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Saving Babies

A Victory in Botswana

FRANCISTOWN – A year after giving birth to her twins, Balekanye Mosweu says her babies are still healthy and growing up fast. Thata and Thatayaone are as normal as any children their age, and that's what makes their story so special.

Mosweu, who is HIV positive, says she looks forward to the day when she can tell her twins the truth about her successful path in the Prevention of Mother to Child Transmission (PMTCT) program, which ensured that the children did not get infected.

Meanwhile, the rest of the world is already catching on. Botswana's PMTCT program is being heralded as one of Africa's best examples of how a developing country can save babies from acquiring the deadly virus. Recent surveys show that Botswana has been successful in reducing the rate of HIV transmission from mother to child to less than 4 percent, representing the first time that a developing country with a high prevalence of HIV can lower transmission rates to those in Western nations.

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A look inside:

Tradition of Male Circumcision Exists in Rite of Passage Ceremonies

Male circumcision has long been part of the Bakgatla tribe's history through coming of age ceremonies like this 1934 initiation in Mochudi. *Photo courtesy of the Phuthadikobo Museum.*

MOCHUDI – Researchers are waking up to new evidence showing male circumcision as a powerful HIV prevention tool, but the procedure is nothing new to many tribes of Botswana who have long practiced it for cultural and traditional reasons.

Circumcision has been used for hygienic purposes or as a form of protection against the hot and sandy desert environment, but for most tribes in Botswana it was once considered a rite of passage for young boys entering manhood.

"It's your identity. It's about becoming part of something," says Sandy Grant, the founding secretary of the Phuthadikobo Museum in Mochudi, a village known for having a strong tradition of initiation ceremonies. "The chief once told me that women would turn their backs on uncircumcised men."

Circumcision was mostly abandoned in Botswana during the 19th and 20th centuries through the influence of European missionaries, who discouraged the practice as primitive. However, studies show that male circumcision remains well accepted among the Batswana and tradition in some tribes has kept the practice going.

With recent research showing that safe male circumcision can reduce a man's risk of acquiring HIV by more than 50 percent, international health organizations are now urging African countries to expand access to the procedure. Tribal leaders may be asking one question: what took so long?

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CDC Director Visits Botswana

Gerberding addresses staff at BOTUSA

GABORONE – Dr. Julie L. Gerberding, Director of the U.S. Centers for Disease Control and Prevention (CDC), made her first visit to Botswana in October to meet with local CDC management, staff and partners on Botswana public health priorities.

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Living Longer and Healthier in Otse
A new approach to palliative care

The Otse center has trained community members in how to grow their own vegetables, and even provides seedlings and manure to help them get started.

The center provides training, through the Flying Mission, in crafts production and sewing.

The center has recruited around 23 volunteers, some of whom are living with HIV/AIDS, to visit, register and care for clients.

OTSE – After years of attending funerals nearly every weekend in this AIDS-ravaged village, the retired nurses of Otse have noticed a change in the last year: their weekends are suddenly free.

The numbers of people dying from AIDS-related diseases has dropped dramatically, the nurses say, and the reason has to do with a combination of factors including availability of ARVs, good adherence to treatment and a caring community.

Nurses and volunteers at Otse Community Home Based Care, which provides palliative care to people living with HIV/AIDS, say that the nature of their services has also changed. Eight years ago when the center was opened, nurses focused solely on end-of-life care. At that time there were approximately 120 patients per year and a 99 percent death rate among HIV/AIDS patients.

With the introduction of ARVs in Botswana in 2003, the Otse nurses have expanded their scope of work to include long-term care, adherence support, family counseling, nutritional advice and rehabilitation. In 2006, there were just three patient deaths from HIV/AIDS-related illnesses, the center reports.

"We are not going to funerals like we used to, and people are not dying like they used to," says Center Coordinator Amanda Bome, flipping through her client registration book to show the drop in mortality. "We are now looking after people who are up and about and feeling better."

Otse Village, located off the main road between Gaborone and Lobatse, may be best known as the home of Otse Mountain, the highest point in Botswana. But the small village of 5000 people, with an HIV prevalence of about 27 percent among pregnant women, is quickly gaining a reputation as a success story with a new palliative care approach. Kitchen gardens are springing up in every corner of the village, patients who were considered on their death beds are now walking about and the Otse CHBC center is now buzzing with skills workshops and information seminars.

Supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Otse CHBC was formed by retired nurses who were moved by the growing burden of care on families in their community due to HIV/AIDS. In 1999, their voluntary initiative was registered and resulted in a community owned palliative care project.

The project has grown to include 23 volunteers, many of whom are living with HIV/AIDS. They go house-to-house in Otse to screen for sick people and to train caregivers in nutrition, symptom management, drug adherence support, counseling and referrals. Care extends to the whole family, and volunteers also screen homes for special needs of children and to encourage voluntary HIV testing for everyone.

The Otse center has trained community members in how to grow their own vegetables, and even provides seedlings and manure to help them get started. There are now around 400 kitchen gardens in the village. The center also provided training in crafts production and sewing.

Mavis Modisane, the Palliative Care Program Coordinator for the Otse project, said the center currently has more than 500 clients who visit the center and who are visited by volunteers and nurses at their homes.

One of the challenges for the center, Bome says, has been scaling up pediatric palliative care. Currently the center is caring for 15 children, and there are no organizations providing psycho-social support for orphans and vulnerable children in the area. Outreach to surrounding farms has also been a challenge due to inaccessible roads and lack of transportation.

But the center has gone far in helping reduce the burden of care for families as well as reduce the crowding in health facilities in Otse.

"We are proud of the work we are doing here," said Bome. "The results show for themselves: More people are living longer, healthier lives. What more could we ask for our community?"

Mavis Modisane, the Palliative Care Program Coordinator for the Otse project, flips through a client registration book from the center which shows a significant drop in mortality over the last eight years.

Dr. Michael Thigpin, Associate Director of HIV Prevention Research at BOTUSA, makes a poster presentation to Dr. Gerberding on the on-going TDF-2 clinical trial. She also heard presentations from the TB/HIV Research section and the Global AIDS Program at BOTUSA.

Gerberding Praises Botswana's Work

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During her one-day visit, she met with management and staff of BOTUSA, the 12-year-old partnership between the Government of Botswana and the CDC. BOTUSA employs more than 180 people and comprises three branches, including TB/HIV Research, HIV Prevention Research and the Global AIDS Program. The agency is also the main implementing partner for the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) in Botswana, which committed more than $76 million (or P471 million) to Botswana in fiscal year 2007.

In remarks, Dr. Gerberding emphasized that the work being done by BOTUSA staff will go a long way in preventing the further spread of HIV and TB in Botswana and around the world.

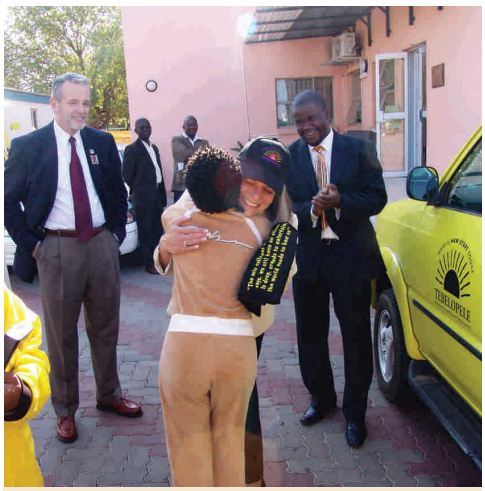
"You are serving as vanguards for the rest of the world in your work," she told the staff. "What you do here we will advertise to the rest of the world as a best practices in prevention."

She also toured the Tebelopele Voluntary Counseling and Testing Center, a non-governmental organization that is fully supported by PEPFAR and receives technical support from BOTUSA. She also met with U.S. Ambassador Katherine Canavan, and informally with Botswana government officials and other CDC partners.

Dr. Gerberding flew to Botswana on Friday, Oct. 12, following a two-day meeting of top CDC management, including all of the 17 CDC Country Directors in 17 African countries, in Pretoria, South Africa. She was accompanied on her trip by William H. Gimson, the Chief Operating Officer at CDC headquarters in Atlanta, Georgia, USA; Dr. Kenneth G. Castro, Director of TB Elimination (DTBE) at CDC and Assistant Surgeon General in the U.S. Public Health Service; Dr. Eugene McCray, Chief of International Research and Programs Branch of DTBE; and Alison Kelly, Strategy and Innovation Officer for the Coordinating Office for Global Health at CDC.

Dr. Gerberding, who was recently named 23rd on the Forbes Magazine list of the 100 most powerful women of 2006, has been Director of the CDC since July 2002. As Director, she oversees approximately 10,000 staff both domestic and international, and an annual expenditure of about $10 billion.

Before assuming her post, Dr. Gerberding served as Acting Deputy Director of the National Center for Infectious Diseases, where she played a major role in leading CDC's response to the anthrax bioterrorism events of 2001.



Dr. Gerberding hugs a member of the Youth Against AIDS (YAA) project at Tebeleopele VCT Center during her one-day visit to Botswana. The YAA program promotes behavior change in youth by encouraging them to access on-going counseling services.

Dr. Gerberding dances with members of BOTUSA choir

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A History of Circumcision

Kgosi Linchwe II, the recently deceased paramount chief of the Bakgatla tribe, revived circumcision in Mochudi in 1975 as part of a traditional rite of passage ceremony called "bogwera." The ceremony is an elaborate and lengthy series of rites for young men and boys. Until he had passed through them, a male, no matter how old, was not allowed to marry, attend and speak at tribal meetings, or even sit with other men at the same fire.

It was during the months-long ceremony that young men and boys would get circumcised as part of the initiation, which would also include teachings on the tribe's history, traditions and values. In the early days of bogwera, circumcision was performed by an operator called "Rathipana" or "Father of the Little Knife."

"He (Rathipana) had to be of Kgatla stock and fairly old, and was specifically chosen for his known skill and good fortune in castrating cattle. If he proved unlucky in his work (of circumcising boys) he would not be used again," according to the book, *Bogwera: Kgatla Initiation*, a detailed description of a Mochudi initiation ceremony in 1902 by Professor Issac Schapera.

Each boy, starting with the chief's son if nobody senior was among them, was led in turn to the Rathipana. A traditional doctor would smear medicinal paste on the boy's forehead and temples so that "he must no longer think of his home or mother, or be afraid." Meanwhile, men standing around would shout or sing loudly so that the other boys could not hear his cries.

Schapera wrote: "Rathipana put aside the severed prepuces (foreskins) one by one. They were afterwards gathered by the doctor, who burned them all together and ground the ashes to powder, which he mixed with fat. The resulting 'tshitlho' (sooty paste) was put into a medicine horn for the chief who was thus given control over the whole of the new age-set."

Under Kgosi Linchwe II, the revived bogwera and practice of circumcision did not include use of the Rathipana. Instead, the young men and boys would find their way to a hospital to get circumcised. During the 1982 ceremony, a team of medical students from the Medical University of South Africa (MEDUNSA) in Pretoria was recruited to assist with an estimated 615 circumcision operations carried out in Mochudi, according to records kept by Grant, the museum secretary.

> "It's your identity. It's about becoming part of something"
> -Sandy Grant,

"I found nothing wrong with using the modern method or using medical doctors instead of the old way of using bo-Rathipana," Kgosi Linchwe said in a 2005 article in Flair Magazine.

But the practice lost momentum among the Bakgatla in the late 1980s, this time due to it being costly and time consuming. "You need lots of doctors to perform the circumcision and they don't come cheap," the chief said.

Despite the loss of the ceremony, Linchwe said he still believed in the value of circumcision. "One becomes clean and not easily susceptible to diseases," he explained.

Circumcision and Respect

In Bikwe, a small Xhosa community in the South East District of Botswana, one is not considered a man until he goes through the rite of passage. Here, girls customarily shun men who have not been through the rite because they are still considered boys, even by their peers.

Part of the rite of passage is undergoing circumcision, training and endurance tests. Most aspects of the initiation are kept secret, and only those 18 years and above can go through the ceremony.

"Due to many diseases and fear of infection, circumcision is done at a hospital unlike in the past," Kgosi Thanda Ntaba Mngquibisa told the *Midweek Sun* newspaper in a recent interview. He noted that circumcision also reduces risk of infection and disease, like HIV.

Boys undergoing the bogwera ceremony in Bikwe are also taught how to treat and respect women.

"In our village we don't have many assault cases because the men are taught at initiation school that women are not punching bags," the chief said.

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Ritual fighting with Moretlwa sticks during a 1934 initiation ceremony. *Photo courtesy of the Phuthadikobo Museum.*

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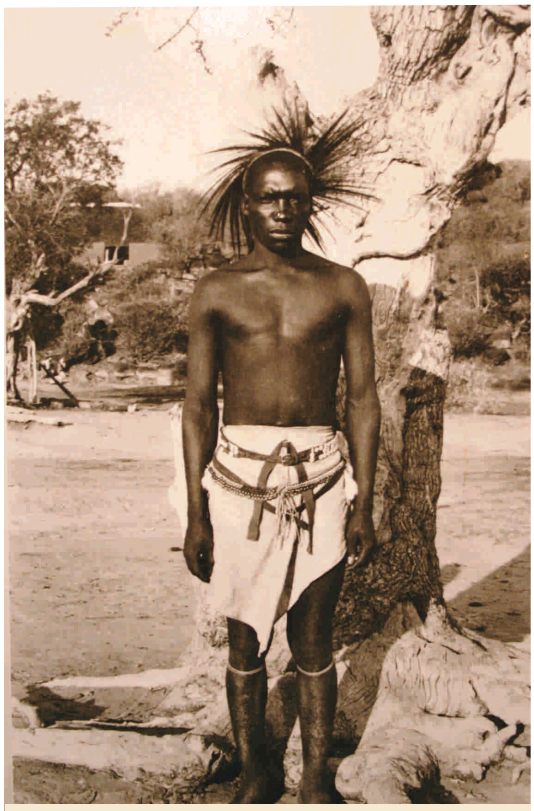
Initiation ceremony in 1982 in Mochudi. Photo shows age difference between many of the boys and young men taking part. *Photos courtesy of the Phuthadikobo Museum.*



A young man going through initiation in a 1932 Ceremony in Mochudi.

Circumcision in Health Care Settings

Other tribes known to practice circumcision as part of cultural ceremonies include Balete and Babirwa. But as a whole, there are few circumcisions happening in Botswana today as part of tribal ceremonies. What about in health care settings?

Circumcision is not routinely offered in clinics, and according to the 2004 BAIS II national household survey, less than 10 percent of Botswana males claim to be circumcised. A spot check around the country found that between January and September this year, there were 23 circumcisions at the hospital in Kasane, 27 in Ghanzi, 61 in Selebi-Phikwe and none in the Okavango District. The small numbers may be due to a lack of staffing and knowledge of the procedure, according to health officials in the districts.

Still, previous work has shown that women and men in Botswana find male circumcision to be an acceptable HIV prevention strategy. A 2001 survey of people from 29 ethnic groups in Botswana showed that 68 percent of respondents would definitely or probably circumcise a male child if it was offered free of charge at a hospital.

The acceptability of circumcision may have something to do with its history in Botswana. What is needed now is more information on public readiness and cost infrastructure before Botswana considers scaling-up the practice in health settings, says Dr. Poloko Kebaabetswe, a senior researcher at BOTUSA.

"Of course, a number of challenges have to be addressed, such as who will do the circumcision – nurses or doctors? Where should circumcisions be done – clinic or hospitals? Who will be offered circumcision – babies, newborn, teens, or adults?" Kebaabetswe says.

Some of those questions may be answered soon. The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) in 2008 will support a Botswana-Harvard Partnership project to conduct a pilot test of an expanded infant male circumcision program in four hospitals. The evaluation will identify medical, cultural, economic and ethical issues to consider in scaling up infant male circumcision for HIV prevention in Botswana

Special thanks to Peace Corps volunteers Brian Wittnebel, Paula Kaye, Chami Arachchi and Emilee Quinn, and Dr. Molly Smit of BOTUSA, for help in compiling circumcision statistics in health settings.

A stroke of the moretlwa cane on the bare backs of initiates, followed by the same for their parents, was part of the 1982 ceremony in the Bakgatla tribe that helped bind society together.

Journalists Told Drop in HIV Prevalence Won't Last Without Renewed Emphasis on Prevention

Journalists at the workshop took a tour of several HIV/AIDS projects in Selebi Phikwe, including the Positive Living Helper Cells Support Group. The group members do house-to-house community mobilization for behavior change and runs a "buddy program" which pairs PLWAs to support each other with issues of acceptance, stigma, disclosure and treatment adherence.

Dr. Samba Nyirenda, a physician in the TB/HIV Research program at BOTUSA, talked about the dangerous links between HIV and tuberculosis

Peace Corps Volunteer Brian Awsumb presented on the volunteer-initiated *Zebras for Life—Test for Life* program which uses national football players to encourage men and out-of-school youth to test for HIV.

Peace Corps Volunteer Sarah Cahillane introduces journalists to the Peer Mother Programme in Selibe Phikwe which encourages women to participate in the PMTCT program.

SELEBI PHIKWE – The modest declines in HIV prevalence among the Batswana likely won't last and Botswana could experience sudden increases in new infections unless a comprehensive approach to prevention is taken seriously.

This was the message delivered to journalists and members of the Selebi Phikwe District Multi-Sectoral AIDS Committee during a Sept. 25-26 seminar entitled "New Directions in HIV/AIDS," which brought together some of the leading researchers in Botswana.

"There has to be a renewed emphasis on prevention," said Philip Drouin, the Deputy Chief of Mission at the U.S. Embassy who opened the two-day seminar. "Not just the ABCs (Abstinence, Be Faithful, Condomize) of prevention, but a comprehensive approach which considers all options, including the biomedical ones."

BOTUSA, the U.S. Embassy and the Media Institute for Southern Africa (MISA) organized the seminar featuring the latest interventions and research in critical areas like HIV/AIDS and TB prevention, treatment and capacity building. The goal of the seminar was to highlight the latest successes in HIV research and programs in Botswana, raise public awareness and encourage dialogue at the district level among media, leaders and all HIV/AIDS stakeholders.

Drouin quoted the 2006 Sentinel Surveillance showing a decline in HIV prevalence among pregnant women, especially the younger age groups from 15-24 years. While the decline is good, it may take years to understand. The U.S. government is sponsoring a public health evaluation in 2008 to investigate the causes.

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Meanwhile, researchers believe there is a chance HIV prevalence could increase in coming years due to factors like "disinhibition" among Batswana on ARV treatment. That is, people who are benefiting from ARV drugs may think they are completely protected when in fact they are only partially protected. There is evidence that complacent attitudes among some gay men in the U.S. who were on anti-retroviral treatment may have contributed to an increase in HIV infections there.

"This misunderstanding or gamble may result in casual risky sexual behavior, which in turn could result in new infections," Drouin said.

Journalists and district leaders should keep abreast of the latest programs and research around HIV/AIDS and TB in order to inform their stakeholders and keep new infections from occurring. "That brings us back to why we are here today, to hear about the latest interventions," he said.

The workshop, which featured a range of speakers from BOTUSA, U.S. Peace Corps, MISA and ACHAP (African Comprehensive HIV/AIDS Partnerships), soon will be taken to other districts like Francistown, Serowe, Kasane and Ghanzi.

"These districts and yours (Selebi Phikwe) provide HIV services to tens-of-thousands of people living with HIV/AIDS and represent the regions of the country with some of the highest HIV prevalence rates – yet these districts are also the ones often left out of the conversation and debate surrounding HIV/AIDS issues," Drouin said. "All too often, the conversation remains at the central level in Gaborone, never making it to the ones who stand to benefit most."

The workshop also highlighted the work of international partners like the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), ACHAP and the United Nations to build capacity for the continued scaling up of Botswana's good work. As for PEPFAR, the United States has already committed $76 million in fiscal year 2007 to support Botswana's initiatives.

"We hope this sharing of best practices is interesting for journalists to share with their readers, and inspirational for DMSAC members preparing for their planning sessions," Drouin said. "Let us re-dedicate ourselves to making a difference. Working together, everything is possible."

Highlights from "New Directions in HIV/AIDS" Seminar

Prisca Tembo

Prevention

Mrs. Prisca Tembo, a behavior change specialist at BOTUSA, presented on new directions in HIV prevention. Her topic covered the new Life Skills Curriculum being rolled out in Standard 1 to Form 5 classrooms, and a U.S.-sponsored assessment of commercial sex workers in Botswana. Mrs. Tembo also discussed male circumcision and the research which has shown more than a 50 percent reduction in HIV in circumcised men versus those who are uncircumcised.

TDF-2 Trial

Dr. Ian Lovemore Chirwa, a study physician at BOTUSA, briefed the participants on a new clinical trial called TDF2, which is a study to determine if a once-daily pill can actually prevent HIV transmission. The need for additional prevention options is the biggest motivator behind the trial, Chirwa said, and the hope that this new method could be used safely by both men and women.

PMTCT

Prevention of Mother-To-Child Transmission
Dr. William Jimbo of BOTUSA presented on the latest initiatives and successes in Botswana's Prevention of Mother-to-Child Transmission (PMTCT) program. In 2006, 97 percent of pregnant women were tested for HIV. Botswana has reduced the rate of HIV transmission from mother to child to less than 4 percent. This represents the first time that a developing country with a high prevalence of HIV has lowered transmission rates to those in Western countries.

Tuberculosis

Dr. Samba Nyirenda, a physician in the TB/HIV Research program at BOTUSA, talked about the dangerous links between HIV and tuberculosis. Botswana has one of the highest rates of TB in the world. Unlike HIV, she said, tuberculosis can be cured, and it can be prevented in people living with HIV. BOTUSA is currently conducting a 2000-person clinical trial aimed at determining the efficacy of continuous isoniazid TB preventative therapy (IPT) among people living with HIV/AIDS as compared with the standard 6 month regimen.

Official Handover of the Nyangabgwe Hospital HIV Reference Laboratory

Honorable Minister of Health Prof. Sheila D.Tlou in a ceremony on Sept. 7th in Francistown to hand over the newly renovated Nyangabgwe Hospital HIV Reference Laboratory.

FRANCISTOWN – A newly renovated Nyangabgwe Hospital HIV Reference Laboratory was officially opened in September, allowing Botswana to double the number of people monitored for HIV/AIDS treatment and care.

The U.S. government officially handed over the laboratory to the Botswana Government and the Hon. Minister of Health Prof. Sheila Dinotshe Tlou in a ceremony held in Francistown on Sept. 7.

Built on the premises of the former Jubilee Hospital, the reference laboratory has been renovated and equipped using more than $935,000 (P5.8 million) from the U.S. President's Emergency Plan For AIDS Relief (PEPFAR). Technical support is also being provided by staff at BOTUSA to help equip and run the laboratory.

The state of the art Nyangabgwe Hospital HIV Reference Laboratory, now the second largest reference laboratory in the country, will alleviate pressure on the Gaborone reference laboratory which has been burdened with an increased workload under the success of the nationwide rollout of ARV treatment.

The laboratory will serve the whole of northern Botswana by conducting viral load and CD-4 testing and supporting all laboratory services related to the Early Infant Diagnosis (EID) program, which was rolled out last year as part of the Prevention of Mother-to-Child Transmission (PMTCT) program.

Mr. Philip Drouin, the Deputy Chief of Mission at the U.S. Embassy in Gaborone, gave remarks and performed the official handover of the laboratory.

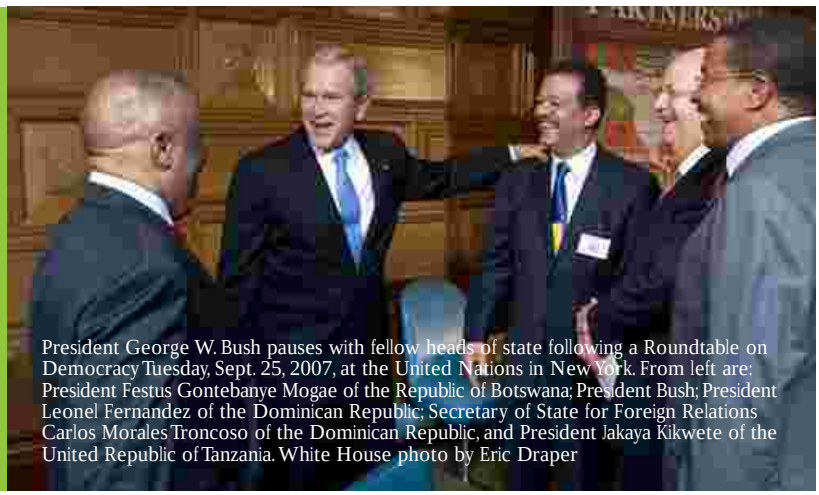
"We are here today to congratulate Botswana in its rapid scaling up of programs like Early Infant Diagnosis and the ARV treatment program. We are also here to show that the U.S. Government is doing everything we can to help build capacity for continued scale-up of this good work," Drouin said.

In addition to the renovations and purchase of new equipment, PEPFAR is also supporting training for lab employees' use of equipment, the hiring of one new lab technician, as well as maintenance costs. These initiatives have already improved the capacity of the laboratory to conduct viral load, CD-4 counts, hematology, chemistry and serology testing for the follow-up of patients on ARVs.

Botswana President Advocates for PEPFAR During Visit to United States

During a visit to the United States in September 2007, Botswana President Festus Mogae advocated for a closer relationship between Africa and the United States.

While giving remarks at the Center for Strategic International Studies (CSIS), President Mogae stated, "The modest successes we have recorded in my country...and indeed in many African countries, could not have been achieved without United States support under PEPFAR... PEPFAR has turned despair into hope. PEPFAR has galvanized donor countries and agencies alike to act in concert in the interest of humanity."



President George W. Bush pauses with fellow heads of state following a Roundtable on Democracy Tuesday, Sept. 25, 2007, at the United Nations in New York. From left are: President Festus Gontebanye Mogae of the Republic of Botswana; President Bush; President Leonel Fernandez of the Dominican Republic; Secretary of State for Foreign Relations Carlos Morales Troncoso of the Dominican Republic, and President Jakaya Kikwete of the United Republic of Tanzania. White House photo by Eric Draper

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Ambassador Mark R. Dybul, the U.S. Global AIDS Coordinator, told the *Boston Globe* newspaper that Botswana's results were "extremely impressive."

"That's getting down to what we've been able to do in the United States and Europe," where fewer than 2 percent of babies born to HIV-positive pregnant women have the virus. "It's a great model of how you can do it in Africa," Dybul said.

The challenge for Botswana is especially pressing: 32 percent of its pregnant women are HIV-positive.

So how did Botswana do it? The success here may be due to political support and several policy decisions, including the routine "opt out" testing of all pregnant women for HIV and providing HIV test results in 20 minutes to the expectant mothers. Because of this, uptake of PMTCT services was around 97 percent in 2006.

Also, women who are HIV-positive are given dual drug treatment – four weeks of AZT, and then a single dose of nevirapine at birth to mother and child. With no interventions, the risk for an HIV-positive woman to pass on the virus to her baby is 30 to 35 percent. With a single dose of nevirapine, that risk is cut roughly in half. In the cases where a mother passes HIV to her child, roughly two-thirds occur during birth and one-third during breast-feeding.

The U.S. government is encouraging other countries to adopt parts of the Botswana model; already, Cameroon, Kenya, and Zambia, among others, have started testing all pregnant women for HIV, unless the women specifically decline the test. HIV prevalence in other African countries is still high. In Lesotho, for example, transmission rates from mother to child are still as high as 37 percent.

Early Infant Diagnosis

Last year, with support from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and technical help from BOTUSA, the Botswana government rolled out a new method of testing babies for HIV using dried blood spots. The goal of the program is to get more HIV positive babies on treatment before they become ill, but the Early Infant Diagnosis (EID) method is also proving that the PMTCT program really works.

Using DNA technologies, the babies' dried blood is tested for HIV just six weeks after birth. The samples are stable, do not require refrigeration and can be easily transported. Previously, babies were tested for HIV at 18 months using an ELISA (Enzyme-Linked Immunosorbant Assay) or rapid HIV tests. While these tests produce accurate results, the approach was inadequate for program monitoring and clinical purposes since the health care workers had to wait until the infant was 18 months old to be tested. By this time, as many as half of the HIV-positive babies will have died of AIDS.

In a pilot project using the dried blood spots to test for HIV, the government and BOTUSA found that 7 percent of 1,917 infants born to HIV-infected mothers had the virus in 2005. Satisfied that the tests were accurate, the government rolled out the program nationwide. A follow-up study from November 2006 to February found that just 51 of 1,300 babies tested were HIV-positive, or 3.9 percent.

"The new tests have lifted spirits of everyone involved. Health workers and families can now learn the baby's HIV status in the second month after birth," Dr. Tracy Creek, a medical epidemiologist at the US Centers for Disease Control and Prevention, said.

"The testing is serving as a powerful morale booster for everybody -- for health workers, who are finally seeing their work succeeding, and for the mothers, who almost all are being rewarded with [HIV]-negative babies," Creek said.

The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) is providing more than $4.5 million in fiscal year 2007 funding to support Botswana's PMTCT program.

A Year Later: Mother of Twins Updates BOTUSA News on Progress

Last year, *BOTUSA News* interviewed Francistown resident Balekanye Mosweu on her participation in the Botswana PMTCT program. The HIV-positive mother had just given birth to twins and was relieved that both babies were born free of the virus. In October, *BOTUSA News* revisited Mosweu and her twins to catch up and see how the family is doing.

Thata and Thatayaone are growing well and are both healthy. The girl has never had any serious illness and the boy had pneumonia once which was treated successfully. Both children interact and play with the kids in the neighborhood. Thata, the girl, is more talkative than the boy and appears more independent.

"Thatayaone learns a lot from his sister," Mosweu says.

Mosweu's partner is now employed at a local mine and they are being assisted by Social Workers with a food ration every month for the children. All this has relieved them from some of the challenges they face. Nevertheless, the main problem Mosweu is encountering is being alone to look after the children and do the house chores. She says that every morning she has to leave the twins with neighbors so she can go to the clinic for her daily TB treatment.

Mosweu says she plans to educate her children to grow up and be responsible citizens with jobs. She also plans to tell them the truth about her successful path to ensure that they did not get infected with HIV. She is proud of her children and tells family members and friends about the success of the PMTCT program.

"I urge everyone to go for HIV testing and to utilize all available services," she said.

BOTUSA Nurse Catherine Motswere contributed to this report

Mosweu and her twins a year ago after discovering through early infant testing that her babies were HIV-negative

A year later the mother says her twins are healthy and still doing fine.

Tebelopele Launches "Go Blue" Campaign

Pontsho Moloi, Tshepo Motlhabankwe, Modiri Morumo, Khumo Motlhabane and Donald Thobega proudly wear their Zebras4Life wrist bands.

Gaborone – At this time of year the action heats up on the football field for Botswana's senior and under-23 football teams. Tebelopele Voluntary Counselling and Testing (VCT) centers hope that the excitement around the Zebras will remind people of the benefits of knowing one's HIV status.

Itshupe ka Botala, or the "Go Blue" campaign, is a new effort by Tebelopele to provide counseling and testing services at more client-friendly places, such as near shops, hang-out spots and transit hubs, in addition to its 16 centers and regular mobile outreach. The new outreach venues will offer greater convenience without diminishing existing services.

Dr. Jan Raats, Tebelopele's Executive Director, explained, "We are always striving to make our services more client-friendly. The Zebras campaign has created great fanfare around VCT services. We hope that its popularity will carry into the effort to provide our high-quality services at more convenient locations in cities, towns and villages throughout Botswana."

The nationwide VCT chain has procured tents and is set to mobilize 100 of its counselors in a ward-based VCT model. The effort especially seeks to increase the number of men and out-of-school youth using VCT services between now and World AIDS Day (Dec. 1). Those who test with Tebelopele will receive one of the popular *Zebras4Life — Test4Life* wristbands. Clients will be encouraged to wear the wristband to show support for the national teams and their personal commitment to living a long, healthy and productive life.

Zebras4Life campaign has so far empowered 4,090 people to know their HIV status.

"I hope everyone is aware of the Zebras campaign and the importance of knowing your status," said Modiri Morumo, goalkeeper and captain of the senior Zebras squad. "Please use this opportunity to get tested for HIV."

Since the beginning of the year, Tebelopele has been leading the *Zebras4Life — Test4Life* campaign which uses the popularity of the Zebras to encourage men and out-of-school youth to test for HIV. Statistics confirm that the approach is working. At 43 events in 33 different locations, *Zebras4Life — Test4Life* has empowered 4,090 people to know their HIV status. These events posted approximately a 300 percent increase over historical testing demand. Moreover, 58 percent of those testing were men, up 10 percent compared to regular efforts.

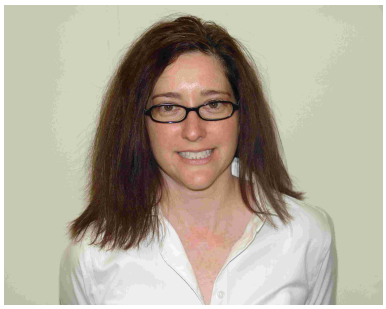
The Zebra testing efforts, initially the idea of Peace Corps volunteers in Botswana, receives financial backing from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through U.S. Ambassador Katherine Canavan's leadership. The campaign has the support of the Botswana government, Botswana Football Association, BOTUSA and others.

For more information about the Itshupe ka Botala campaign or *Zebras4Life — Test4Life*, contact Thandi Thumelo or Brian Awsumb at the Tebelopele Main Office at 3958015.

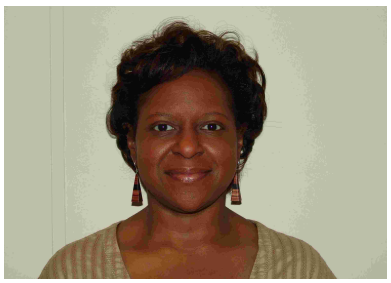
Peace Corps Volunteer Brian Awsumb contributed this report

BOTUSA Staff News

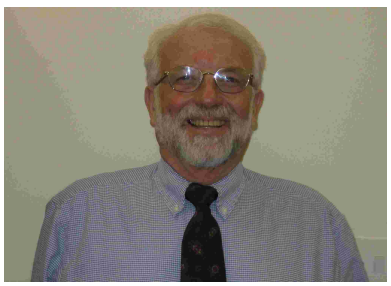
Dr. Michael Craig Thigpen was named Associate Director for HIV Prevention Research at BOTUSA. He came to CDC for the Epidemic Intelligence Service program in July 2003. In July 2005 he joined the Division of HIV/AIDS Prevention, Epidemiology Branch where he has worked on a number of international research projects in African counties including Malawi, Uganda, Kenya and South Africa. As Associate Director for HPR in Botswana, he will serve as the Principal Investigator for the TDF-2 Clinical Trial. Dr. Thigpen earned his Diploma of Tropical Medicine and Hygiene from the London School of Hygiene and Tropical Medicine in 2001, his Medical Degree from Vanderbilt University School of Medicine in 1997, and his Bachelor of Science from the University of Tennessee in 1991.



Debra Byrd was named Senior Administrator for HIV Prevention Research at BOTUSA in September. She joined CDC in September 1999 as the Assistant Chief for Operations for the HIV and Retrovirology Branch of the Division of AIDS, STD, and TB Laboratory Research. In October 2004, she moved to the Epidemiology Branch of the Division of HIV/AIDS Prevention, where she served as the Acting Deputy Branch Chief and Team Leader of the Program Operations Team. She was responsible for management, programmatic, and operational leadership for HIV public health research programs supporting cooperative agreements and contracts in 20+ States and Territories and programs at 4 international field stations (Botswana, Kenya, Cameroon, and Thailand). Ms. Byrd received her Bachelor of Arts in 1991 from the Washington Bible College in Maryland.



Candice Jackson is the new Senior Administrator for the Global AIDS Program at BOTUSA. She joined CDC in 1988 and spent the first seven years in the STD/HIV and TB Control Programs. In 1995, she worked in the Cancer, Diabetes and Injury Prevention and Control Programs. In 2005, Jackson was assigned to Botswana serving as the Senior Administration for the HIV/AIDS Prevention Research Team, assisting with the start up of the TDF-2 study. She also spent 3 months in Thailand as the Associate Director of Operations for International Emerging Infection Program. Jackson received her Master's Degree in Public Administration from the University of Georgia in 1999.



John A. Cox has been the Public Health Administrator for the TB-HIV Research branch of BOTUSA since June 2007. Prior to coming to Botswana, Cox had a ten-month assignment with CARE/CORE as Project Director, Polio Eradication Initiative, where he visited Angola, Ethiopia, India and Nepal to review polio eradication activities in those countries. Cox began his career with CDC in November of 1968 with the VD Control Program in Los Angeles. He became a recruiter for CDC hiring new Public Health Advisors (covered the 11 Western States). He also served as Chief of Party with GAP in Angola, where he accomplished the first antenatal sentinel surveillance survey there and coordinated Special Pathogens Branch personnel for the Marburg Hemorrhagic Fever outbreak in the Uige Province.

Departures:
-- Dr. Douglas Fleming, Associate Director for Science, returned to the United States in August to be closer to family. Fleming served as Associate Director for three years.
-- Daphne Cobb-St. John, Senior Administrator for BOTUSA's HIV Prevention Research section, left in September for London.
-- Peter Fonjungo, Laboratory Director for HIV Prevention Research, left in September for Ethiopia.
-- Kabo Ditlhakeng, Assistant IEC Tech Advisor in the Behavior Change Communication section, left in September to work with the Youth Health Organization (YOHO) in Botswana.
-- Brigitte Schulz, computer technician, left in October to join a private sector firm in Botswana.

Message from the Director

A few thoughts about PrEP and the TDF-2 Study

BOTUSA Director Dr. Margrett Davis

In this edition I want to highlight some important issues on PrEP, which stands for Pre-Exposure Prophylaxis. PrEP refers to an intervention that occurs before exposure to HIV that helps prevent HIV infection in an individual. It is an old concept; perhaps the best analogy is the use of pre-exposure prevention of malaria. Using this method, people take an anti-malarial pill on a daily or weekly basis to prevent malaria infection when they are in locations where malaria is a risk, such as northern Botswana and many other parts of Africa.

In PrEP, people take an ARV pill (antiretroviral drug or drugs) every day to prevent HIV infection. PrEP studies are being developed in Africa, the U.S., Thailand, and most recently in Peru and Ecuador, because this concept is very promising. I hasten to say that PrEP has been shown to be effective in preventing HIV ONLY in animal studies. The results were so striking that it is important to see whether this prevention approach could be effective for humans, too. Botswana has a very high prevalence of HIV infection so it is one of the best places to study this prevention method. It is also one of the places that can benefit most if PrEP is found to be effective.

BOTUSA is studying a form of PrEP in Gaborone and Francistown. This study is called TDF-2 and involves enrolling young sexually active people, aged 18-29 years, who are not infected with HIV and who, once screened and found eligible for the study, are randomly assigned to one of two groups. One of these groups takes an ARV drug called Truvada, and the other group takes a placebo (sugar pill). The study is double blinded so neither the researchers at BOTUSA nor the study subjects know which pill they are taking; the pills look alike. They receive intensive HIV prevention education and condoms, and are tested and followed carefully to watch for evidence of HIV infection. At the end of the study, the numbers of people in each group who have become HIV-infected are compared. If the number of HIV-infected people in the placebo group is statistically higher than the number of HIV-infected people in the Truvada group, the study will have shown that Truvada works to prevent HIV infection.

People have asked how the study subjects are exposed to HIV. Young men and women in the study are exposed to HIV in the community the same way they might be exposed if they were not in the study. To reduce their risk, the study subjects receive prevention education and condoms; it would be unethical not to provide the best prevention information we can to these young people. Because 25 percent of Batswana in the 15-49 year range are estimated to be HIV-positive, the risk of sexual contact with someone who is HIV-positive is very high. This is the reason why the study is so important.

Some have confused PrEP with a vaccine. PrEP is NOT a vaccine, but is an ARV pill taken for prevention. PrEP works directly on HIV by preventing it from growing inside the body. In contrast, a vaccine is given by injection or by mouth, but requires the human body to develop an immune response to fight the organism, in this case HIV. One of the reasons prevention measures like PrEP and circumcision are so important is that it is taking a very long time to develop an effective HIV vaccine. Estimates of 10-15 years for vaccine development have been given for the past 15 years. For PrEP we will have an answer in a few years, one way or the other.

BOTUSA is a collaboration between the Government of Botswana and the U.S. Centers for Disease Control and Prevention (CDC). We are located at Plot 5348, Ditlhakore Way, Ext. 12; Phone: 3901696, Fax 3973117. Suggestions and comments can be emailed to Doug Johnson or Sechele Sechele johnsond@bw.cdc.gov or secheles@bw.cdc.gov