

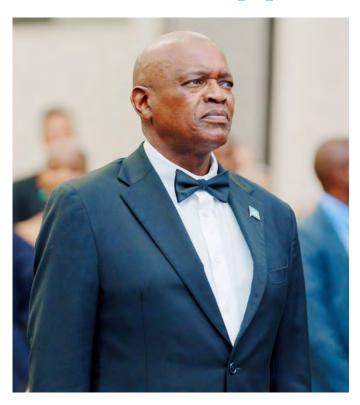
BHP THE BHP INSIDER

NEWSLETTER

Scientific Week Edition



President Masisi Pledges Support for BHP



His Excellency Dr. Mokgweetsi E.K. Masisi

President Mokgweetsi Masisi has reaffirmed the government's commitment to the Botswana Harvard Partnership (BHP), a long-standing collaboration that has played a pivotal role in Botswana's fight against HIV/AIDS and other public health challenges. Speaking at a the BHP fundriasing gala dinner in Tlokweng on 13 September 2024, President Masisi praised the BHP for its significant contributions to health research and capacity building in the country.

"My presence here is to affirm my appreciation and support of the Botswana Harvard Health Partnership," the President said in his keynote address. He highlighted the organization's crucial role in combating HIV/AIDS, not only in Botswana but across the globe. "The Botswana Harvard Partnership has been one of Botswana's strongest allies in the fight against HIV/AIDS, contributing to training scientists, building research capacity, and generating groundbreaking scientific findings."

The BHP, established in 1996, was a trailblazer in setting up Botswana's first large-scale HIV viral load and CD4 testing laboratory, as well as the first clinical trial for public-sector antiretroviral treatment. The organization also launched the <u>KITSO HIV care training program</u>, which has trained over 10,000 healthcare providers. "This work, in combination with the commitment of our healthcare workers and other development partners, saved countless lives when Botswana was in crisis due to HIV/AIDS," President Masisi emphasized.

Beyond HIV/AIDS, the BHP has diversified its research portfolio to include Tuberculosis, Sexual and Reproductive Health, and emerging public health issues such as COVID-19. In 2022, the organization changed its name from Botswana Harvard AIDS Institute to Botswana Harvard Health Partnership to reflect its expanded scope.

One of the BHP's most notable achievements was leading the research team that discovered the Omicron variant of the SARS-CoV-2 virus, a discovery credited to Prof. Sikhulile Moyo. "Botswana Harvard Partnership continues to help the government tackle not only infections but also other serious health conditions like cancer and heart diseases," Masisi said.

The BHP's impact has been far-reaching, influencing global health policies and practices, including World Health Organization (WHO) guidelines on the prevention of mother-to-child transmission of HIV. President Masisi also celebrated Botswana's success in exceeding the 2030 <u>UNAIDS targets of 95-95-95</u> for HIV diagnosis, treatment, and viral suppression, attributing much of this progress to the BHP's research efforts.

As the BHP prepares to renew its five-year agreement with the government, President Masisi expressed confidence in the continued success of the partnership. "I have no doubt that the new Memorandum of Agreement shall provide the framework for continued success, and that the BHP shall remain a source of pride for Botswana," he concluded.

As the organization celebrates 28 years of impactful research, President Masisi reaffirmed his government's strong commitment to the partnership, stating, "My Government and I remain committed to our collaboration with the BHP, and I salute their continued dedication to the prosperity of Botswana."

BHP Open Day: Bridging Research and Community



BHP Open Day procedings at Gaborone Main Mall.

he Botswana Harvard Health Partnership (BHP) held an Open Day on 10th September 2024 at the Gaborone Main Mall, inviting the public to engage with their research initiatives under the theme, "Harnessing Strong Collaborations for Innovative Health Research." The event which was part of the Principal Investigator's Week (PI Week), was aimed at showcasing BHP's groundbreaking research and fostering public understanding of its impact on global health.

BHP's PI Week, which was launched on 9th September 2024 with a press briefing at the BHP Conference Room, celebrates the research contributions of principal investigators, research fellows, trainees, and staff across various projects. The Open Day provided an opportunity for BHP to demonstrate how fundamental research fuels innovation and translates into real-world solutions. BHP staff manned and engaged the public at various stalls exhibiting research from several studies and departments, including clinical, laboratory and regulatory office.

In his opening remarks, BHP Chief of Operations, Cornelius Gaetsaloe, delivered an eloquent speech, urging the public to interact directly with the BHP team. "Talk to them, engage them, ask them, probe them, celebrate them," he encouraged. "In this way, you will appreciate their portfolio of research work, their study aims, their resources, and their activities within the communities, facilities, and districts they serve."

Gaetsaloe further emphasized the importance of collaboration, noting the unseen yet essential contributions of BHP's partners. "As you talk to them, if you look carefully, you will see invisible hands and faces among them. We are part of a very powerful and highly effective ecosystem."

He concluded by thanking attendees for taking time out of their busy schedules to join the event, expressing excitement for meaningful discussions at the exhibition stalls.



BHP COO, Mr Cornelius Gaetsaloe addressing the community.

The Open Day was graced by high-profile figures, including Acting Director of Health Services in the Ministry of Health, Dr. Oratile Mfokeng-Selei, who lauded BHP for its scientific contributions both locally and globally. "As a country with a vision of a knowledge-driven economy, BHP is steps ahead," Dr. Mfokeng-Selei remarked, praising BHP's leadership in health research.

She added that as Botswana re-engineers its health system towards primary healthcare, BHP's research could play a crucial role in creating a system that meets the demands of a high-income nation. "There are great opportunities for research and learning in building a robust health system, and BHP is poised to be a significant contributor," she said.

Deputy Permanent Secretary of Knowledge in the <u>Ministry of Communications</u>, <u>Knowledge</u>, <u>and Technology (MCKT)</u>, Ms. Lesego Thamae, also attended the event. She acknowledged the impact of BHP's work and disclosed that her ministry has established a Research Fund to support initiatives like those conducted by BHP.

"BHP is doing outstanding work in advancing scientific research, and we, as a ministry, are committed to ensuring that such research continues to thrive through our support and funding initiatives," Thamae said.

The Open Day allowed the public to explore BHP's transformative research and reinforced its role as a leading institution in global health research, setting the stage for further innovation and collaboration in addressing Botswana's public health challenges.



Dr. Oratile Mfokeng Selei, Acting Director of Health Services Ministry of Health



M.C.K.T Deputy Permanent Secretary, Ms. Lesego Thamae



Dr Karen Shambira(right), BSRHI Study Physician Coordinator presenting the BSRHI mandate.



BHP Sets New Research Agenda

he Botswana Harvard Health Partnership (BHP) held a pivotal two-day scientific retreat from September 9-10, 2024, at the Avani Gaborone Resort and Casino. As part of the Principal Investigator's Week (PI Week), the retreat brought together around 94 in-person attendees, and at least 10 virtual attendees including investigators, research fellows, and key stakeholders, to review BHP's research agenda and explore new opportunities to address public health challenges.

The retreat focused on reassessing research priorities, strengthening collaboration, and identifying future research areas aligned with Botswana's and global health needs. In his opening remarks, BHP Board Chair Prof. Roger Shapiro commended BHP's adaptability, stating, "BHP's ability to move beyond its original HIV mandate and address emerging public health threats is a testament to its resilience and vision for the future."

The first day of the retreat featured presentations on diverse topics, including maternal and child health, HIV cure research, vaccine development, non-communicable diseases (NCDs), COVID-19, and infectious diseases. Notable discussions centered on HIV drug resistance, long-acting therapies, and mental health interventions for women living with HIV.

Day one concluded with three panel discussions on strengthening collaborations, the future of HIV research, and addressing community engagement and regulatory challenges. On the second day, BHP's support service departments, including Data Management, Information Technology, Finance, Grants, Pharmacy, and Laboratory Services, presented their plans and discussed challenges. The day also featured panels on improving grant applications, expanding non-HIV research, and building capacity for big data science.

Future Research Directions

At the retreat's conclusion, participants identified key priorities for future research at BHP, including:

- 1.HIV cure and drug resistance:
- 2.Optimizing the health of people living with and affected by HIV including ageing and associated comorbidities.
- 3. Vaccine studies: Expanding research in vaccine development eg for HIV, HPV, STI's.
- 4. Internal collaborations: Strengthening intraorganizational partnerships.
- 5. Pathogenomics & Pathogen surveillance: Monitoring emerging pathogens and surveillance.
- 6. Mental and reproductive health: Focusing on mental health, sexual and reproductive health & menopause 7. Health economics.
- 8. Diversified funding: Exploring additional funding beyond grants.
- 9. Training opportunities: Increasing training for lab, clinical, and support staff.
- 10. Non-communicable diseases: Expanding research into NCDs.
- 11. Community-driven priorities: Addressing substance abuse and interpersonal violence.
- 12. Implementation strategies: Improving research-to-practice translation for optimized health outcomes.
- 13. Implementation science: Translating research findings and advocacy for transformative research outcomes driven health system practice.
- 14. Big data science: Investing in bioinformatics and big data analytics infrastructure.

Reflecting on the retreat, BHP CEO Dr. Joseph Makhema expressed optimism about the future, stating, "The future of BHP research lies in our ability to adapt, collaborate, and innovate. We are ready to take on new challenges and continue making global impact."



Group photo of the BHP team at the Scientific Retreat.

Phumaphi Praises BHP's Global Health Impact



Ms. Joy Phumaphi

ormer Botswana Minister of Health, Joy Phumaphi, has commended the Botswana Harvard Partnership (BHP) for its significant contributions to global health research and policy. Speaking virtually at the BHP fundraising gala dinner on September 23, 2024, at the Royal Aria in Tlokweng, Phumaphi emphasized the far-reaching influence of BHP's work.

"It gives me tremendous pleasure to hear citations of BHP work and the global impact of BHP research and its influence in global health policy," Phumaphi said in her recorded video address. She highlighted BHP's role in informing key global health advancements, including best practices in HIV prevention, treatment, and care, the development of global guidelines on infant feeding, the licensure of the HIV drug Cabotegravir (CABLA), and the discovery of the Omicron variant, which was instrumental in advancing COVID-19 vaccine development.

Phumaphi, now Co-chair of the <u>Global Pandemic</u> <u>Preparedness Monitoring Board</u>, described BHP as a beacon of excellence in global health, recognizing its pivotal role in addressing some of the most pressing

health challenges of modern times. "When it comes to research, BHP is a global leader," she said.

Beyond scientific breakthroughs, Phumaphi praised BHP's efforts in building local scientific and human resource capacity. She acknowledged the organization's success in training individuals who have gone on to become leaders in global pharmaceutical and scientific research. "This capacity building is more than just knowledge transfer," Phumaphi noted. "It empowers individuals, institutions, and communities to address public health challenges and take control of their health and future."

Phumaphi further applauded BHP for developing a highly skilled workforce, ensuring that the advances made will continue to benefit not just Botswana, but the region and the world. She noted that by building this capacity, BHP has secured the long-term impact of its work.

However, Phumaphi stressed that scientific research comes at a high cost and requires continuous investment. "Scientific enquiry demands investment, not just in laboratories and equipment but also in the people who dedicate their lives to the pursuit of knowledge," she remarked. She called for ongoing financial support for BHP to ensure that it can continue its world-class research. "It is crucial that we continue to support institutions like BHP, not just through recognition of their past achievements but by committing to their future."

Phumaphi urged funders, partners, and the Botswana government to collectively ensure that BHP receives the necessary resources to confront emerging health challenges. "Without sustained financial backing, the groundbreaking research being done by BHP and similar institutions cannot thrive," she warned.

In her closing remarks, Phumaphi emphasized the importance of collaboration, dedication, and a shared vision in supporting BHP's mission. "BHP is a symbol of what can be achieved through collaboration," she said. "As we look to the future, I hope we can continue to work together to ensure that BHP's vital research and capacity-building efforts are supported, expanded, and enhanced for years to come."

BHP, BOMAID to Sign MOU for Health Research Collaboration



BOMAID CEO Mr Moraki Mokgosana

Botswana Harvard Health Partnership (BHP) and Botswana Medical Aid Society (BOMAID) are set to formalize a groundbreaking collaboration through the signing of a memorandum of understanding (MOU). The announcement was made by BOMAID Chief Executive Officer, Moraki Mokgosana, on Friday, 13th September 2024, during the BHP Fundraising Gala Dinner at Royal Aria in Tlokweng.

Mokgosana revealed that BHP had approached BOMAID in September 2023 to seek assistance in acquiring three laboratory bio-safety cabinets for its research facility. Recognizing the importance of BHP's work, BOMAID's board of trustees swiftly approved the request. "In response to the request, BOMAID has invested in new equipment for BHP, enabling them to continue their tremendous work," Mokgosana announced. "By providing the tools and resources necessary to push the boundaries of health research, we aim to help drive innovation and the fight against health challenges."

He went on to highlight the global significance of BHP's research contributions, explaining that the MOU will focus on critical areas such as capacity building, research development, and thought leadership. "This collaboration will allow us to leverage our collective resources to advance knowledge which will inform policy and decision-making for better health outcomes," Mokgosana stated.

The BOMAID CEO identified data analytics, disease

surveillance mapping, cost-effectiveness studies, and implementation science as key areas where the two organizations could collaborate. "These are critical areas that can significantly contribute to Botswana's ability to improve public health services and outcomes," he said.

Mokgosana emphasized that the partnership strengthens both organizations' shared commitment to giving back to the community and fostering a healthier, more resilient nation. Reflecting on the COVID-19 pandemic, he noted, "We contributed to the Presidential COVID-19 Fund and were the first medical aid society to introduce a fully comprehensive COVID-19 benefit, ensuring that no one was left behind."

Praising BHP's role during the pandemic, he added, "We are proud to note that BHP was at the forefront, detecting new variants early and providing invaluable insights to the global community. We are like-minded partners in the fight for better health, and together, we can achieve extraordinary results."

The MOU between BHP and BOMAID is expected to bolster both organizations' efforts to improve public health services and contribute to the development of evidence-driven public health policies. "Together, we will use the power of evidence-driven practices to shape future public health policies that will benefit the nation for years to come," Mokgosana concluded.

BHP's Contributions Elevate UB's Global Ranking – Prof. Norris



UB Vice-Chancellor Professor David Norris

niversity of Botswana (UB) Vice-Chancellor, Professor David Norris, has attributed UB's rising global ranking to its fruitful partnership with the Botswana Harvard Health Partnership (BHP). Speaking at the BHP fundraising gala dinner on Friday, 13th September 2024, at Royal Aria in Tlokweng, Prof. Norris highlighted the critical role BHP has played in enhancing UB's academic and research standing.

"UB is on an upward trajectory in the Times Higher Education rankings," Norris announced. "Our significant rise in global university rankings has been bolstered by the relationship we have with BHP."

Prof. Norris revealed that UB is ranked 19th in Africa in clinical health sciences, 14th in Sub-Saharan Africa, and is now in the top 400 globally out of over 3,000 ranked institutions. He emphasized that the partnership with BHP has been both impactful and productive, describing it as one of UB's top collaborations. "This is a partnership we cherish greatly," he said.

To underscore the productivity of this collaboration, Prof. Norris shared key statistics from their joint efforts. "Through this partnership, we have graduated 10 Doctor of Philosophy (PhD) degrees, seven Master of Science (MSc) and Master of Philosophy (MPhil) degrees, and we currently have six PhDs and six MSc/MPhil candidates ongoing," he noted.

Hefurtherlauded the achievements of young researchers mentored by BHP, highlighting their prolific output in scientific publications. "Young people mentored by BHP are very productive researchers, and collectively, they have published close to 200 papers in various scientific journals," Norris stated. "Some graduate with up to 20 research papers," he added, drawing applause from the audience.

One shining example of BHP's success in producing globally competitive researchers is Bonolo Bonita Phinius, a Research Fellow at BHP and a PhD candidate at UB. Prof. Norris commended her for her accomplishments, including being recognized as one of the 2023 L'Oréal-UNESCO For Women in Science Young Talents in Sub-Saharan Africa and receiving the prestigious 2022 Charles Boucher Award for Excellence in Science, an award competed for globally.

Prof. Norris shined the spotlight on Bonolo as a testament to the fact that BHP produces highly adept researchers and scientists who are not only locally relevant but also globally competitive. The strong partnership between UB and BHP continues to bear fruit, elevating both institutions in the global academic and research landscape.



Bonolo Phinius UB PhD candidate

Orthosurge Hails BHP for Setting New Standards in Medical Advancements



Orthosurge M.D. Mr. Orememeng Motshegare

Orthosurge Botswana, a Platinum Sponsor of the Botswana Harvard Partnership (BHP) fundraising gala, has applauded BHP for its groundbreaking research and contributions to medical advancements. Speaking at the gala dinner held on September 13, 2024, at Royal Aria, Orthosurge Managing Director Mr. Orememeng Motshegare praised BHP for its pioneering work in health research, particularly in the fight against HIV/ AIDS.

"BHP is a world-class institute whose vision and commitment have been nothing short of extraordinary," Motshegare said during his address. "This evening, we shine the spotlight on BHP, whose dedication to health research, particularly in the field of HIV/AIDS, has helped Botswana address what was once a potential existential threat to our nation. BHP's efforts have set new standards for medical advancements."

Motshegare highlighted BHP's role in pioneering research that has led to tangible improvements in patient care and contributed to Botswana's achievement of its 95-95-95 HIV treatment goals. "Their work has not only deepened our understanding of HIV but also translated

into real-world outcomes that have improved care and treatment."

He also emphasized the importance of collaboration in achieving such milestones. "Such achievements are rarely the result of one institution's efforts alone. It is a culmination of collective dedication from teams, collaborators, and supporters. Your presence here tonight is a powerful reminder of the support that surrounds and fuels this vital work," he said.

Motshegare's sentiments echoed those of BHP Chief Executive Officer Dr. Joseph Makhema, who called for continued collaboration among institutions, universities, and funders to strengthen national research capacities. 'Institutions build nations. If we invest in our institutions, we as a country will meet the aspirations we strive for. Socio-economic development cannot be sustained without the generation of new knowledge," Dr. Makhema emphasized.

Orthosurge Botswana's Managing Director also reflected on the longstanding partnership between Orthosurge and BHP, stating, "We are honoured to share a long and rich history with BHP. Orthosurge Botswana started operating the same year as BHP, and our support with IVD testing and automated equipment contributed to BHP achieving accreditation in 2010."

During the event, BHP's Director of Grants and Finance, Ms. Dineo Thebe, reiterated the importance of corporate support for research, challenging businesses to actively contribute to the nation's research efforts. BHP Deputy Chief Executive Officer Dr. Gaerolwe Masheto thanked all participants and sponsors for their support, closing the event with a message of gratitude. "Thank you for not only making this gala dinner possible but for ensuring that it is a great success. Your belief in our mission empowers us to continue pushing the boundaries of health research, science, and discovery," Dr. Masheto remarked.

The gala dinner was a successful celebration of BHP's mission, demonstrating the critical role of public and private partnerships in advancing medical research for the benefit of Botswana and beyond.

Publications

- 1. No impact of COVID-19 at delivery on maternal mortality or infant adverse birth outcomes in Botswana during the Omicron era. Banga J, Jackson-Gibson M, Diseko M, Caniglia EC, Mayondi G, Mabuta J, Luckett R, Moyo S, Smith-Lawrence P, Mosepele M, Lockman S, Makhema J, Zash R, Shapiro R. PLoS One. 2024 Sep 25;19(9):e0310980. doi: 10.1371/journal.pone.0310980. eCollection 2024. PMID: 39321175.
- 2. <u>Markers of extracellular matrix degradation and inflammasome activation are associated with carotid plaques in virally suppressed people with HIV in Botswana.</u> Ueland T, Nkele I, Hoel H, Lockman S, Michelsen AE, Moshomo T, Aukrust P, Mohammed T, Trøseid M, Mosepele M. AIDS. 2024 Sep 16. doi: 10.1097/QAD.0000000000004014. Online ahead of print. PMID: 39283741.
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