

FEATURE ARTICLE

TRACPlus estimates two to three new HIV infections for every new ART patient



ARVs

225

HIV

“...And most tragic is that every day that goes by there are more new infections than there are patients put on treatment.” — Madame Jeannette Kagame, First Lady of Rwanda, 15th Conference on AIDS and STIs in Africa (ICASA), 3–7 December 2008 Dakar, Senegal

Zero Incidence (No New Infections): It's Time

The First Lady of Rwanda is right to be distressed by the fact that new HIV infections continue to surpass the number of new patients initiated on antiretroviral therapy (ART). We share Her Excellency's concern and thus dedicate this issue of *Makuru ki, FHI?* to a critical question for healthcare providers: How can we do a better job preventing new HIV infections?

The impact of new HIV infections on the health system

Globally, the UN estimates that for every HIV-infected person started on ART, six other persons become newly infected with HIV. For Rwanda, TRACPlus estimates two to three new HIV infections for every new ART patient. At this rate, if we fail to prevent new infections, the number of HIV patients requiring *lifelong* treatment will never plateau or decline, but will only increase. This will significantly increase the burden on the health system, making it difficult for providers to manage the growing number of ART cases.

The example of Biryogo Socio-Medical Center illustrates the challenge. While the number of new patients initiated on ART has remained stable, the cumulative number of HIV patients on treatment has expanded to over 1,200. Just as many HIV-infected patients who are not yet eligible for ART and are also being followed by Biryogo's healthcare and social services personnel. Biryogo is not alone in this dramatic trend.

(Continued on page 2)

PERSONAL PROFILE

Agents of Change

“When my husband abandoned me, I was 31 and the mother of four. Since I didn't have a way to earn money and I had to look after my whole family, I took up prostitution. I did it in secret, and neither my mother nor my children knew how I earned money,” recounted Anne (pseudonym). Anne's predicament is a familiar one: without an alternative livelihood, she accepted the risk of HIV infection through transactional sex.

In 2007, Gatsata Sector and FHI together mobilized resources to identify economically vulnerable women in the sector – many at high risk of HIV infection like Anne – and provide them with social support and improved livelihoods. With assistance from Centre Iwacu, we first helped women form support group-cooperatives and then contracted Gahaya Links to train women to produce high quality handicrafts that are sold in the international market. At the center of this unique partnership between Gatsata Sector, FHI, Centre Iwacu, and Gahaya Links were the core agents of change: the women themselves.

With the cooperative's help, Anne started to change her life. With other support group members who engaged in sex work, she joined a pact to refuse sex without a condom. But this was just the beginning. With training, Anne soon became an enthusiastic artisanal producer and began to earn enough money to end her dependence on prostitution. “My family and I live on the sale of my products,” she said. “I have also been tested. I am not HIV positive – and I never will be.”

For Anne's life transformation, all we did was offer Anne a helping hand. Anne herself was the catalyst of change in her life that has enabled her to protect and provide for herself and her children.

Participants of a basket weaving training





Photo: FHI/Rwanda

**Dr. Jules Mugabo, Acting Director,
HIV/AIDS/STI Unit, MOH/TRACPlus**

What progress is Rwanda making in HIV prevention?

First, prevention messages are widely disseminated throughout all sectors. One clear result of the intense messaging is uptake of voluntary HIV counseling and testing. We see more parents bringing their children for testing and more couples coming for VCT. Consistently, around 95% of all people offered a test, accept it. This high uptake of VCT is a good sign that we're making progress in prevention.

In addition, our national data suggest declines in infection rates. In 2002, 5.4% of the pregnant women in antenatal care tested positive, yet in 2007 only 4.3% were HIV-infected. While this is not definitive data on HIV incidence, we believe they reflect a positive trend toward reduced HIV transmission in Rwanda.

Finally, in the last 2 years we have made progress in integrating HIV and family planning services, which is important for reducing HIV transmission to children.

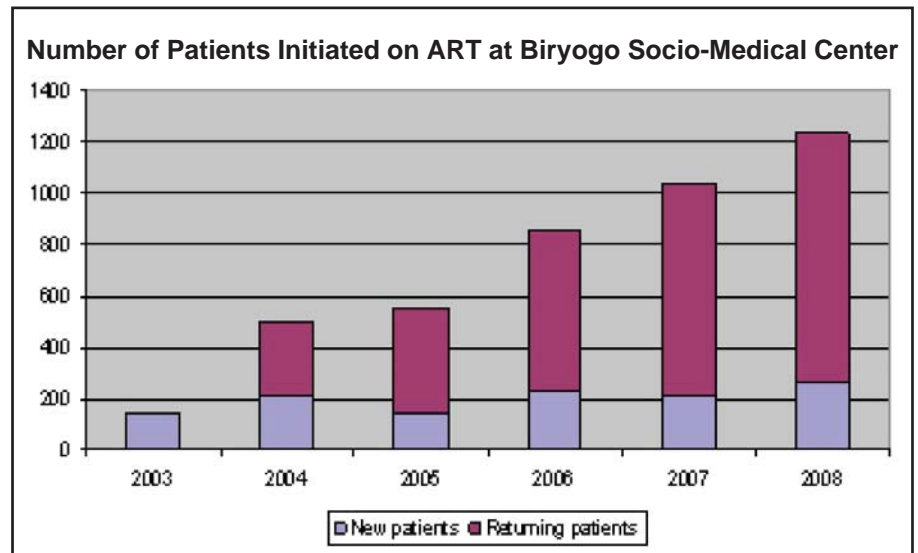
Why is prevention in the care and treatment setting important?

Most prevention efforts have focused on helping HIV-negative people protect themselves from infection. In addition to this "classic" prevention strategy, we can influence people living with HIV/AIDS (PLHA) to protect their sexual partners and children from becoming infected. Knowing one's status is key for avoiding transmitting HIV to others. The potential impact on the epidemic is substantial, especially when clinic-based prevention is linked to community-based efforts. All health personnel with regular, direct contact with HIV+ clients are therefore needed to curb new HIV infections. Caregivers are clearly at the forefront of prevention.

What has MOH/TRACPlus done to improve prevention in the care setting?

We have developed a chapter in the Counseling and Testing Guide that focuses on positive prevention as well as a package of tools to help providers include prevention in their encounters with patients. National/district trainings on these materials have already begun and they will soon be shared with all health facilities in the country. To reduce HIV incidence, we need all of our partners - especially health workers - to follow positive prevention guidance and use these tools.

(Continued from page 1)



It's time that we ask ourselves:

- How many more HIV-infected patients can Rwanda's health facilities support?
- How many more Rwandan children will begin their lives with HIV infection?
- At what point should we consider the number of new patients enrolled in HIV care an indicator of failure, rather than an indicator of success?

HIV prevention within the care setting

We often think of HIV prevention as community-based strategies that target HIV-negative people with messages about safe sex and avoiding risk. In fact, most prevention efforts have focused on this kind of community-based primary prevention. With the scale-up of HIV care and treatment, however, we now have a better opportunity to diversify and expand our approach. The healthcare setting offers opportunities to effectively intervene in preventing HIV transmission.

Partner testing and couples VCT (CVCT): Most importantly, with testing now widely available, we can identify sero-discordant couples and help them practice prevention. Most new infections in Africa occur in spouses of HIV-infected partners. Given this fact, the importance of CVCT cannot be overstated. We therefore include in this issue an article about an effective CVCT approach supported by Projet San Francisco.

Better condom education, promotion, and provision to HIV-infected persons and HIV-affected couples: With consistent and correct use, condoms remain the most effective prevention measure against sexual transmission of HIV. Health professionals have an urgent responsibility to instill confidence in this potentially lifesaving technology, educate their clients about how to use condoms correctly, and facilitate easy access. A section in this issue includes information on the use, performance, and efficacy of condoms.

Family planning and dual protection in HIV-affected couples: Researchers estimate that doing nothing more than providing contraception to HIV-infected women who want to delay or avoid pregnancy would avert 28.6% more HIV-positive births than provision of ARVs for PMTCT.¹ While policy on integrated service delivery will be a useful guide for service providers, practical innovations are needed from everyone who is working to serve the needs of HIV-positive clients.

¹ Reynolds HW, Janowitz B, Homan R, Johnson L. "The value of contraception to prevent perinatal HIV transmission." *Sex Transm Dis.* 2006 Jun;33(6):350-6.



Photo: FHI/Rwanda

Demonstrating correct condom use is an important activity for health providers

How to use a condom correctly

1. Check the expiration date of the condom and do not use it if the expiration date has passed.



2. Carefully open the condom with the tip of the fingers (not with fingernails or teeth).



3. Verify that the condom is not backwards; then place it in the correct direction on the erect penis, while pinching the tip of the condom so that it doesn't contain any air.



4. Unroll the condom completely down to the base of the penis.



5. After sexual relations, hold the condom at the base of the penis during withdrawal, and remove it when the penis is still erect.



6. Tie the condom; then throw it away properly.



Images: PSI Rwanda

Use each condom only once!

Many thanks to Population Services International (PSI) / Rwanda for permission to use these images.

Condoms Save Lives

Since the AIDS pandemic began, scientists have been studying the effectiveness and performance of male condoms. Their findings encourage health providers and condom users to have confidence in condoms for the following reasons:

First, condoms provide a virtually impermeable barrier to viruses and sperm. When used correctly, condoms are effective in preventing unwanted pregnancy and sexually transmitted infections (STIs), including HIV.

Second, breakage or slippage of condoms is rare, especially among experienced users. Correct condom use is a learned behavior. Health providers, counselors, and community health workers all have an important role in educating users on correct condom use.

Third, quality of condom manufacturing, lubrication, and packaging has improved. Routinely observed quality-control measures to meet international standards have helped ensure that the condoms available in clinics and marketplaces are reliable and safe.

Condoms and disease prevention

Research has confirmed that condoms are effective in preventing transmission of HIV and other STIs. The most convincing studies have been in couples where one partner is HIV-infected and the other is not. When HIV sero-discordant couples use condoms consistently, HIV transmission is less than 1%. However, in sero-discordant couples who report using condoms inconsistently, HIV transmission is as frequent as in couples who never use condoms. Consistent condom use is thus important when the HIV status of a sex partner is either positive or unknown.

Quality control measures

During and after manufacture, condoms are tested for leakage (the presence of holes), strength, lubricant quantity, dimensions, and package integrity. International standards organizations set standards for manufacturing and product performance, and government regulatory agencies ensure that these international standards are met.

FHI, for example, has accredited laboratories in Thailand and the United States that evaluate condoms as well as other medical devices and pharmaceuticals. Governments, pharmaceutical companies, NGOs, and multilateral agencies contract FHI to independently test and certify the quality of condoms, antimalarials, antiretrovirals, microbicides, and other products. In Rwanda, the Pharmacy Task Force verifies certification of product-quality analyses that accompany imported products, including condoms. This ensures that condoms arriving in Rwanda have been manufactured, stored, and shipped according to international standards of quality and condom safety.

Condoms are tested in FHI's Quality Control Lab in North Carolina, US



Photo: Tyson Communications

The real problem with condoms: non-use

With improved product-quality regulatory structures, and procedures to monitor condom quality, today's condom provides highly effective protection against HIV, other STIs, and unintended pregnancies. **The main problem is non-use of condoms among individuals and couples at risk.** When educating clients and patients about correct condom use, we must be careful not to discourage condom use by inducing fear that they will break, slip, leak, or fail for other reasons. Health professionals have an ethical obligation to help their clients understand the lifesaving value of condoms and to empower them to use condoms effectively to protect themselves and their families.

Couples Voluntary Counseling and Testing: An Effective Prevention Strategy

The majority of new HIV infections in Africa are acquired from a spouse. HIV-discordant couples, where one partner is HIV-positive and the other is negative, therefore represent the largest at-risk group in Africa. Studies with HIV-discordant, heterosexual couples in Rwanda show that when couples are counseled and tested together, the transmission of HIV from the positive to the negative partner is reduced from 20–25% to 3–7% per year, and STIs as well as unplanned pregnancies decrease.^{1,2}

Based on this evidence supporting the effectiveness of couples voluntary counseling and testing (CVCT) as an HIV-prevention strategy, FHI is collaborating with Projet San Francisco (PSF), a local HIV research organization with long experience implementing CVCT, to facilitate its institutionalization as a standard of care at 28 FHI-supported health facilities in the districts of Kicukiro, Nyarugenge, Muhanga, and Nyaruguru. PSF's support to these sites includes three days of didactic training for health facility staff, FHI staff, and district supervisors, followed by practical training.

Through CVCT, couples can discover their HIV status together and learn how best to respond. Discordant couples learn how to prevent the transmission of HIV within their marriage through educational sessions on preventative behaviors, condoms and other family planning methods, and demonstrations of condom use. Couples also benefit from counseling sessions that aim to improve their communication. Finally, HIV-infected partners identified through CVCT services are referred for evaluation and enrollment into care and treatment programs.

Despite over a decade of research confirming that CVCT helps to reduce the risk of HIV transmission, less than 1% of African couples have been tested together. This is a missed opportunity, since most pregnant women and patients with HIV are married or cohabiting. There is a need to increase CVCT provision and promotion in Africa to encourage couples to get tested together. We hope that this new program is an important step in that direction.

¹ Allen S, Meinzen-Derr J, Kautzman M, et al: Sexual behavior of HIV discordant couples after HIV counseling and testing. *AIDS* 2003, 17(5):733-740.

² Allen S, Serufulira A, Bogaerts J, et al. Confidential HIV testing and condom promotion in Africa. Impact on HIV and gonorrhea rates. *JAMA*. 1992; 268(23):3338-3343

A couple receiving Counseling and Testing services



Photo: FHI/Rwanda

Interested in Prevention? Check out these resources.

Integrating HIV Prevention in the Care Setting: Health Manager's Guide: A guide created by FHI for health managers on incorporating prevention in the healthcare setting. <http://www.fhi.org/training/en/HIVAIDS/prevcare/index.htm>

Prevention for Positives. A Course Module for Healthcare Professionals: Designed for healthcare staff by FHI, this module includes a facilitator's manual, PowerPoint presentation, and a staff self-assessment tool on prevention interventions with HIV-positive individuals. <http://www.fhi.org/training/en/HIVAIDS/prevcare/index.htm>

Couples' HIV Counseling and Testing Intervention and Training Curriculum: The U.S. Centers for Disease Control and Prevention, in collaboration with the Rwanda-Zambia HIV Research Group and the Liverpool School of Tropical Medicine, developed this curriculum to address the complex issues related to HIV counseling and testing with couples. <http://www.cdc.gov/globalAIDS/CHCT/intervention/>

Positive Prevention—HIV Prevention with People Living with HIV: A Guide for NGOs and Service Providers: Intended as a resource to help NGOs and service providers integrate HIV prevention into HIV treatment, care, and support programs, this publication is also of use to individuals living with HIV and their partners. http://www.aidsalliance.org/custom_asp/publications/view.asp?publication_id=90&language=en

HIV Prevention Trials Network: HPTN is a worldwide, collaborative, clinical trials network that develops and tests the safety and efficacy of primarily non-vaccine interventions designed to prevent HIV transmission. Its research agenda currently focuses on four areas: antiretroviral therapies, behavioral interventions, control of sexually transmitted infections, and substance use. <http://www.hptn.org/index.htm>

The Latex Condom: Recent Advances, Future Directions: Written by researchers, product compliance specialists, and policy experts at FHI, this monograph reviews recent advances in latex condom research and summarizes future directions for manufacturing and designing the latex product, research priorities on acceptability and behavioral issues, and advances in non-latex alternatives. <http://www.fhi.org/en/RH/Pubs/oksReports/latexcondom/index.htm>

About FHI/Rwanda

Family Health International is committed to improving health and access to health care for all people. In Rwanda, our focus has been on HIV and has included a broad range of services in primary prevention as well as care and treatment. Working with national and local government, individual health facilities, and a variety of civil society groups, FHI/Rwanda has supported the launch and expansion of behavior change communication campaigns, community care and support programs, and counseling and testing, prevention of mother-to-child transmission, and HIV patient care services.

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