

## Fighting TB with the San



A member of the San in D'Kar demonstrates the thumb piano.

**D’KAR** – The San of the Kalahari, known as one of the last nomadic hunter-gatherer tribes on earth who speak a variety of Khosian click languages, have never been an easy group to target with health messages. High mobility, illiteracy and language barriers have made communication difficult between the San and their usually Setswana-speaking health care providers. Messages about TB or HIV/AIDS usually miss the mark completely.

But the D'Kar-based Kuru Family of Organisations (KFO) has taken up the task with a renewed sense of urgency. Working in some of the most remote areas of Botswana, KFO has established a Community TB Care Program to assist the government's efforts to control TB among the San.

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## Drug Resistant Tuberculosis on the Rise

**GABORONE** – Drug resistant tuberculosis is on the rise worldwide and countries like Botswana with high rates of HIV/TB co-infection should be especially vigilant in confronting the problem, a new report shows.

Drug-resistant TB accounts for nearly one in every 20 new cases of TB diagnosed worldwide, and extensively drug-resistant TB (or XDR TB) has been recorded in 45 countries, according to a report from the World Health Organization released earlier this year. Because so few African countries conduct drug resistance surveys, the extent of the problem is not well known on the continent. But it is likely there is drug resistance going unnoticed and undetected in these countries, says WHO TB expert Abigail Wright.

Health authorities in Botswana reported in January the first two known cases of XDR TB in Botswana and

more than 100 cases of multi-drug resistant TB (MDR TB). Botswana is one of the few African countries conducting national drug-resistance surveys, and the results of the latest one are expected later in 2008. The results will be very important to understand the trends in drug resistance in this country and in other countries where HIV is prevalent.

In parts of the former Soviet Union, links between HIV and multi-drug resistance have already been made. Among people with HIV/TB co-infection in Latvia and Ukraine, for instance, the report found multi-drug resistant TB (MDR TB) was almost twice as common compared with people who had TB and were HIV negative.

This trend is worrying for sub-Saharan Africa, where HIV and AIDS are “dramatically fueling the spread of TB,” the WHO report says.

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## Journalists Benefit from Media Strengthening Outreach



BTV reporter Linet Habana and PEPFAR Coordinator Jim Allman at a journalist workshop

**GABORONE** – In a country where HIV/AIDS has dominated headlines for more than two decades, news reporters writing these stories are starting to suffer from a different kind of disease:

issue fatigue. The daily task of finding new angles to cover the same story can be draining, and without a deep understanding of the latest developments in research, prevention and treatment, it can be frustrating work. Realizing the important role journalists play in keeping a nation informed, international partners are reaching out to media houses with an aim to strengthen reporters' knowledge and skills and improve quality and consistency of reporting on HIV/AIDS issues in Botswana.

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# True Love Waits in the Ghanzi District

**GHANZI** – More than 2,000 young people in rural Botswana have pledged to remain sexually abstinent until marriage thanks to a program that uses life skills training, movies and music to encourage in- and out-of-school youth to wait for true love.

True Love Waits is a non-profit, non-governmental project in the Ghanzi District supported by PEPFAR and others that focuses on abstinence as a means for young people staying HIV free.

"It goes without saying that a large number of people are getting infected with HIV daily, despite the heightened condom use promotion. Abstinence can do wonders in scaling down the rate of new infections," says the Rev. Jan Wessels, program coordinator of True Love Waits.

Various churches in the Ghanzi District, an

underserved district in western Botswana, initiated TLW in 2001 as a response to the HIV/AIDS scourge. In 2007, the non-profit organization reached more than 9,800 people.

The program reaches out to young people in schools and churches with testimonies and skills trainings on basic communication and assertiveness. TLW also holds music nights, abstinence weekends and helps form abstinence support groups in schools. On weekend nights, the group holds abstinence movie nights featuring shows that portray the negative effects of premarital sex including unwanted pregnancies, HIV/AIDS and complications in relationships.

At the end of each event, TLW volunteers challenge the youth to sign a pledge card promising to remain abstinent until marriage.

So far, about 2,500 youth have signed the pledge. "We do it in hopes of keeping down the numbers of unwanted pregnancies and sexually transmitted infections," says Sarah Parrish, a U.S. Peace Corps volunteer assigned to help build capacity in the organization. "Several of the youth in our support groups have gone on to college so we are very proud of that."

In September 2007, True Love Waits won the Botswana Vision 2016 award for an "educated and informed" nation. The show was featured on a national TV program called "Talk Back" to discuss abstinence and their role with other partners in Ghanzi.

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KFO services marginalized communities in the Ghanzi, Kgalagadi and Okavango districts. Sponsored by the Global Fund and other international organizations, team mobilizers work with communities to identify and train local people in TB prevention and Directly Observed Therapy short course (DOTS).

KFO has also established a Community Health Communications Center to help translate health-related materials into Naro, Jul'hoansi and other more common dialects used in the area. "Language is a major barrier in that would-be patients cannot express themselves or explain their ailments to the health workers, and they miss out on receiving appropriate treatment instruction from the health workers," KFO community health specialist Laura Martindale says.

One of the most recent projects has been a 14-minute video about TB called "Re Batla Botshelo" (We Want Life). The video was done in the Naro dialect with voice-overs in other San dialects. The video was made to guide trained facilitators in the field.

Language is just one of the challenges faced by KFO and the District Health Teams that service the San communities. The tribes are highly mobile, which has made adherence to treatment difficult, and has also led to the export of TB and other illnesses from one area to another.

The links between HIV and TB also pose a major challenge in the fight against the disease. But the organization has worked closely with the District Health Team to find solutions. For instance, traditional birth attendants among the San are now being educated on the risks of contamination of blood and are supplied with gloves. "We try to strengthen the traditional healers' leadership skills. They can refer patients to clinics and hospitals," Martindale says.



## Handover of medical waste trailers to the Botswana Defense Force

With support from PEPFAR, John Snow International (JSI) has been the primary implementer of the injection safety program in Botswana. JSI has worked with the Botswana Defense Force providing training to 70 percent of the BDF's health care workers. JSI has also provided medical waste bins, repaired incinerators and distributed protective clothing and cleaning equipment for BDF health staff. In February, JSI handed over the medical waste trailers (pictured above) as part of the continued support to the BDF.

# HIV/AIDS Murals

U.S. Peace Corps volunteers have initiated mural projects to involve school children in brightening the walls of their local health posts and clinics. Children were asked to submit drawings and topics were chosen by staff and volunteers at the clinics. The school children participated by helping paint the murals. The murals pictured here were completed in 2007 at Lephepe, Sojwe and Semolale health facilities. *Pictures courtesy of Erin Robinson, a Peace Corps volunteer in Lephepe.*



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Semolale Clinic

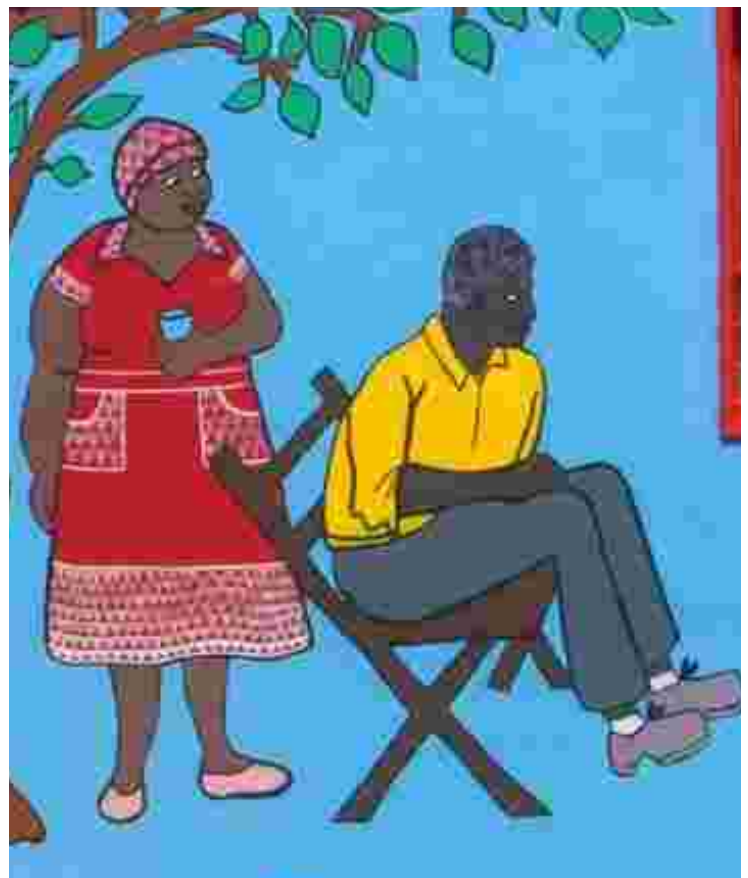


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3

1 - 3 Lephepe Clinic



Sojwe Clinic

# Drug Resistant Tuberculosis on the Rise

BOTUSA NEWS recently conducted a Q&A session with BOTUSA's own TB/HIV section chief, Dr. Robert Makombe. In the interview, Dr. Makombe discusses definitions, prevention measures and treatment of drug resistant tuberculosis.



Dr. Robert Makombe

## **BN: What are the symptoms of TB?**

*Makombe:* The general symptoms of TB include feelings of sickness or weakness, weight loss, fever, and night sweats. The symptoms of TB of the lungs may also include coughing, chest pain, and coughing up blood. Symptoms of TB in other parts of the body depend on the area affected. If you have these symptoms, you should contact your doctor or local clinic.

## **BN: Can you please explain the difference between multidrug-resistant tuberculosis (MDR TB) and extensively drug resistant tuberculosis (XDR TB)?**

*Makombe:* Multidrug-resistant TB (MDR TB) is TB that is resistant to at least two of the best known anti-TB drugs, isoniazid and rifampicin. These drugs are considered first-line drugs and are used to treat all persons with TB disease.

Extensively drug resistant TB (XDR TB) is a relatively rare type of MDR TB. XDR TB is defined as TB which is resistant to isoniazid and rifampin, plus resistant to any fluoroquinolone and at least one of three injectable second-line drugs (i.e., amikacin, kanamycin, or capreomycin). Because XDR TB is resistant to first-line and second-line

drugs, patients are left with treatment options that are much less effective, more toxic and costly.

XDR TB is of special concern for persons with HIV infection or other conditions that can weaken the immune system. HIV positive people are more likely to develop active TB once they are infected with TB, and also have a higher risk of death once they develop active TB.

## **BN: How is drug resistant TB spread?**

*Makombe:* Drug-susceptible TB and MDR TB are spread the same way. TB germs are put into the air when a person with TB of the lungs or throat coughs, sneezes, speaks, or sings. These germs can float in the air for several hours, depending on the environment. Persons who breathe in the air containing these TB germs can become infected.

TB is not spread by shaking someone's hand, sharing food or drink, touching bed linens or toilet seats, sharing toothbrushes or kissing.

## **BN: How does drug resistance happen?**

*Makombe:* Resistance to TB drugs can occur when these drugs are misused or mismanaged. Examples include when patients do not complete their full course of treatment; when health-care providers prescribe the wrong treatment, the wrong dose, or length of time for taking the drugs; when the supply of drugs is not always available; or when the drugs are of poor quality.

## **BN: Who is at risk for getting MDR TB and XDR TB?**

*Makombe:* Drug resistance is more common in people who:

- do not take their TB medicine regularly;
- do not take all of their TB medicine as told by their doctor or nurse;

- develop active TB again, after having taken TB medicine in the past;
- come from areas of the world where drug-resistant TB is common; and
- have spent time with someone known to have drug-resistant TB disease.

## **BN: How are MDR TB and XDR TB prevented?**

*Makombe:* The most important thing a person can do to prevent the spread of drug-resistant tuberculosis is to take all of their medications exactly as prescribed by their health care provider. No doses should be missed and treatment should not be stopped early. Patients should tell their health care provider if they are having trouble taking the medications. If patients plan to travel, they should talk to their health care providers and make sure they have enough medicine to last while away.

Health care providers can help prevent MDR TB and XDR TB by quickly diagnosing cases, following recommended treatment guidelines, monitoring patients' response to treatment, and making sure therapy is completed.

Another way to prevent getting drug-resistant TB is to avoid exposure to known MDR TB and XDR TB patients in closed or crowded places such as hospitals, prisons, or homeless shelters. If you work in hospitals or health-care settings where TB patients are likely to be seen, you should consult infection control or occupational health experts. Ask about administrative and environmental procedures for preventing exposure to TB.

Once those procedures are implemented, additional measures could include using personal respiratory protective devices.



Girl being skin tested for TB

**BN: How long does it take to find out if you have MDR TB or XDR TB?**

*Makombe:* If TB bacteria are found in the sputum (phlegm), the diagnosis of TB can be made in a day or two, but this finding will not be able to distinguish between drug-susceptible (regular) TB and drug-resistant TB. To determine drug susceptibility, the bacteria need to be grown and tested in a laboratory. Final diagnosis for TB, and especially for MDR TB and XDR TB, may take from 6 to 16 weeks.

**BN: What is the link between XDR TB and HIV/AIDS?**

*Makombe:* In places where XDR TB is most common, people living with HIV are at greater risk for developing the disease and dying because of their weakened immunity.

If there are a lot of HIV-infected people in these places, then there will be a strong link between XDR TB and HIV. Fortunately, XDR TB is not widespread. For this reason, the majority of people with HIV who develop TB will have drug-susceptible or ordinary TB, and can be treated with standard first-line anti-TB drugs. For those with HIV infection, treatment with antiretroviral drugs will likely reduce the risk of developing XDR TB, just as it does with ordinary TB.

**BN: Do children face any increased risk of TB or drug resistant TB? What special challenges must health workers consider when dealing with children and TB?**

*Makombe:* Children living in close contact with someone with infectious TB are at increased risk of being infected with drug-sensitive or drug-resistant TB. The risk of infection is greatest if the contact is close and prolonged, such as that between an infant or toddler and a mother or other caregivers in the household. The risk of developing the disease after infection is much greater for infants and young children under five years than it is for children aged five years or older. The risk is also greater in children infected with HIV.

The challenge of dealing with TB in children is that the disease is difficult to diagnose in children as it can present in many different and often subtle forms, particularly in the presence of HIV co-infection. All children with a cough who have been in close contact with someone with infectious TB must be screened for TB. When any child younger than 15 years is diagnosed with TB, efforts should be made to detect the source case (usually an adult with infectious TB), and any other undiagnosed cases in the household. If a child presents with infectious TB, child contacts must be sought and screened.

Diagnosis may require special investigations and children with drug-resistant TB will need specialist pediatric care.

**BN: What are international donors like PEPFAR doing to help the Government of Botswana to control drug resistant TB?**

*Makombe:* U.S. support to TB/HIV-related activities in Botswana grew from \$880,826 in 2006 to more than \$4 million in 2007. PEPFAR has supported the revision of Botswana's national guidelines containing internationally recommended TB management principles, including the correct diagnosis, treatment and follow-up of patients.

In collaboration with other technical and funding partners, PEPFAR has supported the development of national training curricula on TB/HIV for medical officers and nurses, and is funding the roll-out of trainings to increase the knowledge and skills of health care workers in Botswana in the proper management of all types of TB.

Insufficient laboratory capacity is a major obstacle to reliable and timely detection of drug-resistant TB. PEPFAR is supporting the Ministry of Health to improve the capacity of the National TB Reference Laboratory to perform high quality culture and drug susceptibility testing. BOTUSA has also facilitated the collaboration between the NTRL and a supranational reference laboratory based in South Africa as part of the process of improving quality-assured laboratory services.

Finally, BOTUSA is collaborating with MOH to develop a comprehensive programmatic approach to properly managing MDR TB, and PEPFAR is supporting the renovation of a TB isolation ward to the latest recommended standards.



U.S. Ambassador Katherine Canavan (middle) chats with NACA Coordinator Chris Molomo (right) and ACHAP Managing Director Dr. Themba Moeti at a WAD workshop for journalists.

# Media Strengthening Outreach

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The following is a sample of some of the outreach being conducted with support from the U.S. government:

## World AIDS Day

Broadcast and print journalists in Gaborone were given a chance to interact with researchers, program managers and people living with HIV/AIDS during a workshop in conjunction with World AIDS Day, Dec. 1, 2007.

The conference, which ran under the banner "Take the Lead. Stop AIDS: Keep the Promise," was jointly organized between BOTUSA and ACHAP with help from Beata Kasale from The Voice newspaper. It was funded, in part, by PEPFAR.

Botswana President Festus Mogae gave the keynote address at the workshop. During his remarks, the president spoke of the need for Botswana to consider all prevention options – including circumcision – in order to stage a comprehensive response against new HIV infections.

"Priority number one is prevention, priority number two is prevention, and priority number three is prevention," Mogae said. Adding her voice to the issue was U.S. Ambassador Katherine Canavan. While treatment is critical, she said, prevention is key.

"Picture a water tap running and flooding

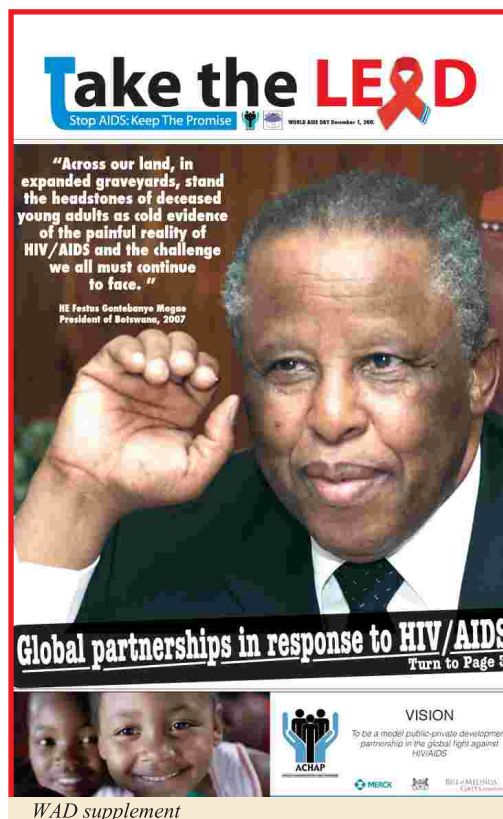
the floor. Instead of struggling to mop the floor, shouldn't we first try to turn off the tap?" the Ambassador asked. Journalists took part in a live video conference on the power of global partnerships with

One objective of the workshop was to produce an eight-page newspaper supplement with stories written by the journalists from themes gathered at the two-day workshop. More than 100,000 copies of the supplement were printed and distributed for readers in all major Botswana newspapers on World AIDS Day and over the following week.

## New Directions Seminars

Communications specialists from BOTUSA, the U.S. Embassy and the Media Institute of Southern Africa are collaborating on a project targeting journalists outside of Gaborone in some of Botswana's more remote districts. The two-day seminar, called "New Directions in HIV/AIDS," attempts to educate reporters on the latest developments in HIV/AIDS research, results and programs. Presentations from government and non-government partners include ones on the nation's new emphasis on prevention, the roles of Peace Corps volunteers in districts, links between TB and HIV, and the media's role in the fight against AIDS.

So far, two-day seminars have been held in Selebi-Phikwe and Ghanzi with plans for more in Serowe, Kasane, Tsabong and Francistown.



Dr. Tom Kenyon, PEPFAR's Principal Deputy Coordinator, and Dr. Luke Nkinsi, ACHAP Board Chairman. The video conference took place at the U.S. Embassy in Gaborone with Dr. Kenyon participating from Washington, D.C., and Dr. Nkinsi calling from Seattle, Washington.

# BOTUSA Staff News



Dr. James Shepherd

**Dr. James Shepherd**, the new Care and Treatment Team Leader, oversees activities that fall under the Treatment, Palliative Care, TB/HIV and Laboratory sections at BOTUSA. Dr. Shepherd started his career as a research scientist at University of London. He went to the USA in 1988 as a research fellow. He graduated from medical school at Columbia University College of Physicians and Surgeons in New York in 1999. He joined the University of Maryland School of Medicine in 2005 as an Assistant Professor of Medicine, and immediately volunteered to be posted to Nigeria as a technical consultant to a PEPFAR-funded treatment program. He has been living in Abuja, Nigeria, with his family since 2005, attempting to raise the quality of Anti-Retroviral Therapy services delivered during a massive scale-up in that country. Within CDC/BOTUSA and PEPFAR, Dr Shepherd will have an important role in linking the different care and treatment sections to each other; integration with other sections and assisting Botswana Government in the delivery of effective care and treatment programs.

**Dr. Fatma Soud** joined the HIV Prevention Research branch at BOTUSA as the new behavioral science advisor. Dr. Soud received her B.A. in Anthropology and PhD in Medical Anthropology from the University of Florida. She is also a registered nurse and midwife. She recently completed CDC's Epidemic Intelligence Service program where her work included studies to assess adverse events of poliomyelitis and meningococcal conjugate vaccines. She has served as a consultant with WHO and the Uganda National Expanded Program on Immunization (UNEPI) coordinating a study to assess parents' perception of adverse events following immunization. Other research work includes a study investigating HIV/AIDS and utilization of maternity health care services by Muslim women in Mombasa, Kenya and studies that assessed preventative and healthcare utilization behavior among HIV positive men who have sex with men.



Dr. Fatma Soud

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Thapelo Ndlovu of MISA

Institute of Southern Africa (MISA) in Gaborone and the Zambia Institute of Mass Communication Educational Trust (ZAMCOM) located in Lusaka. The partnership is designed to improve timely, accurate news coverage of HIV/AIDS-related topics as a means to increase public awareness about the epidemic, how the virus can be prevented, and what treatment and support options are available to people living with HIV/AIDS. This partnership is fostering the professional development of both MISA and individual journalists in an effort to increase public access to reliable information about HIV/AIDS.

## Twinning Partnerships

PEPFAR has also helped build a cross-border partnership between media organizations in Botswana and Zambia. The media twinning activity is between the Botswana chapter of the Media

## Journalists Win Awards



Maramwidz and Habana

Journalists participating in the World AIDS Day conference contributed stories to an 8-page supplement that ran in all of Botswana's major newspapers on December 1st. Andrew Maramwidz of the Sunday Tribune won best news story for "Mogae Urges Journalists to Stay Negative" and Linet Habana from Botswana Television won best broadcast story for "Could Circumcision be the Answer to Prevention?" Maramwidz won a digital tape recorder for his efforts and Habana won a digital camera.

# Message from the Director

## A Farewell to President Mogae



BOTUSA Director Dr. Margrett Davis

His Excellency President Festus Mogae retired at the end of March after serving his country for nearly a decade. Mogae is well respected and has won admiration as a global leader – especially in the fight against HIV/AIDS. Many of the attributes possessed by Mogae as President of Botswana are worthy of note to any aspiring candidate for a public office.

Good leaders lead by example and inspire others to take positive action themselves. Mogae practiced what he preached when it came to HIV/AIDS. Instead of burying his head in the sand, Mogae decided to stand boldly to fight for the country and its people. He was one of the first heads of state in the world to publicly test for HIV and share his results. Doing that took great courage, another attribute of a good leader.

By being one of the first African leaders to chair his country's National AIDS Council (a practice that has since been taken up by other African heads of state), President Mogae brought to bear the responsible stewardship that directly and positively influenced the implementation of various national HIV/AIDS programs. Many of these programs have turned Botswana into the envy of Africa for their innovation and creativity.

To name a few achievements, Botswana was the first country in Africa to provide free anti-retroviral therapy to all citizens. Today, more than 90 percent of the patients who need treatment are receiving it. Botswana was also the first African country to introduce routine "opt-out" HIV testing, which has since dramatically increased the number of people who know their HIV status and are thus able access many care and treatment programs. President Mogae personally and publicly encouraged Botswana to accept routine testing when they visit health care facilities. Under Mogae's watch, Botswana has implemented one of the most successful Prevention of Mother-to-Child Treatment programs – which has recently reduced HIV transmission from mother to child to less than 4 percent.

A good leader is sincere, and Mogae has kept most of the public promises he made while in office. In April 2001, leaders at the African Union (AU) summit in Abuja promised to allocate 15 percent of their

countries' national budgets towards improving the health sector. Botswana is one of two AU member states that have met and exceeded the 15 percent target, and Botswana is the only member state in Southern African Development Community (SADC) to do so.

Good leaders should care about the people they lead. When many leaders were remaining silent about the devastating effects of the HIV/AIDS epidemic in their countries, Mogae was standing in front of the United Nations Assembly declaring that his Botswana brothers and sisters were "threatened with extinction." He has never backed down from the fact that the country is one of the hardest hit by HIV/AIDS.

Mogae's commitment and dedication to the fight has brought Botswana a lot of attention and support over the years, including from the U.S. government. President Bush's Emergency Plan for AIDS Relief (PEPFAR) has dedicated nearly \$300 million (or P1.9 billion) to Botswana since 2004. The support has helped strengthen the successful implementation of Botswana's national strategy against HIV and AIDS.

As President Mogae heads into retirement, we congratulate him and send him our very best wishes for a long and productive retirement. Pula!



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 at [johnsond@bw.cdc.gov](mailto:johnsond@bw.cdc.gov) or Sechele Sechele at [secheles@bw.cdc.gov](mailto:secheles@bw.cdc.gov)

