

An All White Affair – Local CAB Members Recognized for Community Service

By Susan Wightman, BSN, ACRN

The members of the Washington University AIDS Clinical Trials Unit Community Advisory Board were honored with special recognition on Saturday, September 10, 2011, by HANDS (HIV/AIDS Network Development Service) for the service and dedication our members provide to the community and HIV research.

Dr. David Clifford was present and provided an update on clinical trials in the St. Louis metropolitan area and expounded on the important and great work done through the efforts of our CAB members. Marshall Moss, executive director of HANDS, presented to CAB members a plaque dedicated to our CAB:

HANDS Salutes Washington University Clinical Trials CAB for Your Community Service for HIV & AIDS Awareness. September 10, 2011

The evening began with a limousine ride to the beautiful gardens of Tower Grove Park to take photos. The limo then returned to the HANDS Network Center in St. Louis, MO, where a buffet dinner was served in the open air courtyard behind the center. It was a delightful evening sponsored by the Veterans HANDS support group.

September 2011

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Moshi CAB Update

By Elizabeth Reddy

The Moshi CAB has about 25 members consistently attending every meeting. We also have an education subcommittee now of nine people who are preparing presentations to give at various clinics in the area regarding participation in research and some basic research concepts such as use of placebo.

The T-shirts were designed with a message on the back which says "TB is treatable" in Kiswahili. The CAB wanted a very simple message that might spur conversation. It is known that because of the high correlation between HIV and TB, many people who fear they might have TB are reluctant to present for care because of stigma. The CAB wanted to remind people that it's better to seek diagnosis and treatment. They also hoped that if people ask the CAB members about their shirt they will have the opportunity to educate them about CAB activities and research.

The Epidemic That Has Threatened Many In Sub-Saharan Africa

By Jacob K. Kimaiyo Sitienei

Moi Teaching and Referral Hospital, Ampath Centre

The news is sobering. In fact it is alarming. A report from the United Nations says that AIDS will kill half of all youth 15 years old in Zimbabwe, Botswana, and South Africa by 2012 if something is not done soon. The report goes on to say that about 24 million people in Sub-Sahara Africa are living with HIV. So why is the epidemic out of control in Africa and other undeveloped countries? Several factors are contributing to this tragedy, which include the following:

Lack of Funds

The problem is so basic but so difficult to remedy. There simply is not enough money to fight the disease. Prevention efforts in the western world revolve around education, condom use, and testing and counseling. And statistics show that while HIV transmission has not been eradicated, these measures have helped dramatically. Unfortunately, for those living in Sub-Sahara Africa, the availability of these important prevention techniques is rare. Without HIV education, the people of Africa continue to lack the tools necessary to change behaviors and bring to an end the spread of the disease.

Without condoms, heterosexual transmission continues to rise. Consider this. In some African nations, 1 in 3 adults is infected with HIV. The greater part of sexual

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The Moshi Kilimanjaro CAB wearing their CAB T-shirts.

Wayne State CAB Update

By Howard L. Joyce, Sr., Vice Chair and ACTG Rep

Our CAB may be small in numbers at the current time due to the passing of Rev. James Coleman and three resignations for various reasons, but our core members are committed. Currently we have five members and one devoted probationer who will surely be a welcome addition. Our main task has been reviewing protocols and we had a display table at "Hotter-Than-July" which is the Black Gay Pride event. Our chair, Johnnie W. Jenkins, and yours truly have been recruiting new members leading to two women becoming involved. Lastly, we are finalizing plans for the AIDS Walk and World AIDS Day.

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contact is unprotected, making spread more likely and more prevalent.

And finally, widespread testing and counseling is just not accessible. Of the 24 million or so people with HIV, a large number of them do not know they are infected. Because of this, heterosexual contact becomes a major transmission route of HIV in young adults in Africa. The combination of not knowing their HIV status and the lack of available condoms allows unprotected sexual transmission to continue.

To combat this lack of funds, the United Nations is urging developed countries to fund the war on HIV. Experts place the cost of containing the epidemic to be approximately \$4 billion.

Unavailable Drugs and Prescriptions

In the western world, the fight against HIV has been bolstered by the emergence of HIV medications. Unfortunately, the lack of available health care dollars in the countries hardest hit has made medications scarce in those regions. Anti-HIV medications have been proven to slow the progression of HIV infection to AIDS, thus allowing people to live longer and more productive lives. Without the benefit of these medications, the people of Africa continue to fall victim to AIDS at alarming rates.

Cultural Multiplicity

A big barrier to containing the HIV virus is cultural differences that make fighting the disease that much more difficult. In some African populations, multiple sexual partners are expected as part of cultural expression. This increases the risk of transmission

because of the sheer number of sexual contacts, most of them between parties who are unaware that one or both of them are HIV infected.

Complacency

In Africa alone, more than 11 million people have died as a result of AIDS. Yet, the Kenyan Minister argues that all people infected with the virus should be segregated from the society; it is so discriminating.

Oddly enough, the success of HIV medications is also contributing in a small part to the African epidemic. Complacency has led to a rise in unprotected sex, both heterosexual and among gay men. People have seen the success of medications and feel that if infected, a few pills is not too large a price to pay for impulsiveness. This state of mind can and will have huge consequences.

Conclusion and Recommendation

So the epidemic rages on. Some experts expect two thirds of the Sub-Sahara population will eventually be wiped out by AIDS. A sobering thought indeed. While there have been a few successes in the region, AIDS continues its devastating attack on a population, a culture, and a people. Changes have to be made soon while there is still time.

Mr Sitienei is currently the chairman of the Community Advisory Board (GCAB).

Tour of the ACTG Central Lab by the Ward Development Committee and the Ukani Support Group, Kalingalinga, Lusaka, Zambia

By Harry C. Tembo, Chairperson and Peter N. Ziba, CAB Secretary of site 12801

Success of any clinical trial depends partly on the wide involvement of various community stakeholders. A sound, trustworthy relationship between the community members and the researchers is therefore vital. Clinical trials need to be accepted and owned by the community, but their purpose or objective and process need to be equally understood.

Our CAB has been engaging various community stakeholders in order to educate them on what AIDS Clinical Trials are. We also want to find out what community members think about these research/ trials.

Recently, we had some discussion with the Ward Development Committee and the Ukani Support Group. The former is a group of socio-economic and political leaders of Kalingalinga, a suburban

residential area of Lusaka, Zambia. In these talks a number of myths and misconceptions about research were brought out. One of the interesting ones involved the Center for Infectious Disease Research in Zambia (CIDRZ) CTU Central Laboratory. Many thought the lab as a center for Satanists, a storage for dead bodies, that their blood was being used for other bad things, etc.

Our CAB then asked the Site Staff to arrange for a tour of the lab by community members. A tour was arranged and conducted on June 26, 2011. This was one of our major activities. We will be widening our net to include journalists, men and women in uniform, church leaders, and so on.

Below are pictures that were taken during the tour.



The community members observe how some machines work.



How do you dispose of the samples? Here at the incinerator.

CCAP-RS – An Active CAB

By Julio Barros, CAB Coordinator, and Fernando Almeida, CAB Member

Porto Alegre is the capital of the southern Brazilian state of Rio Grande do Sul, with approximately 1,500,000 inhabitants. It is also fondly called "the City with a Smile," and it has one of the most beautiful sunsets in the world.

Unfortunately, recent data from the Brazilian Ministry of Health link our city with the highest incidence of morbidity and mortality in HIV/AIDS in the country. We are also the largest Brazilian city in number of reported cases of TB coinfection HIV/TB, HIV/Hepatitis.

Our research site, Conceicao Hospital (site 12201) through its Office of Infectious Diseases, serves hundreds of patients each month. We have participated in the following ACTG studies:

A5221, A5199, A5175, and HPTN 052 Called by the ACTG as A5245

In our monthly CAB meetings we have always been committed to the need for further research that can benefit our community. For us right now it would be very important if we participated in the ACTG studies below. Our PI has contacted some of the protocol chairs regarding those studies, but unfortunately, we have not been given access to the studies.

A5243, A5273, A5274, A5279, A5294, A5295, A5302

Our CAB here in Porto Alegre serves as a channel of communication between the community and the researchers. Our group is made up of volunteers from various professions, with diverse backgrounds in health promotion activities. Currently we have 10 members.

Some of our members are part of the CAB Forum of NGOs/AIDS, Metropolitan Committee on Tuberculosis. This means that our group goes beyond the follow-up research: we have decided to develop actions of prevention among vulnerable populations, especially the homeless, sex workers (women, men, and transvestites), teenagers, pregnant women, and drug users. Therefore, we can say that we are a highly active CAB.

CAB Goals

- ◇ To promote a better understanding of research and clinical trials among people living with HIV/AIDS and the community at large.
- ◇ To advise researchers in understanding the basic needs, fears, and concerns of people with HIV/AIDS and the community.
- ◇ To advise researchers in the planning and implementation of research activities and in the dissemination of research findings.
- ◇ To monitor all stages of research.
- ◇ To communicate suggestions and other data from community to researchers in order to disseminate clinical trial findings.

CAB Activities

- ◇ We inform the community about the purpose of research activities, using plain and accessible language.
- ◇ We carry out community education programs and the prevention of HIV/AIDS and other sexually transmitted diseases.
- ◇ We ensure that the rights of research volunteers and communities are respected at all stages of research.
- ◇ Currently, we follow research in the area of prevention and treatment of HIV/AIDS.

Our federal government has guaranteed all the population free and universal access to antiretroviral drugs since the nineties. For us in the community, however, it just is not enough.

Epidemiological data clearly show the situation in our city. We need new strategies, mainly for prevention and treatment.

Where We Are In Botswana

By Ernest Moseki and Best Mafoko

According to Emmanuel et al (*“What makes clinical research in developing countries ethical? the benchmarks of ethical research,”* JID 2004:89), community participation/engagement is one of the eight elements that make a clinical trial ethical. Therefore, most research sponsors including NIAID, NCI, Bill and Melinda Gates Foundation, and others require that clinical research sites have a community involvement/engagement structure. Community engagement facilitates communication between the researchers and the community and provides a community voice in the research agenda through an elaborate process of community research priorities. This has become more than just a requirement, but resources are made available at the site, regional, and network level to enable CABs to fulfill their mandate. The resources provided are mainly to ensure that the CAB is well informed on all aspects related to clinical research, including protocol reviews and readability and comprehensibility of the Informed Consent document. It goes without saying that CAB members also need basic skills in public speaking and computer operation including surfing the internet.

As part of continued skills development and our striving to ensure that our communities understand the Informed Consent document, we looked at the different consent documents that have been translated into Setswana (one of our official languages). The translation of this document is very important because it will make the potential study

participants feel comfortable and safe. The exercise went on over a few months and we noted that it is difficult to translate consent documents from the networks even when they are customized. This may be because

- ◇ Investigators may be afraid of making a lot of changes to the document
- ◇ The use of novel scientific terminologies which do not have equivalents in the local language

There is a marked difference between the written and the spoken language (Rings L. *“Authentic spoken texts as examples of language variation: grammatical, situational and culture teaching models.”* International Review of African Languages, 1992).

Since the Informed Consent document was not fully comprehensible, we propose that we be part of the translation process where we will assist to review for the document for comprehension. We request that we do this before the consent document is sent for ethical review. This will make the informed consent process more meaningful for our communities because they will understand what they are reading.

A poster for this project will be presented at the 6th EDCTP Forum scheduled for 9-12 October 2011.

Please note that our CAB covers two clinical research sites: Gaborone Prevention/Treatment Trials CRS and Molopolole Prevention/Treatment Trials CRS.

UPR-CTU 2nd Community Engagement: Learning About the Clinical Trial Process

By Carlos Vélez, CAB Chair - University of Puerto Rico

As a response to the need for more inter-network collaborations, community advisory board (CAB) members affiliated to HVTN, ACTG, IMPAACT, INSIGHT, and HPTN in Puerto Rico were invited to attend the UPR-CTU 2nd *Community Engagement: Learning about the Clinical Trial Process*. This was an initiative to disseminate new findings and interventions associated with HIV/AIDS research studies, facilitate the understanding of the clinical trials process, and assess the educational and health care needs of patients living with HIV/AIDS. The event was also part of an initiative to learn more from other networks and share information about our sites.

Research study participants, people living with HIV/AIDS, and clinic staff joined the event.

During the activity, two plenary sessions were offered by experts in HIV/AIDS research and health communication. Dr. Carmen D. Zorrilla, Principal Investigator of the University of Puerto Rico - Clinical Trials Unit (UPR-CTU), spoke about HIV/AIDS Biomedical Strategies for Prevention. Mr. Alessandro Gravina from AED – Center on AIDS & Community Health, offered an overview of the HIV vaccine research education initiatives in the United States.

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CAB members and community educators had the opportunity to explain the role of their CAB and mention to which networks they are affiliated. During the afternoon, a panel of community leaders talked about topics on the educational and research needs of the community. Among the issues discussed were recruitment and retention of CAB members, dissemination of research studies and information to the community by CAB members, and the importance HIV vaccine trials.

We have discovered the benefits of integrating our clinics through the sharing of mutual goals and objectives that translate into benefits to the community we serve. Through the years, the UPR-

CTU CABs have been sharing ideas and participating in community and educational activities such as the Puerto Rican Gay Pride Parade, the first Puerto Rican LGBTT health conference, health fairs, and World AIDS Day, among others. As we are in a time of limited resources, and with networks with similar scientific agendas, we have to progress into more collaborative agreements between clinical research sites (CRS), which is the successful key of the UPR-CTU. We know that continued efforts between the CRS, CABs, and networks will create bonds and friendships that solidify our continued relationship with the community.



PR-CRS CAB Members and Staff



A View From Rome

by Rob Camp, ACTG CAB Newsletter Reporter

The 6th International AIDS Society Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2011) was organized by the IAS in partnership with Istituto Superiore di Sanità (Italian National Institute of Health), the leading technical and scientific body of the Italian National Health Service.

IAS 2011 was chaired by IAS President Elly Katabira (Uganda) and co-chaired by Stefano Vella (Italy). There were 7482 participants, including 515 community delegates, 218 scholarship recipients (26 community scholarship recipients), 296 media delegates, and 158 volunteers. Presenters and presentations were from 142 countries – 3552 abstracts were submitted, and there were 31 satellite meetings. Oh, and to date (8 September 2011), Italy has not paid into the Global Fund for 2011, some €250 million. Shame!

IAS has >16,000 members from 196 countries working at all levels of the global response to HIV/AIDS, including researchers from all disciplines, clinicians, public health and community practitioners on the frontlines of the epidemic, as well as policy and programme planners. These groups do not give much importance to HIV community work as opposed to the community practitioners mentioned above. I just read this on the media home page (Glad I didn't see it until now!): "Priority Seating In Media Centre ... a system has been put into place to ensure that priority seating is given to journalists from traditional media outlets.

The IAS has a policy of allowing representatives from NGOs and community organizations access to the media centre in order to produce content for newsletters and other information resources. In return, **we ask that community journalists cooperate with (us) and are prepared to vacate their workspaces** during busy periods for journalists from mainstream media outlets who are working to tight deadlines." (Bold mine) I was in there every day, and while it was always close to full, it never really reached a popping point – I don't know if this little scare tactic just kept some of us away. Anyway, while I appreciate that "mainstream media" have tight deadlines, I do not think that the community's overall support for this conference and its work is less

important than anyone else's in that media room. Our reports may reach fewer people, but hopefully they reach the right people!

I would like to focus this report on what is happening in the global south. As always, I will try to help you be able to go to the IAS Rome site and get more information. I also thank the IAS for having much of this information available on its site.

A Critical Factor for Success

In session MOPD01, Human Resources, much discussion was given to by whom and how all this work is going to get done, i.e., the shortage of human resources and possible ways to alleviate it. A rigorous evaluation of "task shifting," the STRETCH trial combines on-site nurse training for initiation and renewal of antiretroviral treatment (ART) with a decentralization of care. This University of Cape Town trial in South Africa demonstrated that an intervention to shift management of HIV care and treatment to a nurse-managed approach resulted in equivalent viral load suppression (70%) 6 months after randomization in those already taking ART, but did not show an improvement in the one-year mortality rate among those on the waiting list to start ART. Approximately 19% of people in both cohorts died over the 3-year study in 31 clinics. South Africa's policy right now is to move to nurse-initiated management of ART.

Looking at Kenya and Swaziland via the MOVE (models to optimize volume and efficiency) framework suggested different approaches that countries might use, with Kenya changing policy to allow nurses to perform circumcisions, and Swaziland indentifying more nurses either unemployed or on leave who could be brought back into service with suitable incentives.

Analysis of routine data from the large ART programme in Malawi also addressed the question of devolving responsibility to nurses. With 1 million people living with HIV and just two doctors (!), seven clinical officers (CO), seven medical assistants (MA) and 37 nurses per 100,000, Malawi is facing an HIV and human resources crisis. MSF (Médecins sans Frontières, Doctors without Borders) showed that

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retention was higher for people treated by nurses or nurses/medical assistants versus clinical officers only ($P < 0.001$).

Decentralization (WEAD01)

Another way to trim costs is to decentralize services in order to increase coverage, which of course has an impact on laboratory services and outcomes like adherence and retention. The focus needs to be on quality management and local capacity.

The University of Maryland has successfully built local laboratory capacity (including HIV testing, staging, OIs, therapy monitoring) in six African countries in the last 7 years, including in rural areas. 1152 professionals have been trained and external quality assurance instituted.

The use of dried blood spots for monitoring resistance in rural settings looked at 84 cases in South Africa (people with viral rebound after 1 year on ART). The spots were sent to Utrecht, Netherlands, by airmail and the individual report with clinical virology input was sent back by e-mail within 3 weeks.

Care and Treatment

In pediatric care and treatment, routine data on indicators was collected in 274 public facilities in Kenya, Lesotho, Mozambique, Rwanda, and Tanzania. They compared pediatric enrollment, ART initiation, lost to follow-up (LTF), and mortality between 182 primary health facilities and 92 secondary/tertiary facilities: 17,155 children were enrolled in care, and 8475 were on ART. Mortality and LTF are significantly lower in primary than in secondary health centers. There were also large differences between the countries, with LTF 4 to 16 times higher than the Rwandan data, and mortality around half as high in Rwanda as in the other countries.

Within a large ongoing study of decentralization in rural South Africa, a cross-sectional sample was chosen to measure access and utilization of care. They compared 109 "down-referred" people (people referred from hospital to primary care center) to 312 "hospital-based" people (no referrals). Down-referred status was associated with less waiting times, less travel time, less meal costs, and reduced community stigma, but people reported that they still prefer to see doctors, had less knowledge of their

CD4+ status, used private providers and self-care more, and had more episodes of catastrophic expenditure.

The impact on recruitment and retention was looked at in Lesotho in an observational cohort (2006-2010) of people accessing ART in two rural areas, while ART was being decentralized to nurse-led facilities. There was a rapid increase in recruitment. Decentralization allowed people to start treatment earlier, with fewer immediately LTF (10% down to 5%). However, there was no improvement in retention at one year (around 75%).

Integration of HIV treatment in primary health care centers impacts attrition in Central Mozambique (TUAD0102). The University of Washington with the Mozambique Ministry of Health tried to examine the relationship of clinic characteristics with patient attrition from HIV treatment programs. 11,793 people from 18 clinics were looked at. The overall attrition rate was 39.22 per 100 person-years. People attending vertical clinics had a lower risk of attrition.

Though not statistically significant, people attending urban clinics and clinics open for longer than 6 months also had a lower risk of attrition. Using primary health clinics to implement ART is necessary to reach higher levels of coverage; however, monitoring the quality of care provided at the clinics is essential. Further implementation efforts should develop strategies to improve patient retention in these clinics.

Patient advocate (PA) support sustains improved 3-year outcomes for children (TUAD0103). PAs provide education and psychosocial support for caregivers of children on ART, through regular home visits to assess and address adherence challenges. Of 3563 children evaluated by the University of Cape Town, 323 (9.1%) received PA support. Median treatment initiation age was 6.3 years. Total observation time was 4670 person-years. Retention estimates after 3 years of ART were 91.5% and 81.1% in children with and without PAs, respectively ($P=0.0006$). Corrected mortality estimates at 3 years were 3.3% and 7.9% in children with and without PAs, respectively ($P=0.034$), adjusting for all baseline variables. The scale-up of this intervention as part of task-shifting may play an important role in long-term successes of pediatric ART programs in low-income settings.

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Integrating the basic care and prevention package (BCP) into care and treatment services for HIV-infected people was studied in Uganda (WEPDD0101). The BCP includes a safe water system, condoms, and materials on how to prevent OIs and HIV transmission. In addition to the BCP, trained health providers and peer educators provide multi-channeled communication on prevention of OIs, family planning, palliative care, TB/HIV, and nutrition during routine HIV primary care visits to PLWH. A nationally representative sample of 2567 PLWHs who had received BCP was recruited from 50 PLWH sites through a cross-sectional survey. Interventions significantly improved positive behavior over time including daily use of co-trimoxazole from 68.5% at baseline to 96.6%, point of use water treatment from 67.2% to 87.3%, and consistent use of condoms with a casual partner from 48.4% to 80.6%. Integrating BCP-like interventions into care and treatment services improves uptake of products, services and increased positive prevention behavior. A BCP should be integrated as an emerging service.

Risk factors for LTF prior to ART initiation with CD4 cell count >200 cells/ μ L (WELBD04) from 2776 people (2114 women and 662 men) enrolled in the MTCT-Plus Initiative (7 sub-Saharan African countries and Thailand) with >1 clinical visit, and a baseline CD4 ≥ 200 at enrollment (437 for women and 392 for men). At 12 months the proportion LTF was 9.6%; it was significantly higher among women (10.4%) than men (7.1%).

Among women, factors associated with a higher likelihood of LTF included younger age, higher baseline CD4 count, and being pregnant at the last clinic visit. Higher WHO stage at last visit, electricity in the home and a family/household member enrolled in the program were protective. Among males, younger age was associated with increased LTF, while higher WHO stage at last visit, electricity in the home, and living in a household with more than four people were associated with a lower LTF. Socioeconomic status and social support may be important determinants of program retention in people not yet eligible for ART. Among women of childbearing age, counseling and strategies for sustaining HIV care during and after pregnancy would probably be helpful.

Point of care CD4 testing in Ethiopia (WELBD05) was analyzed by the Ethiopian Health and Nutrition Research Institute. The PIMA CD4 machine demonstrated very high similarity and acceptably low levels of bias against the currently available standard CD4 machines (FACSCalibur and FACSCount machines). High potential was seen for the expansion of on-site CD4 testing services to health center level, so people can obtain their CD4 test results within 30 minutes. Minimal training needed to operate the machine, reducing costs of patient or sample referral, patients lost to follow-up, and of the cold chain system to transport and store the reagents are the major advantages that justify the use.

Adherence and quality of care through mobile technology and patient education was the theme of MOWSO2. Flexible adherence programs that can be adapted and individualized to particular profiles with additional components (e.g., substance use treatment, sexual health counseling) seem to have a better impact. Mobile phones seem to be effective when the patient has a positive perception and relationship with the provider. Mobile phone interventions need to be context-specific. For example, in Bangalore, cell phone intervention did not work because people share mobile phones and also prefer a voice message to texting. Instead of daily reminders, a weekly reminder from the provider may help continue motivation to adhere because the patient values the relationship with the provider and daily reminders can be provided by others. Social structures and community environment in individual adherence need to be explored. Adherence for children and adolescents is a new issue, as is adherence to drugs for prevention (versus treatment), with different risk characteristics and motivations. *For more details, see the Chart on page 12.*

Retention in Care (TUAD01)

Five oral presentations addressing interventions/processes for improving adherence: integration of HIV in primary health centers, empowering people and community, and improving capacities in data analysis.

Empowering Communities

North Uganda focused on a program targeting HIV-positive young people (15-24) in a post-conflict context in order to better address their needs:

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increase community awareness; and strengthen families and communities to provide a good environment and support. This all happened via training of volunteers and care providers, dialogue, and sensitization. A total of 2500 youths were tested, and 125 young HIV-positive people enrolled in care and follow-up to monitor support systems.

In Malawi community health workers encouraged improvements in case-finding for children and linkage to care. They subsequently moved to improve the prevention of mother-to-child transmission (PMTCT) "cascade" to reduce drop-out and saw the number of women returning for CD4 results climb from 31% to 95%.

In South Africa an interesting study compared the impact on retention and mortality of a community-based adherence support program for HIV-positive children (<16). The program uses patient advocates (PAs) also known as caregivers, and 323 children received PA support. Retention in care after 3 years is excellent (91.5% for those with PA and 81.1% for others) and mortality was respectively 3.1% and 7.9%.

Sharing Data Use and Analysis

In Cape Town and Lesotho the Mothers-2-Mothers project implemented continuous quality improvement using client and program data. Professionals who collect and report data are involved in the review and use it for evidence-based actions. Examples of achievements in PMTCT areas are increased use of prophylaxis and more access to CD4 results. Involving professionals at all levels to analyze and use data for action has a demonstrated impact on outcomes.

Integration of ART Care

Widespread scale-up of ART services in Mozambique has been achieved by integrating services within 229 primary health care clinics. The Pangea project carried out a comparison between cohorts of people in stand-alone HIV clinics versus those in integrated clinics, and it showed that although integration was essential for scale-up, attrition rates were lower in the "vertical" stand-alones.

The session discussion focused on the role of NGOs (non-governmental organizations) in delivering services, whether they can support government services and ensure sustainability. Analyzing the data in order to generate robust evidence of impact is fundamental.

Susceptibility to Transmit (MOAC02)

CDC-South Africa presented results from the first national impact evaluation of a PMTCT program. After 9 years of implementing a national PMTCT program, the transmission rate among infants attending their first immunization visit at age 4-8 weeks was just under 4%. They suggested reducing unplanned pregnancies and reducing mixed feeding to further reduce MTCT rates.

Early Infant HIV Diagnosis and Treatment in Malawi (MOPDD0206)

Infants with confirmed HIV infection were referred for ART on site or at an outpatient ART clinic. Of the 7570 women participating, 16.6% (n=1257) were identified as HIV positive. Of all HIV-exposed infants, 891 (70.9%) presented for diagnosis; 14.4% (128/891) infants tested positive. Despite active tracing, only 89% (114/128) of children were informed of their positive result. Re-testing and viral load in 101 infants confirmed infection in 82 of them and indicated 19 false positive results, corresponding to a positive predictive value (PPV) of the initial dried blood spot of 81% and an estimated HIV incidence of 11.6%. Of 67 infected infants with follow-up information available, 48 (71.6%) initiated ART at a median age of 4.7 months, 10 (14.9%) died before ART initiation, 3 refused ART, and 6 were awaiting ART initiation. A substantial proportion of children are lost at each step of the diagnosis and treatment program. Tools with higher positive predictive value and point-of-care capacity as well as increased infrastructure for infant ART are needed to improve access of HIV-positive infants to early ART.

PMTCT Impact Satellite Session

The impact of PMTCT programs at a national level is seldom measured. The Global Plan to eliminate MTCT was launched in June 2011 setting ambitious international targets such as a reduction in new child

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HIV infections by 90% and a reduction in mother-to-child transmission to less than 5%. Currently, there are no standardized, internationally recognized methods for measuring national mother-to-child transmission rates and PMTCT program impact.

The problem of lost-to-follow-up has been hampering PMTCT evaluation efforts for the past decade.

Five approaches were discussed: modeling; identifying HIV-positive pregnant women to create a prospective or retrospective cohort of mother-infant pairs; assessing HIV exposure and infection status of infants at immunization settings; population-based surveys; and using early infant diagnosis or testing data.

In South Africa, they showed that a questionnaire and surveys allow the assessment of outcomes of a nationally representative sample of children attending immunization visits, including infants and mothers who are unaware of their HIV status and never accessed or were lost to follow-up from PMTCT interventions.

TB Testing

The cost-effectiveness of rapid TB testing for clients initiating ART was evaluated using a mathematical model to estimate projected life expectancy and cost-effectiveness compared with sputum testing or no testing. They found that rapid testing is generally cost-effective in settings with TB prevalence of 10% or higher, but in discussion noted that the intervention may be less cost-effective in settings with high prevalence of multi-drug resistant TB because of the high treatment costs.

The TB Paradox (WEAX01)

Multi-drug resistant TB is now 5%, and TB is the second most common IRIS (immune reconstitution inflammatory syndrome) -associated disease, accounting for 20% of reported IRIS cases in unselected studies of people starting ART and is the commonest in resource-limited settings. Recently, several studies have tried to assess the advantage of early ART in HIV-positive people with TB. The concerns about paradoxical TB-IRIS may represent a barrier to early treatment, in particular in people with very low CD4 cell counts.

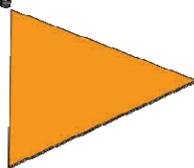
How to improve adherence

Patient factors:

- Treatment preparedness; knowledge about HAART, encourage disclosure
- Treat depression
- Minimise alcohol / drug use
- Food security
- Pregnancy
- Adolescence
- Stigma

Provider factors:

- Maximise clinician experience
- Supportive and caring programme
- Monitor adherence and act on problems early
- Clinics easily accessible (in place and time!) – cost to patient.



Medication factors:

- No stock outs
- Minimise no. of tablets and doses
- Minimise diet restrictions & fluid requirements
- Minimise adverse effects

From Linda-Gail Bekker, Desmond Tutu HIV Foundation, Youth, Cape Town, South Africa

(View from Rome, Continued on page 13)

(View from Rome, Continued from page 12)

Access to Meeting Materials

The talks and presentations below can be accessed at <http://pag.ias2011.org/>. When you put the numbers below in parentheses in the search box, the result will come out either under “sessions” or “abstracts” (the gold or magenta boxes), which you will then need to click again. Then and only then will the result come out in the large white box in the center, which you then have to hit again in order to open the full text. As easy as everything else at IAS! Many of these have slide shows and some even voice presentations. Enjoy!

- ◆ Transitioning from d4T to TDF (MOPE230), ◆ Survival in DRC Children on ART (MOPE239), ◆ Predictors of outcomes of ART in Cote d'Ivoire children (MOPE242), ◆ Optimal multidisciplinary care teams (MOPE422), ◆ MOPDD0104 - Poster Discussion, ◆ MOPDD0105 - Poster Discussion, Assessing the quality of ART services Burkina Faso (MOPE423),
- ◆ Decentralized testing Malawi (MOPE424), ◆ Uptake in services Nigeria (MOPE425), ◆ Costs and efficiencies Cote d'Ivoire (MOPE427), ◆ Targeted adherence Zimbabwe (MOPE429), ◆ Referral networks Nigeria (MOPE437), ◆ NGO vs government services Uganda (MOPE431), ◆ Novel tracking approaches Nigeria (MOPE433), ◆ MTCT Prevention money Tanzania (MOPE434), ◆ Undiagnosed treatment failures Uganda (MOPE435), ◆ 6-month monitoring Malawi (MOPE436), ◆ Referral networks Nigeria (MOPE437), ◆ Clinic attendance attrition Kenya (MOPE440), ◆ Health-system strengthening Malawi (MOPE444), ◆ Monitoring patient outcomes Uganda (MOPE446), ◆ Rural CD4 testing Uganda (MOPE 449), ◆ POC CD4 counts South Africa (MOPE450), ◆ Lab service strengthening Zambia (MOPE451), ◆ Money to scale up pediatrics in Tanzania (MOPE458), ◆ Community health workers Malawi (MOPE460), ◆ Starting treatment early (on-time) Malawi (MOPE465), ◆ Tracing ART defaulters South Africa (MOPE466), ◆ Pharmacy adherence measurements Brasil (MOPE470), ◆ Pill counting India (MOPE474), ◆ Keeping kids in a trial South Africa (MOPE475), ◆ Illustrated patient information South Africa (MOPE476), ◆ Why stop treatment Malawi (MOPE481), ◆ Patient-held cards (MOPE485), ◆ Challenges to treatment and care RLS Ivory Coast (TUPL01), ◆ Monitoring and ART outcomes IdEA (TUPDB01), ◆ 10 years of scale up (TUSY05), TB (PE155-164), ◆ Prevention science in infants (PE267-278), ◆ PMTCT Increasing coverage and quality (PE283-333),
- ◆ Cost-effectiveness of operations research, Tanzania (TUPE420), ◆ Patient escort service Nigeria (TUPE423), ◆ Expert patient program Malawi (TUPE430), ◆ Task shifting Kenya (TUPE431), ◆ Underreporting of side effects Malawi (TUPE441), ◆ Mobile phone to integrate care (TUPE444), ◆ Implementing WHO Paed guidelines Uganda (TUPE446), ◆ Care and treatment coverage Tanzania (TUPE451), ◆ High LTF Tanzania (TUPE452), ◆ WHO Paed guidelines Zimbabwe (TUPE457), ◆ Routine data collection ESTHER (TUPE458), ◆ TB/HIV in LRS (TUPE460), ◆ Reducing LTF Nigeria (TUPE468), ◆ TB/HIV integrated care (TUPE472), ◆ HIV/TB Kenya (TUPE478), ◆ Missed opportunities TB/HIV women Nigeria (TUPE479), ◆ STI-HIV trials – not conclusive (TUPE481), ◆ Poverty alleviation Uganda (TUPE490), ◆ When to start WHO Ethiopia (TUPE496), ◆ Sustainable financing (TUPE497), ◆ WHO guidelines costs Tanzania (TUPE498),
- ◆ Sustainable policies South Africa (TUPE499), ◆ The TB Paradox (WEAX01), ◆ The economic crisis' impact (WESY02),
- ◆ Adherence South Africa (TULBPE050), ◆ Not treating all pregnant women (TULBPE056), ◆ Paed ARV Zimbabwe (TULBPE057), ◆ Improving services Mozambique (TULBPE060), ◆ Expanding services South Africa (TULBPE061), ◆ POC CD4 testing Mozambique (TULBPE065).

What About Prevention, PrEP, Microbicides, the Cure?

Partners PrEP, the CDC TDF2 study, and the HPTN 052 study were presented. If you haven't already, please sign up to the IRMA blog for all kinds of prevention information, <http://www.rectalmicrobicides.org/>. From Rome, please look for Treatment as Prevention (TUSS01), ◆ ARVs in Prevention (TUBS02), ◆ PEP Knowledge South Africa (TUPE434), ◆ PEP South Africa (TUPE461), ◆ Towards a Cure (WEPL01, WESY01, WEWS03), ◆ Treatment as Prevention (MOAX01), ◆ TDF2 Study Botswana (WELBC), ◆ PrEP (PE034, 035, 036, 037, 038, 039, 040), ◆ Prevention interventions (MOLBPE048).

Warren Mitchell from AVAC gave us a reading list – AIDS: Let Science Inform Policy, *Science*, 1 July 2011; Antiretroviral Prophylaxis: A Defining Moment in HIV Control, *Lancet*, 15 July 2011; Towards an Improved Investment Approach for an Effective Response to HIV/AIDS, *Lancet*, 3 June 2011; We can end the epidemic, www.endtheepidemic.org, <http://www.avac.org/index.php>

News Reports by NAM

NAM is offering news stories on major scientific presentations on <http://www.aidsmap.com/news/Conference-news/>

From Rome with Data Optimism at IAS 2011 about the Prospects of Developing a Functional Cure with Advances in Basic Science and Drug Development

By David Miller, Mariel Selbovitz, and Jeannie Gibbs
Cornell ACTG CAB

Since the first International AIDS Conference in 1985 in Atlanta, advances presented at conferences bring us closer to ending the AIDS pandemic. Most recently, the 6th IAS Conference on HIV Pathogenesis, Treatment and Prevention, was held July 17-20, 2011, in Rome.

Not since the 11th International Conference on AIDS, has there been as much excitement focused on HIV research. The worldwide attention on the first functional cure of Timothy Brown, aka The Berlin Patient, reenergized the discussion of working for a cure. With the PrEP and Treatment as Prevention studies showing possibilities for reducing HIV infection, a new hope has swept the HIV scientific and patient/activist communities. As such and with IAS 2011 boasting 50 sessions, 9 plenaries, 3552 abstracts, and 31 satellite sessions, lets ensure other valuable research not be overshadowed.

Presentations from the US at IAS 2011 by CDC officials, NIH researchers, advocates, clinicians, and providers addressed the Global Fund for AIDS, TB, and Malaria, the Presidents Emergency Program for AIDS Relief, domestic epidemiology, and the AIDS Clinical Trials Group, the largest publicly funded clinical research program in the world.

Numerous presentations at IAS 2011 on HIV cure research discussed strategies exploring the reduction of HIV in reservoirs via the activation of latently infected cells, the boosting of HIV specific immune responses as well as reducing residual immune activation and inflammation in HIV patients. A functional cure will not completely eliminate HIV from the body, but is intended to durably suppress viral replication and diminish viral presence in reservoirs.

The Rome Cure Statement calls for the advancement of a functional cure for HIV. It contends that, while the benefit of antiretroviral treatment is irrefutable, the life-long requirement of continued treatment is unsustainable. The Rome Cure Statement calls for "committing to stimulating international and multidisciplinary research collaborations in the field of HIV cure research" and working to encourage governments, organizations, and stakeholders to accelerate research.

You can join almost 5000 researchers, organizations, individuals, IAS members, government officials, and others who have endorsed the statement at: <http://www.iasociety.org/Default.aspx?pageId=583>

Strategies at IAS 2011 included treatment intensification to successfully control viral replication by eliminating latently infected cells and immune-based therapies to preserve or restore HIV-specific T cell responses (i.e., therapeutic vaccines and cell and gene therapies) to control HIV through potent and long-lasting HIV-specific T-cell responses.

On Thursday, July 21, 2011, "Towards an HIV Cure Global Scientific Strategy: International Working Group and Stakeholders' Advisory Board Meeting," was held. Following the success of "Towards a Cure: HIV Reservoirs and Strategies to Control Them," a workshop held by IAS prior to the XVIII International AIDS Conference (AIDS 2010) last July in Vienna, the IAS is mobilizing the scientific community to guide development of a global scientific strategy towards an HIV cure. An international scientific working group and stakeholders' advisory board are developing a global scientific strategy.

Many presentations at IAS 2011 identified new therapies, in various stages of maturity, for controlling HIV replication through novel advances such as:

- ◇ Purine dioxides¹ and the design of immunogens that can elicit effective immunological response to HIV-2
- ◇ The potential of new compounds, such as oligonucleotides, to inhibit HIV replication at the point of viral integration
- ◇ New understandings of viral gene expression, allowing for HIV to overcome host defense mechanisms

The National Association of People With AIDS (NAPWA) "Treatment Horizons: Pathways to a Functional Cure" satellite symposium, produced with staff at Health People, an AIDS service organization in the South Bronx, focused on therapeutic vaccines, gene therapy, new antiretrovirals, and other treatment advances in clinical development. This satellite

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symposium by NAPWA is the third in a series of community forums. It was preceded by NAPWA programs at The 18th International AIDS Conference in Vienna in July 2010 and at the DART 2010 Conference in Los Cabos. The forum presented data on:

- ◇ Cenicriviroc, a phase IIb CCR5/CCR2 antagonist developed by Tobira Therapeutics
- ◇ Apricitabine (ATC), a phase III NRTI with a favorable resistance profile developed by Avexa
- ◇ VRX492, a phase IIb therapeutic vaccine to induce cell-mediated immunity and VRX1273, a preclinical therapeutic vaccine, in development by VIRxSYS
- ◇ APH-0812, a phase I therapeutic being studied for HIV latency in development by Aphios
- ◇ CL1285, a marketed probiotic formula to restore gut health made by Bio-K+
- ◇ MuscleGel, a whey protein gel supplement that provides 22 grams of whey protein isolate to help maintain and restore muscle

Other sessions provided updates on Dolutegravir (DTG, S/GSK1349572) made by GlaxoSmithKline (GSK), a next generation integrase inhibitor, and Lersivirine (UK-453,061) made by Pfizer, in phase IIb and VS411, a new class of antiviral/immune therapy in phase IIa. A late-breaker abstract was presented by ViroStatics' Chief Executive Officer, Dr. Franco Lori, entitled "Depletion of Naive CD4+T Cell Compartment by Immune Hyperactivation Can be Reversed by AntiViral-Hyper-Activation Limiting Therapeutics (AV-HALTs)."

"New Concepts in HIV Immunopathogenesis, Treatment and Vaccines" a pre-conference meeting held at the Istituto Superiore di Sanità (ISS), stimulated debate in four critical areas of research; infection: immunopathogenesis, new concepts in vaccine strategies, eradication of virus reservoirs, and molecular mechanisms of viral control. The meeting provided an opportunity for discussion between prominent vaccine and treatment specialists and basic scientists to advance research.

The growing rate of MDR TB was presented in several studies focused on Africa such as those performed at The DOTS (directly observed therapy-short course) clinic of the Nigerian Institute of Medical Research (NIMR) and the Bwaila-Kamuzu Central Hospital (KCH) inpatient tuberculosis ward in Malawi. Researchers found the prevalence of MDR TB to be

approximately 5%, the regions average. More research needs to be performed on new agents to confront MDR/XDR TB such as defensin-mimetic antibiotic compound, PMX-30063, made by Polymedix, which is currently in phase I.

The AmFAR, "Controversies in Cure Research Satellite Symposium," included Mario Stevenson presenting on ongoing replication, Keith R. Jerome and Sharon Lewin discussing gene therapy as a cure for HIV, and Guido Silvestri and Alan Landay questioning animal models in planning research on viral eradication.

There were several sessions including "From Proof to Delivery: Scaling up HIV Prevention for Women: Delivering the First Microbicide in Africa" and "What Does the Future of ARV-based Prevention Look Like?" which discussed the use of microbicides. These included discussions regarding the continued development and distribution of the TNF gel used in the CAPRISA 004 study as well as the development of additional agents and how to use our knowledge of PrEP in partnership with microbicide implementation. The lack of mention of ICP-0528, an antiviral being studied as a microbicide as well an oral antiviral, was judicious due to the federal investment in this compound.

"Premature Aging with HIV: Translating Science into Clinical Practice" discussed some of the causes and effects of inflammation and ART's on aging. Several other sessions addressed this issue, which has evolved into a vital concern of patients receiving and awaiting access to antiretrovirals.

At "Biologic Insights: Interventions for HIV Transmission," a presentation on the association of bacterial vaginosis with female-to-male HIV-1 transmission among HIV-1 discordant couples in Sub-Saharan Africa demonstrated for the first time in a large study, that bacterial vaginosis in HIV-positive women conferred HIV transmission to their male partners. Normalization of vaginal flora in HIV-1 infected women could mitigate female-to-male HIV-1 transmission. Cost-effective methods of increasing flora, with pre- and probiotic formulas such as CL1285 and NR100157, should be studied in women with bacterial vaginosis.

And while many European studies were presented at IAS 2011 by the European HIV/AIDS research programs, Europrise, The European AIDS Treatment

(Rome Data, Continued on page 16)

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Network (NEAT), the European and the Developing Countries Clinical Trials Partnership (EDCTP), the news by the Italian government just prior to the launch of IAS 2011 is disparaging to say the least, particularly in light of recent advances. The National AIDS Research Program at the Istituto Superiore di Sanità (ISS), the equivalent of the US National Institutes of Health, which at its peak in the 1990s, received €25 million a year, has discontinued its HIV research initiatives. Italy's commitment to HIV research and treatment has been faltering lately. Italy is the only G8 country that has not recently contributed to the Global Fund to Fight AIDS, Tuberculosis and Malaria. Currently, no plan exists with the ISS, the Italian government, the EU, or the US to address these devastating budget cuts, preserve research initiatives extending beyond current funding cycles, or translate promising investigations to the NIH and other research institutions. Many governmental institutions globally are experiencing unprecedented budget reductions during the current financial crisis, a trend. Without further facilitation from public and private sources,

the majority of these compelling investigations will not be pursued further.

HIV research in this unstable economy is destabilizing the future of important research critical for the continuation of current research and for further advances to end the AIDS pandemic. While recent therapeutic success has driven research on a functional cure closer to reality, basic understanding on controlling HIV persistence, despite effective advances in HAART, has to translate into studies. Therapeutic approaches such as Sagamo's SB-728, a gene therapy in phase I/II; AGS-004 by Argos Therapeutics, an autologous cell therapy in phase II; Virologix's antiviral proteomic therapy, PS-341; Imqust's IQP 0528, which is about to begin phase I clinical trials; Koronus' viral decay accelerator, KP-1461, in phase IIa; and Adaptamune's phase I T-cell receptor therapy are contributing to the development of an effective functional cure and require further investigation.

IAS 2013 is scheduled to be held in Kuala Lumpur, Malaysia, June 30 to July 3, 2013.

NOTE: Articles for the December Edition are requested by November 30, 2011

