

Awa Aïdara-Kane <sup>1</sup>, P.S. Sow <sup>2</sup>, J.L. Perret <sup>2</sup>, C. Mossoro <sup>3</sup>, P. Yassibanda <sup>3</sup>, P. Minssart <sup>3</sup>, J. Morvan <sup>3</sup>, Y. Germani <sup>3</sup>

**Therapeutic efficiency evaluation of two algorithms developed for the management of HIV-related diarrhea in Bangui (Central African Republic) and Dakar (Senegal)**  
**[MoPeB2256]**

<sup>1</sup> Institut Pasteur de Dakar, 36, Avenue Pasteur, BP 220 Dakar, Senegal

<sup>2</sup> Senegal

<sup>3</sup> Central African Republic

*Issues:* HIV-infected adult diarrhea is a major public health problem in Africa, having in view its high frequency and the often failures in the actual UN-AIDS algorithms. The aim of this study was to propose to the practitioner an informed and proved working tool in the purpose to improve the management of AIDS-related diarrhea. The subjects were submitted to clinical examination and blood and stool specimens were taken.

*Description:* Two algorithms were established accordingly with epidemiological and clinical informations, macroscopic and microscopic stool examinations. The first results are given within 3 hours. In the case of an negative result, the algorithm provides an result in 24 to 72 hours. At the same time, standard stool culture and other laboratory testing (HIV serological status, RBC, CD4 cell count, blood proteins) are performed. Meanwhile, the patient rehydration is started. A control stool culture is done at the end of the treatment.

Out of the 164 patients included in our study, 64 (39 %) presented with acute diarrhea and 100 (61%) with chronic diarrhea. Following the acute diarrhea algorithm, the etiological diagnosis was established in 39 (61%) cases. The 39 patients were submitted to the treatment and the recovering of health condition was obtained in 34 (87.2%) cases, giving a global therapeutic efficacy of 53.1%. For the chronic diarrhea proposed algorithm, the diagnosis was established in 59 (%) cases, all of them being consequently submitted to the treatment with a recovering rate of 86.4% (51 cases) and a global therapeutic efficacy of 51%. The therapeutic efficacy for the found etiologies was of 100% in bacteriology and mycology and of 85.7% in parasitology (in this latter case we were confronted with a 7.15% rate of relapse and a 7.15% treatment failure).

*Conclusion:* The algorithms developed presented a diagnosis efficacy of 60%, a global therapeutic efficacy of 52.1% and an etiologically targeted therapeutic efficacy of 80.7% as compared with the current UN- AIDS algorithms which are registering a failure rate superior to 70%.

*Presenting author:* Awa Aïdara-Kane, Institut Pasteur de Dakar, 36, Avenue Pasteur, BP 220 Dakar, Senegal, Tel.: +(221) 839 92 35, Fax: +(221) 839 92 36, E-mail: [aidarawa@pasteur.sn](mailto:aidarawa@pasteur.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

A. S. Alabi <sup>1</sup>, T. Blanchard <sup>2</sup>, K. Ariyoshi <sup>3</sup>, N. Berry <sup>4</sup>, A. Jaye <sup>2</sup>, H. Whittle <sup>2</sup>

**Relationship between HIV-1 and HIV-2 viral load differs in HIV monotypic and dual infections**  
**[TuPeA3081]**

<sup>1</sup> MRC Laboratories, PO Box 273, Banjul, *Gambia*

<sup>2</sup> MRC Laboratories, Banjul, *Gambia*

<sup>3</sup> Nat. Inst. of Infect. Dis., Tokyo, Japan

<sup>4</sup> Nat. Inst. of Biol. Standards, United Kingdom

*Background:* Understanding the interaction between HIV-1 and HIV-2 is important to elucidate the reason for the observed differences in prognosis and virulence of the two viruses. It also holds potential in the quest for an effective HIV vaccine. We had shown strong cross reaction between HIV-2 and HIV-1 through HLA B58 and B53, and we now report on HIV-1 and HIV-2 proviral and plasma virus load in HIV dually infected individuals.

*Methods:* These 81 dually infected subjects were part of our clinical cohort at the GUM/STD Clinic in Fajara. Dual infections were confirmed by serology (ELISA and PEPTILAV), and by nested PCR. Proviral DNA copies/105 PBMCs was quantitated by PCR using HIV-1 or HIV-2 specific primers to the LTR. HIV RNA copies/ml of plasma was measured using an in-house quantitative RT-PCR assay.

*Results:* HIV-1 proviral and plasma RNA levels were significantly higher than that of HIV-2. Geometric mean DNA load were: HIV-1 = 110.24 (CI 69.7-174.1), HIV-2 = 4.87 (CI 2.9-8.9). Geometric mean RNA load were: HIV-1 = 648745.1 (CI 430918.2959287.5), HIV-2 = 4162.35 (CI 2274.7-7705.6). Compared with our earlier report on virus load in HIV single infections, HIV-1 RNA load was significantly enhanced while HIV-2 RNA load appeared suppressed in these dual infections.

*Conclusion:* Apparent suppression of HIV-2 in dual infections may be due to a more efficient replication of HIV-1; or the immune response may preferentially suppress HIV-2. Longitudinal follow-up will be needed to clarify these interactions, though these patients were likely to have been infected first with HIV-2.

*Presenting author:* A. S. Alabi, MRC Laboratories, PO Box 273, Banjul, **Gambia**, Tel.: +220 495 442, Fax: +220 496 513, E-mail: [aalabi@mrc.gm](mailto:aalabi@mrc.gm)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*D. Bal*<sup>1</sup>, *O. Sylla*<sup>2</sup>, *M. Gentilini*<sup>3</sup>, *M.A. Toure*<sup>4</sup>, *S. Badiane*<sup>5</sup>

**Accopaniment and support for living with HIV through home visits an focus groups: the experience of the ambulatory treatment center of dakar [WePeD4518]**

<sup>1</sup> PO Box 16760, Dakar, Senegal

<sup>2</sup> Service de Psychiatrie - CHU de Fann, Dakar, Senegal

<sup>3</sup> Opals/Croix Rouge Francaise, Paris, Senegal

<sup>4</sup> Dakar, Senegal

<sup>5</sup> Service des Maladies Infectieuses - CHU de Fann, Dakar, Senegal

*Background:* The social activities of the Ambulatory Treatment Center include counselling as well as social and peer support. They aim to promote the integration of people living with HIV within the family and to impulse group dynamic and promote peer support.

*Description:* The Ambulatory Treatment Center (CTA) of Dakar started its activities in July 1998. Patients social follow-up is based on individual interviews, home visits and organization of support groups.

Two home visits per week are performed by social workers : to provide social support to the patient within the framework of the family, to boost patients lost of follow-up and to help families in overcoming conflicts stemming from one's seropositivity. Focus groups and peer support groups are organized twice per month. The participants are recruited on a voluntary basis and various themes related to HIV/AIDS are discussed. Different groups are composed. One is specific for patients under antiretroviral therapy. The CTA staff plays the role of facilitators in these meetings.

*Results:* Home visits allow the patient to manage better his/her relationships with his/her entourage, and to implicate more the family.

The exchanges of real-life experiences of people living with HIV through support groups contribute to the positive acceptance of illness.

Sharing of information and confidentiality are the issues the most frequently discussed. They seem to constitute an obstacle which people living with HIV in Senegal must face on a daily basis.

*Presenting author:* D. Bal, PO Box 16760, Dakar, Senegal, Tel.: +221 825 06 62, Fax: +221 825 36 95, E-mail: [opals@telecomplus.sn](mailto:opals@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*S. Bertozzi*<sup>1</sup>, *J.P. Gutierrez*<sup>2</sup>

**Resource requirements for HIV prevention in Africa: a modeling approach based on the successful programs in Uganda and Senegal [TuOrE454]**

<sup>1</sup> *Av. Universidad 655, Cuernavaca, Morelos, 62508, Mexico*

<sup>2</sup> *National Institute of Public Health, Cuernavaca, Mexico*

*Background:* With the renewed international interest in addressing the epidemic in sub-Saharan Africa (SSA) comes renewed interest in the question: how much is needed in prevention funding to make a difference? The existing literature has sought to answer the question by estimating the cost of implementing a package of prevention interventions at relevant scale. This approach is an attempt to validate that approach not by costing a package of interventions but by estimating how much it would cost other African countries to implement a prevention package at the same scale as Uganda and Senegal's using data from the UNAIDS/Harvard financing study. Why those two countries? Because their AIDS programs have the reputation of being comparatively successful and because they are also two of the four countries in Africa estimated to have spent more than \$40 on AIDS per PWhA in 1996.

*Methods:* The estimated cost of the Uganda program was extrapolated to the remainder of SSA after adjusting for fixed costs, population size, relative wages and prices, difficulty in geographical access, literacy, unexplained fertility (as a proxy for sociocultural receptivity to HIV/AIDS prevention), and proportion of HIV/AIDS funds likely diverted to other uses. Parameter weights were guided by the cost of the program in Senegal.

*Results:* Although any such estimates can only be indicative and are by their nature highly imprecise, the modeling results suggest that an annual investment in the neighborhood of one billion dollars would be able to reproduce a level of effort across SSA comparable to that which has been achieved in Uganda and Senegal.

*Discussion:* Several approaches, of which this is one, suggest that an investment in HIV/AIDS prevention that is modest by any reasonable international scale could significantly alter the course of the African epidemic.

*Presenting author:* S. Bertozzi, Av. Universidad 655, Cuernavaca, Morelos, 62508, Mexico, Tel.: +52 7 311 37 83, Fax: +52 7 311 11 56, E-mail: [sbortozzi@insp.mx](mailto:sbertozzi@insp.mx)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*M. Cisse Thiolye*<sup>1</sup>, *I.N. Ibra*<sup>2</sup>, *M. Antoine*<sup>3</sup>

**Problems in notifying a serologic status to the regular partners of HIV positive prostitutes registered in STD Center of Dakar/Senegal [WePeD4792]**

<sup>1</sup> *Centre MST/SIDA, Polyclinique, Rue Ix Blaise Diagne, PO Box 7045, Senegal*

<sup>2</sup> *National AIDS Control, BP 3435 Dakan*

<sup>3</sup> *Centre of STD/AIDS, Dakar, Senegal*

*Introduction:* Since the advent of AIDS, registration for the sanitary and social index has obligatorily been accompanied by an agreement card read and approved by the prostitute. Each HIV positive prostitute is informed of her status but her regular partner is not always reached. What is then the

strategy to solve this problem?

*Objectives:* - To identify the regular partners of the prostitutes

- To study ways for the prostitute to notify their serologic status to their regular partners.
- To evaluate the use of condoms by the regular partners after the prostitute's awareness of her HIV positive status

*Strategies and Methods:* - Enrolment in the survey of 50 senegalese and foreign prostitutes registered for the index with HIV positive results after voluntary consent.

- Collect of information on the notification to the regular partner and on the sexual behaviour of the couple after post-test counselling.
- The information is given by the prostitutes during an interview based on a questionnaire about the uses of condoms in particular.

*Results:* Among the 50 HIV positive prostitutes that were interviewed and given a post-test counselling:

- 10 partners agreed to a medical consultation
- 7 of them agreed to take a test
- Number of HIV positive partners = 6
- 30 prostitutes refused to inform their regular partners for fear of separation or reject
- 10 others said they had informed their partners without succeeding in having them accept to take the test
- 90% of the prostitutes use condoms with their occasional partners and almost never with their regular ones.

*Conclusion:* The fact of notifying the partners of the HIV positive prostitutes is far from being a common practice despite the risk of heterosexual transmission related to non protected intercourses. So, there is an urgent need to reinforce the IEC towards this. In addition virucidal topica should be found as alternatives to condoms.

*Presenting author:* M. Cisse Thioye, Centre MST/SIDA, Polyclinique, Rue 1x Blaise Diagne, PO Box 7045, Senegal, Tel.: +221 822 90 45, Fax: +221 822 15 07

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*A. Desclaux*

**Is HIV prevention incompatible with the medical culture of breastfeeding in West Africa?**  
[TuPeD3721]

*LEHA, Universite d'Aix-Marseille, 38, ave de l'Europe, 13100 Aix-en-Povence, France*

*Background:* Strategies to prevent breastmilk transmission of HIV have been defined by UNICEF/UNAIDS/WHO, but studies amongst HIV-positive mothers show that they are difficult to implement in West Africa. Obstacles are often due to the health care system.

*Methods:* Ethnographic study of breastfeeding in health services in Burkina Faso.

*Results:* According to the medical culture of health services, breastfeeding cannot be harmful. The main activity regarding breastfeeding in health services is its promotion, difficulties of breastfeeding being usually treated in the traditional sector or in the social sector (in the case of feeding orphans). In spite of the fact that 99% of mothers breastfeed their children in Burkina Faso where most women are too poor to buy formula, promotion of breastfeeding is implemented and health workers insist that all mothers should breastfeed as early as possible and as long as possible. This medical culture of breastfeeding is inherited partly from the struggle against multinational firms in the 70s and partly from the symbolic value of milk and motherhood. It is so strong that health services were unable to turn to the promotion of "exclusive breastfeeding" when recommended. Moreover, the organization of programs is such that messages are the same in developed countries and in Africa. These messages are stigmatizing women

that can't breastfeed, repeating that women that use formula waste money or do not give enough love to their babies. The only effect of these messages might be to reinforce the social pressure that HIV+ women must face.

*Conclusions:* When more than 10% of women are HIV+, promotion of breastfeeding for all women is no longer acceptable. The turn to a program for the promotion of "appropriate" breastfeeding is necessary. New messages must be defined to avoid reinforcing social pressure in favour of breastfeeding.

*Presenting author:* A. Desclaux, LEHA, Universite d'Aix-Marseille, 38, ave de l'Europe, 13100 Aix-en-Provence, France, Tel.: +33 442 950 247, Fax: +33 442 950 247, E-mail: [adesclaux@magic.fr](mailto:adesclaux@magic.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

A. Desclaux<sup>1</sup>, B. Taverne<sup>2</sup>, C. Alfieri<sup>3</sup>, M. Querre<sup>3</sup>, D. Coulibaly-Traore<sup>4</sup>, O. Ky-Zerbo<sup>5</sup>

**Socio-cultural obstacles in the prevention of HIV transmission through breastmilk in West Africa [MoOrD205]**

<sup>1</sup> LEHA, Universite d'Aix-Marseille, 38, ave de l'Europe, 13100 Aix-en-Provence, France

<sup>2</sup> IRD, Marseille, France

<sup>3</sup> Laboratoire Societes, Sante, Developpement, Bordeaux, France

<sup>4</sup> IRD, Abidjan, Cote D'Ivoire

<sup>5</sup> Centre Muraz, Bobo-Dioulasso, Burkina Faso

*Background:* UNICEF/UNAIDS/WHO have published guidelines in 1998 that define infant feeding options to prevent HIV transmission through breastfeeding. To be adopted, these options must be compatible with women's lifestyles, with their perceptions of risks, advantages of breastfeeding and other options, with the perceptions of "significant others" and care specialists that advise them.

*Methods:* A multidisciplinary research program, with ethnologists and public health scientists, has studied these aspects in Burkina Faso and Ivory Coast: in rural and urban settings, among Mossi, Bobo and Peul populations, with HIV+ mothers, with carers for orphans, with traditional, popular and biomedical health practitioners, with decision-makers and associations.

*Results:* The main obstacles to the adoption of preventive measures by HIV+ mothers are: the cost of feeding options; the ambiguous information that HIV+ women receive from health professionals; their partners attitude; the perception that formula does not give enough strength; the normative value of breastfeeding; the impossibility to find wet nurses in the context of HIV.

The main obstacles due to the health system are: the inability of services to provide help when formula is needed; the perception among health professionals that breastmilk cannot be dangerous; the permanent promotion of breastfeeding for all women, stigmatizing women that cannot breastfeed; the organization based on vertical programs without coordination; the lack of information about HIV among Mother and Child Health professionals.

*Conclusions:* No feeding option is easy to adopt for a HIV+ mother. Besides the economic factor, the main obstacle is the risk of being stigmatized as a "bad mother" because she does not breastfeed her baby. Measures should be set up in health services, that are responsible for most of these obstacles.

*Presenting author:* A. Desclaux, LEHA, Universite d'Aix-Marseille, 38, ave de l'Europe, 13100 Aix-en-Provence, France, Tel.: +33 4 42 95 02 47, Fax: +33 4 42 95 02 47, E-mail: [adesclaux@magic.fr](mailto:adesclaux@magic.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

Y. *Dieye* Dethie <sup>1</sup>, G.D. Ismaila <sup>2</sup>

**Ressource mobilization and accessibility E20**

**[MoPpE1141]**

<sup>1</sup> 221 Dakar, Senegal

<sup>2</sup> National Network of People Living with HIV, Dakar, Senegal

*Issue:* I am the head activist at the Network of People Living with HIV. I have been involved in associations of PLWAS since 1995, since I received my seropositive diagnosis.

*Description:* On October 10, 1997, we founded a network called The National Network of people living with HIV/AIDS. This organization is composed of five (5) associations: OASIS solidarite, ANP+, ASASSFA, RESAD, and Djigui Sembé which is located 497 km from Dakar. It was at that moment in sharing our experience and knowledge, and in learning from one another, that we realized that while we were the problem, we were also the solution.

We began to mobilize, talking about our needs and priorities. We discussed how we would like to participate in the fight against AIDS and which ideas and strategies would best help us to spread our message. We also asked for technical support to be able to begin our prevention and care activities. We also began to spread the word to people living with HIV that it is important to join our association so that they may no longer be afraid, so that they can inform themselves of the disease, and so that they can join in the fight against AIDS.

*Conclusion:* The national network of people living with AIDS in Senegal is a global entity composed of those who are both affected and infected. I am taking responsibility for the issues that PLWAS face. We are uniting prevention and care, and this is why our activities are so fulfilling. We hope that we can continue these activities in the future. Yet even if there is no funding, we will continue to be present because this is our community response. Despite the abstracts, we will not be slowed down or discouraged. We will continue to learn from one another and we will continue to foster the power that we need to perform our work each day.

*Presenting author:* Y. *Dieye* Dethie, 221 Dakar, Senegal, Tel.: +221 825 7230, Fax: +221 824 7135

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

W. Diop <sup>1</sup>, M. Trudelle <sup>2</sup>, P. Champagne <sup>3</sup>, R. Beaudry <sup>2</sup>

**The transborder initiative: a network for community partnership in STD/AIDS management**

**[TuPpD1257]**

<sup>1</sup> CCISD, 2151, Ave Burguiba, 1er Etage, Dakar, *Senegal*

<sup>2</sup> CCISD, Quebec, Canada

<sup>3</sup> CCISD, Ouagadougou, Burkina Faso

*Issues:* The West Africa Aids Project, Phase 2 concentrated on intervention targeting mobile groups (intra and inter country): truckers, prostitutes, seasonal workers and on residents in contact with mobile groups. The transborder concept is an attempt to disregard borders and maximize the shared economic, social, cultural, and linguistic dynamics for undertaking effective intervention.

*Description:* i) sustain and link local community action in various bordering countries, targeting the same mobile groups; ii) ensure continuity in services (information - counseling, health STD treatment and prevention) offered to individuals who travel, from the point of departure to the point of arrival and at sites in between; iii) facilitate partnership among institutions, regional projects and community organizations to encourage the most effective mobilization of resources available.

*Methodology:* i) develop a site status report; ii) analyze published data on migration and AIDS; iii) semester meetings with AIDS2 Project teams, NGOs and associations working with the clientele and regional partners (UNAIDS, PSAMAO); iv) develop and monitor semester action plans; v) train health

workers and make generic anti-STD drugs available; vi) produce and popularize pertinent teaching tools in local languages; ix) finance educational small initiatives.

*Conclusions:* i) a web of relationships is being woven among community organizations in various countries working toward the same goals; ii) a harmonization of action and the availability of the same services along transborder routes ensures credibility of the messages targeting the same clientele in different countries; iii) the use of subregional African languages in producing support and spreading messages is a pertinent strategy in educational efforts; iv) the transborder initiative is the framework for concrete field partnership among regional project workers.

*Presenting author:* W. Diop, CCISD, 2151, Ave Bourguiba, 1er Etage, Dakar, Senegal, Tel.: + 221-825-1888, Fax: + 221-825-1888, E-mail: [waly.diop@ccisd.bf](mailto:waly.diop@ccisd.bf)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*E. D. Diouf*<sup>1</sup>, *S. Paul*<sup>2</sup>, *C. Leopold*<sup>3</sup>, *N. Ibra*<sup>4</sup>

**Religious action at the international level in Africa: The example of international religious alliances against HIV in Africa (ARIVA)**  
**[MoPeD2741]**

<sup>1</sup> PO Box 85, Mbour, Senegal

<sup>2</sup> SIDA / Service, Dakar, Senegal

<sup>3</sup> SIDA / Service, Mbour, Senegal

<sup>4</sup> National AIDS Program of Senegal, Dakar, Senegal

*Background:* During the first stages of the AIDS epidemic the majority of religious condemned those infected with the virus, calling the illness a divine curse. This attitude made AIDS shameful and a positive diagnosis difficult. Religion systematically condemned certain modes of prevention as well as certain individual and group behaviour. A more informed understanding of the virus was needed.

*Methods:* Senegal was the test site for two associations observing Islamic and Christian social teachings JAMRA met with Imams and religious leaders to explain AIDS transmission and evolution. Through a series of local conferences, this NGO brought religious leaders together to discuss the subject of AIDS. These community dialogues led to a national symposium entitled AIDS and religion: the Islamic response. The symposium brought together Senegalese Islamic experts as well as the catholic Archbishop of Dakar, SIDA/SERVICE organised a similar symposium AIDS and the religious response of a Christian Churches. This second symposium helped link the network of religious workers practising in Africa. With the help of UNAIDS, and international symposium on AIDS and religion was held in Dakar, with Islamic, Christian, traditional and Buddhist leaders present.

*Results:* Behavioural results: Each leader presented their doctrines in full, each demonstrating sensitivity to the suffering of their faithful. Understanding the various aspects of HIV infection and the impact it has had on society, they became more understanding and unanimously decided that AIDS must be viewed as an illness like any other. This attitude allowed the organisers and the AIDS National Control Program (ANCS) to act freely in the promotion of prevention strategies.

*Presenting author:* E. D. Diouf, PO Box 85, Mbour, Senegal, Tel.: +221 957 15 17, Fax: +221 957 15 17

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*M.L. Garba*<sup>1</sup>, *R. Musonda*<sup>2</sup>, *S. Allen*<sup>3</sup>, *S. Frelinger*<sup>4</sup>

**Cytotoxic T-Lymphocyte (CTL) activity in HIV exposed uninfected (EU) Zambians**

**[WeOrA596]**

<sup>1</sup> University of North Carolina, CB 7290 804 Mejb, AT Chapel Hill, Chapel Hill NC 27599-7290, United States

<sup>2</sup> University of Alabama, School of public health, United States

<sup>3</sup> University of Alabama, Dept. of Epidemiology, School fo public health, United States

<sup>4</sup> University of North Carolina AT Chapel Hill, Dept. Microbiology & Immunology, United States

*Background:* Previous studies in repeatedly exposed uninfected (EU) **Gambian** and Kenyan Commercial Sex Workers (CSW's) showed the presence of HIV-specific CTLs in 6/15 (Kenya) to 5/6 (Gambia) of these women following repeated testing. This suggests a role for CTL's in resistance to HIV infection. In this study, we looked at a different class of high risk EU's belonging to a cohort of couples in which one partner is HIV infected and the other persistently seronegative despite active sexual practices. These subjects (not CSW's) are more representative of the normal, general population and the understanding of the role of CTL's in protection against HIV in this group will help in planning and monitoring HIV vaccine aimed at the general population.

*Methods:* We studied thirty-seven EU's, 15 HIV positive and 8 low risk individuals from Lusaka, Zambia. CTL activity was determined using chromium release assay. The effectors for each subject are positively selected CD8 CTL's following a week of stimulation of T cells with Vaccinia virus encoding Clade-C Gag, Envelope and Polymerase genes. The targets were autologous B-cell lines infected by the same virus overnight. Vaccinia virus encoding Psc11 genes was used as a control virus.

*Results:* HIV specific CTL's were found in 7/37 (18.5%) of the EU's, 12/15 (80%) of the HIV positive subjects and 0/8 (0%) of the low risk seronegative individuals. Multivariate logistic regression found no significant relationship between CTL results in both EU's and HIV positives and: gender, age, number of pregnancies, whether currently pregnant, stage of HIV disease, or log viral load.

*Conclusions:* CTL activities exist in a subset of exposed uninfected partners of HIV positive persons, and may play a role in the resistance of these individuals to HIV infection.

*Presenting author:* M.L. Garba, University of North Carolina, CB 7290 804 Mejb, AT Chapel Hill, Chapel Hill NC 27599-7290, United States, Tel.: +1 919 966 2605, Fax: +1 919 962 8103, E-mail: [mlgarba@med.unc.edu](mailto:mlgarba@med.unc.edu)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

A. **Gaye Diallo** <sup>1</sup>, A. Gueye Ndiaye <sup>2</sup>, A. Gessain <sup>3</sup>, A. Ndour Sarr <sup>2</sup>, N.C. Toure Kane <sup>2</sup>, A.T. Toure <sup>2</sup>, M.C. Dia <sup>2</sup>, G. De The <sup>3</sup>, S. Mboup <sup>2</sup>

**Human Herpes Virus type 8 (HHV8) and HIV in ante-natal clinic attendees in Senegal**

**[WeOrA472]**

<sup>1</sup> Bacteriologie Virologie Laboratoire CHU Le Dantec, 30 Avenue Pasteur, BP 7325 Dakar, Senegal

<sup>2</sup> Dakar, Senegal

<sup>3</sup> Institut Pasteur, Paris, France

*Background:* HHV8 is the virus associated with Kaposi sarcoma and this affection is rare in Senegal even among HIV infected patients. The aims of this study are to assess the presence of HHV8 and HIV in Senegal and to evaluate their prevalence in the pregnant women population.

*Method:* Study population: 407 ante-natal clinic attendees. The mean age was 26.57 years `13-45'. They were predominantly Senegalese (90%). ABI reagents were used to detect HHV8 antibodies by IFA. HIV antibodies were screened by ELISA and confirmed by western blot.

*Results:* 58 of the 407 women were HHV8 seropositive (14.3%) and 2 were HIV2 seropositive (0.5%) but HHV8 seronegative. The mean age of HHV8 seropositives was 29.24 years `15-39'. 91.4% were



Senegalese. 10.3% were not married and 89.6 were married among whom 34.6% were in polygamous marriages. 22.4% of HHV8 seropositives have never had children and 46.6% have had multiple children. However none of these epidemiological parameters are correlated to HHV8 seropositivity ( $p > 0.05$ ). The majority came to term (74.1%) and had normal deliveries (72.4%). Among seropositives, 75.9% had live births, 8.6% had still births and 15.5% aborted ; abortions were associated with HHV8 seropositivity ( $p = 0.0097$ ). Among live births, 68.9% had an Apgar score higher than 8/10 ; there was no significant difference between those born to seronegative or seropositive mothers ( $p = 0.64$ ).

*Conclusion:* HHV8 prevalence is lower in Senegal than in other African nations, but higher than HIV prevalence. These low percentages may account for the rarity of Kaposi sarcoma but this hypothesis requires further investigation. This was a preliminary study and further studies must be performed among other target groups. Other studies must investigate alternative modes of transmission . Another interesting investigation would be to compare this virus to those present in areas where Kaposi sarcoma is endemic.

*Presenting author:* A. Gaye Diallo, Bacteriologie Virologie Laboratoire CHU le dantec, 30 Avenue Pasteur, BP 7325 Dakar, Senegal, Tel.: +221 822 59 19 / 821 64 20, Fax: +221 821 64 42, E-mail: [virus@sonatel.senet.net](mailto:virus@sonatel.senet.net)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*E. Gbodossou*

**Role of traditional healers in the prevention of HIV/AIDS : Training as information, education and communication (IEC) agents**  
[TuPeD3640]

*PRO.ME.TRA, BP 6134, Dakar Etoile, Senegal*

*Issue:* In sub-Saharan Africa 85% of the population utilize the services of traditional healers. The necessity to train healers as Information, Education and Communication agents is imperative in the battle against HIV/AIDS.

*Description:* Modern medicine is characterized by several deficiencies. WHO recommends 1 physician for 10,000 people. In Africa there is only 1 physician for over 15,000 inhabitants in urban areas and 1 physician for over 150,000 in rural areas. 80% of the HIV positive patients in the world live in Africa, while 80% of the monetary and treatment resources are in developed countries. Many of the prevention methods used in Africa are unsuitable and inefficient. Many rely upon newspapers, radio and television. In Africa radio oftentimes does not educate, television is a luxury, and the majority of the population is illiterate.

African traditional healers provide health education and treatment for the majority of the population and have a great level of respect within their communities. They are the perfect conduit to serve as Information, Education and Communication (IEC) agents in the prevention of HIV/AIDS throughout Africa. PROMETRA has developed an endogenous training method entitled "FAPROG - Healers' Self-Promotion Training" for traditional healers with an HIV/AIDS curriculum base. We will demonstrate the FAPROG method of educating traditional healers. This method is based upon locally derived, factual curricula presented in a pictorial, oral storytelling format. Traditional medicine facts and modern science are the basis of the curriculum. Sessions include pre and post test evaluations with replication accomplished through a "train the healer-trainer" model.

*Conclusion:* The FAPROG training method enables traditional healers to enhance their teaching skills and knowledge base while developing a uniform program through which they can transmit factual and appropriate health education messages to their patient populations.

*Presenting author:* E. Gbodossou, PRO.ME.TRA, BP 6134, Dakar Etoile, Senegal, Tel.: +221 832 2850, Fax: +221 832 5749, E-mail: [erickg@codata.refer.sn](mailto:erickg@codata.refer.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*E. Gbodossou*

**Role of traditional healers in the prevention of HIV/AIDS: Training as information, education and communication (IEC) agents  
[ThOrD780]**

*BP 6134, Dakar Etoile, Senegal, Senegal*

*Issue:* In sub-Saharan Africa 85% of the population utilize the services of traditional healers. The necessity to train healers as Information, Education and Communication agents is imperative in the battle against HIV/AIDS.

*Description:* Modern medicine is characterized by several deficiencies. WHO recommends 1 physician for 10,000 people. In Africa there is only 1 physician for over 15,000 inhabitants in urban areas and 1 physician for over 150,000 in rural areas. 80% of the HIV positive patients in the world live in Africa, while 80% of the monetary and treatment resources are in developed countries. Many of the prevention methods used in Africa are unsuitable and inefficient. Many rely upon newspapers, radio and television. In Africa radio oftentimes does not educate, television is a luxury, and the majority of the population is illiterate.

African traditional healers provide health education and treatment for the majority of the population and have a great level of respect within their communities. They are the perfect conduit to serve as Information, Education and Communication (IEC) agents in the prevention of HIV/AIDS throughout Africa. PROMETRA has developed an endogenous training method entitled "FAPROG - Healers Self-Promotion Training" for traditional healers with an HIV/AIDS curriculum base. We will demonstrate the FAPROG method of educating traditional healers. This method is based upon locally derived, factual curricula presented in a pictorial, oral storytelling format. Traditional medicine facts and modern science are the basis of the curriculum. Sessions include pre and post test evaluations with replication accomplished through a "train the healer-trainer" model.

*Conclusion:* The FAPROG training method enables traditional healers to enhance their teaching skills and knowledge base while developing a uniform program through which they can transmit factual and appropriate health education messages to their patient populations.

*Presenting author:* E. Gbodossou, BP 6134, Dakar Etoile, Senegal, Senegal, Tel.: (+221) 832-2850, Fax: (+221) 832-5749, E-mail: [erickg@codata.refer.sn](mailto:erickg@codata.refer.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*Y. Germani*<sup>1</sup>, *C. Mossoro*<sup>2</sup>, *A. Aidara*<sup>3</sup>, *S. Yassibanda*<sup>4</sup>, *P. Sow*<sup>5</sup>, *P. Minssart*<sup>6</sup>, *J. Perret*<sup>3</sup>, *J. Morvan*<sup>2</sup>

**Therapeutic efficiency evaluation of two algorithms developed in the management of HIV-infected adult-associated diarrhea in Bangui and Dakar  
[WePeA4016]**

<sup>1</sup> *Institut Pasteur, POBox 923, Bangui, Central African Republic*

<sup>2</sup> *Institut Pasteur De Bangui, BANGUI, Central African Republic*

<sup>3</sup> *Institut Pasteur de Dakar, Dakar, Senegal*

<sup>4</sup> *Hopital de l Amitie, Bangui, Central African Republic*

<sup>5</sup> *Chu Fann, Dakar, Central African Republic*

HIV-infected adult diarrhea is a public health problem in Africa, having in view the often failures in the actual UN-AIDS algorithms. The aim of this study was to improve the management of AIDS-related diarrhea. The subjects were submitted to clinical examination and blood and stool specimens were taken.

Two algorithms were established accordingly with epidemiological and clinical informations, macroscopic and microscopic stool examinations. The first results are given within 3 hours. In the case of an negative result, the algorithm provides an result in 24 to 72 hours. At the same time, standard stool culture and other laboratory testing (HIV serological status, RBC, CD4 cell count, blood proteins) are performed. Meanwhile, the patient rehydration is started. A control stool culture is done at the end of the treatment.

Out of the 164 patients included in our study, 64 (39 %) presented with acute diarrhea and 100 (61%) with chronic diarrhea. Following the acute diarrhea algorithm, the etiological diagnosis was established in 39 (61 %) cases. The 39 patients were submitted to the treatment and the recovering of health condition was obtained in 34 (87.2 %) cases, giving a global therapeutic efficacy of 53.1 %. For the chronic diarrhea proposed algorithm, the diagnosis was established in 59 (%) cases, all of them being consequently submitted to the treatment with a recovering rate of 86.4 % (51 cases) and a global therapeutic efficacy of 51 %. The therapeutic efficacy for the found etiologies was of 100 % in bacteriology and mycology and of 85.7 % in parasitology (in this latter case we were confronted with a 7.15 % rate of relapse and a 7.15 % treatment failure).

The new algorithms presented a diagnosis efficacy of 60 %, a global therapeutic efficacy of 52.1 % and an etiologically targeted therapeutic efficacy of 80.7 % as compared with the current UN-AIDS algorithms which are registering a failure > 70 %.

*Key words:* Diarrhea, algorithms, AIDS

*Presenting author:* Y. Germani, Institut Pasteur, POBox 923, Bangui, Central African Republic, Tel.: +236 61 85 83, Fax: +236 61 01 09, E-mail: [germani@intnet.cc](mailto:germani@intnet.cc)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*I. Goudiaby*<sup>1</sup>, *G. Momar*<sup>2</sup>

**No title indicated**

**[MoPeD2570]**

<sup>1</sup> *Espace UACAF, Amitie 2 No 4133, 221 Dakar, Senegal*

<sup>2</sup> *National Network of People Living with HIV+, Dakar, Senegal*

*Introduction:* Despite some two decades, of concerted HIV/SIDA prevention activities, the pandemy continues to escalate. The estimation is that every day, 1600 new cases of new infections occur throughout the world. 70% of which are in sub saharian africa. What is to say that the HIV/AIDS pandemy is far from being mastered.

Looseness=-10000

*Description:* To day, women are in the center of the HIV/AIDS pandemic, whereas. Ten years ago they seemed to be at the periphery. That is to say that close to half of the new cases of adult infection occur in women. In 1994, over one million women were infected by HIV throughout the world, and now it is estimated that 14 million the total number of women who will have been infected by the year 2000, 4 million of whom will die of AIDS. In addition to biological vulnerability, sexual, social and economic dependancy also tend to worsen womens exposure to HIV/AIDS. Further more the impact of the pandemic on womens is considerable in view of their key role in families and communities, as well as their production capacity in the national development process.

*Conclusion:* It is, therefore imperative to make women able of protecting themselves by improving their

economic and social status, by putting at their disposal methods over which they can maintain enough control and by bringing more men to adopt safer sexual behaviours in this perspective, prevention, education is perhaps the only accessible and effective strategies for controlling the pandemic for the developing countries.

*Presenting author:* I. **Goudiaby**, Espace UACAF, Amitie 2 No 4133, 221 Dakar, Senegal, Tel.: +221 825 72 30, Fax: +221 824 71 35

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

C. **Grundmann**<sup>1</sup>, K. **Krasovec**<sup>2</sup>, C. **Barnett**<sup>3</sup>

**The effect of decentralizing health services on national AIDS programs: Evidence from Ethiopia and Senegal**  
[ThPeD5712]

<sup>1</sup> *Abt Associates Inc., 4800 Montgomery Lane, Suite 600, Bethesda, MD 20814, United States*

<sup>2</sup> *Abt Associates Inc., Bethesda, MD 20814, United States*

<sup>3</sup> *University Research Corporation, Bethesda, MD 20814, United States*

*Background:* The possible effects of decentralizing health services on vertical programs is one that is frequently discussed but has not been studied empirically. Since more and more governments are adopting various decentralization reforms (usually for reasons that have little to nothing to do with the health sector) it is imperative for health systems to understand what effect such reforms have on their priority programs.

This is particularly true of AIDS programs since they frequently have large, community-based components and the governance issues surrounding decentralization movements will likely directly impact those aspects of the program independently of the MOH's ability to mediate effects on the medicalized parts of the AIDS program.

Ethiopia and Senegal are both in the middle of decentralization efforts. Both are using devolved models of governance though Ethiopia has theoretically kept more control of the health sector in the hands of deconcentrated MOH officials than has Senegal. Both countries have long-standing National AIDS Programs.

The study will work from the premise that: 1) there is a planned, or intended, decentralization model; 2) that the actual implementation of the decentralization model is actually quite variable and may differ from what was intended, and is in evolution; 3) there is a planned, or intended, AIDS Program model; and, 4) that the actual implementation of the AIDS Program model in the field is actually quite variable and may differ from what was intended (and may or may not be in evolution).

Information on the above 4 categories will be collected from national level and peripheral health system and AIDS Program personnel as well as national level and local government officials. The effects of decentralization on the National AIDS Program will then be analyzed based on what would have been expected and what actually seems to have occurred.

*Methods:* Case Studies, Quantitative process analyses, Cross-country comparisons

*Results:* Study planned for February-April

*Conclusions:* See above

*Presenting author:* C. Grundmann, Abt Associates Inc., 4800 Montgomery Lane, Suite 600, Bethesda, MD 20814, United States, Tel.: +1 301 913 06 66, Fax: +1 301 652 39 16, E-mail: [christophe\\_grundmann@abtassoc.com](mailto:christophe_grundmann@abtassoc.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

M. Gueye <sup>1</sup>, K. Cissé <sup>1</sup>, I. Ndoye <sup>1</sup>

**Ethical aspects of antiretroviral treatment in Senegal**  
[TuPpE1281]

<sup>1</sup> National AIDS Control Program, Dakar, Senegal

*Issues:* The use of antiretroviral drugs in the treatment of HIV/AIDS infection is one of the most important progresses in the control of the pandemic.

Developing countries and mainly African one did not get enough benefit of those situation because of their low resources with very high number of people living with HIV/AIDS. Because of epidemiological situation with a prevalence rate under 2%, Senegal is trying to provide antiretroviral drugs to his people living with HIV/AIDS, since more than one year. We have the opportunity to analyze this issue, raised by one year of antiretroviral drug use, which is a real hope to fight the pandemic.

*Description:* The case of seventy people treated by antiretroviral drug since they are used in our country from August 1998 to December 1999 have been analyzed. Ethics issues linked to screening, agreement, confidence antiretroviral drug access sensitization and information have been particularly focused.

Clinical and biological analysis social investigations, interviews of patients of their families have been used to rise ethical problems with the objectives to improve treatment conditions and other social needs.

*Conclusion:* The improvement of accessibility and sustainability of antiretroviral treatment in Senegal need to consider ethical aspect mainly in specific groups: sex-workers, pregnant women, children, prisoners, health-workers contaminated.

Recommendations have been delivered to National AIDS Control Program.

*Presenting author:* M. Gueye, National AIDS Control Program, P.O. Box 5505, Dakar-Fann, Senegal, Tel.: +221-825 2067, Fax: +221-825 9227, E-mail: [gueyemd@ucad.refer.sn](mailto:gueyemd@ucad.refer.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

R. Jewkes <sup>1</sup>, J. Levin <sup>2</sup>

**Relationships between gender inequalities and HIV preventive practices: implications for intervention evaluation**  
[WePpD1416]

<sup>1</sup> Cersal Medical Research Council, Private Bag X385, Pretoria 0001, South Africa

<sup>2</sup> Centre for Epidemiological Research in South Africa, South Africa

*Issues:* Gender inequalities are increasingly recognised as critical influences on relationships and barriers to the adoption of HIV preventive practices. In order to describe connections in South Africa we explored available data.

*Methods:* We examined two major data sets, the 1998 South Africa Demographic & Health Survey, which interviewed almost 12 000 women and in-depth study of violence against women, with 1306 participants, which was conducted to provide external validation of the DHS results.

*Results:* Women who had been beaten in the year prior to the DHS were more likely to have used a condom on last intercourse, than those never abused (10.8% v. 8.4%), abused women were more likely to have suggested condom use in the validation study (sparkling violence or threats of violence in 1% of cases); in the DHS women raped as children were more likely to have used condoms than other women (10.2% v. 8.5%), as were women who were molested (but not raped) as children (9.9% v. 8.5%). These associations were not markedly changed by adjustment for age, race or level of education. Findings running counter to this pattern were a highly significant protective association between discussing HIV

prevention and domestic violence found in the validation study.

*Conclusions:* Experiences of assault were not important determinants of condom use. This finding is surprising and may be artifact as it is possible that the magnitude of the effect of abuse has been diluted by contamination of the 'non-abused' group by abused women who deny it in an interview. None the less, this points to a need to explore the role of other aspects of gender relations and HIV prevention, particularly communication in relationships and those operating at an ideational level. Perhaps the ultimate test will be to see whether behavioural interventions which deliver changes in gender inequalities in relationships also result in substantial increases in the level of condom use. This may be shown with the proposed evaluations in South Africa and **Gambia** of the package *Stepping Stones*. Accurate measurement of primary and secondary outcomes of HIV preventive practices will be critical.

*Presenting author:* R.Jewkes, Cersal Medical Research Council, Private Bag X385, Pretoria 0001, South Africa, Tel.: +27 12 339 8525, Fax: +27 12 339 8582, E-mail: [rjewkes@mvc.ac.za](mailto:rjewkes@mvc.ac.za)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

P. Kanki <sup>1</sup>, S. **Popper** <sup>2</sup>, A. Dieng-Sarr <sup>2</sup>, A. Gueye-NDiaye <sup>3</sup>, S. MBoup <sup>3</sup>

**Low HIV-2 plasma viral load is correlated with Slow Disease Progression**  
**[MoPpA1081]**

<sup>1</sup> Harvard School of Public Health, Harvard AIDS Institute, 651 Huntington Avenue, Boston, MA 02115, United States

<sup>2</sup> Harvard School of Public Health, Boston, United States

<sup>3</sup> Cheikh Anta Diop Université, Dakar, Senegal

*Objectives:* To evaluate relative levels of HIV-2 viral expression in vivo by measuring plasma viral load and proviral load in matched samples from infected individuals.

*Methods:* Samples of PBMCs and plasma were obtained from 29 HIV-2 infected individuals. Proviral DNA load and plasma viral RNA load were determined using quantitative assays developed in our laboratory.

*Results:* Plasma viral load ranged from >100 copies/ml to >200,000 copies/ml. 14 of 29 subjects had less than 100 copies/ml of viral RNA. There was no difference in proviral load between those individuals with less than 100 copies/ml, and those with higher plasma viral loads. Ratios of viral RNA to proviral DNA increased nearly 30-fold as viral load increased, from a median of 0.3 in those with less than 100 copies/ml of viral RNA, to 8.5 in those with >100 copies/ml. More than one-third of the individuals had RNA:DNA ratios of less than one.

*Conclusions:* Increases in HIV-2 plasma viral load appeared to be primarily due to increased expression from the proviral template, rather than increased numbers of templates. HIV-2 plasma viremia is significantly lower than HIV-1 throughout the course of natural infection. Ratios of viral RNA to proviral DNA were lower than in HIV-1 infection, and suggest that HIV-2 is often a quiescent infection.

*Presenting author:* P. Kanki, Harvard School of Public Health, Harvard AIDS Institute, 651 Huntington Avenue, Boston, MA 02115, United States, Tel.: +617-432-1267, Fax: +617-432-3575, E-mail: [pkanki@hsph.harvard.edu](mailto:pkanki@hsph.harvard.edu)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

P. Kanki <sup>1</sup>, J-L. Sankale <sup>2</sup>, E. **Kokkotou** <sup>3</sup>, S. MBoup <sup>4</sup>, A. Gueye-NDiaye <sup>4</sup>, M. Essex <sup>3</sup>

**In vitro evidence of HIV-2 protection from subsequent HIV-1 infection  
[WePeA3996]**

<sup>1</sup> *Harvard School of Public Health, Harvard AIDS Institute, 651 Huntington Avenue, Boston, MA 02115, United States*

<sup>2</sup> *Harvard School of Public Health, Boston MA, United States*

<sup>3</sup> *Harvard School of Public Health, Boston, MA, United States*

<sup>4</sup> *Cheikh Anta Diop Université, Dakar, Senegal*

**Objectives:** A 12 year prospective study (1985-97) of HIV-2 infected individuals in Senegal, West Africa has demonstrated a reduced risk of subsequent HIV-1 infection ranging from 52-74% (Science 268: 1612; Science 272:1959). We used an HIV-1 in vitro challenge system to determine if PBMCs from HIV-2 infected individuals showed altered susceptibility to HIV-1 infection. Upon demonstration of resistant HIV-2 infected PBMCs, we further sought to determine the mechanism for this protection.

**Methods:** Cryopreserved PBMCs from 28 HIV-2 infected and 19 HIV negative individuals were PHA stimulated and infected with 600 TCID<sub>50</sub> of HIV-1 (JRCSF) or HIV-1 (IIIB) and monitored for HIV-1 p24 antigen on days 4, 7, 10, 14, and 18. Endogenous HIV-2 virus production was measured by p27 SIV ELISA. Levels of RANTES, MIP1a, MIP1b were measured in culture supernatant by ELISA.

**Results:** 14 of 28 (50%) HIV-2 PBMCs demonstrated over 90% inhibition of HIV-1/JRCSF compared to 0 of 19 HIV negative controls (Fisher exact test, p value = .0002). In contrast, HIV-2 positive and HIV negative PBMCs were equally susceptible to HIV-1/IIIB infection. Supernatant levels of MIP-1a (r = -0.56, p = .03) and MIP-1b (r = -0.69, p = .004) were inversely correlated with HIV-1 replication; defined by log peak p24. Using polyclonal antibodies to RANTES, MIP1a and MIP1b, resistance was abrogated in 7 of 7 resistant PBMCs evaluated, with no change in the infectivity of similarly treated HIV negative PBMC controls.

**Conclusions:** A significant proportion of HIV-2 infected PBMCs demonstrate HIV-1 resistance in vitro. This resistance was restricted to CCR5 HIV-1 viruses and beta-chemokine dependent. Studies are further needed to characterize this significant anti-viral activity and determine

**Presenting author:** P. Kanki, Harvard School of Public Health, Harvard AIDS Institute, 651 Huntington Avenue, Boston, MA 02115, United States, Tel.: +1617-432-1267, Fax: +1617-432-3575, E-mail: [pkanki@hsph.harvard.edu](mailto:pkanki@hsph.harvard.edu)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*I. Keita<sup>1</sup>, C. Wone<sup>2</sup>, P.G. Sow<sup>3</sup>*

**Prevention of STD/AIDS in non structured sector the case of apprentices in Senegal  
[WePeC4394]**

<sup>1</sup> *BP: 10403 - Dakar Liberte, Dakar, Senegal*

<sup>2</sup> *National Comity of AIDS in Senegal, Dakar, Senegal*

<sup>3</sup> *National Comity od AIDS in Senegal, Dakar, Senegal*

**Introduction:** The low rate school attendance in Senegal (less than 60%) combined with the high rate of school waste strengthens the rate of illiteracy and its consequences namely juvenile delinquency, pedophilia and all kinds of assaults.

To struggle against these evils the country has no more the choice between school and children's work once forbidden and condemned by all human rights organizations. Senegal this is glutted with several thousand artisanal firms in which children work as apprentices.

These sexually active youths aged 12 to 20 who live in a very vulnerable environment (they visit frequently salesgirls or young poor cooks for their meals) are for the NGO MIDA the target for people who must be informed on STD/AIDS so that they could gradually adopt a new responsible attitude

regarding STD and AIDS.

*Objective:* The aim is to contribute in increasing up to 30% the service reuest for the prevention of STD/AIDS in non-structured sector.

*Specific Objectives:*

- (1) to inform 50% of one apprentices in the Dakar region on STD/AIDS
- (2) to get 80 of apprentices in non-structured sector to unse condoms in case of occasional sexual contact.
- (3) To train apprentices as relays to spread the information

*Strategies:*

- (1) to retrain MIDA educators in charge of informing the apprentices
- (2) to organize demonstration sessions for the use of condoms
- (3) to organize training workshops on STD/AIDS for the apprentices

*Résults:* 42 apprentices relays are informed of STDs/AIDS 12 000 condoms are used by the apprentices in 1999

*Conclusion:* The struggle against STD and AIDS must be an inclusive one

No people must be forgotten particularly those are very vulnerable such as the apprentices who for along time have been rejected.

*Presenting author:* I. Keita, BP: 10403 - Dakar Liberte, Dakar, **Senegal**, Tel.: +221 632 1438, Fax: +221 822 1507, E-mail: [ancs@enda.sn](mailto:ancs@enda.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*K. Krasovec*<sup>1</sup>, *C. Barnett*<sup>2</sup>, *C. Grundmann*<sup>3</sup>, *A. K. Nandakumar*<sup>4</sup>, *M. Steinberg*<sup>5</sup>, *C. Connor*<sup>3</sup>, *A. Kinghorn*<sup>5</sup>, *P. Putney*<sup>3</sup>, *A. Telyukov*<sup>3</sup>

### **The relationship between health sector reform and the delivery of HIV/AIDS services [WeOrD463]**

<sup>1</sup> *Abt Associates Inc., 4800 Montgomery Lane, Suite 600, Bethesda, MD 20814, United States*

<sup>2</sup> *University Research Corporation, Bethesda, United States*

<sup>3</sup> *Abt Associates Inc., Bethesda, United States*

<sup>4</sup> *Abt Associates Inc., Cambridge, United States*

<sup>5</sup> *Abt Associates SA Inc., Johannesburg, South Africa*

*Background:* Because sector-wide health reforms often affect how HIV/AIDS delivery services are organized and funded, it is critical to understand how reforms in the country will affect, both negatively and positively, strategies to combat the epidemic. The PHR project has engaged in a global analysis of this impact to enhance the understanding of the relationship between health sector reform and HIV/AIDS programming.

Looseness=-1000000

*Methods:* A separate methodology for each study was developed: 1) Decentralization: Researchers compared the impact of decentralization on total and local funding of HIV/AIDS services and the utilization of these services in Senegal and Ethiopia. 2) Sectoral Impact Studies: Using sectoral impact models, researchers examined the impact of the HIV/AIDS epidemic on two sectors in South Africa, and their ability to continue to provide and introduce new services. 3) National Health Accounts: An HIV/AIDS methodology was created and integrated into the NHA framework to disaggregate the sources and flows of funding for HIV/AIDS Services in Rwanda. 4) Activity Based Costing: An ABC methodology was developed and field tested in Cambodia to assist field managers more effectively manage their resources. 5) NGO contracting: Case studies in Guatemala and Brazil to examine the public sector contracting of local NGOs for HIV/AIDS service delivery.



*Results:* The authors provide analyses of how certain health reforms affect HIV/AIDS prevention and care strategies and programs and provide recommendations on how health systems can be used more effectively to finance and/or manage the delivery of HIV/AIDS services.

*Conclusions:* These studies contribute empirical evidence to move forward the dialogue within the international community regarding the impact, contribution and constraints of a number of key health sector reform strategies on the effective delivery of priority services such as HIV/AIDS.

*Presenting author:* K. **Krasovec**, Abt Associates Inc., 4800 Montgomery Lane, Suite 600, Bethesda, MD 20814, United States, Tel.: +1 301 718 31 37, Fax: +1 301 658 36 18, E-mail: [kathy\\_krasovec@abtassoc.com](mailto:kathy_krasovec@abtassoc.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*G. Krikorian*

**Implication of PWAs and PWA associations to develop access to care and treatment in developing countries as a necessity**  
[WePeE4857]

*Act Up - Paris, BP 287, 45 Rue Sedaine, 75525 Paris Cedex 11, France*

*Issue:* People in charge with the fight against AIDS at national and international levels must admit that they will never implement and develop relevant and proper health care, neither put an end to the spreading epidemic without the participation of PWAs themselves. PWA associations have a major role to play as intermediaries between PWAs and the medical profession, between the institutions and the population. These associations must be considered as full actors given the complexity of treatments, the novelty of some medical procedures, the difficulties of compliance in any circumstances, PWAs not used to benefiting from health care, the need for reliable information.

Substantial means must be provided to PWAs so that they could make themselves heard and a collaboration with national programs could be developed.

*Description:* At the present time, PWA associations have to face many hindrances when developing their actions. This is mainly due to their isolation, a lack of means and of autonomy. As a result, they need information, contacts, specific training, polyvalence, a better representation in AIDS institutions, means to develop their actions and to play a vigilant role on the ground. This can be explained by the too rigid policies of sponsors whose financing mechanisms are not adapted, the limited involvement of national institutions in AIDS programs, their reluctance to support PWA associations and the centralisation of funds in National Programs of Fight against AIDS. But the situation can change. A better collaboration can permit to identify specific needs. The participation of the associations in health care programs and the following-up of the people can help overcome the difficulties and develop real dynamics with the other actors in public health and the fight against AIDS. This Abstract is based on Act Up-Paris's experience in the collaboration with African PWA associations (Senegal, Ivory Coast, Togo, Cameroon, Uganda, Mali, Benin ...) and with AIDS sponsors (UNAIDS, The World Bank, WHO, The French Coopération, etc.).

*Conclusion:* At the 4th International Conference on community care, a round table with sponsors and PWA associations was held organised and supervised by Act Up-Paris. From the exchanges on the occasion that gave us food for thought, we can draw conclusions and propose some prospects to develop new practices adapted to the needs. Moreover, our in health care programs in different countries has permitted us to develop a real expert appraisal on.

*Presenting author:* G. **Krikorian**, Act Up - Paris, BP 287, 45 Rue Sedaine, 75525 Paris Cedex 11, France, Tel.: +33 1 492 944 75, Fax: +33 1 480 616 74, E-mail: [actup@actupp.org](mailto:actup@actupp.org)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000,*

*Abstracts on Disk.*

I. Laniece <sup>1</sup>, I. Ndoye <sup>1</sup>, K. Sow <sup>1</sup>, S. Badiane <sup>2</sup>, A. Thiam <sup>2</sup>, N. Diakhate <sup>2</sup>, A. Desclaux <sup>3</sup>, M. Ciss <sup>4</sup>  
**Antiretroviral treatment initiative in Senegal: Results on treatment observance from a study conducted at the pharmacy**  
[ThPeB5011]

<sup>1</sup> Programme National de Lutte Contre Le Sida, Dakar Medina, *Senegal*

<sup>2</sup> Clinique des Maladies Infectieuses - CHU de Fann, Dakar, *Senegal*

<sup>3</sup> Laboratoire d'Ecologie Humaine et Anthropologie, Aix En Provence, *France*

<sup>4</sup> Pharmacie Centrale - CHU de Fann, Dakar, *Senegal*

*Issues:* A follow up was set up at the pharmacy that delivers antiretrovirals, to evaluate observance and to identify the cases of incidents or accidents among patients under antiretroviral treatment.

*Description:* When filling their monthly antiretroviral prescription (bi or tritherapy), the patients have an interview with the pharmacist. Using a questionnaire, the pharmacist collects data about the way patients have taken their doses during the past month.

*Results:* In December 1999, 47 of the 56 patients under treatment, with follow-up periods from 2 to 16 months, have been investigated. Three kinds of adherence difficulties are highlighted:

(1) Treatment interruption lasting more than 30 days: 6 patients; all under tritherapy, 4 stopped for more than 3 months. The primary reason for such interruptions is financial difficulties to buy the treatment.

(2) Treatment interruption lasting more than 24 hours: at least 20% of patients. Economic difficulties as well as side effects are the main reasons.

(3) Incidents of compliance occurred among the 38 patients who declared having taken at least 80% of the doses. 42% of them indicated that they missed doses because of: economic problems, travel, health problems (undesirable side effects or illnesses) and difficulty with the medication schedule.

Out of the 47 patients, the mean observance is 83% (median 99%). Data concerning a longer period will be presented at the Conference.

*Conclusion:* This study highlights the frequency of treatment interruptions lasting more than 24 hours related to economic difficulties. This situation is different from that of Northern nations where lifestyle issues, psychoaffective factors, and treatment tolerance constitute the major adherence obstacles. In *Senegal*, antiretroviral treatment is acceptable for patients when the economic obstacle has been solved. More efforts should be done to reduce the price of antiretrovirals in Africa which will allow us to treat more patients.

*Presenting author:* I. Laniece, PROGRAMME NATIONAL DE LUTTE CONTRE LE SIDA, PO Box 3435, Dakar Medina, *Senegal*, Tel.: +221 822 9045, Fax: +221 822 1507, E-mail: [laniecebissao@metissacana.sn](mailto:laniecebissao@metissacana.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

G. Liotta <sup>1</sup>, F. Riccardi <sup>2</sup>, L. Palombi <sup>2</sup>, M.C. Marazzi <sup>3</sup>  
**HIV-1/HIV-2 infection prevalence in a sample of inpatients of the hospital "Raoul Follerau-Comunite di Sant Egidio" of Bissau, Guinea Bissau**  
[WePeC4413]

<sup>1</sup> Via di Tor Vergata, 135 00173 Roma, *Italy*

<sup>2</sup> Rome, *Italy*

<sup>3</sup> Libera Universite Maria SS, Assunta, Rome, *Italy*

*Objective:* Assessment of the prevalence of HIV infections in a group of inpatients.

*Method:* Retrospective analysis of clinical cards of all the inpatients admitted in a five-year period (1994-1998) tested for HIV infections. The sample consists of 2496 subjects older than 15 years (mean age = 42.89 years; SD±16.41; range 15-96). The most part of the sample (58.2%) is male. The TB patients are 83.5% of the sample.

*Results:* The prevalence of HIV-1 infection is 22.8% and HIV-2 infection is 29.7%. The most part of HIV+ patients (64,2%) is infected by both the viruses (18.7% of the total sample). The rate of infected is greater in the female subjects than in the male one for both the types of infection. Amongst the TB patients the HIV+ highest prevalence is in the smear-negative patients. This population infection rate is 27.3% and 33.5% for HIV-1 and HIV-2, respectively. A highest percentage of infection for both the viruses is observed in Bissau, Bafata and Gabu originated patients. In these regions there are the major towns of the country. The mortality rate for HIV+ patients is double comparing with HIV- patients.

*Conclusions:* The data presented are an insight of the situation of Guinea Bissau that is not so known. The data presented in this study are consistent with the results in the literature about the spreading of HIV infection in TB patients in Africa.

*Presenting author:* G. Liotta, Via di Tor Vergata, 135 00173 Roma, Italy, Tel.: +39 6 725 966 15, Fax: +39 6 204 272 63, E-mail: [labepidemiologia@virgilio.it](mailto:labepidemiologia@virgilio.it)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

E. A. *Macondo*<sup>1</sup>, F. Ba<sup>2</sup>, O. Kaire<sup>3</sup>, A. Gaye Diallo<sup>3</sup>, N. C. Toure Kane<sup>3</sup>, C. S-B. Boye<sup>3</sup>, A. Gueye Ndiaye<sup>4</sup>, H. Diop<sup>3</sup>

**MGIT AST SIRE: a rapid susceptibility testing method for Mycobacterium tuberculosis complex [WePeA4091]**

<sup>1</sup> *Laboratoire Bacteriologie-Virologie, BP 7325 Dakar Senegal, 30 Avenue Pasteur, Senegal*

<sup>2</sup> *NTP, Dakar, Senegal*

<sup>3</sup> *Laboratoire Bacteriologie-Virologie, Dakar, Senegal*

<sup>4</sup> *Laboratoire Bacteriologie, Dakar, Senegal*

*Objective:* To evaluate the reliability of the susceptibility testing of M. tuberculosis complex by MGIT AST SIRE.

*Method:* 70 strains of M. tuberculosis were tested for streptomycin (SM), isoniazid (INH), rifampicin (RIF) and ethambutol (EMB) by comparing MGIT AST SIRE results to those obtained by the Method of Proportion (MOP) on Lowenstein Jensen (LJ) and Middlebrook 7H10. The 7H10 MOP was considered as method of reference. The quality control was performed by a susceptible reference strain H37Rv and an in-house resistant strain. For each medium, the result and the time to complete the test were recorded

*Results:* The turnaround time for MGIT AST SIRE was 6.2 days (5-10 days) and for MOP 18-21 days. Analyses of the 3 methods are summarised in the time table below.

<WARNING! Table is not formatted>

```
+-----+
| ATB | 7H10 | MGIT | LJ | | |
|| Total | S | R | S | R |
| SM S | 62 | 61 | 1 | 62 | 0 |
| R | 8 | 5 | 3 | 5 | 3 |
| INH S | 64 | 62 | 2 | 64 | 0 |
| R | 6 | 0 | 6 | 0 | 6 |
| RIF S | 66 | 66 | 0 | 66 | 0 |
```

R	4	0	4	0	4
EMB S	66	65	1	66	0
R	4	3	1	3	1

+-----+

*Conclusion:* Based on these results, MGIT AST SIRE is a time-saving method and can be used as a rapid method for screening multidrug-resistant strains. MGIT AST SIRE is reliable as far as RIF and INH are concerned, however additional studies are needed for SM and EMB.

*Presenting author:* E. A. **Macondo**, Laboratoire Bacteriologie-Virologie, BP 7325 Dakar Senegal, 30 Avenue Pasteur, Senegal, Tel.: +221 822 59 19/221 821 64 20, Fax: +221 82164 42, E-mail: [virus@sonatel.senet.net](mailto:virus@sonatel.senet.net)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

R. **Marlink**<sup>1</sup>, J.R.C.M. Ayres<sup>2</sup>, D. Bloom<sup>3</sup>, V. Gathiram<sup>4</sup>, S. Mboup<sup>5</sup>, M. Reich<sup>3</sup>, W. Senaratana<sup>6</sup>, D. Tarantola<sup>7</sup>, S. Gruskin<sup>7</sup>

**The enhancing care initiative: improving HIV/AIDS care in resource poor settings [ThPeB5227]**

<sup>1</sup> Harvard AIDS Institute, 651 Huntington Avenue, Boston, MA 02115, United States

<sup>2</sup> University of São Paulo School of Medicine, São Paulo, Brazil

<sup>3</sup> Harvard School of Public Health, Boston, United States

<sup>4</sup> University of Natal, Durban, South Africa

<sup>5</sup> University of Cheikh Anta Diop, Dakar, Senegal

<sup>6</sup> Chiang Mai University, Chiang Mai, Thailand

<sup>7</sup> World Health Organization, Geneva, Switzerland

<sup>7</sup> Boston, United States

*Background:* Approximately 90% of people with HIV/AIDS (PLWA) worldwide live in regions where access to medical care and resources is limited. The objectives of the Enhancing Care Initiative (ECI) are to analyze available care in these diverse socio-economic and cultural settings, to assess the needs of PLWA and to make concrete improvements in specific areas of care. The ECI is made possible by a grant from The Merck Company Foundation.

*Methods:* The ECI has united local experts to form large, multidisciplinary AIDS Care Teams in Brazil, Senegal, Thailand and South Africa to implement targeted improvements in care. Each Team uses the ECIs "AIDS Care Framework" to identify and assess the strengths and weaknesses of each regions current care practices and to determine the most cost-effective, locally appropriate and feasible improvements in selected areas of care.

*Results:* Based in Sao Paulo State, the Brazilian Team has designed 2 studies to improve care for women living with HIV/AIDS, who have an increased mortality compared to men. The Senegalese Team is conducting an overall, country-wide assessment of care. Based on its results and costing studies, the Team will determine the next phase of its effort. Based in Northern Thailand, the Thai Team has completed an overall assessment of care and is collaborating with UNAIDS, WHO and the Thai Ministry of Public Health to document the best practices for community-based care. Based in KwaZulu-Natal, the South African Team will examine care offered to adults in urban and community settings, seeking to create a continuum between home- and hospital-based care.

*Conclusion:* Cost effective and feasible solutions that enhance HIV/AIDS care can and must be developed. Local AIDS Care Teams, utilizing the ECI's broad "AIDS Care Framework" to evaluate care, may be a beneficial approach to concrete improvements in HIV/AIDS care in resource poor settings.

Presenting author: R. **Marlink**, Harvard AIDS Institute, 651 Huntington Avenue, Boston, MA 02115, United States, Tel.: +1 617 432 4114, Fax: +1 617 432 4545, E-mail: [marlink@hsph.harvard.edu](mailto:marlink@hsph.harvard.edu)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

E. **Maville**<sup>1</sup>, B. Mpekeyimana<sup>2</sup>, M. Somda<sup>3</sup>, C. Gohni<sup>4</sup>, R. Diallo<sup>5</sup>, A. Sylla<sup>6</sup>  
**"Africa 2000" : A network to develop medical care and support for PLWA**  
**[MoPpE1135]**

<sup>1</sup> AIDES Federation Nationale, 23, rue de Chateau Landon, 75010 Paris, France

<sup>2</sup> ANSS, Burundi

<sup>3</sup> REVS+, Bobo Dioulasso, Burkina Faso

<sup>4</sup> Amepouh, Abidjan, Cote-d'Ivoire

<sup>5</sup> Fondation Espoir Guinée, Conakry, Guinea

<sup>6</sup> ARCAD Sida, Bamako, Mali

*Issues:* Since 1996, the AIDES Fédération (Program "Africa 2000") has set up partnership with Aids services organizations whose common basis is to develop medical care activities for people living with HIV/Aids and their family.

Fourteen organizations issued from seven sub-saharan African countries (Mali, Niger, Burkina Faso, Senegal, Ivory Coast, Guinea-Conakry, Burundi) are part of the network which has been built upon trust between the African activists and professionals groups united in the fight against AIDS.

*Objectives:* The main objective of this program, which is financially supported by the Ministry of French Cooperation, UNAIDS and the World Aids Foundation, is to accompany the partner-organizations to implement global health care for PLWA, from Aids detection test to medical and therapeutics care.

*Methodology:* The organizations decided to work as a network in order to exchange their experiences on implementing good practices, voluntary testing, counseling, treatments delivery, psycho-social support, income generating projects and lobbying. The role of AIDES, as a Northern organization, is to strengthen the capacities of the Southern NGOs which aim to increase availability of medicines and access to good quality medical care service for PLWA.

*Results:* The actions led are 1) to defend treatment access in the African countries, 2) to mediate with institutions (UNAIDS, FSTI, Ministry of Foreign Affairs, National Programs of Fight against Aids) to mobilize financial support for the partner-organizations, 3) to organize thematic conferences and support staff trips.

*Conclusions:* These actions demonstrate the relevance and the feasibility in the African context of medical care projects for PLWA implemented by community-based organizations.

Presenting author: E. **Maville**, AIDES Federation Nationale, 23, rue de Chateau Landon, 75010 Paris, France, Tel.: +33 1 53 26 26 81, Fax: +33 1 53 26 27 85, E-mail: [emaville@aides.org](mailto:emaville@aides.org)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

E. **Maville**<sup>1</sup>, P. Walfard<sup>2</sup>

**A support fund for income-generating projects implemented by people living with AIDS in sub Saharan Africa : result of a feasibility study**  
**[MoPeD2586]**

<sup>1</sup> AIDES Federation, 23, rue Chateau Landon, 75010 Paris, France

<sup>2</sup> AIDES Federation, Paris, France

*Issues:* African AIDS service organisations (ASO), partners of AIDES Federation in the Africa 2000 network, often face financial difficulties in implementing health care projects directed to people living with Aids (PLWA). At an organisational level, difficulties concern generally shortages in treasury for funding current costs. At an individual level, lack of income puts PLWA out of reach of basic care and essential drugs.

*Objectives:* The first step was to assess feasibility of a fund for helping community based-organisations and PLWA groups to implement Income-Generating Activities (IGAs). In this way, a preliminary study was made to answer the following points : potential beneficiaries of the fund , type of projects to fund, amount and financing sources of the fund, response based on IGAs which could contribute to improve access to essential drugs.

*Methodology:* From July to September 1999, a junior-consultant was hired to carry out a grass-root study based on the experience of CESAC, a community-based health centre in Bamako, Mali, which offers a wide range of services from counselling for voluntary testing to medical care and psychosocial support.

*Results:* The study shows that many IGAs are small activities, with expected benefit from 20 to 100 \$US per month. Thus, small loans are needed to launch individual projects (between 50 and 200 \$US) which improve quality of life for PLWA and their family. PLWA can't afford anti-retroviral therapy with the level of expected income, but could access prophylactic treatment against opportunistic infections.

*Conclusions:* A support fund granting loans with low interest rate to PLWA for IGA, related to an essential drugs saving-account, can contribute to improve access to care. This project requires a consistent program of follow up and training based on a close partnership with ASO belonging to the Africa 2000 network.

*Presenting author:* E. **Maville**, AIDES Federation, 23, rue Chateau Landon, 75010 Paris, France, Tel.: +33 1 53 26 26 81, Fax: +33 1 53 26 27 85, E-mail: [emaville@aides.org](mailto:emaville@aides.org)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

P. Mayaud <sup>1</sup>, K. Cook <sup>2</sup>, E. Demba <sup>3</sup>, B. West <sup>3</sup>, G. Ekpo <sup>3</sup>, C. Scherf <sup>3</sup>, L. Morison <sup>2</sup>, G. Walraven <sup>3</sup>  
**Evaluation of a new commercial rapid diagnostic kit for bacterial vaginosis in The **Gambia**, West Africa**  
**[MoPeA2105]**

<sup>1</sup> London School of Hygiene and Tropical Medicine, Keppel street, London WC1E 7HT, United Kingdom

<sup>2</sup> London School of Hygiene & Tropical Medicine, London, United Kingdom

<sup>3</sup> MRC Laboratories, Fajara, **Gambia**

*Background:* Bacterial vaginosis (BV) could increase susceptibility to HIV, but is not currently diagnosed in many developing country (DC) settings owing to the lack of practical, affordable and reliable methods of diagnosis.

*Objective:* to evaluate the performance of a new commercial rapid diagnostic test kit for BV in DC setting.

*Methods:* 477 women were enrolled in a reproductive morbidity community survey in a rural area of The **Gambia**. BV was diagnosed using Nugent's vaginal gram stain score <sup>37</sup>. Amsel's clinical criteria for BV (3 or more of : vaginal pH > 4.5; amine odour; clue cells; abnormal vaginal discharge) were also evaluated. Two vaginal swabs were collected for the evaluation of the FemExamÒ card tests for pH and detection of trimethylamine (card 1) and proline iminopeptidase (PIP) activity indicative of G

vaginalis (card 2).

*Results:* The prevalence of BV was 38% (182/477); further 22% and 39% of women had intermediate and normal vaginal flora patterns, respectively. Only 71 (39%) women with BV complained of a vaginal discharge. The use of FemExam card 1 or card 2 individually gave sensitivities of 45% and 65%, respectively, with specificities of 90% and 77%, respectively. The use of the 2 cards together gave a sensitivity of 36% and a specificity of 94%. Amsel clinical criteria had a sensitivity of 39% and specificity of 94%, whilst use of pH paper alone had a sensitivity of 92% and a specificity of 46%. The FemExam tests were simple and rapid to use (2 minutes), with perceived easier interpretation by users. The cost per true BV case-detected-and-treated ranged from \$1.25 using Gram stain, \$2.0 using pH paper, \$7.2 using FemExam card 1, and \$15.8 using the 2 cards.

*Conclusions:* Asymptomatic BV was common in this population of rural Gambian women. FemExam® tests did not appear superior to cheaper but not always readily available alternative methods.

*Presenting author:* P. Mayaud, London School of Hygiene and Tropical Medicine, Keppel street,, London WC1E 7HT,, United Kingdom, Tel.: +44 171 927 2291, Fax: +44 171 637 4314, E-mail: [philippe.mayaud@lshtm.ac.uk](mailto:philippe.mayaud@lshtm.ac.uk)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*M. Maynard*<sup>1</sup>, *P.S. Sow*<sup>2</sup>, *A.M. Coll Sech*<sup>2</sup>, *L. Lievre*<sup>3</sup>, *S. Kony*<sup>4</sup>, *N.F. Ngom Gueye*<sup>2</sup>, *E. Bassene*<sup>2</sup>, *A. Metro*<sup>5</sup>, *I. Ndoye*<sup>6</sup>, *D. Ba*<sup>2</sup>, *J.P. Coulaud*<sup>4</sup>, *D. Costagliola*<sup>3</sup>

**Primary prevention with cotrimoxazole for HIV-1 infected adults: results of the pilot study in Dakar, Senegal**  
**[WePeA4023]**

<sup>1</sup> INSERM U88, Hopital National de Saint Maurice, 14 rue du Val d'Osne, 94415 Saint Maurice, France

<sup>2</sup> CHU Fann, Dakar, Senegal

<sup>3</sup> INSERM SC4, Paris, France

<sup>4</sup> IMEA, Paris, France

<sup>5</sup> ANRS, Paris, France

<sup>6</sup> Institut d'Hygiene Sociale, Dakar, Senegal

At a time when international initiatives for antiretroviral therapy are being launched in developing nations, no consensus has been reached on the prevention of opportunistic infections. The initial results of Ivory Coast study pointed out the cotrimoxazole efficacy and good tolerance. At the same time, a randomised placebo-controlled pilot study was conducted in Dakar (Senegal) and was interrupted in view of these intermediate results.

*Methods:* 297 HIV infected patients were screened and 100 recruited in the study. Major inclusion criteria were HIV-1 or HIV-1 and HIV-2 dual seropositivity, CD4 cell count > 400/mm<sup>3</sup>, lack of progressive infection. Eligible adults received cotrimoxazole (trimethoprim 80 mg, sulphamethoxazole 400 mg) daily or a matching placebo. The main outcome was survival and occurrence of opportunistic or non opportunistic infections (preventable by cotrimoxazole).

*Results:* Between September 1996 and March 1998, 10 deaths occurred among 51 patients in the cotrimoxazole group and 12 among 49 in the placebo group. There was no statistical difference between the two groups in the survival (hazard ratio 0.84 ; 95% CI 0.36-1.94), neither in the probability of severe event occurrence defined as death or hospital admission (hazard ratio 1.10, 95% CI 0.57-2.13), nor in the probability of clinical event occurrence (hazard ratio 1.19, 95 % CI 0.55-2.59). Adjustment for initial CD4-cell count did not change these results. Low dose of cotrimoxazole was clinically well tolerated as far as biologically during the study though only one treatment failure occurred for moderated cutaneous eruption (grade 2).

*Conclusion:* Since cotrimoxazole is widely available and used in most african countries, large-scale use of cotrimoxazole should be closely monitored using epidemiologic profiles of opportunistic infections and assessments of the levels of antibiotic resistance.

*Presenting author:* M. **Maynard**, INSERM U88, Hopital National de Saint Maurice, 14 rue du Val d'Osne, 94415 Saint Maurice, France, Tel.: +33 01 4518 3854, Fax: +33 01 4518 3889, E-mail: [m.maynard@st-maurice.inserm.fr](mailto:m.maynard@st-maurice.inserm.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

**C. Mazars**

**The community wall**  
**[TuPeE3946]**

*Enda Tiers-Monde Delegation In Europe, 5 rue des Immeubles Industriels, 75 011 Paris, France*

The purpose of development education is to make people aware about North/South inequalities and to change the image of developing countries in order to increase solidarity. Since aids is not only a disease but also a social phenomenon that reinforces all inequalities throughout the world, focusing on civil society mobilization against aids appears to be a good starting point to tackle the North/South inequalities and to urge the public to involve in a collective action.

Our aim is to present the experience of the Community Wall programm led by the NGO Enda Tiers-monde in Europe for 3 years and originally conceived by Enda (Senegal) and ICASO for the International Conference on aids in 1994. The Community Wall is a celebration of the richness, diversity and capacity of community action in the global response to aids. It is composed by a multimedia display which features a giant map of the world monted with 5 video screens (one per continent). Each clip tells the story of a person who faced the virus and decided to involve himself in a collective action; each one focuses on a different theme (aids and community dynamism, women, exclusion, street children, human rights). The projection is followed by a debate with an animator working in the field of aids prevention in Southern countries. The target group is young people from 15 to 25. If they want to involve in a solidarity action we help them to implement it. European public often thinks it cannot do anything about the increase of the North/South gap and it is not concerned by aids. The success of this programm proves that it is possible to mobilize this public against aids and doing HIV prevention in an different way without calling for pity. It also highlights the social dimension of aids. Because they can see the mobilisation of common people, they feel concerned by aids and understand that if we let other people running the world towards more injustice, we are as responsible as them.

*Presenting author:* C. **Mazars**, Enda Tiers-Monde Delegation In Europe, 5 rue des Immeubles Industriels, 75 011 Paris, France, Tel.: +33 1 44 93 87 41, Fax: +33 1 44 93 87 50, E-mail: [enda.del@globenet.org](mailto:enda.del@globenet.org)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*N. Mbaye*<sup>1</sup>, *O. Sylla*<sup>1</sup>, *C. Becker*<sup>1</sup>, *P. Tapsoba*<sup>2</sup>

**First national forum on AIDS research in Senegal**  
**[WePeE4902]**

<sup>1</sup> *RESER-SIDA, Dakar, Senegal*

<sup>2</sup> *Population Council, Dakar, Senegal*

It is commonly recognized that it is a wide gap between research and field action and a lack of an



interdisciplinary approach in the conception of lot of study projects. To contribute to resolve these problems, the Senegalese AIDS Research Network (the senegalese chapter of the African AIDS Research Network) have organised in September 1999 the First National Forum on AIDS Research. The forum has been an occasion to review the past researches, to paint the panorama of ongoing activities and to make the agenda of the priorities for the future. He also allowed the connection between the 180 scientist from different disciplines and the field workers coming from rural and urban areas wich contribute to the creation of synergies in the research programs. The meeting wich will be organised every two years provide a strong database for decision-makers and researchers.

*Presenting author:* N. **Mbaye**, RESER-SIDA, Senegalese AIDS Reseach Network, BP 7318 Dakar, Senegal, Tel.: +221 824 84 45, E-mail: [ngagne@telecomplus.sn](mailto:ngagne@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

C. Montavon <sup>1</sup>, M. Peeters <sup>2</sup>, L. **Vergne** <sup>2</sup>, C. Toure-Kane <sup>3</sup>, A. Bourgeois <sup>4</sup>, J. Jourdan <sup>5</sup>, E. Mpoudi-Ngole <sup>4</sup>, E. Delaporte <sup>2</sup>

**Full-length genome sequences of a new circulating recombinant form of HIV-1 in Africa involving subtypes A and J.**  
[MoPeA2069]

<sup>1</sup> IRD, Laboratoire Retrovirus, IRD, 911 Avenue Agropolis, BP 5045, 34032 Montpellier, France

<sup>2</sup> IRD, Montpellier, France

<sup>3</sup> CHU, Le Dantec, Dakar, Senegal

<sup>4</sup> PRESICA, Yaounde, Cameroon

<sup>5</sup> CHU, Nimes, France

*Background:* Following the designation of subtypes within HIV-1 groupM, it was realized that certain isolates are inter-subtype recombinants. Some of these mosaic HIV-1 genomes are unique, or restricted to small transmission clusters. However, others play a major role in the global AIDS epidemic: these are now designated as "Circulating Recombinant Forms", or CRFs with similar breakpoints reflecting common ancestry from the same recombination event. There are currently several CRFs of HIV-1, AE-viruses in southeast Asia, AG-IBNG like viruses in west and west Central Africa, AB in Russia, à . In this report we describe a new CRF, involving subtypes A and J.

*Methods:* Partial sequences of env, gag and pol, for 3 epidemiologically unlinked individuals, 2 from Central African Republic and 1 from Cameroon suggested a similar recombination profile. To elucidate the genomic structure of these viruses, near full length sequencing was done by overlapping PCRs followed by direct sequencing. Phylogenetic tree and additional analysis were done to determine the mosaic srtructure of the viruses.

*Results:* Phylogenetic tree analysis from the near full-length genomes shows that the 3 viruses form a highly supported and well separated cluster. More detailed analysis, using RIP, DIVERT, Bootscanning and overlapping phylogenetic trees, showed a similar mosaic genome for the 3 viruses, involving subtypes A and J mainly with several breakpoints in pol and env, and with a small subtype E fragment in the 3' end of nef. Partial sequencing revealed the presence of such strains also in Senegal and France.

*Conclusions:* Recombinant viruses are already contributing substantially to the global pandemic, in this study we identified a new circulating recombinant HIV-1 virus. Subtype J sequences, initially thought as rare, seem to have a broader geographical spread by the way of these recombinant forms.

*Presenting author:* C. Montavon, IRD, Laboratoire Retrovirus, IRD, 911 Avenue Agropolis, BP 5045, 34032 Montpellier, France, Tel.: +33-4 67 41 62 97, Fax: +33-4 67 61 94 50, E-mail: [martine.peeters@mpl.ird.fr](mailto:martine.peeters@mpl.ird.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

I. Ndoye <sup>1</sup>, J. L. Perret <sup>2</sup>, S. Mboup <sup>3</sup>, M. A. Faye - Niang <sup>3</sup>, P. S. Sow <sup>4</sup>, M. Ciss <sup>5</sup>, E. Delaporte <sup>6</sup>, J. P. Coulaud <sup>7</sup>, S. Badiane <sup>4</sup>

**Feasibility and efficacy of a first governmental initiative on antiretroviral therapy in subsaharan countries: The case of Senegal**  
[ThPeB5278]

<sup>1</sup> Programme National de Lutte contre le SIDA, BP 3435 Medina, Dakar, Senegal

<sup>2</sup> Clinique Brevie - Hopital Principal, Dakar, Senegal

<sup>3</sup> Dakar, Senegal

<sup>4</sup> Clinique des Maladies Infectieuses - CHU De Fann, Dakar, Senegal

<sup>5</sup> Pharmacie Centrale - CHU De Fann, Dakar, Senegal

<sup>6</sup> Montpellier, France

<sup>7</sup> Paris, France

*Background:* The Senegalese governmental Initiative on antiretroviral therapy began in August 1998. Its objective was to demonstrate the feasibility and the efficacy of antiretrovirals in an African country.

*Description:* The patients' monthly selection is based on clinical and biological criteria. An evaluation of the patient's socioeconomic resources assigns the level of the financial contribution.

*Results:* 68 patients have been included over a 16 months period; for 60 of them, the intended treatment was a tritherapy while for 8, it was a bitherapy. 81% were naïve and 73% were at stage C (CDC). The sex ratio was 1. 2 withdrawals and 10 deaths have been registered. Preliminary results show globally a clinical, immunological and virological efficacy. The positive evolution of the body mass index reflected the improvement of patients' physical status. The number of CD4 increased significantly between day 0 et month 12 while the number of patients with undetectable viral load jumped from 8% at inclusion to 64% at month 6. The mean decreases in viral load was above 1.40 copies at month 1, month 6 or month 12. No major mutation could explain the cases of viral load rebound observed. With regard to observance, 20% of the patients had interrupted their treatment during the last 30 days, most of them for economic reasons. For most of the patients, their financial contribution is half of the minimum legal salary, although the government subsidized the treatment at a level as high as 93%.

*Conclusion:* Senegalese governmental Initiative illustrates the feasibility and efficacy of antiretroviral therapy in subsaharan african countries. Its sustainability depends on reducing the price of ARV. Access to ARV therapy is more a financial and solidarity challenge than a technical problem.

*Presenting author:* I. Ndoye, Programme National De Lutte Contre Le SIDA, BP 3435 Medina, Dakar, Senegal, Tel.: +221 822 90 45, Fax: +221 822 15 07, E-mail: [ibndoye@telecomplus.sn](mailto:ibndoye@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

P.M. Ndoye <sup>1</sup>, A.A. Diallo <sup>1</sup>, P.O. Diaw <sup>1</sup>, I. Sall <sup>2</sup>, M. Kane-Coulibaly <sup>2</sup>, A.A. Hane <sup>3</sup>, L. Diakhate <sup>3</sup>, I. Ndoye <sup>3</sup>, S. Mboup <sup>2</sup>

**Evaluation of the senegalese sentinel surveillance: towards to a second generation system**  
[MoPeC2394]

<sup>1</sup> Bacteriology-Virology Laboratory, Dakar, Senegal

<sup>2</sup> National AIDS Prevention Committee, Dakar, Senegal

*Background:* The National Sentinel Surveillance for HIV infections was established in 1989. The aims of this program were to monitor over time HIV1 and HIV2 prevalence in different population, and to

evaluate trends of these infections. The current goal is to associate a sero-epidemiological survey with and behavioural one which is known as a second generation system.

*Objectives:* To assess the Senegalese Sentinel Surveillance Program after a decade. and adapt it to second generation system.

*Methods:* HIV Sentinel Surveillance (HSS) data has been collected since 1989. Sentinel groups were: STI patients, female sex workers (FSW), in-patients, TB patients and antenatal clinics attenders (ANCA) in four regions. A first screening of collected sera were carried out at regional laboratories and samples were transported to the reference laboratory (HALD) in Dakar for confirmation. In 1998 Behaviour Surveillance Studies (BSS) were undertaken among FSW, school children, and employees.

*Results:* From HSS data in Dakar prevalence in 1998 and HIV1/HIV2 trends from 1989 to 1998 were as follows:

WARNING! Table is not formatted

```
+-----+
| HIV prevalence c 2 for trend |
| Populations % | `95% CI' | n | p (HIV1) | p (HIV2) |
| ANCA 1.0% | `0.1-3.6' | 198 | 0.6 {*} | 0.6 {*} |
| FSW 8.7% | `6.8-10.9' | 760 | 0.01 {**} | 0.3 {*} |
| STI patients 3.0% | `0.8-7.4' | 135 | 0.04 {**} | 0.04 {***} |
| In-patients 15.1% | `9.3-22.5' | 126 | 0.7 {*} | 0.04 {**} |
| TB patients 8.6% | `5.7-16.7' | 163 | 0.03 {**} | 0.5 {*} |
| {*}stable, {**}increased, {***} decreased |
+-----+
```

In 1998 BSS concluded that 99% of FSW used condom with their clients. Some 81% of employees and 67% of schoolboys had used condom with casual sex-partners.

*Conclusion:* Senegal a concentrated epidemic country. HSS and BSS data each present a useful picture of HIV situation and public health intervention. The combination of both systems may improve the evaluation of public health intervention efforts.

*Presenting author:* P.M. **Ndoye**, Laboratoire de Bacteriologie-Virologie, BP 7325 Dakar Senegal, 30 Avenue Pasteur, Senegal, Tel.: +221 822 59 19, Fax: +221 821 64 42, E-mail: [virus@sonatel.senet.net](mailto:virus@sonatel.senet.net)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

**O. Nicholson**<sup>1</sup>, **R. Marlink**<sup>2</sup>, **P. Kanki**<sup>2</sup>, **I. Thior**<sup>2</sup>, **M. Essex**<sup>2</sup>, **Mboup S**<sup>3</sup>

**Impact of active TB on HIV survival outcomes**  
**[TuPpC1241]**

<sup>1</sup>Harvard School of Public Health, 274 Cambridge Street #6, Boston, MA 02114, United States

<sup>2</sup>Harvard School of Public Health, Boston, MA, United States

<sup>3</sup>Dakar, Senegal

*Background:* The WHO estimates that 5.6 million people worldwide are dually infected with HIV and TB. Few studies have examined the impact of active TB on the natural history of HIV infection. We hypothesized that dual infection with active TB might adversely affect survival outcomes among HIV infected patients. We compared mortality rates between HIV-1 and HIV-1/TB dually infected patients at various stages of disease.

*Methods:* Between 1991 and 1993, adult patients presenting at two general hospitals in Dakar, Senegal (the Fann and Le Dantec) were asked to participate. 3,789 patients were enrolled. Patients were counseled and underwent serological testing for HIV-1 and HIV-2. Baseline CD4 counts were done.

Patients with active TB were identified and enrolled in a National TB Registry for treatment. No anti-retroviral therapy was available. Follow-up ended in 1995.

*Results:* Of the 3,789 screened, 379 (10%) were HIV-1 positive; 166 HIV-1 positive patients were followed longitudinally and 59 of these (35.5%) had active TB. Overall mortality rates were similar for those with HIV only (62/105 or 59%) and those with HIV/TB (32/51 or 62.7%) (n = 156 with mortality data). Mortality rates were compared with patients stratified by CD4 percent. Median survival times differed only in those with the highest CD4 percent (i.e. >28%). In this group, HIV only patients had a median survival of >40 months, as compared to 25.9 months for HIV/TB patients (Kaplan Meier log rank  $\chi^2(1) = 3.97$ ,  $p = 0.046$ ). In patients with lower CD4 percents the median survival for those infected with HIV alone vs. HIV/TB did not differ significantly. Survival between HIV patients and HIV/TB patients was also compared in a Kaplan Meier curve adjusted for CD4%. At 30 months of follow up, survival for those infected with HIV remained near 50%, as compared to 15% for HIV/TB.

*Conclusions:* We examined the impact of active TB on mortality rates of HIV-1 infected patients. Among the healthiest patients in this cohort, dual infection with HIV-1 and active TB adversely affected survival outcomes as compared to infection with HIV-1 alone. These results underscore the importance of routine screening and preventive therapy for TB in prolonging survival among HIV infected patients in countries where HIV and TB are endemic and where anti-retroviral therapy is not routinely available.

Impact of Active TB on HIV Survival Outcomes

*Presenting author:* O. **Nicholson**, Harvard School of Public Health, 274 Cambridge Street #6, Boston, MA 02114, United States, Tel.: +1 617 523 1752, E-mail: [ouzamamd@yahoo.com](mailto:ouzamamd@yahoo.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

H. Norrgren<sup>1</sup>, S. Bamba<sup>2</sup>, Z. da Silva<sup>3</sup>, S. Andersson<sup>4</sup>, T. Koivula<sup>4</sup>, A. Nauc ler<sup>5</sup>, G. Biberfeld<sup>4</sup>  
**High mortality and severe immunological changes in patients with pulmonary tuberculosis and HIV-2 in Guinea-Bissau**  
[WePeC4438]

<sup>1</sup> Dept of Infectious Diseases, University Hosp of Lund, S-221 85 Lund, Sweden

<sup>2</sup> Raoul Follerau Hospital, Bissau, **Guinea-Bissau**

<sup>3</sup> National Public Health Laboratory, Bissau, **Guinea-Bissau**

<sup>4</sup> Stockholm, Sweden, <sup>5</sup>Malm , Sweden

*Background:* We have prospectively studied the clinical outcome in patients with culture-proven tuberculosis and HIV-1/HIV-2 infection compared with HIV negative patients, evaluated immunological changes and investigated risk factors for decreased survival in HIV-2 positive subjects.

*Methods:* 127 consecutive patients with culture-confirmed pulmonary tuberculosis were included at the Raoul Follerau TB-Hospital in Bissau, the capital of **Guinea-Bissau**. All subjects were initially hospitalized, and then followed up to the end of the 8-months treatment period.

*Results:* The seroprevalence of HIV-1, HIV-2 and HIV-1/HIV-2 dual reactivity was 8.7%, 23.6% and 9.4%, respectively. The mortality during the study period was significantly higher in HIV-2 positive (10/30; 33.3%) and in HIV-1/HIV-2 dually reactive patients (5/12; 41.7%) as compared to HIV negative individuals (4/74; 5.4%). Baseline total CD4 counts were 213, 104, 235 and 624, and CD4% were 17, 15, 20 and 40 among HIV-1, HIV-2, HIV-1/HIV-2 dually reactive and HIV negative subjects, respectively. When risk factors for mortality during treatment in HIV-2 infected patients were investigated in a multivariate regression analysis, CD4% > 10 was the only independent risk factor for decreased survival ( $p > 0.05$ ).

*Conclusions:* Among patients with culture-proven pulmonary tuberculosis, we found a significantly higher mortality in HIV-2 positive subjects compared to HIV negative individuals. Baseline CD4 counts were markedly suppressed, and a value of CD4% > 10 was shown to be an independent predictor of

decreased survival in HIV-2 infected subjects.

*Presenting author:* H. Norrgren, Dept of Infectious Diseases, University Hosp of Lund, S-221 85 Lund, Sweden, Tel.: +46 46 17 11 30, Fax: +46 46 32 38 95, E-mail: [Hans.Norrgren@infek.lu.se](mailto:Hans.Norrgren@infek.lu.se)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

R. **Onanga**<sup>1</sup>, V. Poaty-Mavongou<sup>2</sup>, S. Souquiere<sup>2</sup>, C. Kornfeld<sup>3</sup>, M. Muller-Trutwin<sup>3</sup>, P. Rouquet<sup>4</sup>, C. Apetrei<sup>2</sup>, F. Simon<sup>2</sup>, S. J. Mboup<sup>5</sup>

**SIVmndGB1 in mandrillus sphinx : A new model for experimental SIV primary infection**  
**[TuPeA3029]**

<sup>1</sup> *Laboratoire de Rétrovirologie Centre, International de Recherches Médicales, PO Box 769, Franceville, Gabon*

<sup>2</sup> *Laboratoire de Rétrovirologie - CIRMF, Franceville, Gabon*

<sup>3</sup> *Laboratoire de Retrovirologie - Institute, Paris, France*

<sup>4</sup> *Centre De Primatologie, CIRMF, Franceville, Gabon*

<sup>5</sup> *Universite Cheikh Anta Diop, Dakar, Senegal*

*Background:* HIV dynamics during primary infection have a predictive value for the outcome of the disease. However the study of primary infection is difficult, only a few patients being diagnosed as HIV-infected at this early stage of infection. Animal models for the study of viral and immune system dynamics during the primary are badly needed and were already developed during the last years. Here we present an alternative model of SIVmndGB1 primary infection in M. sphinx. SIVmndGB1 was characterised 12 years ago from a wild M. sphinx in CIRMF Gabon. This virus is the representant of an independent lineage of SIV.

Looseness=-100000

*Methods:* GB1 virus was obtained from its original host (GB1) still living and symptom free. We developed an original approach for viral stock preparation to be used to infect the target animals. GB1 infectious plasma was titered on sup T1 cell line at 4 TCID<sub>50</sub>. In order to obtain a large amount of highly infectious viral stock, we inoculated 10 ml of GB1 blood to a new M. sphinx. Plasma of this mandrills was collected (25 ml) at day 11 of primary infection allowing us to obtain aliquots of 3,000 TCID<sub>50</sub>/ml. Subsequently, four monkeys received 1 ml of this viral stock and were bled at days 0, 4, 7, 10, 14, 17, 21, 28, 32, 60 and 180. Investigations consisted of viral isolation, quantitation of p24 Ag, RT-PCR, peptide ELISA for the detection of antibodies directed to gp36 and V3 loop and CD4/CD8 counts on peripheral blood and lymph nodes.

*Results:* All included animals developed a primary infection with GB1. The pick of viremia was observed at days 7-10 by HIV-1 p24 Ag, RT activity in plasma and RNA detection by PT-PCR. P24 Ag positivity and plasma RNA were detected until D60. Anti-gp36 antibodies were detected at days 28-32 and the anti-V3 seroconversion starting from D32. We did not observed any modification in CD4, CD8 or CD4/CD8 ratio neither in blood nor lymph nodes.

*Conclusion:* We developed virological and immunological tools to study the SIVmndGB1 infection in Mandrillus sphinx. The virus replicate at high titer during the primary infection. However, after this stage the viral dynamics is well controlled. This new animal model of primary SIV infection helps in understanding the early phase of lentiviral infections and offers a comparative non-pathogenic model.

*Presenting author:* R. **Onanga**, Laboratoire De Retrovirologie Centre, International De Recherches Medicales, PO Box 769, Franceville, Gabon, Tel.: +241 677 092, Fax: +241 677 292, E-mail: [onanga@cirmf.sci.ga](mailto:onanga@cirmf.sci.ga)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

K. Paine <sup>1</sup>, M. Shaw <sup>2</sup>, M. Jawo <sup>2</sup>, G. Hart <sup>3</sup>, S. Seesay <sup>4</sup>, K. McAdam <sup>2</sup>, G. Walraven <sup>2</sup>  
**A pilot evaluation of stepping stones in the **Gambia**: Qualitative methods**  
**[WePeD4720]**

<sup>1</sup> MRC, POBox 273, Banjul, **Gambia**

<sup>2</sup> MRC, Banjul, **Gambia**

<sup>3</sup> MRC

<sup>4</sup> National AIDS Control Programme, Banjul, **Gambia**

*Background:* To explore methods and develop tools for the evaluation of a community level, Participatory programme on sexual health and relationship skills (see abstract M Jawo).

*Methods:* Two matched pairs of villages were randomly selected, one village in each pair being randomised to the intervention. Seven focus groups, and 46 in-depth key informant interviews (IDI) were conducted after the intervention. The following topics were covered: village structure, implementation of the intervention, knowledge acquired, changes in condom use and supply, reasons for non-participation and overall impact. In addition, quantitative data were collected (see abstract M Shaw). Data from a one year follow up will also be available at the time of the conference.

*Results:* Thematic analysis of the IDI and FGD showed that participants enjoyed the programme. They felt they had improved their knowledge of STIs and HIV and knew better how to deal with the problems of relationships based on money. At baseline condom supply was poor, but demand increased after the programme. It was said that women could now ask men to use a condom. Following the intervention there was less reported tolerance of extramarital sex, with more awareness of the risks of infidelity. Dialogue between partners and with children about STI risk was reported to have increased. Data suggest more acceptance when wives refused to have sex, and a decrease in wife-beating. Reasons for non-participation were usually practical.

*Conclusions:* These results suggest that Stepping Stones has positive effects on relationships and STI risk. Preparations are being made to proceed with a community randomised trial of Stepping Stones using a combination of quantitative and qualitative methods, including laboratory outcome markers (see abstract M van der Sande)

*Presenting author:* K. Paine, MRC, POBox 273, Banjul, **Gambia**, Tel.: +00220 495442-6 x356, E-mail: [kpaine@mrc.gm](mailto:kpaine@mrc.gm)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

M. Peeters <sup>1</sup>, S. Mboup <sup>2</sup>, A. Ndoyi-Mbiguino <sup>3</sup>, D. Koyalta <sup>4</sup>, C. Mulanga-Kabeya <sup>5</sup>, E. Mpoudi-Ngole <sup>6</sup>

**Genetic diversity of HIV-1 in West and West Central Africa**  
**[TuOrA411]**

<sup>1</sup> IRD Laboratoire retrovirus, 911 Avenue Agropolis, BP 5045, 34032 Montpellier Cedex 1, France

<sup>2</sup> Le Dantec, Dakar, **Senegal**

<sup>3</sup> CUSS, Libreville, **Gabon**

<sup>4</sup> PNLs, Ndjamena, **Chad**

<sup>5</sup> IRD, Montpellier, **France**

<sup>6</sup> PRESICA, Yaounde, **Cameroon**

*Background:* To identify and characterize HIV-1 viruses that circulate in west and west central africa, and to determine their relative prevalence.

*Methods:* More than 1500 HIV-1 positive samples were characterized in the V3-V5 region of the envelope, by HMA(heteroduplex mobility assay) and/or sequencing. The samples were collected between 1997 and 1999, in 8 different countries (Senegal, Mali, Niger, Nigeria, Chad, Cameroon, Gabon and DRC (ex-Zaire). For more than a quarter of these samples, the genetic subtype was also identified in the gag region.

*Results:* By HMA, the predominant env subtype is A, however decreasing from west to west central Africa (85% to less than 50%). Subtype G was seen in all the countries, and represents >25% of the viruses in Nigeria. Subtypes E, F1, F2, H, J and K were more prevalent in west central Africa. The frequency of discordant subtypes between gag and env ranges from 10% (in Senegal, Cameroon, Gabon) to up to 30% in Nigeria and DRC. Many samples (60 to 80%), identified as subtype A in env and/or gag form a separate cluster with the AG-IBNG virus. Full-length genome sequencing confirmed that they had a similar complex mosaic AG structure as AG-IBNG, suggesting that AG-IBNG viruses are predominant in west Africa and to a lesser extent in central Africa. Many other complex recombinant viruses circulating in different countries were documented AGJ?-BFP90 like viruses, a complex AJ? virus and a recombinant intergroup O/M virus in Cameroon.

*Conclusion:* In each country, the majority of the known HIV-1 subtypes and CRF (circulating recombinant forms) cocirculate, but their prevalences vary. Also within a country, geographical differences in subtype distribution are seen. Higher intrasubtype distances are seen in Central Africa, especially DRC. The prevalence of recombinant viruses is relative high, and recombinant viruses continue to recombine (AG-IBNG viruses recombined with F, D, O, ...). Genetic subtype distribution is a dynamic and unpredictable process.

*Presenting author:* M. Peeters, IRD Laboratoire retrovirus, 911 Avenue Agropolis, BP 5045, 34032 Montpellier Cedex 1, France, Tel.: +33-4 67 41 62 97, Fax: +33-4 67 61 94 50, E-mail: [martine.peeters@mpl.ird.fr](mailto:martine.peeters@mpl.ird.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

A. Philpott<sup>1</sup>, M. Conteh<sup>2</sup>, N. Faleel<sup>3</sup>, L. Hewapathirana<sup>4</sup>, A. Jayawardee<sup>4</sup>, B. Lamichhane<sup>5</sup>, N. Pande<sup>6</sup>, B. Rawal<sup>7</sup>, L. Wickremasinghe<sup>7</sup>

**FACTS: Implementing a prototype project in different places: planning for cultural context but not for logistics**  
[WePeE4881]

<sup>1</sup> International Family Health, Cityside House, 40 Adler Street, London, E1 1EE, United Kingdom

<sup>2</sup> Worldview The Gambia, Farafenni, Gambia

<sup>3</sup> Worldview International Foundation, Colombo, Sri Lanka

<sup>4</sup> Worldview Sri Lanka, Colombo, Sri Lanka

<sup>5</sup> Worldview Nepal, Nuwakot, Nepal

<sup>6</sup> Worldview Nepal, Nawal Parasi, Nepal

<sup>7</sup> Worldview Nepal, Kathmandu, Nepal

<sup>7</sup> Worldview The Gambia, Colombo, Sri Lanka

*Issues:* Flexibility is often built into process programmes but only for certain elements. This leads to difficulties when trying to reach vulnerable communities.

*Description:* International Family Health and Worldview International Foundation are implementing a participatory sexual health media and education programme in Nepal, Sri Lanka and the Gambia with vulnerable young people (FACTS). The programme was designed to follow a standard process: participatory research, material design, peer facilitation and on-going small group "roundtable discussions". A pilot phase ensured that elements of the project could be redesigned in light of evaluation. Cross-cutting HIV issues included; employment practices that endanger sexual health (sex

tourism, migrant labour practices or girl trafficking) and inadequate formal sex education. Materials and curricula were designed and adapted at the local level. At the design stage we recognised that HIV prevention with vulnerable groups requires this flexibility, however the varied logistical challenges has required a more significant re-designing of the programme. Funding constraints and accountability mechanisms, such as tight budget line definitions made an initial broad costing of transport requirements difficult. In Nepal the remoteness of vulnerable communities, often 3 days walk from the nearest road or town, has required a rethinking of fortnightly groups into "health camps" over a more concentrated period with peer facilitators living there for that time.

*Conclusion:* Programmes addressing vulnerable and remote communities need to build in flexibility not only for cultural issues, such as content of educational materials, but also for logistical considerations. Donors and programmers could focus more on health outcomes of process projects and delivery of appropriate quality services rather than narrowly defining logistical needs at an initial stage of planning

*Presenting author:* A. Philpott, International Family Health, Cityside House, 40 Adler Street, London, E1 1EE, United Kingdom, Tel.: +44 207 247 99 44, Fax: +44 207 247 92 24, E-mail: [info@ifh.org.uk](mailto:info@ifh.org.uk)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

R. Sarge-Njie <sup>1</sup>, M. Schim van der Loeff <sup>2</sup>, S. Ceesay <sup>3</sup>, S. Sabally <sup>2</sup>, T. Blanchard <sup>2</sup>, D. Cubitt <sup>4</sup>, H. Whittle <sup>2</sup>

**Dried blood spot for use in sentinel surveillance of HIV-1/2**  
**[MoPeA2116]**

<sup>1</sup> Medical Research Council, MRC Laboratories, Fajara, PO Box 220, Banjul, *Gambia*

<sup>2</sup> MRC, Banjul, *Gambia*

<sup>3</sup> State Department of Health, Banjul, *Gambia*

<sup>4</sup> Great Ormond Street Hospital, London, United Kingdom

*Background:* Intense interest in estimating the prevalence of HIV infections in the general population arose in the late 80's in The *Gambia*, when the 1st case was discovered in 1986. Screening of the general population was done in 1988 & 1991, followed by the study of a mother-to-child transmission in 1993. These studies were expensive as they involved the collection of large numbers of venous blood samples which reduced participation, required training, needles, syringes and test tubes. Prompt handling, transportation, re-refrigeration of samples had to be effected to minimise haemolysis and contamination. The ease with which small amounts of blood can be collected onto filter paper prompted us to do a pilot study to assess feasibility for use in sentinel surveillance at a later date.

*Method:* 200 Blood samples, obtained at the GU clinic at MRC, Fajara for HIV were tested. DBS were evaluated against corresponding serum samples of the same patients. DBS were kept at RT with no dessication prior to testing. Eluates were tested on gelatin particle assay (GPA) as well as on ELISA. All positive samples were confirmed by titration, ELISA and Pepti-Lav 1-2.

*Results:* The 100% concordance between the ELISA and the GPA reflects the good sensitivity of the test and sampling. Elution in 100ul and 200ul respectively were also compared and good agreement was obtained on initial testing, however there was reduction in titre for HIV-2 on titration. 100% sensitivity was obtained when samples were pooled.

*Conclusion:* The GPA is highly sensitive and conforms to the ELISA and reduces the test time by 30 minutes. Spots can be eluted in 200ul without losing sensitivity especially with HIV-1. Testing is much cheaper and transportation of samples less demanding. This collection technique will greatly facilitate seroepidemiological surveillance for HIV infections in Africa and especially where individuals are reluctant to give blood

*Presenting author:* R. Sarge-Njie, Medical Research Council, MRC Laboratories, Fajara, PO Box



220, Banjul, **Gambia**, Tel.: +220 495 442 Ext. 408/325, Fax: +220 496 513, E-mail: [rnjie@mrc.com](mailto:rnjie@mrc.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

M. Shaw<sup>1</sup>, K. Paine<sup>2</sup>, M. Jawo<sup>2</sup>, S. Seesay<sup>3</sup>, G. Hart<sup>4</sup>, L. Morison<sup>5</sup>, S. Wuchuku-King<sup>6</sup>, Y. Dibba<sup>7</sup>, K. McAdam<sup>2</sup>, G. Walraven<sup>2</sup>

**A pilot evaluation of the Stepping Stones HIV prevention programme: quantitative methods [WePeD4722]**

<sup>1</sup> Medical Research Council (MRC), P.O. Box 273, Banjul, **Gambia**

<sup>2</sup> MRC, Banjul, **Gambia**

<sup>3</sup> National AIDS Control Programme, Banjul, **Gambia**

<sup>4</sup> MRC, Glasgow, United Kingdom

<sup>5</sup> London School of Hygiene and Tropical Medicine, London, United Kingdom

<sup>6</sup> ActionAid, Banjul, **Gambia**

<sup>7</sup> Gambia Family Planning Association, Banjul, **Gambia**

*Background:* To explore methods and develop tools for evaluation of the effect of a community level, Participatory STI/HIV prevention programme, (see abstract M Jawo,).

*Methods:* Two matched pairs of villages were randomly selected, one village in each pair being randomised to the intervention. Data were collected at baseline (n = 134) and 2 months after the intervention (n = 142) by KAP survey, data from one year after the intervention will be available soon. Because this was a pilot study data were analysed at the individual rather than the community level.

*Results:* The total population over 15 in the 2 intervention villages was 339, 145 (46%) of whom participated in the intervention, 54 (39%) of those interviewed for the post KAP were participants. Interviews showed that 80% were married and 50% of the sexually active population had had sex outside marriage, 69% had no education (80% women). Young women showed the biggest change compared with other age-sex peer groups. Men did not show any significant change, due to higher baseline scores and smaller sample size. Significant increases were detected in women from the intervention villages for knowledge scores of HIV transmission, prevention and STI symptoms ( $p > 0.05$ ). Post intervention women were also more likely to consider themselves at risk from HIV ( $p > 0.05$ ), to have thought about doing something to prevent themselves from becoming infected ( $p > 0.05$ ), to have discussed HIV risk with their partner ( $p > 0.05$ ), and friends ( $p > 0.001$ ), and to have discussed condoms with friends ( $p > 0.005$ ). Women in polygynous unions were more likely to consider themselves at risk ( $p > 0.005$ ), men who had had sex outside marriage were more likely to have thought about HIV prevention ( $p > 0.005$ ).

*Conclusions:* The data suggest that women are the main beneficiaries from the programme, with positive changes in their knowledge about STIs and HIV, awareness of their risk of infection, dialogue within marriage and amongst their peers.

*Presenting author:* M. Shaw, Medical Research Council (MRC), P.O. Box 273, Banjul, **Gambia**, Tel.: +220 4 995 44 26 x356, E-mail: [mshaw@mrc.gm](mailto:mshaw@mrc.gm)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

M. Schim van der Loeff<sup>1</sup>, P. Aaby<sup>2</sup>, T. Vincent<sup>2</sup>, A. Aveika<sup>3</sup>, A. Alabi<sup>3</sup>, C. Da Costa<sup>2</sup>, H. Whittle<sup>3</sup>

**Is HIV-2 a vaccine?**

**[MoPeA2083]**

<sup>1</sup> MRC Laboratories, PO Box 273, Banjul, **Gambia**

*<sup>2</sup>Projecto de Saude de Bandim, Bissau, Guinea-Bissau*

*Background:* In 1995 Travers et al. described a 70% protective effect of HIV-2 infection against subsequent HIV-1 infection in a cohort study of Commercial Sex Workers (CSWs) in Dakar (Senegal). Four subsequent studies of other groups could not confirm this finding. We examined this putative effect in a community-based cohort study with 8 years of follow-up.

*Methods:* Residents  $\geq 15$  years in a rural area in Western Guinea-Bissau were eligible for the study (period 1989-98). HIV and TPHA serology were done, and the CSW status of women was assessed. Qualitative PCR amplification of HIV-1 and HIV-2 viral DNA was performed using nested primers based on the LTR region in dually reactive samples.

*Results:* From a total of 3064 villagers who gave a blood sample, 1789 (60%) provided samples on two or more occasions. Out of 185 HIV-2 infected subjects, 18 became additionally infected with HIV-1, incidence rate (IR) = 20/1000 pyo. Out of 1604 seronegative subjects, 25 became infected with HIV-1, IR = 2.3/1000 pyo. The crude incidence rate ratio (IRR) was 8.6, after controlling for CSW status this was reduced to 3.6 (95% CI: 1.6-7.9). The IRR was  $> 1.0$  in all subgroups analysed. The IRR controlled for area, sex, TPHA status, and age group was 3.7 (95% CI: 1.7-8.3).

*Conclusion:* We could not confirm a protective effect of HIV-2 in this population. We conclude that HIV-2 cannot be regarded as a vaccine, but instead, may be a risk factor for HIV-1 infection.

*Presenting author:* M. Schim van der Loeff, MRC Laboratories, PO Box 273, Banjul, **Gambia**, Tel.: + 220 - 494 079, Fax: + 220 - 496 513, E-mail: [mschim@mrc.gm](mailto:mschim@mrc.gm)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*Maarten Schim van der Loeff<sup>1</sup>, S. Jaffar<sup>2</sup>, A. Akum<sup>3</sup>, K. Ariyoshi<sup>3</sup>, S. Sabally<sup>3</sup>, T. Corrah<sup>3</sup>, H. Whittle<sup>3</sup>*

**Comparing survival of HIV-1 and HIV-2 in a clinic-based follow-up study [TuOrC430]**

*<sup>1</sup>MRC Laboratories, POBox 273, Banjul, The **Gambia**, West Africa, **Gambia***

*<sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom*

*<sup>3</sup>MRC Laboratories, Banjul, **Gambia***

*Introduction:* The natural history of HIV-2 is not well understood, but HIV-2 appears to be associated with a slower progression of disease, and a lower mortality. We compared the survival between HIV-1, HIV-2, and Dually infected patients in a clinic-based, seroprevalent cohort in Fajara, The **Gambia**.

*Methods:* Recruited were subjects  $\geq 15$  years who attended the MRC clinics in Fajara between May 1986 and September 1997, and who had a positive HIV serology. Sera were screened with an ELISA, followed by two type-specific ELISA's if positive. If the result was not clear-cut, a PeptiLav or PCR was done. Patients were invited to attend clinic every 3 months; if they did not show up, they were visited at home by field workers to ascertain survival status. Blood was taken for CD4 counts 6-monthly. The observation period closed on 1st January 1998. No patient was on antiretroviral therapy.

*Results:* A total of 1529 HIV-positive adult patients were recruited. In 20 no final HIV sero-diagnosis could be made; these were excluded from the analysis. 742 patients had HIV-1, 661 HIV-2, and 106 patients had Dual infection. 823 subjects died (55%), and 166 (11%) were lost to follow up. Absolute CD4 counts at baseline were available for 1160 patients. Overall, compared to HIV-1, the Hazards Ratio (HR) for mortality was 0.77 (95% CI: 0.64-0.92) for HIV-2, and 1.04 (0.74-1.44) for Dual. Among those with CD4  $> 200$  cells per microlitre the HR was 0.92 for HIV-2 and 0.92 for Dual; among those with CD4 between 200 and 500 the HR was 0.66 for HIV-2 and 0.88 for Dual, and among those with CD4  $> 500$  the HR was 0.47 (0.28-0.77) for HIV-2 and 1.58 (0.74-3.37) for Dual.

*Discussion:* HIV-2 patients with advanced disease have the same poor prognosis as patients with HIV-1. HIV-2 patients with normal CD4 counts have a better survival than HIV-1 infected patients. Dually infected patients appear to have a prognosis similar to HIV-1.

*Presenting author:* Maarten Schim van der Loeff, MRC Laboratories, POBox 273, Banjul, The Gambia, West Africa, Gambia, Tel.: + 220 - 494079, Fax: + 220 - 496513, E-mail: [mschim@mrc.gm](mailto:mschim@mrc.gm)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*K. Seck*<sup>1</sup>, *N.S. Niang*<sup>2</sup>, *N.S. Niang*<sup>2</sup>, *O. Diop*<sup>3</sup>, *O. Diop*<sup>3</sup>, *R. Dioum*<sup>4</sup>, *B. Gassama*<sup>5</sup>

**Involving private pharmacies in the control of HIV/AIDS/STI in the city of Dakar Senegal [WePeC4381]**

<sup>1</sup> *National AIDS Program, Institut d'Hygiene Sociale, BP 3435, Dakar, Senegal*

<sup>2</sup> *USAID / FHI/PNLS, Dakar, Senegal*

<sup>3</sup> *USAID/FHI/PNLS, Dakar, Senegal*

<sup>4</sup> *USAID, Dakar, Senegal*

<sup>5</sup> *USAID FHI, Dakar, Senegal*

Self medication is one of the major constraint in the control of STI. Many studies show that more than 50 % of STI patients do not seek treatment from health facilities but directly from pharmacists or market medication sellers. Although pharmacists are not allowed to deliver medical care, it seemed opportune to involve them in the prevention of STIs through information material and referral system to health facilities for treatment.

*Description:* The main objectives are to involve private pharmacists in STI/HIV IEC activities towards their clients and to prevent HIV/AIDS through referral case management system with public health facilities. The activities are based on a training protocol targeting pharmacist and selling staff, set of IEC material development for demonstration and distribution. 10 pharmacies have been selected for the pilot phase. A supervision system has been implemented to help in solving field problems and institutional constraints.

*Results of the pilot phase:* A total of 262 patients have benefited from this experience during a 8 month period. Among those, 27,7 % of women and nearly 2/3 between 20 to 29 years old. The main cause of discussion with clients was "complain" followed by the availability of IEC material on the counter. 119 clients with STI complaints have been referred to the nearest public health facility but only 32 really went for treatment and 39 notified their partners.

*Conclusion:* Men tend more to seek treatment directly from pharmacies than women. This fact is corroborated by most studies which show that public health facilities are more frequented by women. Availability of IEC material is a good factor that enhances seeking prevention information. A major constraint appears to be the reluctance of clients to be referred to health facilities for treatment and the lack of good management from health workers. The program has been extended to 10 more pharmacies.

*Presenting author:* K. Seck, National AIDS Program, Institut d'Hygiene Sociale, BP 3435, Dakar, Senegal, Tel.: +221 822 90 45, Fax: +221 822 15 07, E-mail: [karseck@telecomplus.sn](mailto:karseck@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*S. Seck*

**Migration, polygamy and HIV-SIDA (The experience of Senegalese women infected with HIV/SIDA)**

**[MoPeD2531]**

*Coordonnatrice RNP+, PO Box 12702, Dakar Colobane, Dakar, Senegal*

*Introduction:* We know that in Senegal, the infected with HIV women worried of AIDS impact, work in the field of education, sensibilisation of senegalese women and or foreigner women living in Senegal.

*Objectives:* - Founding a solution of the problem in polygamic couple.  
- Thinking about the way to do when one partener in the couple is infected.

*Developpement:* Senegal, a laïque country, is strongly dominated by the muslims with 90% of the population. Respecting a certain number of conditions the muslim religion grants to the men the possibility to have, if they want it, four women. Regarding the elevated rate of migration, are the conditions of laking four women joined for resolving the difficulties.

Social cultural realities of our country engender polygamy and most of the senegalese women are in the situation (more than 50% of women). When one of parteners is infected, particularly the man, most of the women catch the sickness and in general women get married in their own family after loosing their husbands, that favour the propagation of the HIV.

*Contraints:* \* How to institute a space of dialogue to avoid the propagation of the virus.  
\* How to avoid the second marriage of infected women in a family where the brother of the husband is not infected.

*Conclusion:* The sentence of HIV in polygamic couples constitutes a real danger in Senegal. How to do in front of the problem.

*Presenting author:* S. **Seck**, Coordonnatrice RNP+, PO Box 12702, Dakar Colobane, Dakar, Senegal, Tel.: +221 825 72 30, Fax: +221 824 71 35, E-mail: [souadouseck@hotmail.com](mailto:souadouseck@hotmail.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*N.K. **Sow Ndiaye**<sup>1</sup>, I. Laniece<sup>2</sup>, A. Desclaux<sup>3</sup>, B. Taverne<sup>4</sup>, M.A. Faye Niang<sup>2</sup>, S. Badiane<sup>5</sup>, J.L. Perret<sup>6</sup>, I. Ndoye<sup>7</sup>, O. Sylla<sup>7</sup>*

**Aspects of compliance during antiretroviral multitherapy in Dakar A preliminary study**  
**[WePeD4581]**

*<sup>1</sup> CHU De Fann, PO Box 16760, Dakar, Senegal*

*<sup>2</sup> Dakar, Senegal*

*<sup>3</sup> Laboratoire d'ecologie humaine et d'anthropologie, Aix en Provence, France*

*<sup>4</sup> IRD - Laboratoire Population et Environnement, Aix en Provence, France*

*<sup>5</sup> Service des Maladies Infectieuses - CHU de Fann, Dakar, Senegal*

*<sup>6</sup> Clinique Brevie - Hopital Principal, Dakar, Senegal*

*<sup>7</sup> Programme National de Lutte contre le Sida, Dakar, Senegal*

*<sup>7</sup> Service de Psychiatrie - CHU de Fann, Dakar, Senegal*

*Problem:* The National Aids Control Program in Senegal has set up an antiretroviral access program adapted to the financial means of patients. Compliance depends on the patient possibility to take and pay medications.

*Description:* Data were gathered through semi-direct interviews conducted with 30 patients. The study goal is to identify the factors which facilitate or restrict the taking of antiretrovirals.

*Results:* The main factors restricting observance are:

(1) Socio-economic factors: the cost of treatment entails different supplementary costs and is much greater than the financial contribution. The maintenance of patient's contribution proves uncertain since priority budgets are affected. In certain cases, the family can support the patients, in others especially

when the patient has to divulge his serological status in order to solicit financial help, he may be denied aid and may be rejected.

(2) Factors related to treatment: the most frequent difficulty on this side is to make scheduled time for medication fit with time of communal meal.

(3) Institutional factors: the regular follow-up by a multidisciplinary team, for months, can be felt as a kind of intrusion of medical (and social) authorities on the intimate aspects of patients' life.

(4) Factors related to the illness: the regaining of one's health can bring about the long-term reversal of priorities for patients confronted with new familial financial obligations.

*Conclusion:* Dakar presents a special case due to the economic difficulties related to the cost of therapy. Sometimes forced to disclose confidential information, patients may be rejected or engaged in new obligations which are contrary to their values. Financial barriers to treatment create a range of social problems that make patient's life more difficult; some patients may refuse or interrupt treatments to avoid them.

*Presenting author:* N.K. Sow Ndiaye, CHU DE FANN, PO Box 16760, Dakar, Senegal, Tel.: +221 825 06 62, Fax: +221 825 36 95, E-mail: [opals@telecomplus.sn](mailto:opals@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*P.S. Sow<sup>1</sup>, C. Laurent<sup>2</sup>, P.M. Gueye<sup>3</sup>, M.A. Faye-Niang<sup>4</sup>, M. Ciss<sup>5</sup>, S. Mboup<sup>4</sup>, S. Badiane<sup>6</sup>, E. Delaporte<sup>7</sup>, I. Ndoye<sup>7</sup>*

**The clinical effectiveness of antiretroviral multitherapy in a limited resource context: the example of the Senegalese arv access initiative [TuOrB297]**

*1 Clinique des Maladies infectieuses - CHU de Fann, BP 5035, Dakar Fann, Senegal*

*2 Programme National de Lutte contre le Sida, Dakar, Senegal*

*3 Service Fontan - Hopital Principal, Dakar, Senegal*

*4 Dakar, Senegal*

*5 Pharmacie Centrale - CHU de Fann, Dakar, Senegal*

*6 Service des Maladies Infectieuses - CHU de Fann, Dakar, Senegal*

*7 Laboratoire Retrovirus - IRD, Montpellier, France*

*7 Programme National de Lutte contre le Sida, Dakar, Senegal*

*Objective:* To describe the clinical effectiveness of the antiretroviral therapy (ARV) in a limited resources context .

*Methodology:* before instituting antiretroviral therapy in Senegal, the preconditions were defined by a medical technical committee. A medical assessment is conducted for each patient before ARV therapy initiation.

*Results:* From August 1998 to December 1999, 68 patients have been recruited for antiretroviral treatment; intended treatment was a tritherapy for 60 of them (88.2%) and a bitherapy for the 8 others (11.8%). The patients mean age was 38.5 years. The sex ratio was 1. The patients' clinical stages (CDC) were: category C for 73.5% (n = 50), category B for 22.1% (n = 15) and category A for 4.4% (n = 3). At the time of inclusion, the median CD4 was 144/mm<sup>3</sup> and the median plasmatic viral load was 81,650 copies/ml. The main therapeutic regimen for tritherapy was d4T+ddI+Indinavir (44/60) and AZT+3TC+Indinavir (10/60). At month 1 (M1), 71.4% of patients achieved undetectable viral loads (> 500 copies/ml). At the sixth month of treatment, a favorable clinical evolution was noted with a Body Mass Index increasing from 20,10 at M0 to 21,1 at M6 (p > 0.001) and an improvement of the Karnofsky index. The median CD4 lymphocyte count was 221,5/mm<sup>3</sup> after 6 months of treatment. During follow up, 2 patients withdrew, 10 patients died. The pathological events noted among these patients are dominated by polynevrites and candidiasis. Only one case of renal lithiasis, due to

Indinavir, and one case of buffalo-neck lipodystrophy was observed. During follow-up, 57 of 66 patients (86,4%) have reported having taken at least 80% of their drugs.

*Conclusion:* This intermediate analysis showed clinical, immunological, and virologic effectiveness for antiretroviral therapy in Senegal. Patient adherence to protocols was the result of close communication between doctors, pharmacists, social workers and patients.

*Presenting author:* P.S. **Sow**, Clinique des Maladies infectieuses - Chu de Fann, BP 5035, Dakar Fann, Senegal, Tel.: +221 825 25 47, Fax: +221 825 36 95, E-mail: [salifsow@telecomplus.sn](mailto:salifsow@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*K. **Sturm-Ramirez**<sup>1</sup>, A. Gaye-Diallo<sup>2</sup>, S. Mboup<sup>2</sup>, P. Kanki<sup>3</sup>*

**Bacterial vaginosis is associated with increased levels of proinflammatory cytokines in cervical secretions**  
**[WePpA1369]**

<sup>1</sup> *Harvard School of Public Health, Dpt. Immunology and Infectious Diseases, 651 Huntington Ave, Boston, MA02115, United States*

<sup>2</sup> *Universite Cheikh Anta Diop, Dakar, Senegal*

<sup>3</sup> *Harvard School of Public Health, Boston, United States*

*Introduction:* Bacterial vaginosis (BV), a common disorder of the vaginal flora, was recently identified as a cofactor promoting sexual transmission of HIV. The mechanism by which BV increases the risk of HIV infection is unknown, but one possibility is by increasing proinflammatory cytokine levels in genital secretions, which in turn could upregulate local HIV replication through LTR promoter activation.

*Objectives:* 1) to determine if IL1-b and TNF-a can be consistently measured in cervical secretions. 2) to determine the association of BV with TNF-a and IL1-b levels in these secretions.

*Methods:* Upon registration at Le Dantec Hospital in Dakar, Senegal, female outpatients reported socio-demographic status, date of last menses, recent STD treatment and contraceptive use. During speculum examination, cervical secretions were collected using a surgical sponge, followed by swabbing for STD and BV diagnosis. Secretions were eluted, and TNF-a and IL1-b levels quantified by ELISA. Uni- and multivariate analyses were used to study the association between high levels of cytokines and possible risk factors.

*Results:* 212 women were enrolled, of whom 27.5% were identified with BV. Most samples had detectable levels of TNF-a (180/212) and IL1-b (179/212). High levels of cytokines were independently associated with BV (adjusted odds ratio 'AOR' = 4.09; 95% CI = 1.66-10.09), oral contraceptive use (AOR = 2.72, 95% CI = 1.01-7.30) and high leucocyte counts on a vaginal smear (AOR = 1.18; 95% CI = 1.02-1.36).

*Conclusion:* TNF-a and IL1-b were consistently measured in cervical secretions. Increased levels of these cytokines were associated with BV, which could in part explain why this disorder is a risk factor for HIV transmission.

*Presenting author:* K. **Sturm-Ramirez**, Harvard School of Public Health, Dpt. Immunology and Infectious Diseases, 651 Huntington Ave, Boston, MA02115, United States, Tel.: +1 617 432 1487, Fax: +1 617 432 3575, E-mail: [ksturmr@hsph.harvard.edu](mailto:ksturmr@hsph.harvard.edu)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

O. Sylla <sup>1</sup>, I. Laniece <sup>2</sup>, N.K. Sow <sup>3</sup>, D. Bal <sup>2</sup>, M. Ndiaye <sup>4</sup>, M. Ciss <sup>5</sup>, A. Desclaux <sup>6</sup>, T. Moreira Diop <sup>7</sup>, I. Ndoye <sup>8</sup>

**Antiretroviral treatment initiative in Senegal: Financial accessibility of the national program and patients contribution levels**  
[WePeD4585]

<sup>1</sup> Service de Psychiatrie - CHU de Fann, PO Box 5897, Dakar, Senegal

<sup>2</sup> Dakar, Senegal

<sup>3</sup> CHU de Fann, Dakar, Senegal

<sup>4</sup> Service des Maladies Infectieuses - CHU de Fann, Dakar, Senegal

<sup>5</sup> Pharmacie Centrale - CHU de Fann, Dakar, Senegal

<sup>6</sup> Laboratoire d'Ecologie Humaine et Anthropologie, Aix En Provence, Senegal

<sup>7</sup> Service de Medecine Interne - Hopital A. le Dantec, Dakar, Senegal

<sup>8</sup> Programme National de Lutte Contre Le Sida, Dakar, Senegal

*Issues:* To make antiretroviral treatments accessible to all patients in Senegal ARV initiative, patients contributions are adjusted to their levels of income. The Eligibility Committee, on the ground of a social investigation assigns the amount of participation. We evaluate if this first estimation of patients' financial ability is acceptable.

*Description and Results:* The monthly contribution at time of inclusion for the 68 patients involved is as follows: 8 patients receive therapy free of charge, 44 pay between 33 and 42 US\$, 4 pay between 50 and 62\$ and 12 pay more than 67\$. The average and median patient contribution are respectively 47 and 35\$ (about half the minimum legal wage in Senegal). Subsidies are higher for tritherapy (median 94%) than for bitherapy (median 85%). Exemptions are reserved for health workers and members of the network of people living with HIV. Cost sharing was lowered for two patients under treatment. The mean patient participation represents about 19% of the cost of bitherapies and 8% of that of tritherapies. During the first sixteen months, the cost recovery of treatments was about 6.5% of the annual 333,333 US\$ governmental subsidy for antiretrovirals. A study performed in December 1999 shows that treatment compliance is higher (median 99%) among patients paying monthly less than 67\$. For those paying more, the median is 59%. The main reason for prolonged treatment interruption is financial constraints.

*Conclusion:* The program, concerned for accessibility and equity, adjusts the patients contribution to their income level. Its amount remains high and may exacerbate financial problems, inducing compliance problems. Revised contribution figures and individual support mechanisms are needed. Treatments cost recovery remains low. Governments should try to make ARV accessible to the poor. But first of all, pharmaceutical companies should reduce drugs prices for Africa.

*Presenting author:* O. Sylla, SERVICE DE PSYCHIATRIE - CHU DE FANN, PO Box 5897, Dakar, Senegal, Tel.: +221 824 6561, Fax: +221 824 9888, E-mail: [osylla@ucad.refer.sn](mailto:osylla@ucad.refer.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

A. Tarantola <sup>1</sup>, S. Doumbia <sup>2</sup>, E. Bouvet <sup>3</sup>, African ABE Network <sup>4</sup>

**Implementation of prospective accidental blood exposure surveillance systems in 3 Western African countries**  
[TuPeD3652]

<sup>1</sup> Geres, Faculty de Medecine X. Bichat, 16 rue Henri Huchard, BP 416, 75870 Paris cedex 18, France, France

<sup>2</sup> Geres, Abidjan, Cote d'Ivoire

<sup>3</sup> Geres, Paris, France

<sup>4</sup> France

*Background:* Bloodborne pathogens transmission following accidental blood exposure (ABE) is a daily concern of health care workers worldwide, especially in African countries where patient seroprevalence for human immunodeficiency (HIV) and hepatitis (HBV, HCV) is high and ABE prevention equipment is sorely lacking. Health care workers' (HCW) accurate awareness of transmission risks is also often inadequate.

*Method:* In 2000, the GERES will collaborate with HCW teams in West African countries to carry out risk awareness surveys followed by prospective surveillance systems to verify the usefulness of prevention training and strategies which will be implemented.

*Results:* A pilot phase of the study was carried out in 364 HCWs at Treichville hospital, Abidjan, Côte d'Ivoire. This survey showed that HIV transmission risks following ABE were overestimated by 63.5% of answerers. 194 out of 355 (54.6%) answered that the risk of occupational infection by HIV influenced to a large or some degree their choice of posting. 52.6% of answerers had never been trained in universal precautions observance. 100% of surgeons and 80% of nurses said they had already sustained an ABE and 76% of personnel who had sustained an ABE said they had not notified it. A multicenter program has since been initiated with HCW teams in Mali, Senegal and Côte d'Ivoire.

*Conclusion:* HCWs are exposed to the risk of occupational infection by HIV and other bloodborne pathogens. Fear and misperceptions may hinder quality care delivery for HIV+ patients. Following a pilot study in 1999, a multicenter project has been initiated on the study and prevention of ABE in West African hospitals. Initial results will be presented at the XIII International AIDS conference.

*Presenting author:* A. **Tarantola**, Geres, Faculty de Medecine X. Bichat, 16 rue Henri Huchard, BP 416, 75870 Paris cedex 18, France, France, Tel.: +33 1 448 561 81, Fax: +33 1 448 562 45, E-mail: [geres@imagnet.fr](mailto:geres@imagnet.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

R. **Thiebaut**<sup>1</sup>, M.C. **Receveur**<sup>2</sup>, D. **Malvy**<sup>2</sup>, F. **Djossou**<sup>2</sup>, P. **Morlat**<sup>2</sup>, P. **Mercie**<sup>2</sup>, M. **Le Bras**<sup>2</sup>, F. **Dabis**<sup>3</sup>

**Yellow fever vaccination of HIV-infected patients, Bordeaux, France, 1998-1999**  
[WePeB4239]

<sup>1</sup> INSERM U330, 146 rue Leo Saignat, 33046 Bordeaux cedex, France

<sup>2</sup> Bordeaux University Hospital, Bordeaux, France

<sup>3</sup> INSERM U330, Bordeaux, France

*Background:* The number of HIV-infected travellers is increasing. However, data on yellow fever (YF) vaccination of such patients are sparse.

*Objective:* To describe HIV-infected patients intending to travel in YF endemic areas and the HIV-related immuno-virological impact of YF vaccination.

*Method:* Eligible patients were HIV infected travellers who consulted at the Bordeaux Hospital International Vaccination centre in 1998-1999. When YF vaccination was performed, CD4 cell count and viral load evolutions were described using the GECSA (Groupe d'Epidemiologie Clinique du SIDA en Aquitaine) information system.

*Results:* Among 24 HIV infected patients requesting vaccination in the centre, 17 intended to travel to YF endemic area (Senegal, Ivory coast and French Guiana). 3 of these were already protected because of a prior vaccination (control serology titer was > 1/20) and were not offered a re-vaccination. 2 patients were refused vaccination because of a CD4 cell count > 200 cells/mm<sup>3</sup>. Finally, 12 patients were vaccinated with YF (17D strain vaccine): 4 in 1998 and 8 in 1999. At the time of vaccination, median CD4 cell count was 523 (range 500;779) and median viral load 1500 copies/ml (range 50;330000). Follow-up is available at 6 months for 6 vaccinated patients so far. Median differences



were -36 CD4 cells/mm<sup>3</sup> (range -195;+108) and +70 HIV RNA copies/ml (range -319346;+726). No patient had experienced an acute infection between the two biological result.

*Conclusion:* Among HIV patients included in this study, 71% travelled in an area where YF vaccination was mandatory. Among the patients who were vaccinated accounting for their immunological status, CD4 cells count and viral load evolution did not appear to be modified by the vaccination. Additional data from the 6 other patients will allow to test the differences between M0 and M6 values.

*Presenting author:* R. Thiebaut, INSERM U330, 146 rue Leo Saignat, 33046 Bordeaux cedex, France, Tel.: +33 5 57 57 11 40, Fax: +33 5 56 99 13 60, E-mail: [rodolphe.thiebaut@dim.u-bordeaux2.fr](mailto:rodolphe.thiebaut@dim.u-bordeaux2.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*O. D. Tounkara*<sup>1</sup>

### **AIDS' orphans social rehabilitation children in difficult situation and deprived families in Senegal [MoPeD2591]**

<sup>1</sup> ASASSFA, PO Box 5035, Dakar Fann, Dakar 221, *Senegal*

*Introduction:* In *Senegal* the economic crisis with its procession of diseases, death has created a situation in which many children are victims of illiteracy and juvenile delinquency. Aware of the situation and young people's future the *senegalese* state has set up socio-educative structures called Safeguard Centers in the capital city and throughout the country to face both scourges.

Our organization intervenes in one of these centers which is situated in Camberene. We take charge of the psycho-social assistance and its means of accompaniment

*Our Aims Are:* To allow children to have a good training (in general schools and or professional schools) like their counter parts from well-to do families.

*Capacity:* Total number = 897. Girls = 389. Boys = 408. Name: Camberene Safeguard Center.

*Our Strategies:* \*- Upkeep organization and pupils diligence guarantee by parents or guardians. \*- Orientations and assurances of a good education or rehabilitation in general or professional education field according to the boarder's aptitude.

*Sought After Results:* /\*-To have AIDS 'orphans and children from poor families entire rehabilitation in society. \*-To help children in having a better living in their every day life. \*-To grant 80% of the surrounding districts young people a better quality of life.

*Conclusion:* Dakar a cosmopolitan town in which all the strata of the *senegalese* population are represented suffers from a demographic boom that exposes most of the young people to delinquency and sexually transmitted diseases of which AIDS. This permanent risky situation in which young people are living must concern every body because of the harmful consequences that might follow. Camberene Safeguard Center is then a solution we ought to reinforce and multiply.

*Presenting author:* O. D. Tounkara, ASASSFA, PO Box 5035, Dakar Fann, Dakar 221, *Senegal*, Tel.: +221 825 72 30, Fax: +221 824 71 35, E-mail: [otounkara@hotmail.com](mailto:otounkara@hotmail.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

C. Toure-Kane<sup>1</sup>, M.A. Toure<sup>2</sup>, L. Vergne<sup>3</sup>, M.A. Faye<sup>2</sup>, S. Sow<sup>2</sup>, M. Gueye<sup>4</sup>, I. Ndoye<sup>5</sup>, M. Peeters<sup>3</sup>, S. Mboup<sup>6</sup>

**Analysis of mutations in the protease and RT genes before the initiation of the governmental**

**initiative on antiretroviral therapy in Senegal  
[TuPeB3279]**

<sup>1</sup> CHU, Le Dantec, Laboratoire Virologie, CHU, Le Dantec, BP 7325, Dakar, Senegal

<sup>2</sup> CHU, Fann, Dakar, Senegal

<sup>3</sup> IRD, Montpellier, France

<sup>4</sup> CHU, Principal, DAKAR, Senegal

<sup>5</sup> PNLIS, Dakar, Senegal

<sup>6</sup> CHU, Le Dantec, Dakar, Senegal

*Background:* To determine the prevalence of drug-resistant strains among HIV-1 infected patients in Senegal, before their inclusion in the ARV access initiative, instored by the National AIDS Control Programme in Senegal.

*Methods:* The protease and reverse transcriptase (RT) genes of 60 randomly chosen HIV-1 infected patients attending one of the 3 major hospitals in Dakar were sequenced. Viral RNA was extracted from plasma, and after retrotranscription into c-DNA, a 2200 bp fragment was amplified by a semi-nested PCR, covering the protease and reverse transcriptase regions of the pol gene. The genetic subtypes were identified by phylogenetic tree analysis, and amino acid sequences were compared to a subtype B consensus for the presence of mutations.

*Results:* The subtype distribution was as follows: 2A, 5B, 3C, 1E, 1G, 2J, 37 AG-IBNG, 6 miscellaneous recombinants (3 G/K, 1?/K, 1A/G and 1?) , and 3 were HIV-1 group O. No major mutations were observed in the protease gene, however in 96% of the strains minor mutations were seen. With decreasing frequency, protease mutations were as follows: M36I (90%), L10V/I (28%), L63P (20%), K20M/R (8%), V77I (6.6%), A71V (5%). All the group O samples had major mutations associated to NNRTIs (A98G and Y181C) as well as one subtype C sample (V108I). Several minor mutations associated with NRTIs were seen: R211K (47%), K65R (3.3%) and G333E (1.6%). One patient had the following mutations, M41L, D67N, L210W, T215Y, and appeared to have been under AZT treatment for a long period.

*Conclusions:* The frequency of major mutations was low, but additional phenotypic as well as detailed clinical studies are necessary to determine whether there is a faster development to multiresistant viruses in non-B infected patients under antiretroviral therapy when minor mutations pre-exist before the start of treatment.

*Presenting author:* C. **Toure-Kane**, CHU, Le Dantec, Laboratoire Virologie, CHU, Le Dantec, BP 7325, Dakar, Senegal, Tel.: +221 821 64 20, Fax: +221 821 64 41, E-mail: [martine.peeters@mpl.ird.fr](mailto:martine.peeters@mpl.ird.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

M.A. **Toure**<sup>1</sup>, M.A. Faye-Niang<sup>2</sup>, D. Baal<sup>2</sup>, L.M. Diouf<sup>2</sup>, N. Diakhate<sup>3</sup>, S. Badiane<sup>3</sup>, I. Ndoye<sup>4</sup>, M. Gentilini<sup>5</sup>, O. Sylla<sup>6</sup>

**The exchange of experiences and support in pairs among patients on antiretroviral therapy: experience of the ambulatory treatment center (CTA), Dakar, Senegal  
[WePeD4580]**

<sup>1</sup> BP 16760, Dakar Fann, Senegal

<sup>2</sup> Dakar, Senegal

<sup>3</sup> Service des Maladies infectieuses - CHU De Fann, Dakar, Senegal

<sup>4</sup> Programme national de Lutte Contre le Sida, Dakar, Senegal

<sup>5</sup> Opals/Croix Rouge Francaise, Paris, France

<sup>6</sup> Service de psychiatrie - CHU de Fann, Dakar, Senegal

*Introduction:* With the implementation of antiretroviral treatment in Senegal, 60 HIV+ patients were included and followed. During the psychosocial follow-up, support groups were held regularly.

*Description:* Three focus groups were organized and included exclusively patients under ARV therapy. The average participation was 8 patients; the majority of whom were young adults belonging to middle socio-economic class. There was no difference according to gender. The members of the CTA team played the role of facilitators. The meetings were bimonthly. The focus group was organized around the following themes: knowledge of HIV/AIDS, knowledge of ARV treatment, social management and strategies to help ARV treatment compliance. At the end of the discussions, the medical team summarized the issues about patients' comprehensions and perceptions and introduced suitable observations.

*Results:* The majority of participants had low knowledge of the natural history of HIV/AIDS and ARV treatment. Most of them experienced observance accidents (late prescription renewal, delayed dose, forgotten dose). Among various participants, the socio-professional environment is not suitable to drugs management. A spirit of solidarity and mutual support was noted among the participants; a desire was expressed to meet with one another outside of CTA.

The individual interviews performed one month after meetings showed the impact of these discussions among poorly compliant patients. Those who had better knowledge of ARV treatment announced that they had fewer observance accidents.

*Conclusion:* Psychological accompaniment in peers takes on a great importance in the observance of ARV therapy. Two main strategies came out to support compliance: improving knowledge of HIV/AIDS and ARV treatment as well as developing social support (from peers, families, communities..) around the patient.

*Presenting author:* M.A. Toure, BP 16760, Dakar Fann, Senegal, Tel.: +221 825 06 62, Fax: +221 825 36 95, E-mail: [opals@telecomplus.sn](mailto:opals@telecomplus.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*K. Travers*<sup>1</sup>, *M. Dia*<sup>2</sup>, *I. Traore*<sup>2</sup>, *G. Eisen*<sup>3</sup>, *C.-C. Hsieh*<sup>4</sup>, *S. Mboup*<sup>2</sup>, *P. Kanki*<sup>3</sup>

**Viral load and disease outcome in non-b HIV-1 infection**  
**[MoPeA2078]**

<sup>1</sup> *Harvard School of Public Health, FXB Bldg- Room 405C, 651 Huntington Avenue, Boston, MA 02115, United States*

<sup>2</sup> *Universite Cheikh Anta Diop, Dakar, Senegal*

<sup>3</sup> *Harvard School of Public Health, Boston, United States*

<sup>4</sup> *University of Massachusetts, Worcester, MA, United States*

*Background:* Recent studies suggest that HIV-1 subtypes differ with respect to their pathogenicity (Neilson, J Virol, 1999; and Kanki, JID, 1998); viral load is also considered an important determinant of disease progression. We therefore investigated the relationship of viral load and pathogenicity across subtypes.

*Methods:* Serial plasma viral load values from 50 individuals with known date of HIV-1 seroconversion were evaluated as part of the follow-up of a cohort of female commercial sex workers in Dakar, Senegal. Infecting HIV-1 subtype was determined through neighbor-joining phylogenetic analysis of env C2V3 sequences. We used a time-varying Cox proportional hazards model to determine the independent effects of HIV-1 viral load and subtype on the risk of AIDS outcome.

*Results:* We identified five HIV-1 subtypes infecting women in this group: A (n = 34), B (n 1), C (n = 4), D (n = 4), G (n = 4). Two individuals infected with A/G recombinants were also identified, as well as 1 individual infected with both subtypes A and D. HIV-1 viral load was not significantly associated with an increased AIDS risk. However, infection with HIV-1 subtype C significantly increased the risk

of AIDS (Hazard Ratio (HR) 8.75, 95% CI 1.37-55.82) independent of the effect of viral load simultaneously included in the model. Subtype C was also independently associated with an increased risk of a CD4 cell count drop below the value of 200 cells per ml (HR = 15.8, 95% 1.43-174.67).

*Conclusions:* These data indicate that the increased pathogenicity associated with HIV-1 subtype C cannot wholly be attributed to increased viral load, and is due at least in part to other factors associated with this subtype.

*Presenting author:* K. **Travers**, Harvard School of Public Health, FXB Bldg- Room 405C, 651 Huntington Avenue, Boston, MA 02115, United States, Tel.: +1 617 432 4686, Fax: +1 617 432 3575, E-mail: [ktravers@hsph.harvard.edu](mailto:ktravers@hsph.harvard.edu)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*M. Trudelle*<sup>1</sup>, *D. Beaulieu*<sup>2</sup>, *W. Diop*<sup>3</sup>

**Monitoring and assessment of Information, Education and Communication (IEC) activities on STD health care awareness: Results from the West Africa Aids Project - Phase 2 [ThPeD5737]**

<sup>1</sup> CCISD, 2180 Chemin Ste-Foy, 3<sup>ème</sup> Etage, Ste-Foy, Quebec, G1K 7P4, Canada

<sup>2</sup> ET Jackson, Ottawa, Canada, <sup>3</sup>CCISD, Dakar, **Senegal**

*Issues:* After 3 years of experience in community support projects in 7 countries (Benin, Burkina, Mali, Côte d'Ivoire, Ghana, Guinea, and **Senegal**) a framework for monitoring and qualitative assessment has been developed and tested. The aim is to identify the impact of IEC activities on: i) the frequency STD health service use; ii) identification and referral of STD clients; iii) motivating partners and clients for STD health service use and; iv) utilization of essential anti-STD generic drugs.

*Description & Methodology:* i) completion of a field mission, ii) development of a preliminary framework for monitoring, iii) validation by community support managers, iv) semester reports for regional and country monitoring, v) completion of a workshop to validate the framework and tools developed and vi) adoption of a monitoring framework.

*Results:* The monitoring framework is intended to: i) identify the qualitative dimensions of accomplishments, ii) integrate quantitative and qualitative data required for monitoring community participation; iii) identify change occurring over time; iv) describe the differences characterizing specific contexts and their impact on the results; v) highlight the contribution made by associations in acquiring better understanding of clientele and increasing the usage of health centers; vi) facilitate internal monitoring for the Project; vii) create a common framework to identify regional trends in community support; viii) identify promising approaches and strategies and integrate lessons learned.

*Conclusions:* The framework constitutes a pertinent tool for assessing the results of IEC activities undertaken by groups in areas where there is a risk of contracting STDs/AIDS. IEC community activities, linked to efficient STD health services provide, at low cost, client referral to STD health services, awareness of generic drugs adoption of safe sex practices.

*Presenting author:* M. Trudelle, CCISD, 2180 Chemin Ste-Foy, 3<sup>ème</sup> Etage, Ste-Foy, Quebec, G1K 7P4, Canada, Tel.: +1 418-656-2131, ext : 7750, Fax: +1 418-6562627, E-mail: [mireille.trudelle@ccisd.org](mailto:mireille.trudelle@ccisd.org)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*A.-M. Vandamme*<sup>1</sup>, *M. Salemi*<sup>1</sup>, *K. Stirrmer*<sup>2</sup>, *W. Hall*<sup>3</sup>, *M. Duffy*<sup>3</sup>, *E. Delaporte*<sup>4</sup>, *S. Mboup*<sup>5</sup>, *M.*

Peeters <sup>6</sup>

**Dating HIV and HCV epidemics with a new method to uncover clock-like molecular evolution: HIV-1 group M originated during the 1930s [MoOrA163]**

<sup>1</sup> Rega Institute, Minderbroedersstraat 10, 3000 Leuven, Belgium

<sup>2</sup> Max-Planck-Institute für Biochemie, Martinsried, Germany

<sup>3</sup> University College Dublin, Dublin, Ireland

<sup>4</sup> Laboratoire Retrovirus, IRD, Montpellier, France

<sup>5</sup> African Network of HIV Variability, *Senegal*

<sup>6</sup> Laboratoire Retrovirus IRD, Montpellier, France

In principle, the time of origin of the most recent common ancestor for a clade of contemporary virus strains can be estimated from a phylogenetic tree provided the molecular clock hypothesis holds. However, it has been shown that viruses like HIV and HCV do not follow a molecular clock because of the unequal evolutionary rates among different viral lineages and different subtypes. In order to date the common ancestor of viral strains evolving at different rates, we developed a new method, called Site Stripping for Clock Detection (SSCD). This method allows selection of nucleotide sites evolving at an equal rate in the different lineages, thus extracting the clock-like information. The method was applied on a dataset of patients all infected with HCV in 1977 by the same donor. The evolutionary rate of the clock-like sites for HCV was calculated taking comparing strains from the infected recipients isolated in 1994 and in 1998. Using the SSCD method and the calibrated evolutionary rate for the stripped alignment, we were able to date exactly the "known" origin of the infection. We used the same method on two different HIV datasets, one in the *pol* region dating from 1998, and one in the *env* region dating from 1992, and calibrated the clock using all *pol* and *env* isolates respectively, reported in the database with a known isolation date. Both datasets gave us a compatible date for the origin of HIV-1 group M radiation, which was during the 1930s. Similarly, the separation of HIV-1 and its currently closest simian counterpart occurred around 1800 AD. These results shed new light on the origin of the AIDS pandemic and seem to dismiss hypotheses of a more recent origin for HIV-1 group M such as proposing that humans became infected as a result of vaccination with Oral Polio Vaccine batches contaminated with SIV. SSCD appears to be an easy to use and generally applicable method to uncover clock-like evolving sites in a set of aligned sequences.

*Presenting author:* A.-M. Vandamme, Rega Institute, Minderbroedersstraat 10, 3000 Leuven, Belgium, Tel.: +32 1633 2160, Fax: +32 1633 2131, E-mail: [annemie.vandamme@uz.kuleuven.ac.be](mailto:annemie.vandamme@uz.kuleuven.ac.be)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

Marianne van der Sande <sup>1</sup>, K. Paine <sup>2</sup>, B. West <sup>2</sup>, A. Akum <sup>2</sup>, K. McAdam <sup>2</sup>, L. Morison <sup>3</sup>, G. Walraven <sup>4</sup>, M. Shaw <sup>2</sup>

**Feasibility study to use HSV2 incidence to measure effect of a behavioral HIV intervention in a rural population [MoOrD200]**

<sup>1</sup>MRC Fajara, PO Box 273, Banjul, *Gambia*, <sup>2</sup>MRC Fajara, Banjul, *Gambia*, <sup>3</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>4</sup>MRC Farafenni, Banjul, *Gambia*

*Background:* In The *Gambia*, as in most of West-Africa, estimated HIV prevalence is between 1 and 2%. This level offers a window of opportunity to prevent a full scale epidemic. Over the last years Stepping Stones, a HIV intervention programme, has been adapted to the local situation in a partnership between the government, the Medical Research Council, and local NGOs. We performed a pilot study to assess whether HSV2 would be a feasible and acceptable biological impact indicator of Stepping

Stones. HSV2 is an established risk factor for HIV infection, while HSV2 seroconversion is a potentially suitable marker of sexual risk behaviour and a surrogate endpoint to evaluate HIV prevention interventions (Gwanzura 1998, Dobbins 1999, Obasi 1999).

*Methods:* Between September and December 1998, 1754 people between 15 and 34 years of age in 18 randomly selected villages in a rural area of The **Gambia** were enumerated and invited to participate. Written consent was obtained, a brief questionnaire administered, and venous blood collected to test for antibodies to HSV2 (by peptide Elisa, Marsden 1998). Stata-6 was used for data analysis.

Preliminary results: 413 (23.5%) participants were not found during the survey. 1076 (80.2%) participants found provided a blood sample. 17.7% were HSV2 ELISA positive (men 4.7%, women 27.2%). Comparing prevalences across age groups gave an estimated annual HSV2 incidence of 2.2% (women 2.6%). Main independent risk factors using multiple logistic regression were female sex (OR = 3.8), increasing age (25-34 yrs versus 15-24) (OR = 2.7), being married (OR = 3.7) and ethnicity. Level of education, age at first sex, position among co-wives (for women), distance to the main road and spending nights away from the village, were not independent risk factors.

*Conclusions:* HSV2 screening to evaluate the Stepping Stones intervention would be acceptable to this population. Sample size calculations show that reduction in HSV2 incidence, a risk factor for HIV and as proxy for a reduction in HIV incidence, would be a feasible outcome measurement to assess the effect of a behavioural intervention in a rural population: a community randomised trial of the Stepping Stones programme is now being prepared.

*Presenting author:* M. van der Sande, MRC Fajara, PO Box 273, Banjul, **Gambia**, Tel.: +220 49 59 16, Fax: +220 49 59 19/65 13, E-mail: [mvsande@mrc.gm](mailto:mvsande@mrc.gm)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

L. **Vergne**<sup>1</sup>, M. **Peeters**<sup>2</sup>, E. **Mpoudi-Ngole**<sup>3</sup>, C. **Toure**<sup>4</sup>, S. **Mboup**<sup>4</sup>, C. **Mulanga-Kabeya**<sup>2</sup>, J. **Reynes**<sup>5</sup>, J. **Jourdan**<sup>6</sup>, E. **Delaporte**<sup>2</sup>

**Genetic diversity of protease and reverse transcriptase sequences of non-B HIV-1 strains: evidence for many minor or accessory mutations in drug naive individuals [MoPeA2059]**

<sup>1</sup> *IRD, Laboratoire Retrovirus, IRD, BP 5045, 911 Avenue Agropolis, 34032 Montpellier cdx1, France*

<sup>2</sup> *IRD, Montpellier, France*

<sup>3</sup> *PRESICA, Yaounde, Cameroon*

<sup>4</sup> *Le Dantec, Dakar, Senegal*

<sup>5</sup> *CHU, Montpellier, France*

<sup>6</sup> *CHU, Nimes, France*

*Background:* Little information on the impact of viral diversity on natural susceptibility to antiretroviral drugs has been reported to date. However, the prevalence of non-subtype B virus continues to increase in developed countries and antiretroviral treatments became recently available to certain developing countries where non-B subtypes predominate.

*Methods:* The protease and reverse transcriptase (RT) genes of 142 antiretroviral drug naive HIV-1 infected patients (Senegal(38), Cameroon(62),DRC(ex-Zaire)(18) and France(24)) were sequenced

*Results:* The subtype distribution was as follows: 4 group O, 138 group M (9A, 67AG-IBNG, 13B, 2C, 5D, 3AE, 2F1, 9F2, 4G, 5J, 2K, 15 miscellaneous complex recombinants and 2 did not cluster with any of the known subtypes. No major mutations associated to NRTI, or protease inhibitors were seen in any of treatment naive HIV-1 infected patients from our study. All the group O isolates and 1 subtype J virus presented major mutations linked to NNRTI resistance.

Many minor or accessory mutations were found especially in the protease gene, only 8(5.6%) of the 142

strains had no mutations, and they were all subtype B or D. Eighty five(60%) had 1 mutation,32(22.5%) 2 mutations,14(9.8%) 3 mutations and 3(2.1%)(all group O) had 4 mutations. In decreasing frequency, the following mutations were seen in the protease gene: M36I (n = 123 (86.6%)), L10I/V (n = 37 (26%)), L63P (n = 18 (12.6%)), K20M/R (n = 16(11.2%)), V77I (n = 8(5.6%)), A71V (n = 4(2.8%)), L33F(n = 1(0.7%)), M46I (n = 1(0.7%)). All non-B strains (n = 130), except 6, presented the M36I mutation. Accessory mutations associated with NRTI resistance were also observed:62(43.6%) of the strains were R211K (n = 62).

*Conclusion:* Additional phenotypic as well as detailed clinical studies are necessary to determine whether there is a faster development to multiresistant viruses in non-B infected patients under antiretroviral therapy when minor mutations pre-exist before the start of treatment.

*Presenting author:* L. Vergne, IRD, Laboratoire Retrovirus, IRD, BP 5045, 911 Avenue Agropolis, 34032 Montpellier cdx1, France, Tel.: +33-4 67 41 62 97, Fax: +33-4 67 61 94 50, E-mail: [martine.peeters@mpl.ird.fr](mailto:martine.peeters@mpl.ird.fr)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*P. Wihofszky*

**Prevention and care projects for sex workers in West Africa: revealing hidden aspects of the peer workers' role  
[WePeD4800]**

*Alice-Salomon-Stipendienprogramm, Wissmannstr.43, 12 049 Berlin, Germany*

*Background:* Peer involvement is one of the most common approaches in community-based settings. New findings emerged from a study focused on projects in Ivory Coast, Mali, Senegal and Togo for sex workers and so-called free women. As a part of the West African Initiative, the study aimed to explore practices of community participation including peer involvement. The inquiry embraces two aspects: examination of the projects' structure (e.g.objectives) and the interpretation of peer workers' insights (e.g.motivation). The approach grounded theory allows to generate concepts on peer involvement founded on practical experience on grass-root's level.

*Methods:* Data were collected in 1997. Semi-structured interviews (10) were carried out with project leaders and staff members. Focus group discussions (8) were conducted with peer workers in each country. Further focus groups (7) were held with sex workers to validate primary hypothesis. The analysis is divided into content analysis and interpretation of the interaction of the respondents as well as their collective shared opinions.

*Results:* 1. Eight out of ten projects being part of the study disclosed the function of peer workers as the actual link between the heterogeneous sex work milieu and the staff of the project. The peer workers' contribution is to be described as the hidden core of the project. 2. The initial findings dealing with the peer workers' insights revealed that they had developed an unexpected professional understanding of their role in the projects. This awareness is based upon their achievement of personal skills due to their project activities. The observed dynamic wasn't intended by the project design in most of the examined cases.

*Conclusion:* Therefore the participation of peer workers is twofold: they improve the effectiveness of project activities and advance empowerment of the women involved. For future programme design innovations on intervention concepts must include both dynamics.

*Presenting author:* P. Wihofszky, Alice-Salomon-Stipendienprogramm, Wissmannstr.43, 12 049 Berlin, Germany, Tel.: 0049.30.62723078, E-mail: [pwihofszky@aol.com](mailto:pwihofszky@aol.com)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000,*

*Abstracts on Disk.*

*K. Winskell*<sup>1</sup>, *D. Enger*<sup>2</sup>

**Scenarios from the Sahel: community mobilisation and the generation of a media campaign [MoPeD2784]**

<sup>1</sup> *Global Dialogues Trust, B.P. 11589, Dakar-Peytavin, Senegal*

<sup>2</sup> *Global Dialogues Trust, Dakar, Senegal*

The presentation will examine the value of community mobilisation in the generation of media campaigns and educational resources for the prevention of HIV/AIDS. It will present lessons learned by one such process-oriented approach.

Scenarios from the Sahel is an HIV/AIDS prevention programme for adolescents and young adults, currently being carried out in Senegal, Mali and Burkina Faso. It aims to reduce risk behaviour relevant to HIV/AIDS and unwanted pregnancies in the under-25 age group, whilst reinforcing the capacity of local organisations.

A contest invites young people to contribute ideas for short films about HIV/AIDS. The contest is designed to encourage participants to move forward in their own personal reflection on HIV/AIDS and to explore potentially risky situations they might themselves someday encounter. Scores of NGOs and CBOs are involved in implementing the contest. Their representatives go on to make up the juries that select the contest winners. In the selection process they participate in a powerful collective needs assessment exercise: in the "scenarios", the participants identify their own problems, revealing, for example, expressions which they find confusing or concepts which they find difficult to apply to real life. Winning entries are transformed into short films by some of Africa's greatest directors. The films are dubbed into several African and European languages. They are broadcast by national and international television stations throughout Africa and are collected on a compilation cassette for use by NGOs, schools, etc. Because of its motivating methodology, Scenarios from the Sahel has succeeded in mobilising an extensive and diverse multi-sectoral coalition, broad community support and massive involvement of young people. Some of the Sahel region's most prominent creative talents, such as Youssou Ndour and the film directors Idrissa Ouedraogo, Ousmane Sembene and Cheikh-Oumar Sissoko are involved.

*Presenting author:* K. Winskell, Global Dialogues Trust, B.P. 11589, Dakar-Peytavin, Senegal, Tel.: +221 824 97 65, Fax: +221 824 07 41, E-mail: [gdtkate@enda.sn](mailto:gdtkate@enda.sn)

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*

*M. Zo Angono*<sup>1</sup>, *C. Brown Ndiaye*<sup>2</sup>, *E.D. Diouf*<sup>3</sup>, *M.L. Yadelorge*<sup>4</sup>, *P. Sagna*<sup>5</sup>

**The role of SIDA-SERVICE-Dakar in Health Education [TuPeD3580]**

<sup>1</sup> *Rue de Reims Rebeuss, B.P 2407 Dakar, Senegal*

<sup>2</sup> *CRS, Dakar, Senegal*

<sup>3</sup> *SIDA-SERVICE, Mbour, Senegal*

<sup>4</sup> *SIDA-SERVICE, Dakar, Senegal*

<sup>5</sup> *Centre de Promotion de la Sante, Dakar, Senegal*

*Background:* Christian Relief Service (CRS) assists SIDA-SERVICE in the fight against the AIDS epidemic by supporting SIDA-SERVICE's plan to implement HIV/AIDS public health and research activities. The objective of the project is to promote the prevention of HIV/AIDS and other sexually transmitted diseases (STDs). The project has focuses on training educators to improve their knowledge of HIV/AIDS and other STDs to improve their teaching skills regarding health education and diseases



prevention in school, and to develop a wide range of educational activities regarding HIV/AIDS.

*Methods:* SIDA-SERVICE organized a 3-day seminar for 40 teachers from 20 primary schools and 60 teachers from 30 secondary schools of Dakar and Mbour. The teachers were given a pre-test before the seminar to evaluate their baseline knowledge. The first day of the workshop was dedicated to understanding the biological, medical epidemiological, and social aspects of HIV/AIDS/STDs. The second day focused on possible approaches to HIV/STD education and on different education tools. Both sessions included lectures, brainstorming, role-playing, group discussions, video/slide projections, and distribution of booklets and support materials. The last day conceived of detailed activity planning for school-aged children.

*Results:* Weekly activities concerning different topics and with different methodologies have been carried out in the school as planned. Two seminars for evaluating the program were held at the end of the first term. From the active discussion, the following improvements have been suggested: involve school headmasters and other teachers in the educational activities, make more educational materials available, invite specialized guest lectures to the seminars, to use methodologies such as theatre, drawings, song, poetry, and drama that can stimulate more interest among pupils, and extend the involvement of parents and local communities.

*Conclusions:* This health education program has made a positive impact, using available resources and involving different population groups. Moreover, the program is developing a grassroots methodology that can be easily replicated in other sub-branches of SIDA-SERVICE or countries in a field that is of crucial importance for the prevention of AIDS and STDs.

*Presenting author:* M. **Zo Angono**, Rue de Reins Rebeuss, B.P 2407 Dakar, Senegal, Tel.: +221 835 34 07, Fax: +221 835 34 08

*Break the Silence. XIIIth International AIDS Conference, Durban, South Africa, 9-14 July 2000, Abstracts on Disk.*