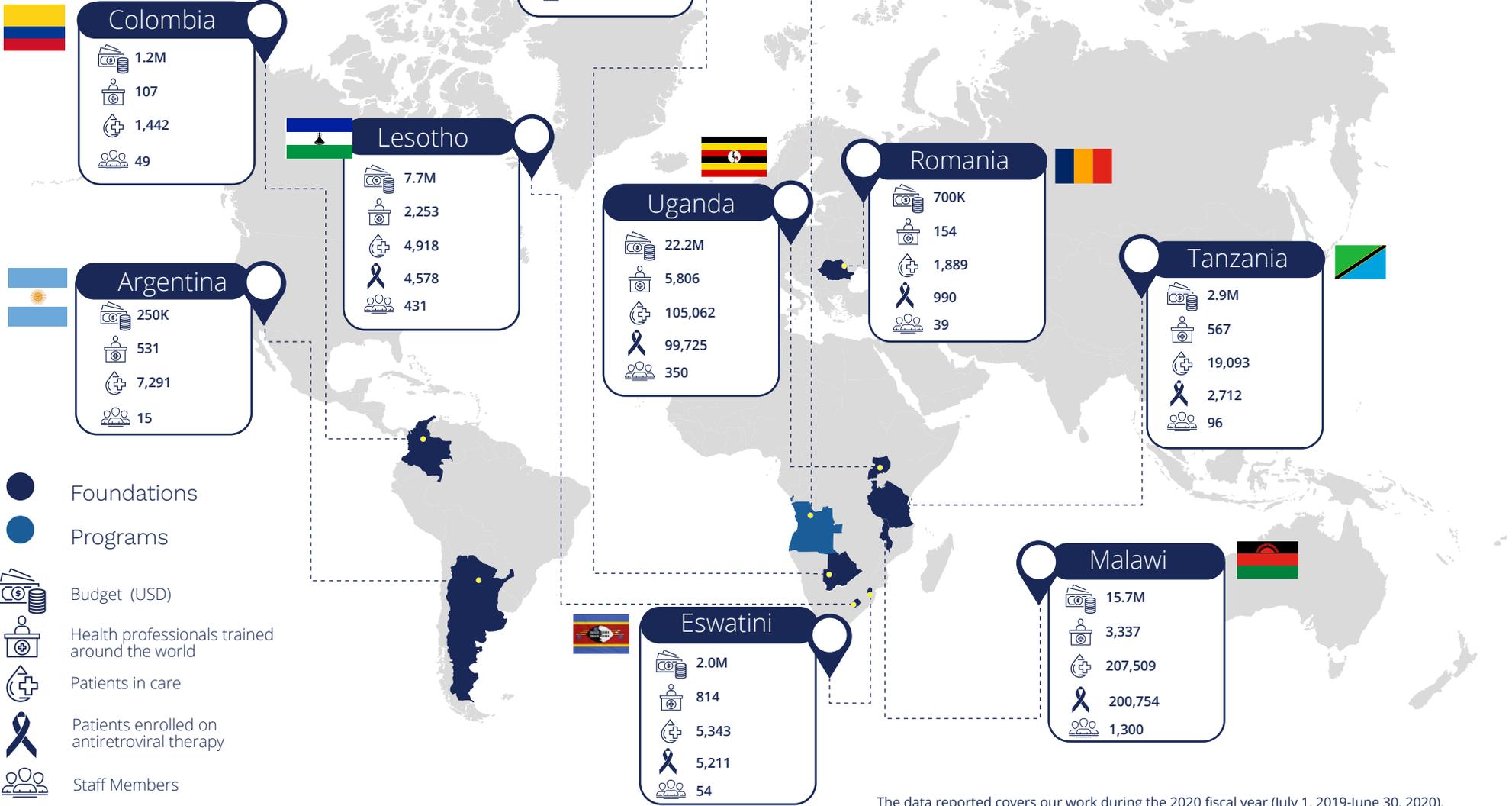
**Michael Mizwa**  
Chief executive officer

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

- \$59.5M** → Budget (USD)
- 138,432** → Health professionals trained around the world since 2003
- 365,559** → Patients in care
- 319,285** → Patients enrolled on antiretroviral therapy
- 2,468** → Staff Members



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



## EXECUTIVE DIRECTOR'S LETTER

Eswatini has made tremendous progress in the fight against HIV and AIDS. On 6th July 2020, at the launch of the 2019 UNAIDS global report, the Honorable Prime Minister, Mr. Ambrose Dlamini, announced that Eswatini had achieved the 95-95-95 UNAIDS targets. Baylor-Eswatini is proud to have contributed to this national achievement. We outline some contributions in this report. Sustaining this achievement demands clinical excellence in the care and treatment of those living with HIV, particularly the children who will be on life-long antiretroviral treatment for longer than any adult will be. Baylor-Eswatini remains committed to continue to offer high-quality family centered pediatric care and treatment in Eswatini.

While there is clear evidence of a turning tide in HIV burden among children - for example; out of 318 infants who tested for HIV in the previous year, only 14 (4%) were confirmed HIV positive compared to 141/519 (27%) a decade ago - there is a growing need to intensify care, psychosocial support, and treatment using innovative approaches such as individualized psychosocial support and point of care viral load monitoring systems for children, adolescents, and their caregivers. Baylor-Eswatini has stepped up to this growing need amidst challenges of limited funding, COVID-19 pandemic, and emerging oncology needs.

We have introduced several new initiatives such as the introduction of pre-exposure prophylaxis (PreP) to the PMTCT package for HIV negative partners of HIV positive pregnant women; introduction of a special Teen Mom Club (new support group) for HIV-positive pregnant and lactating teenage mothers; introduction of a more efficacious first-line drug regimen (TDF/3TC/DTG), commonly known as TLD; introduction of cancer screening, totaling 12,745 clients including pediatric cancer screening; introduction of Loop Electrosurgical Excision Procedure (LEEP) treatment for those lesions which are not eligible for cryotherapy. We anticipate more innovative initiatives in the coming year as we embrace the new-normal caused by COVID-19 and cancer.

We appreciate the leadership of the Ministry of Health and financial support from the Government of the Kingdom of Eswatini, our partners, and all our donors. We would also like to thank the BIPAI network for providing us with continued capacity building and technical support to maintain clinical, management, and operational excellence. I would like to conclude by expressing my heartfelt gratitude to all employees of Baylor-Eswatini – through the touch of your hands there is hope and healing for our clients. On behalf of bantwana bemaswati thank you very much. We hope that you will enjoy perusing through this report that highlights some of our proudest achievements.

Sincerely,  
**Bhekumusa Lukhele, Ph.D**  
Executive Director





# MISSION

A nation with healthy and fulfilled children, adolescents, and their families.

# VISION

To provide high-quality family-centred paediatric and adolescent health care, education, and clinical research in Eswatini.

# VALUES

- Excellence** - Baylor-Eswatini offers distinct and superior quality care for children in the country.
- Child Centeredness** - Baylor-Eswatini is a Centre of Excellence for all health issues relating to children.
- Integrity** - Baylor-Eswatini team is committed to transparency in their work and work with honesty.
- Accountability** - Baylor-Eswatini takes all actions with great responsibility and answerability.
- Teamwork** - Baylor-Eswatini team works jointly and in collaboration to achieve excellence.
- Partnership** - Baylor-Eswatini team provides high impact care in collaboration with key stakeholders.
- Ethical** - Baylor-Eswatini adheres to fair, just, and right moral values and principles, and includes strong recognition of the rights of the child.
- Commitment** - Baylor-Eswatini is dedicated to serve children in a holistic, truthful and timely manner.



# BAYLOR COLLEGE OF MEDICINE CHILDREN'S FOUNDATION ESWATINI



Baylor College of Medicine Children's Foundation – Eswatini, known as Baylor-Eswatini, is a not-for-profit child health and development organization based at the Baylor College of Medicine - Bristol Myers-Squibb Children's Clinical Centre of Excellence - Eswatini. Baylor-Eswatini is affiliated with Baylor College of Medicine and Texas Children's Hospital in Houston, Texas, U.S.A. Operating as a public-private partnership between Baylor College of Medicine International Paediatric AIDS Initiative (BIPAI) and the Ministry of Health of the Kingdom of Eswatini, the Centre was founded in 2005 and officially opened by His Majesty King Mswati III on February 24, 2006. Our main clinic is based in the Mbabane Centre of Excellence (COE), which opened in 2006. We also operate two satellite clinics: The Baylor-Raleigh Fitkin Memorial Hospital (RFM) Satellite Centre of Excellence (SCOE) opened in 2009, and the Baylor-Hlathikhulu SCOE opened in 2010.

Baylor-Eswatini supports the Ministry of Health in improving the health sector response to HIV through the provision of high-quality, family-centred paediatric and adolescent health care, education, and clinical research. This ultimately helps the country to achieve its broad mandate, the Sustainable Development Goals. The Ministry of Health takes a Health Systems Strengthening approach to achieve an HIV-free generation, through partnerships and strong ties with civil society, including through its public-private partnership with Baylor-Eswatini.

Baylor-Eswatini implements a child and adolescent health program in Eswatini, focusing on interventions that address the major causes of morbidity and mortality in children as well as those who are proven to be highly effective in improving the health and development of adolescents living with HIV. We are the national leader in paediatric HIV/AIDS and TB care and treatment in the country, caring for almost half of all children on antiretroviral therapy (ART) in Eswatini. Our scope has increased to cover other services, such as education, screening, and treatment of pre-cancerous lesions for the entire population. We also offer health professional trainings, and clinical research.





Teen Club activities at the Baylor College of Medicine - Texas Children's Hospital - Abbott Fund Satellite Children's Clinical Centre of Excellence in Manzini, Eswatini

Our coverage figures are presented in the table below

Indicator	Age-group						TOTAL
	0-4	5-9	10-14	15-19	20-24	25+	
Patient encounters (Number of patient visits)	4554	4682	7183	7713	3899	10110	<b>38141</b>
Active patients (HIV exposed + HIV positive + ATTs)	379	572	1061	1164	648	1519	<b>5343</b>
Active HIV+ clients	260	570	1061	1164	648	1515	<b>5218</b>
Active patients on ART	258	569	1061	1160	648	1515	<b>5211</b>
Active patients on TB treatment	8	5	3	1	2	22	<b>41</b>



# PROGRAMS

## BAYLOR-ESWATINI



### MATERNAL CHILD HEALTH SERVICES

1. Ante-Natal Care (ANC) and Prevention of Mother to Child Transmission of HIV (PMTCT) services
2. Family planning
3. Integrated child healthcare services



### CERVICAL CANCER SCREENING AND TREATMENT

1. Early screening and detection
2. Pap smear
3. Treatment of pre-cancerous lesions



### HIV AND AIDS

1. Prevention services
2. HIV testing services
3. Care and support services
4. Treatment and management services



### TUBERCULOSIS

1. Screening
2. Control
3. Treatment



### ADOLESCENT CARE SERVICES

1. Teen Club
2. Camps
3. Psychosocial services



### RESEARCH

1. Diagnostics research
2. Genomics research
3. Behavioral research
4. Implementation science





## HIV Testing Services (HTS)

This program contributes to the attainment of the first 95 from the 95-95-95 UNAIDS Global targets. Our main aim is to increase the uptake of HTS services in order to detect at an early stage children and adults who are HIV infected and link them to treatment. Our target population is HIV exposed infants, however, we take a family-centred approach and expand this service to the entire family of the exposed child.

**318**  
infants who tested for HIV, 14 were confirmed HIV positive and 11 initiated on ART

For HIV diagnosis in infants less than 12 months old, we utilise Point of Care (POC) technology, known as the Alere-Q platform. This real-time innovative platform is used to perform a special HIV testing known as DNA PCR test. Its main benefit over the conventional testing method we have used in the past (i.e. Dried Blood Spot (DBS) performed at the national laboratory) is that it has same-day turnaround time, and it is performed on-site. This allows infants who test positive to initiate HIV treatment as soon as possible. Turnaround time for the conventional method used to be three weeks on average. During the report year, out of 318 infants who tested for HIV, 14 were confirmed HIV positive and 11 initiated on ART. The remaining three unfortunately died before they could be initiated on ART. It is important to point out that we depend on funding from development partners for consumables of this POC testing platform. For a better part of this report year, we reverted back to the conventional method because of cessation of funds to support POC testing.

To reach to the entire family of the exposed infant, or contacts of anyone testing HIV positive in our facilities, we have employed the “Targeted Testing” strategy. This includes Index Testing and HIV Self-Testing, enabling us to ensure HIV testing for everyone who is eligible, even the difficult to reach.

The Ministry of Health has introduced HIV Recency surveillance known as Eswatini HIV Recent Infection Test Surveillance during the year. This surveillance aims to determine whether HIV infection is recent, i.e. within 12 months of occurrence or long-term (beyond 12 months). Our facility in Mbabane is among the facilities across the country participating in this surveillance, starting HIV recency tests in November 2019. A total of 12 tests have been performed to date.



## ANC/ PMTCT Services



Patient care at the Baylor College of Medicine-  
Bristol Myer Squibb Children's Clinical Centre of  
Excellence satellite clinics in Manzini, Eswatini

Baylor-Eswatini continues to provide comprehensive Antenatal Care (ANC) and Prevention of Mother-to-Child Transmission of HIV (PMTCT) services. These services positively contribute towards the country's HIV response by ensuring that no child is born with HIV. Our nurses and doctors ensure that as soon as a pregnant woman presents herself at the clinic, she is admitted for ANC immediately. HIV Testing Services are mandatory and serve as an entry point for these services. For HIV-positive women who are not on ART, they are immediately initiated and closely monitored. In the past year we secured funding to recruit a Mentor Mother to provide psychosocial support to HIV-positive pregnant and lactating women and their partners to help them cope with their HIV status, including adherence to medication. Her main focus are those mothers with detectable viral loads. She also conducts home visits for such support. These mothers receive transport reimbursements for their clinic visits to ensure that they do not miss their clinic appointments due to financial constraints. **All these efforts have yielded excellent outcomes as no child has been born HIV positive from mothers who received ANC services from our clinic.**

During this report period a total of 68 women presented to the clinic to access first ANC, 66

had known HIV-positive status and already on ART, and two were offered HTS and tested negative. Fifty-six (82.3%) of these women visited and accessed ANC services for the first time during their first trimester. Positive behaviour is noted here as the country had been long struggling to have pregnant women present early in their pregnancy. Early presentation for ANC allows for early management of viral load and ensures it is undetectable throughout pregnancy to delivery to prevent mother-to-child HIV transmission. As a package of PMTCT care, pregnant women are also treated for opportunistic infections and sexually transmitted diseases. A total of four pregnant women who tested positive for syphilis were treated together with their partners.

A new initiative for this program during the year was the introduction of pre-exposure prophylaxis (PreP) to the PMTCT package. This is meant to prevent partners of HIV-infected pregnant women from acquiring HIV. So far we have had 10 partners who accessed this service. In addition, a more efficacious first-line drug regimen (TDF/3TC/DTG), commonly known as TLD, has been introduced for all pregnant women. All eligible pregnant women were switched to TLD after their first trimester to ensure viral suppression.





## Family Planning Services

Family planning (FP) services have been well integrated into the pediatric HIV/TB program, enabling adolescents and women of childbearing age to prevent unintended pregnancies. Family planning is offered according to national guidelines, with commodities ranging from combined methods (pills, patches and combined injectables), progestogen-only methods (injectables, implants and pills) and intrauterine contraceptive devices.

Our clinicians empower all sexually active women to choose any contraceptive method recommended as part of the WHO Medical Eligibility Criteria. Due to the high teenage pregnancy rate in Eswatini, contraceptives are not limited to only families, but are also offered to adolescents visiting our facilities. This aims to curb the need for abortion — especially unsafe abortions.

Established in 2018, the Teen Health Program aims to address sexual reproductive health issues specific to the needs of adolescents under our care. This program provides teens with sexual and reproductive information and services, life skills and career guidance as well as address challenges that can derail their adherence. Through this program we have observed an increased uptake of FP commodities by the adolescent youth enrolled in our clinics almost twofold, from 15% in 2018 to 29.2% in the year July 2019-June 2020.

**810**

patients in the July 2019-June 2020 year.

There has been a notable increase in the uptake of Family Planning commodities, with 440 patients actively on family planning in the previous year compared to 810 patients in the July 2019-June 2020 year.





Cervical cancer screening services at the Baylor College of Medicine- Bristol Myer Squibb Children's Clinical Centre of Excellence in Mbabane

## Cervical Cancer Screening

Cervical cancer is a slow-growing cancer with symptoms that might not be detected during its early stages but can later cause pelvic pain or bleeding from the vagina. This type of cancer is usually caused by a human papilloma virus (HPV) infection. It is therefore vital to screen for cervical cancer in all sexually active women for early detection of pre-cancers. At our Centre of Excellence in Mbabane, we continue to offer cervical cancer screening to all women regardless of their HIV status. We have since rolled out this service to both our satellite clinics in Manzini and Hlathikhulu. We conduct cervical cancer screenings using visual inspection with acetic acid (VIA), a simple and inexpensive technique to identify pre-cancerous lesions. The program will also be providing colposcopy services in the near future.

**645**

women were examined using VIA

**698**

patients underwent Pap smears

A total of 645 women were examined using VIA, and 31 turned out to be positive. Out of the 31, 19 were eligible for cryotherapy, and 13 underwent the procedure on the same day of lesion diagnosis. The remaining 6 declined the procedure and are actively being monitored and counseled on treatment options. A total of 698 patients underwent Pap smear this year, and 25 patients were referred for the loop electrosurgical excision procedure (LEEP).





# Anti-Retroviral Therapy (ART) Services

## 99%

ART coverage

We continued with the “test and start” model in the provision of ART services, which encourages everyone diagnosed with HIV to begin ART as soon as they learn their status. We have seen our ART coverage, calculated as the proportion of HIV-positive clients who initiated ART, maintained at 99% with a majority of our patients starting treatment within seven days of diagnosis.

We continued to follow-up with patients defaulting or missing their appointments to ensure that they are retained in care for positive health outcomes. Our receptionists and social workers worked tirelessly to ensure that defaulting patients are brought back to care through phone calls and home visits. We also have access to innovative technological means by partnering with a social entrepreneurship organisation called Connect Health to implement an appointment reminder system. Automated SMS messages are sent to all our patients as a reminder for their clinic appointment the night before and the morning of their appointment date. As a result, we have maintained our annual retention rates at above 92%, and our annual lost-to-follow-up rates at below 5%.

We have noted a slight improvement in viral suppression rates for patients under our care with 94% of all enrolled on ART virally suppressed, a 1% improvement when compared with previous year. It is worth noting, however, that some age groups are not reaching the target, specifically adolescents 15-19 years old (92%) and children under 5 years of age (85%). Strategies to address this gap are being implemented, such as the Teen Health program, Teen Club and adolescent camps, which we talk about later in this report. We are committed and trending toward reaching the new 95-95-95 targets by the end of 2020.

Future plans/next steps for this program includes exploring the feasibility of introducing Tenofovir Alafenamide (TAF) in children and adolescents with chronic hepatitis B virus infection. TAF, sold under the brand name Vemlidy, is a hepatitis B virus nucleotide reverse transcriptase inhibitor for the treatment of chronic hepatitis B virus infection in adults with compensated liver disease. We are also looking at the use of Raltegravir (RAL) for third line antiretroviral therapy in pediatrics. Other new pediatric formulations approved by the FDA include a 5 mg formulation of dolutegravir (DTG) for use in infants and children living with human immunodeficiency virus type 1 (HIV-1).

*“I am a girl who was born positive with no future ahead of me because I thought everything was falling apart, my dreams just faded away. The mother of all nations, Baylor-Eswatini, restored my hope. Now I am healthy Big Girl, thank you Baylor-Eswatini for your love. You brought me up with care and support.”*

Teen testimony



# Third-line ART Program

Baylor-Eswatini is the national referral center for pediatric third-line management. Through this program, eligible patients access genotype testing, and those with confirmed resistance are initiated on the third-line treatment regimen. From our clinics, these patients have access to specialized services such as stepped-up adherence counseling, challenge clinic and in-reach (home visits) which are all conducted by our social workers. In addition, all clients enrolled in this program are given transport reimbursement for all their clinic visits through partnerships with local non-governmental organizations, as well as UNICEF.

**171** patients on protease-based (PI) ART regimens have been re-suppressed and retained on the same treatment plans.

Since the inception of this program seven years ago, through multidisciplinary interventions and intensive psychosocial support, 171 patients on protease-based (PI) ART regimens have been re-suppressed and retained on the same treatment plans.

When it comes to genotypes, 135 have been evaluated, with 34 (25%) confirming significant PI-resistance and 101 (75%) showing PI sensitivity. By the end of the report period, the third-line ART program had 27 active patients in care in our clinics. This year marked the first death recorded since the start of this program. This patient died while admitted at an off-site Palliative Care unit.

As necessitated by the COVID-19 pandemic, we engaged our partner, The Rocking Horse, to assist us in meeting some basic amenities for prevention of COVID-19 in this vulnerable population. Rocking Horse committed to provide transport support in addition to supplying all our third-line patients with hygiene packs to allow them to maintain handwashing standards stipulated by the Ministry of Health. These packs consist of two bars of soap and a cloth face mask.





# Tuberculosis Screening, Control and Treatment Services

Tuberculosis Centre of Excellence at the Baylor College of Medicine- Bristol Myer Squibb Children's Clinical Centre of Excellence in Mbabane

In collaboration with the Global TB Program at Texas Children's Hospital and Baylor College of Medicine, Baylor-Eswatini continues to lead in improving pediatric TB care by providing high-quality integrated TB/HIV care and taking a family-centred approach in order to care for both patients with TB and their family members at risk of TB. Our clinic in Mbabane offers onsite digital radiography and rapid TB diagnostics—decreasing the time to diagnosis and treatment for patients. The TB program at Baylor-Eswatini maintains a robust active case-finding program that seeks out and evaluates household contacts of TB cases receiving care at our clinics, as well as the National Referral Hospital (Mbabane Government Hospital TB clinic). In addition, we introduced depression screening for this high-risk population.

A number of successful projects and initiatives have taken place this year:

## 1. TB Research:

We have received support from the National Institutes of Health (NIH), United States Department of Defense (DOD), European Development Clinical Trials Partnership (EDCTP) and the Thrasher Fund to continue to explore novel diagnostic strategies to improve the diagnosis of TB in children and people living with HIV while grasping the immune mechanisms underlying TB disease, HIV and helminth infections.

## 2. Vikela Ekhaya (TB prevention at home):

In collaboration with the National TB Control Program (NTCP) in Eswatini and the Stop TB Partnership, we have expanded access to TB preventive therapy through the Vikela Ekhaya project.



### **3. Multidrug Resistant-TB (MDR-TB) Care:**

We continued to scale up our efforts surrounding MDR-TB. We provide family centered care and have led the introduction with the NTCP of a pilot project for drug resistance TB (DR-TB) preventive therapy and contact management. This work has been presented at the annual meeting of the World Health Organization (WHO) Child and Adolescent TB Working Group Meeting. Further, we have engaged with Medicines Sans Frontiers to participate in a study evaluating all oral shorter TB regimens for children and adults with DR-TB that will begin in 2020.

### **4. TB Sequencing:**

This year we have successfully partnered with Research Center Borstel, the NTCP and the National TB Referral Laboratory in order to bring molecular sequencing capacity to the Kingdom of Eswatini. This will greatly improve the TB diagnostic capacity in the country.

### **5. Child TB Training:**

Training remains a focus of the Baylor-Eswatini TB team. We serve as the lead partner for education on pediatric TB specimen collection training approximately 50 health care workers annually. Throughout the course of the year we have participated in trainings to educate providers on pediatric TB management and have hosted nurses on attachment to the TB COE.

### **6. Cross-platform Research:**

We have continued to partner with UNICEF to explore the role of diagnostic testing for sexually transmitted infections in adolescents and young adults living with HIV using the GeneXpert platform that has been traditionally used for TB diagnostics. We continue to work with the Sexual and Reproductive Health Unit to optimize management of sexually transmitted infections in adolescents and young adults living with HIV.

### **7. COVID-19 Response:**

Over the last several months our team's focus has transitioned from research and clinical care to support for COVID-19 related Infection Control and Prevention implementation at Baylor-Eswatini clinics. In addition, we have worked hard to transition TB patients to community-based care to reduce COVID-19 associated risks for this vulnerable population. This work will be highlighted at the International Union Meeting for Tuberculosis and Lung Health in 2020. Further, to ensure an efficient COVID-19 response, our team has developed a standard operating procedure that focuses on the autoclaving (steam and sterilizing) of disposable personal protective equipment (PPE) gowns. This successful innovative approach for recycling gowns provides a method to prevent shortages of PPE at Baylor-Eswatini clinics.





# COVID-19 PANDEMIC AND RESPONSE

COVID-19 is an infectious disease caused by a newly discovered coronavirus. By the end of June 2020, there were over 11 million confirmed cases globally with over 450,000 cases in Africa.

His Majesty King Mswati III declared COVID-19 as a state of emergency in Eswatini, calling all organizations and partners to join together in curtailing the spread of this pandemic. On March 14 2020, the Ministry of Health in the Kingdom of Eswatini reported the first COVID-19 case. By June 30, 108 days later, there was a cumulative of 812 confirmed COVID-19 cases in Eswatini. The Manzini region was demarcated as the red zone, or local epicentre, of the pandemic.

## Safety Measures

Baylor-Eswatini put in place measures to prevent and mitigate COVID-19 infections with minimal service interruption in our clinics:

An infection control committee in the clinic has been on the forefront of implementing preventive measures and monitoring infections, including ensuring all necessary equipment, facilities and guidelines are in place, even before measures were rolled out by the MOH. We installed hand hygiene stations for patients and staff, and provided full PPE and regular sensitization meetings for staff.

Compulsory screening for COVID-19 was introduced for all patients visiting the clinic. A screening tool was adopted to identify patients with symptoms. If screened positive, the patient would be seen in a COVID-19 isolation room where samples would be taken for testing and they would receive their routine clinical care.

## Adapting Patient Care

To minimize crowds in our clinics, we scaled-up prescriptions of longer ART refills, which decreased the number of patient visits.

To ensure that our patients do not default on their medication, we introduced a community ART refill model for patients who had missed their clinic appointments. For those impacted by travel restrictions and financial insecurity, we pre-package their ART medication and arrange for delivery to an agreed location in close proximity of their places of residence. We continue to implement this care model as a collaborative venture between the medical, social work and front desk teams.

For patients with consistently high viral loads due to adherence challenges or other social problems, we have introduced telephonic psychosocial support (stepped-up adherence counseling). We have continued to provide important support services for our patients through this innovative and safe manner.

We are modifying our Electronic Medical Record system to adapt to the new way of service delivery. The system will do the following:

- Automatically generate a list of patients with upcoming appointments who may qualify for multi-month dispensing based on MoH criteria
- Handle contact tracing
- Allow for geographic mapping which would allow us to efficiently deliver direct care to patient locations
- Allow for telemedicine for clinical consultation without the patient physically present

## Staff Well-being

It is imperative for us to support the mental health of all our staff members and frontline workers as part of our public health response due to their increased workload coupled by fear of contagion for themselves, as well as their families. Our social workers have developed a schedule for counseling staff members who feel frustrated, scared and depressed while working as COVID-19 frontline workers. We have also engaged a psychologist to commence group psychology sessions with our staff members.



# Special Projects

The Vikela Ekhaya Community Outreach team works tirelessly to ensure that all of our patients receive TPT.



## Support for Adolescents Living With HIV

Baylor-Eswatini collaborates with UNICEF to strengthen HIV prevention, treatment and care for children and adolescents in Eswatini. Several interventions have been initiated to ensure children and adolescents receive the clinical and psychosocial support they need to reach viral load suppression and have a positive health outcome. We have received funding support from UNICEF to conduct specific laboratory tests such as targeted viral load testing and genotype testing for children failing second line ART regimen; this has resulted in 117 viral load tests and 46 genotype tests.



**303**

home visits by social workers over the past year

Another area of collaboration is ensuring retention of the care of children and adolescents living with HIV. UNICEF provided us with financial support to conduct “in-reach” services, whereby we visited children and adolescents who had defaulted treatment or were lost-to-follow-up at their respective homes for assessment to explore options to bring them back on treatment. Social workers conducted 303 home visits over the past year. With this funding we also provide transport fares for patients who experience financial constraints when it comes to clinic visits. To this end we have maintained our quarterly lost-to-follow-up rate among children and adolescents below 1%.

Another way UNICEF and Baylor-Eswatini support adolescents is through U-Report, an SMS platform that allows anyone to ask and receive a correct answer on health-related issues, particularly HIV prevention, care, treatment and disclosure. The program has thrived under this partnership, with staff responding to 1,053 questions during the report year.

Having noted that HIV-positive children living in group homes and orphanages do not do well on treatment, we provided training for the caregivers from these homes in each region, reaching 33 participants this year. The training addressed the roles caregivers play as treatment supporters and educated them on the basics of HIV, such as adherence in children and adolescents, understanding child development and disclosure and confidentiality issues among this population. We followed the training with on-site mentorship support to reinforce lessons learned and to ensure adherence to ART by the children in the homes. A total of 12 mentorship visits were conducted to targeted orphanages during the year.

The flagship of Baylor-Eswatini’s psychosocial support has continued successfully with UNICEF funding. Teen Club meetings managed to enroll at least 393 young people each month. The clinic continually encourages teen club members to adhere to their medication and fully live healthy lives through fun, themed lessons.

**393**

young people enrolled in Teen Club meetings

*“As I grew up without parents, I came to Baylor-Eswatini where I met parental figures through the good treatment there. Teen club taught me how to socialize and relate to other people. They empowered me such that I developed high self-esteem. I am so thankful because now I can stand on my own and face the world. My goal is to help other HIV positive young people who went through the same challenges I faced so they can overcome also.”*

Teen testimony



## Baby Club – Support for Mothers Living with HIV and Their Babies

**59**

mother-baby pairs  
participating in  
Baby Club

We have also established a ground-breaking initiative known as ‘Baby Club’, a support group for HIV-positive mothers with their HIV-positive babies under the age of three. Baby Club provides psychosocial support to caregivers, fostering a climate of developmental play that will allow these children to thrive. Mother-baby pairs come together monthly for support, education and fun at our clinics. Since its inception in June 2017, the attendance of mother-baby pairs has been steadily increasing from 10 at the initial meetings to 59 pairs today. We have since rolled-out this initiative to our satellite clinics in Manzini and Hlathikhulu. We are grateful to UNICEF for providing funding support for transport reimbursement for these mothers for their clinic visits and provision of snacks during the group sessions.

## Teen Mom Club – Support for Pregnant and Lactating Teenage Mothers

In 2019 we established Teen Mom Club, a new support group for HIV-positive pregnant and lactating teenage mothers. Establishment of this support group was necessitated by poor health outcomes for the children of teen mothers because of the many psychosocial challenges the teen mother undergoes during the pregnancy and lactating periods. The support group sessions are facilitated by a mentor mother who handles the logistics of toy movement between sites, calls mothers who are late for their clinic appointments, helps form relationships with the teen mothers and also conducts home visits for those who have defaulted treatment. The ultimate goal is to support pregnant and lactating teen mothers to ensure viral suppression, prevention of mother to child transmission of HIV and financial independence through building on income generating skills. So far we have recruited 15 members during this current reporting period. The support groups are generously supported by UNICEF funding.

## Strengthening Regional Capacity for HIV and TB Services

In 2015, Baylor-Eswatini partnered with Columbia University’s global renowned organization, International Centre for AIDS Care and Treatment Programmes (ICAP), in scaling up diagnosis and treatment of HIV and DR-TB among children and adolescents in the Manzini region. The focus of this project is to strengthen both treatment and retention –to-care in the management of children living with HIV. Other activities include capacity building for healthcare workers in the Manzini region to improve skills in HIV pediatric care, as well as supporting the Teen Club for adolescents living with HIV.

To scale up diagnosis and treatment of HIV among children and adolescents, we have employed a model that involves mapping the contacts of index clients (i.e. HIV-positive adults) aged 0-19, testing the contacts and enrolling them in care and treatment. This project is implemented from three sites: Raleigh Fitkin Memorial (RFM) Hospital, Mathangeni and Luyengo Clinics. During the year under report, we tested 345 children, and 12 (3.39%) were positive for HIV. All these were linked into care under this project.

**345**

children tested  
for HIV

Under the same project, 9 health workers from clinics in the Manzini region were attached at the Baylor RFM clinic to hone their skills in paediatric HIV/TB management, PMTCT, paediatric phlebotomy, psychosocial support, and many other skills aimed at improving paediatric and adolescent treatment outcomes.



## Education for Cancer Prevention, Treatment and Care Project (ECPT)

Acknowledging Baylor-Eswatini's success in treating HIV/AIDS throughout the countries in which it operates, the Bristol Myers Squibb Foundation (BMSF) has funded a new project to raise cancer awareness and lay the groundwork for better cancer prevention and treatment in Eswatini. In May 2019, Baylor-Eswatini as a consortium leader, received E 23 million emalangeneni (about USD 1.5 million) from BMSF to sensitise key stakeholders on cancer, create community cancer awareness among individuals, screen patients for breast and cervical cancer and vaccinate eligible adolescents aged 9-14 years with the HPV vaccine. In addition, women are able to receive treatment for precancerous lesions through support from this grant.

# 12,745

patients screened  
for cancer

Since the launch of the ECPT project in October 2019, the project has been able to deliver its mandate of cancer awareness and screening in the targeted constituencies. Due to the aggressive community cancer screening and buy-in from community gatekeepers and the Ministry of Health, the project has been able to conduct outreaches in the targeted areas, community clinics, individual organizations and church gatherings. We have surpassed all the screening targets within a year of implementation. In addition, community members appreciate the integrated approach for cancer screenings along with screenings and treatment for other non-communicable diseases.

The consortium screened a total of 12,745 patients for cancer, tracking at an average of 1,062 women each month against the set target of 320 per month.

A total of 5,613 patients were screened for cervical cancer, and 4,182 for breast cancer through facility-based and community-based cancer screening initiatives. Positivity rate for breast and cervical cancer is at 6%. Through the screen and treat approach, 176 of the women were treated for pre-cancerous lesions using cryotherapy. Through BMSF funding and Technical Assistance Program, BMSF project nurses and doctors were trained on conducting Loop Electrosurgical Excision Procedure (LEEP) for those lesions which are not eligible for cryotherapy such as lesions that are too large or extend into the endo-cervical canal. As a result of this training, 215 women have been treated with the LEEP procedure, which is now a standard of care at Baylor-Eswatini's clinic. A two-year backlog was cleared as referral processes were very lengthy resulting in the progression of the lesions to invasive cancer. In addition, 327 were screened for lung cancer and 113 for prostate cancer. Those that screened positive at community level were referred to a hospital for further clinical diagnosis.

# 151

children screened  
for pediatric cancer  
with the positivity  
rate at 11%

Through this project, Eswatini launched the first ever pediatric cancer awareness month which was held at Baylor-Eswatini clinic. As of now, 151 children have been screened for pediatric cancer with the positivity rate at 11%. The 17 patients who screened positive were referred to the National Referral Hospital. Six were diagnosed with leukaemia, three with Burkitts lymphoma, one had osteochondroma, two had Wilm's tumour, one had Hirschsprung's disease, one oesophageal strictures and three are awaiting diagnostic work-up.

## TB Reach Project (Vikela Ekhaya)

TB prevention is a national challenge because of the very low participation rate of preventive therapy by those who are exposed to the illness, especially children. Only 7% of children under 5 years of age who had household TB exposure in 2017 received TB preventive therapy (TPT). To counter this challenge, Baylor-Eswatini solicited funding to implement a community-based TB contact management project with linkages to healthcare services for enhanced diagnostics. The project is known as Vikela Ekhaya, which means TB Prevention at Home. This household TB contact management program identifies people with recent household exposure to TB through community-based clinical evaluation and prompt diagnoses



of people with TB. It supports the activities of community Active Case Finders, a cadre recruited by the Ministry of Health working in the communities to screen for TB in those in contact of active TB cases. It also focuses on the capacity building of healthcare workers to collect pediatric TB samples (sputum and stools) to evaluate TB/HIV cases and to provide TPT.

Nurses use a TB contact management application to enroll TB index cases identified at health facilities. They then identify household TB contacts and assign mobile outreach teams to visit them at their homes. Two nurse-led mobile outreach teams coordinate with case finders and schedule home evaluations to screen all household TB contacts. Children under 5 years of age who are positive for TB symptoms are referred to Basic Management Units, with transport assistance, for further evaluation. Those eligible are initiated on TPT, either on 3HR or 6H regimen, depending on their HIV status. Families who decline home evaluations are given the option of clinic-based evaluation and follow up.

The project completed enrollment in March of 2020 in order to focus on completion of preventive therapy and on preparations for COVID-19. Over 10 months of implementation in the Hhohho Region, the project evaluated 969 household contacts, of whom 285 were children younger than 5 years of age with 253 initiating preventive therapy. More than 90% of those completed preventive therapy. This represents a 110% increase from the 120 child household contacts who initiated TPT in the entire nation during all of 2018. The project has been embraced by the National TB Control Program (NTCP) and community-based care has been robustly incorporated into the NTCP National Strategic Plan for 2020-2025.

## Adolescent Camp Project

**73**  
teenagers  
living with HIV

Working together with Serious Fun Children's Network, Baylor-Eswatini ran two sessions of a five-day residential camp, Sibancobi Camp, for 73 teenagers living with HIV. The camp model ensures that every child experiences success and gains the confidence to try new things in a supportive and safe environment. As a result of this program, the teens learn more about thriving while living with HIV, they grow their self-esteem and they tend to pay more attention to their health. Teens with chronic adherence challenges were intentionally recruited to participate. Before camp, we trained the leadership team and camp staff volunteers on the Serious Fun camp model, international programming, camp culture versus Swati culture and other topics that create an enabling environment for the teens to have a positive, life-changing experience.

## Adult Support Group

This special group has been active since the inception of Baylor-Eswatini. The adult support group comprises parents and/or primary caregivers who play a significant role in the lives of the children and adolescents living with HIV. The monthly meetings for the support group help them to deal with common challenges as they support their children with adherence to medication.

To help the caregivers overcome financial challenges, members of the support group have sustained a small business making and selling homemade fabric softener over the years. They have relentlessly explored other income-generating projects to boost the profit gained from the fabric softener. The objective of the members of this group is to become self-sufficient through having multiple income streams.





## SCHOLARY ACTIVITIES

To influence and document change in health policy, medical practice, standards of care and models of care, Baylor-Eswatini conducts diverse research in pediatric care and treatment. We maintain an Institutional Review Board, which is responsible for streamlining and ensuring the integrity of all research projects. During 2019-2020, we have the following studies ongoing:

### 1. Host genomic factors associated with HIV and TB progression in African children (CAfGEN II)

This is a multicentre study which entails a genomic approach to understanding HIV and associated comorbidities in African children. Its aims are:

- To establish an extended pediatric cohort in Eswatini, Uganda and Botswana
- To identify host genetic factors associated with HIV disease progression among the same paediatric population
- To explore diagnostic and identify molecular mechanisms of TB infection among the same pediatric population

### 2. Operational evaluation of programmatic approaches to improve tuberculosis preventive therapy implementation and tuberculosis diagnosis among tuberculosis household contacts (Vikela Ekhaya)

With this study, we want to understand what helps and prevents families and caregivers from accessing TB household contact management services for young children. We are interested in learning whether a community-based approach is preferable to communities and caregivers impacted by TB as compared to having household contacts evaluated and treated in a health facility. This information will help to build future interventions that are more likely to successfully increase preventive therapy uptake in Eswatini.

### 3. Immunologic effects of helminth infection on TB- and HIV-specific immunity and progression

This study seeks to determine the immunologic and clinical effect of helminth infection on TB-specific immunology, and to determine the prevalence of helminth infection in children with and without TB. It also seeks to define the dynamic immune response of children with in-utero helminth exposure compared to children without in utero-helminth exposure. The primary goal of the project is to elucidate the dynamic immune mechanisms in which helminth infection leads to TB disease progression.

### 4. Developing sustainable and effective diagnostic testing algorithms for chlamydia and gonorrhea in adolescents living with HIV in Swaziland

Baylor-Eswatini is trying to learn about sexual risk behaviours in adolescents and to evaluate a new test in order to test teenagers in Eswatini for sexually transmitted infections.

### 5. Drug-resistant tuberculosis, understanding infection to support prevention

With this study, Baylor-Eswatini is trying to understand how exposure and infection with forms of drug-resistant TB are different from exposure and infection with drug-sensitive TB.

### 6. Piloting preventive therapy following close contact to drug-resistant tuberculosis in children <5 and children living with HIV

This study seeks to determine the feasibility, tolerability and acceptability of providing treatment to prevent progression to TB disease following exposure to drug-resistant TB in patients in Eswatini.

### 7. Assessing the knowledge, attitudes, and behaviors of primary caregivers of children and adolescents to IPT

The purpose of this study is to determine what adolescents and their caregivers know, and how they feel about Isoniazid Preventive Therapy (IPT) so that we can try to improve IPT outcomes in Eswatini.



Lead TB Nurse, Godwin, presents preliminary findings from the Vikela Ekhaya Project which implements novel strategies to manage pediatric TB contacts in Eswatini.



## ORGANIZATIONAL STRUCTURE OVERVIEW

The management consists of the Executive Director, Associate Clinical Director, Finance and Administration Manager, Nurse Manager, Programs Manager, Monitoring and Evaluation Manager, and Associate Director – Global TB.

Clinic floor staff for our main clinic and our two satellite clinics, excluding projects staff, consist of the following:

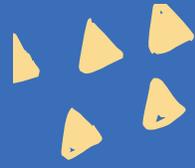
Non-clinical support staff consist of the following:

POSITION	QUANTITY	POSITION	QUANTITY
Medical/Clinical officers	3	Executive Secretary	1
Nurses	6	Accountant	1
Social workers	2	Procurement officer	1
Pharmacists	2	IT Manager	1
Pharmacy Assistants	2	IT & Facilities Officer	1
Lab technicians	2	Data Clerks	2
Phlebotomists	2	Orderlies	6
Radiographer	1	Drivers	2
Expert clients	7	Gardener	1
HIV Counsellors	2		
Receptionists	4		

## FINANCIAL OVERVIEW

FUNDING SOURCE	DESCRIPTION/PURPOSE	TOTAL (E)	TOTAL (USD)
The Government of the Kingdom of Eswatini	High-quality, family-centered pediatric and adolescent health care and treatment subvention	11,900,000	881,481
Bristol-Myers Squibb Foundation (BMSF)	Implementing the Education for Cancer prevention, treatment and care project	4,293,441	318,033
Global TB Program	Implementing childhood TB research activities	1,860,221	137,794
TB REACH	Implementing Community TB prevention (Vikela Ekhaya) project	1,658,652	122,863
H3Africa Collaborative Centre	Implementing the Collaborative African Genomics Network (CAfGEN) project/study	1,137,989	84,295
United Nations Children's Fund (UNICEF)	Implementing Psychosocial support projects for adolescents living with HIV	1,103,317	81,727
International Centre for AIDS Care and Treatment Programs (ICAP)	Strengthening Regional capacity for HIV and TB services	1,080,000	80,000
PhArmacoVigilance Africa (PAVIA) Network	Strengthening National Pharmaco-Vigilance systems	647,255	47,945
SeriousFun Children's Network	Supporting adolescent camps	337,500	25,000
<b>Total funds raised</b>		<b>24,760,875</b>	<b>1,834,139</b>

# PARTNERS AND DONORS



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



## BIPAI

Baylor International  
Pediatric AIDS Initiative  
at Texas Children's Hospital\*



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Swaziland Chapter (FAWESWA)  
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