

## Phodiso Study Launched in Palapye and Francistown



Oganne Batlang, Dr. Gaerolwe Masheto and Prof. Catherine Koofhethile at the study launch at Nyangabgwe Hospital

The Phodiso Study, a crucial project in the field of HIV cure research, has recently been introduced in Palapye and Francistown as part of its expansion into northern Botswana. Conducted by the Botswana Harvard Health Partnership (BHP), the study's rollout was led by Professor Catherine Koofhethile, the Principal Investigator, with the support of Dr. Gaerolwe Masheto, BHP's Deputy Chief Executive Officer, and the study team.

The study was officially presented to healthcare teams at Palapye Primary Hospital, Nyangabgwe Hospital, and the Greater Francistown District Health Management Team (DHMT) on August 6th, 7th, and 8th, respectively. The Phodiso Study, which has already been active in

Gaborone, aims to extend its reach across other regions in the country.

"Phodiso, which means 'cure' in Setswana, is a critical study that seeks to understand why HIV persists in the body despite successful antiretroviral therapy (ART)," explained Prof. Koofhethile. "We want to know why HIV still sticks around even when someone is on successful ART and has no detectable viral load. This study focuses on adolescents who have been on long-term ART, as understanding the mechanisms of HIV persistence in their bodies could be key to developing effective cure strategies."

At Nyangabgwe Hospital, the Phodiso team also showcased six posters detailing various studies

conducted under the Phodiso main study. These included topics such as "Lessons Learned in Enrolling Adolescents on Long-Term Antiretroviral Therapy into HIV Cure Studies in Botswana" and "Exploring the Complex Interplay of Viral Blips, HIV-1 Reservoirs, Immune Activation and Inflammation: Insights among Adolescents Living with HIV-1 Undergoing Long-Term ART for Over 15 Years."

The study was met with enthusiasm at all three locations, with local healthcare leaders urging their teams to actively support the initiative. "Your involvement in this study will not only contribute to its success but will also help Botswana generate its own data on HIV cure research, a significant step forward for the country," said Dr. Ivan

Kgetse, Ngangabwe Hospital Superintendent during the presentations.

Dr. Gaerolwe Masheto provided an overview of BHP's role as a research institution at each of the meetings, sharing the organization's mandate and scope of research. "BHP is committed to advancing scientific knowledge in the fight against HIV, and the Phodiso Study is a testament to our dedication towards the elimination of HIV in Botswana and globally," stated Dr. Masheto.

Dr. Masheto noted that Phodiso Study's expansion into Palapye and Francistown marks a significant milestone in the country's efforts to contribute to global HIV cure research, with hopes that the findings will pave the way



Dr. Ivan Kgetse



BHP Staff pose for a picture with Nyangabwe Hospital Staff.



A group picture with the Greater Francistown DHMT staff.



BHP Staff at Palapye Primary Hospital

# Modiegi Diseko Presents Outcomes of Neural Tube Defects in Botswana



Tsepamo Study Coordinator, Modiegi Diseko

**M**odiegi Diseko, the Study Coordinator for the Tsepamo Study, which monitors adverse birth outcomes and congenital abnormalities in Botswana, recently presented her findings on the high mortality and disability rates associated with Neural Tube Defects (NTDs) in Botswana at the International Conference on Neural Tube Defects (NTDs). The conference, held from August 11-14, 2024, brought together experts from around the globe to discuss the latest research and advancements in the field.

Diseko's presentation, titled "High Mortality and Disability of Neural Tube Defects Outcomes in Botswana," highlighted the impact of NTDs on early child mortality and disability in the country. In an interview with *The BHP Insider*, Diseko explained that "NTDs are a significant cause of early child mortality and disability in Botswana, and unfortunately, there are limited medical

and financial systems in place to support children born with these defects."

She emphasized the urgent need for improved accessibility and availability of services for children with disabilities in Botswana. "There is a great need for interventions such as close monitoring of infants with major NTDs after birth, earlier shunt placement, and increased financial support for disability-related needs," Diseko explained. These measures, she says are essential to improving survival rates and the quality of life for children with NTDs in Botswana.

Providing context for her study, Diseko pointed out the disproportionate burden of major congenital abnormalities (CAs) in low- and middle-income countries (LMICs) like Botswana, where resources to treat potentially reversible conditions are scarce.

“NTDs are among the most common major CAs in Botswana, yet there has been no research on the long-term outcomes of children with NTDs in the country until now,” she noted.

The Tsepamo Study, which conducted birth outcomes surveillance at 8-18 hospitals across Botswana from August 2014 to June 2023, captured data on approximately 70% of births in the country. Through medical record reviews and semi-structured interviews, the study followed up on major health outcomes among infants with NTDs whose caregivers initially consented to photographs of the child’s congenital abnormality and who were alive at the time of discharge from the hospital.

The findings show that between August 2014 and May 2023, the study recorded 261,441 births, including 178 infants (0.068% of deliveries) with NTDs. Of these, 99 infants (55.6%) were stillborn or died before discharge from the hospital, while 79 (44.4%) were alive at discharge. Among the surviving infants, 57 mothers initially consented to photographs of their child’s congenital abnormality, and 53 of these families were reached for follow-up interviews. Of those, 48 (90.5%) had confirmed NTDs, with the majority being meningocele/myelomeningocele, followed by encephalocele and anencephaly.

Unfortunately, 20 infants died before the follow-up, with a median age of 6 weeks, resulting in a mortality rate of 41.7% among those alive at the time of initial discharge and an overall mortality rate of 66.9%. “The most common causes of death were directly related to NTDs or complications from hydrocephalus,” Diseko reported. She added that 36 infants underwent NTD closure surgery, with 25 surviving and 11 succumbing to their conditions.

Of the 30 infants who developed hydrocephalus, 26 received shunt placements, yet 14 experienced shunt-related complications. Among the 28 children still alive at follow-up, 20 live with significant physical disabilities, primarily mobility issues, and 10 have intellectual or developmental disabilities.

“Families reported inconsistent access to disability-related services, and many faced financial and logistical barriers to care, with limited community support,” Diseko shared.

Diseko’s presentation underscored the critical need for enhanced medical infrastructure and support systems in Botswana to address the challenges faced by children with NTDs and their families. “Our findings demonstrate an urgent need for systemic changes to improve the care and outcomes for these vulnerable children,” Diseko concluded.

## Tshireletso Study Bids Farewell to Departing Staff and Welcomes New Members





Tshireletso Study Coordinator, Dr. Marcella Yoseph addressing the team.

The Tshireletso Study team recently gathered for a day of team-building activities and farewells at Serene View Gardens on August 09, 2024. The event was marked by a blend of spirited competition and heartfelt goodbyes as the team worked to strengthen their bonds while welcoming new members and bidding farewell to those leaving the organization.

The session, guided by a professional team-building facilitator, saw the Tshireletso team, one of the largest study teams at the Botswana Harvard Health Partnership (BHP), divided into two groups.

The teams engaged in a series of activities designed to foster cooperation and enhance team spirit. The competitive yet collaborative atmosphere was a highlight of the day, with participants fully immersed in the exercises that emphasized unity and teamwork. Dr. Marcella Yoseph, the study's coordinator, took the opportunity to encourage her team to continue building a strong, cohesive unit.

"To achieve our study objectives, it's essential that we work together as a formidable team," Dr. Yoseph

remarked, underscoring the importance of collaboration and mutual support in their work.

The day was also marked by a poignant farewell to Sara a medical intern who was leaving the country the next day. Sara Silarszka expressed her deep gratitude for the experience she had with the Tshireletso team. "You welcomed me warmly from the very first day I arrived at BHP. I have particularly admired how you respect and interact with participants. Your humility and friendliness have shaped my vision of the kind of doctor I aspire to be," she shared in her farewell speech.

Outgoing Head Research Nurse, Sharon Motlhale also expressed gratitude for having been part of the team and encouraged them to revive the team spirit of sharing gifts, which she said helps in building mutual trust and friendship among people who spend a lot of time together.



**BUILDING TRUST:** One of the team building exercises

As a token of appreciation and to honour her time with the team, Sarah was presented with a traditional German print dress and headscarf, a cherished garment in Botswana often worn at significant events like weddings, national celebrations, and other important gatherings. In return, she shared chocolates with her colleagues as they enjoyed their final moments together.

News team members welcomed were Research Nurses, Tony Muvhimi, and Goitse Kao Othusitse, Research Assistant, Florah David and Study Physician, Dr. Beson Oguttu. The Tshireletso Study, launched at BHP on November 28, 2023, focuses on offering long-acting

injectable cabotegravir (CAB-LA) to postpartum women immediately after delivery to prevent new HIV infections. The study aims to determine whether this strategy is effective in preventing HIV infection among women in Botswana and to assess the acceptability and feasibility of cabotegravir injections for breastfeeding mothers.

As the Tshireletso Study continues its crucial work, the team-building session served as a reminder of the importance of unity and collaboration in achieving the study's goals, while also celebrating the contributions of all team members.



Sara Silarszka saying her goodbyes

***“Your humility and friendliness have shaped my vision of the kind of doctor I aspire to be”***

***Sara Silarszka***

# Human Resources updates

## Welcoming New Employees effective July 2024.



**Esther Mondo**  
Cleaner (BIDMC)



**Tsholofelo Mosielele**  
Lab Scientist Trainee  
(Phodiso Study)



**Ronald Malatlha**  
Grants Intern  
(Grants)



**Tony Muvhimi**  
Research Nurse  
(Tshireletso)



**Florah David**  
Research Assistant  
(Tshireletso)



**Keamogetse Dube**  
Research Assistant  
(Flourish)



**Goitse Othusitse**  
Research Nurse  
(Tshireletso)



**Natasha Makombe**  
Research Nurse  
(Tatelo Plus)



**Dr. Masangu Kasongo**  
Study Physician  
(Tatelo Plus)



**Dr. Benson Oguttu**  
Study Physician  
(Tshireletso)



**Oreneetse Thoje**  
Driver  
(Tshireletso)



**Otsile Mokgatle**  
Driver  
(Tatelo)

# Publications

1. Integration of genomic and pharmacokinetic data to predict clinical outcomes in HIV-associated cryptococcal meningitis. Stott KE, Mohabir JT, Bowers K, Tenor JL, Toffaletti DL, Unsworth J, Jimenez-Valverde A, Ahmadu A, Moyo M, Gondwe E, Chimang'anga W, Chasweka M, Lawrence DS, Jarvis JN, Harrison T, Hope W, Laloo DG, Mwandumba HC, Perfect JR, Cuomo CA; AMBITION Study Group. *mBio*. 2024 Aug 27:e0159224. doi: 10.1128/mbio.01592-24. Online ahead of print. PMID: 39189739.
2. Implementation of single high-dose liposomal amphotericin B based induction therapy for treatment of HIV-associated cryptococcal meningitis in Uganda: a comparative prospective cohort study. Gakuru J, Kagimu E, Dai B, Okurut S, Nsangi L, Bahr NC, Okirwoth M, Namuju OC, Jarvis JN, Lawrence DS, Ahim-bisibwe C, Ellis J, Tadeo KK, Boulware Dr., Meya DB, Tugume L. *Clin Infect Dis*. 2024 Aug 24:ciae413. doi: 10.1093/cid/ciae413. Online ahead of print. PMID: 39180324.
3. Characterizing HIV drug resistance in cases of vertical transmission in the VESTED randomized antiretroviral treatment trial. Bishop MD, Korutaro V, Boyce CL, Beck IA, Styrchak SM, Knowles K, Ziembra L, Brummel SS, Coletti A, Jean-Philippe P, Chakhtoura N, Vhembo T, Cassim H, Owor M, Fairlie L, Moyo S, Chinula L, Lockman S, Frenkel LM. *J Acquir Immune Defic Syndr*. 2024 Aug;96(4):385-392. doi: 10.1097/qai.0000000000003435. PMID: 39175843.
4. Ex vivo host transcriptomics during *Cryptococcus neoformans*, *Cryptococcus gattii*, and *Candida albicans* infection of PBMCs from South African volunteers. Doyle RM, Kannambath S, Pittman A, Goliath R, Kumar V, Meintjes G, Milburn J, Netea MG, Harrison TS, Jarvis JN, Bicanic T. *J Infect Dis*. 2024 Aug 19:jiae410. doi: 10.1093/infdis/jiae410. Online ahead of print. PMID: 39158391.
5. Quality of Life Gain Following Treatment Among Breast Cancer Survivors With and Without HIV. Dykstra MP, Sadigh KS, Nkele I, Bvochora-Nsingo M, Martei YM, Wester J, Manyake K, Efstathiou JA, Vuylsteke P, Tapela NM, Dryden-Peterson S. *JCO Glob Oncol*. 2024 Aug;10:e2400110. doi: 10.1200/GO.24.00110. PMID: 39116360.
6. Lamivudine dosing for preterm infants exposed to HIV: a population pharmacokinetic modelling and simulation study. Bekker A, Capparelli EV, Mirochnick M, Clarke DF, Cotton MF, Shapiro R, McCarthy K, Moyo J, Violari A, Chokeyhaibulkit K, Abrams E, Penazzato M, Ruel TD, Cressey TR. *J Antimicrob Chemother*. 2024 Aug 2:dkae259. doi: 10.1093/jac/dkae259. Online ahead of print. PMID: 39092932
7. Paving the way for affordable and equitable liposomal amphotericin B access worldwide. Lee JSF, Cohen RM, Khan RA, Burry J, Casas EC, Chung HY, Costa LH, Ford N, Galvao DLN, Giron N, Jarvis JN, Mondal M, Odionyi JJ, Casas CP, Rangaraj A, Rode J, Ruffell C, Sued O, Ribeiro I. *Lancet Glob Health*. 2024 Sep;12(9):e1552-e1559. doi: 10.1016/S2214-109X(24)00225-0. PMID: 39151989.
8. Lipid and glucose profiles in pregnant women with HIV on tenofovir-based antiretroviral therapy. Eke AC, Brummel SS, Aliyu MH, Stranix-Chibanda L, Eleje GU, Ezebialu IU, Korutaro V, Wabwire D, Matubu A, Mbengeranwa T, Chakhtoura N, Chinula L, McCarthy K, Knowles K, Krotje C, Linton MF, Dooley KE, Sax PE, Brown T, Lockman S; IMPAACT 2010/VESTED Study Team. *Clin Infect Dis*. 2024 Sep 2:ciae441. doi: 10.1093/cid/ciae441. Online ahead of print. PMID: 39219495



## VISION

To Be a World-Renowned Public Health Institute.

## MISSION

To Fight HIV/AIDS and Emerging Public Health Challenges Through Innovative Research, Education, and Capacity Building That Impacts Policy and Practice.

## CORE VALUES

BENEFICENCE  
INNOVATION  
COLLABORATION  
EXCELLENCE  
BOTHO

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