

BHP Overview

“Annual TanZamBo Meeting”

August 2012

BOTSWANA
HSPH AIDS Initiative

PARTNERSHIP

FOR HIV RESEARCH AND EDUCATION
A collaboration between the Botswana Ministry of Health and
the Harvard School of Public Health AIDS Initiative

BHP Background

- 1996: Agreement MOH and HAI
- 1997: HIV/AIDS conference – Site Visit
- 1998: HAI representative in Botswana
- 1999: 1st BHP study (Virology study)
- 2000: 1st clinical trial (Prevention study)
- 2001: Opening of the BHHRL
- Present: Multiple ongoing clinical trials (sub-studies) and collaborative research and educational initiatives

Botswana-Harvard Partnership HIV Reference Laboratory

- Officially Opened Dec 1, 2001
- One of the Largest HIV Reference Laboratory
- 3 floors 25 000 sq ft (2,300 m²) dedicated to HIV
- SANAS ACCREDITATION , 2010



Study Sites

- Gaborone (Administration and Central Laboratory)
- Sites within 1 to 2 hours drive (Mochudi – Molepolole – Lobatse)
- Sites with several health clinics - 1- 2 maternity facilities and 1 hospital
- Sites with reasonable catchment area
- Active recruitment staff at Gaborone City Council Medical Clinics
- BHP study team at each site

Staffing

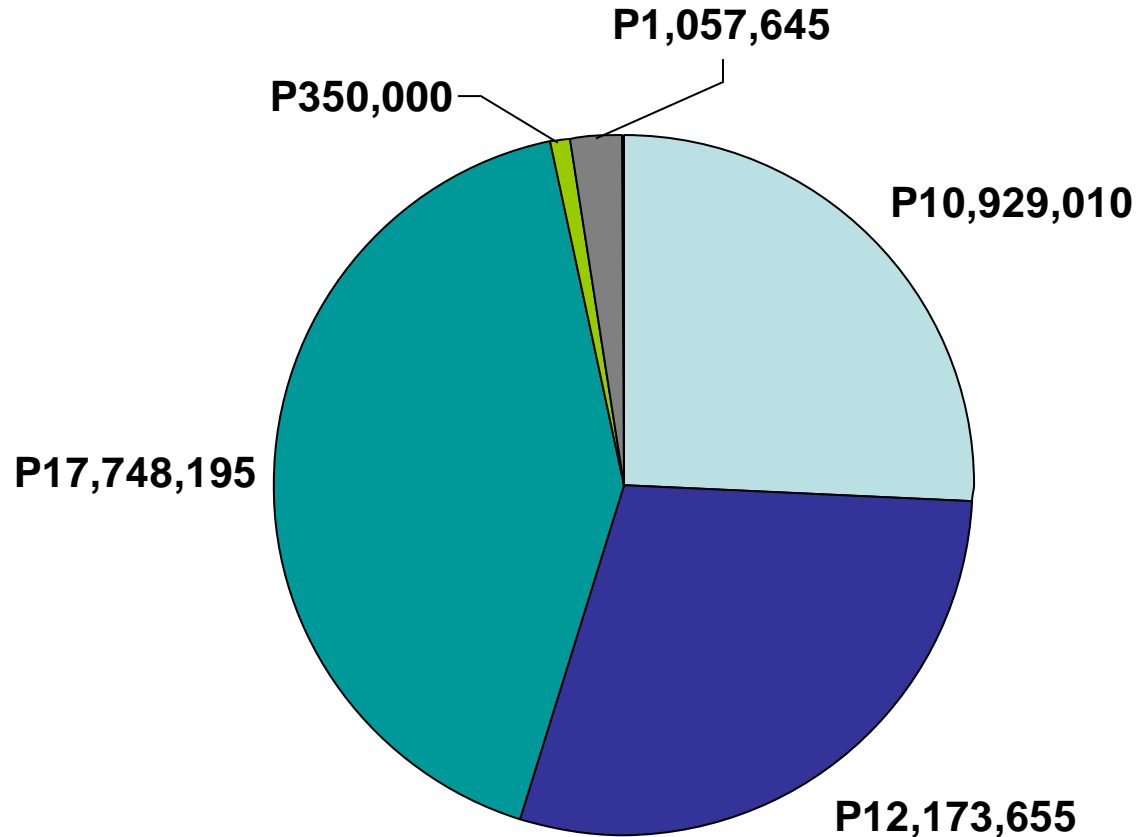
- 278 employees
- 70% female – 30% male
- 77% in Gaborone – 23% in other Mashi study sites (3)
- 80% Batswana – 20% Expatriates

Research Context

- Sponsorship: at least 90% of research grants from NIH
- MoH partners by provision of laboratory tests, access to treatment (including ARV's) to participants qualifying for National Programmes
- HRDC enhancement of local research Capacity involvement of local PI's and Investigators in research

Income by Program Area

Total Income P42,258,505



Research and Training

Treatment

Other

Fellowships

Unrestricted Gift Funds

BHP Research and Training Programmes

Laboratory

- Biology of HIV-1C
- HIV-1 subtype C Immunology and Virology (genomics)
- Host Genetics

Prevention

- PMTCT (Mashi, Mma Bana, infant Birth Outcomes)
- HIV-1C Vaccine development

Pre-ARV Treatment

- HIV-1C disease progression (Botsogo)
- Micronutrient supplementation (Dikotlana)
- Discordant couples (HSV-2 / HIV-1) and HSV-2/HAART
- Acute Infection (Tshedimoso)
- Cost-Effectiveness

Treatment

- Adult ARV Treatment and Drug Resistance (Tshepo)
- Cost Effectiveness
- Drug Resistance (Adult IDCC, Sentinel Surveillance)
- Mashi Plus / ACTG 5208 (OCTANE)
- HSV-2 and HAART (Basadi)

Education

- KITSO AIDS Training Program (Fundamentals/Advanced)
- BHP-PEPFAR Master Trainer Programmes (M & E of MASA Programme)

Clinical Trials Unit

- HPTN
- AACTG
- IMPAACT
- HVTN

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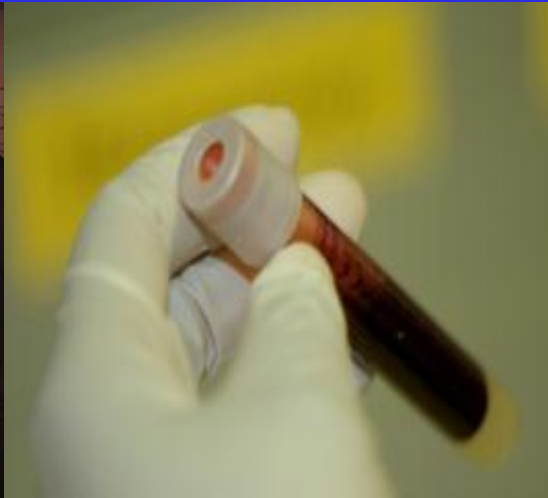
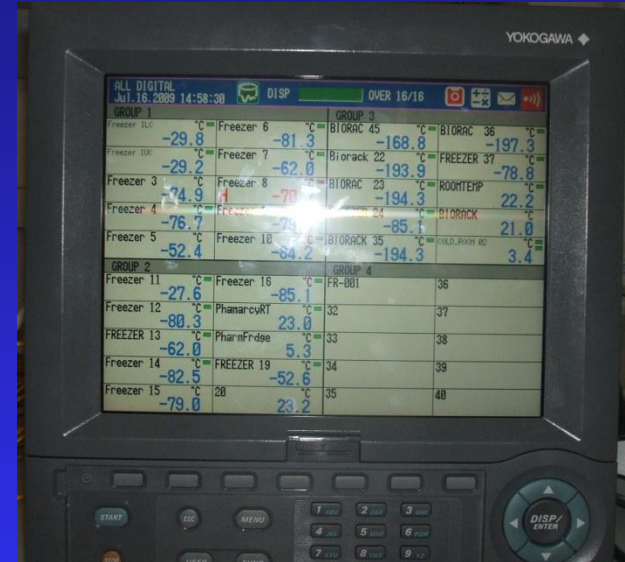
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Laboratory Research at BHP

1. Understand the basic biology of HIV-1C
 - a) Interaction with host and disease pathogenesis
 - b) Evolution of Co-receptor utilization
2. Study immune responses to HIV-1C virus
 - a) Immunogenetics (HLA class I and II)
 - b) protective/suppressive immune responses
3. Study response to antiretroviral therapy
 - a) HAART response in HIV-1C
 - b) Drug resistance patterns and implications on public health

Quality Management Systems

- Dedicated Lab Quality Assurance Unit
- Compliance to GCLP/GLP requirements
- Quality Management System
 - Based on ISO/IEC 17025
 - Quality Assurance Program
 - Quality Control Program



PRESENT BHP CAPACITY BUILDING ACTIVITIES AND GRANTS I

- Fogarty International AIDS International Training and Research Programs—NIH under Dr Max Essex.
 - More than 40 people in Botswana trained locally in the research laboratory or in Max Essex lab at HSPH Boston or other labs
 - One PhD student from University of Botswana
 - The above grant has been catalytic to enhancing capacity & motivating fellows & scholars for post graduating studies.
- Fogarty International Clinical Research Scholars& Fellows (FICRS-F) . At least 2 scholars (A USA and Local) yearly spend time in the research lab or clinical work.

TRAINING OF INTERNS AND MENTORSHIP AND BHP

- Harvard initiatives for Global Health – Education and Training Core- The past three years we have had about 10 students from Harvard College for research training as part of their semester credit and summer internship
- Yearly the BHP hosts at least two students for short term attachments or a year attachment from various universities from developed countries, within the region and locally

BHP CAPACITY BUILDING AND TRAINING INITIATIVES

- **EDCTP Regional Network of Excellence (Capacity building and Training in Clinical Trials)**
 - TESA (Trials Excellence in Southern Africa)
 - Botswana (BHP), South Africa (MRC, Stellenbosch, Cape Town), Zimbabwe (UZ), Zambia (UNZA), Malawi (CoM)
 - Training includes short term courses in various clinical and lab techniques, grant writing and manuscript production, biostatistics and long term training at Master of science degree for BHP .
 - **Senior fellowship:** A two year Research Grant and MSc degree training for a BHP fellow registered locally with UB.

BHP CAPACITY BUILDING AND TRAINING INITIATIVES cont

- **Welcome Trust Grant –Research Strengthening in Africa)**
 - SACORE – Southern Africa Consortia of Research Excellence
 - Botswana (BHP), South Africa (Stellenbosch, Cape Town), Zimbabwe (UZ), Zambia (UNZA), Malawi (CoM), UK (LSHTM, LSTM, UCL, Barts & LSM)
 - The grant will involve training of at least 14 scholars at PHD level, 10 MSc and 4 Post doctoral fellows across consortium
 - BHP will have at least one local BHP & MSc candidates.

BHP CAPACITY BUILDING AND TRAINING INITIATIVES

- Capacity Building in HIV Prevention Research-Canadian Grant from IDRC (International Development Research centre) coordinated by the Global Health Research Initiative.
 - TanZamBo (Tanzania, Zambia and Botswana)- To strengthen clinical trials capacity through South to south networking and training between KCMC, TRDC,BHP and North South networking with Harvard HSPH and McGill universities, USA and Canada
 - To train young scientists at MSc level, post doctoral fellows, learning by doing in various skills, locally using Mochudi project and abroad in Boston and Montreal.
 - Provide trainings, platform and dialogue for the communities, policy makers and IRBs

Overview of KITSO

Mission and Leadership

The KITSO AIDS Training Program provides quality, multi-disciplinary, sustainable and standardized training in HIV and AIDS care, crafted specifically for Botswana's health professionals

KITSO is a collaboration of the Ministry of Health of Botswana and the Harvard HSPH AIDS Initiative, made possible through support from the African Comprehensive HIV/AIDS Partnerships

Training and Technical support

- Capacity building (lab training: BHHRL – HSPH - Fellowship)
- Lectures at University of Botswana
- Laboratory support for government programs (ARV, PMTCT)
- Technical Assistance (PMTCT & ARV Programs, Sentinel survey)

Program support

PEPFAR (2004):

Support to the National ARV program

- Master Trainer
- Monitoring and Evaluation of National ARV program

Challenges

- Funding and sustainability
- Cost of operations
- Support services
- Training opportunities (Nurses – Data managers)
- Communication (IT technology: high speed connection – video-conferencing)

Acknowledgements

- Ministry of Health, Botswana
- Botswana National ARV (“MASA”) Treatment Programme
- African Comprehensive HIV/AIDS Partnership (ACHAP); Bill and Melinda Gates Foundation
- Princess Marina, Athlone, Scottish Livingstone, and Deborah Retief Memorial Hospital staff
- Princess Marina Hospital Senior Admin Staff and Infectious Disease Care Clinic (IDCC) Administrative and Clinical staff
- National Institutes of Health (NIH), Bethesda, MD, USA
- US Gov’t, Botswana, CDC, PEPFAR
- Human Vaccine Trials Network (HVTN)
- Bristol Myers Squibb, “Secure the Future” foundation
- Botswana-Harvard HIV Reference Laboratory, Botswana-Harvard School of Public Health Partnership, University of Washington, Seattle, USA and Florida International University (FIU), Miami, FL, USA