

# HIV Trends and Women's Sexual Health

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**Positive Women's  
Network**

A summary of articles with a women-centred focus on HIV, sexually transmitted infections, prevention issues and more. Please contact the source cited or Positive Women's Network if you'd like more information.

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## Prevention Issues and Challenges

### Women More Vulnerable to HIV/AIDS Infection than Men, Less Apt to Cope

Women are more biologically susceptible to HIV infection and are, especially in Africa, less able to cope with it due to cultural, social and economic factors, experts told the 14th International Conference on HIV/AIDS and Sexually Transmitted Infections in Africa in Abuja, Nigeria.

"Nearly 60 percent of infections at the moment are in women, most of them in younger women," Helen Jackson, UN Population Fund's HIV/AIDS advisor for southern Africa, said today at the conference. "The physiological data seem to indicate it's something like twice as easy for women to become infected as for men."

In southern Africa, women ages 15-24 are at least three times more likely to be HIV-positive than men of the same age, due to physiological and sociocultural reasons. "Infection often occurs between older men and young women. There is a greater chance of the women's partners being HIV-positive," than if they had sex with same-age peers, "and the immature vaginal tract is more easily infected," said Jackson. Financial dependence makes it difficult for women to negotiate condom

use, or to refuse sex if they suspect the partner is infected. Monogamy does not always protect women, either.

"Among women surveyed in Harare, Durban and Soweto, 66 percent reported having one lifetime partner, 79 percent had abstained from sex at least until the age of 17. Yet 40 percent of the young women were HIV-positive," according to a UNAIDS report published this month.

Once infected, women's access to testing and treatment is in many ways dictated by the male partner, especially in rural societies. In a keynote address to the conference, UNAIDS chief Peter Piot said "structural drivers" of the epidemic, including "sexual violence against women" and "inheritance and property rights for women," must be addressed.

Source: CDC HIV/STD/TB Prevention News Update 12/07/2005  
Original Source: Agence France Presse(12.07.05): Helen Vesperini

## Prevention Issues and Challenges

### Women Exposed to Domestic Violence Experience Long-Lasting Health Problems, At Increased Risk of HIV Infection

Women who suffer physical abuse from intimate partners — the most common form of violence perpetrated against women worldwide — experience serious health consequences, according to a report released on Thursday by the World Health Organization, the AP/Boston Globe reports. The survey of 24,000 women in 10 countries found that women who suffer domestic abuse were twice as likely as other women to suffer health problems, including pain, dizziness, gynecological and mental health problems, which persist after the abuse has stopped, the report says. They also were more likely to have had a miscarriage or an induced abortion (Ross, AP/Boston Globe, 11/24).

The report says 4% to 12% of respondents who had been pregnant said they were beaten during pregnancy (Nebhay/Reaney, Reuters UK, 11/24). The survey, which was conducted in collaboration with the London School of Hygiene and Tropical Medicine and the nongovernmental organization PATH, was the first global report on domestic violence (AP/Boston Globe, 11/24). Researchers surveyed women in Bangladesh, Brazil, Ethiopia, Japan, Namibia, Peru, Samoa, Serbia and Montenegro, Tanzania and Thailand (WHO release, 11/24). Rates of domestic abuse varied between 15% of women in Japan to 71% in Ethiopia (AP/Boston Globe, 11/24). Fewer than half of the women who had been abused said they sought help from law enforcement authorities. In roughly half of the sites surveyed, women said it was acceptable for a man to beat his wife in certain situations (Vergano, USA Today, 11/26).

To combat the violence, WHO recommends bolstering support services for women and training medical workers to recognize the signs of domestic abuse (Schlein, VOA News, 11/24). The report was released ahead of the International Day for the Elimination of Violence Against Women, which was marked on Friday. The U.N. Development Fund for Women also called for more awareness about the link between violence and the spread of HIV/AIDS (U.N. News Service, 11/25).

### New York Times Examines Practice in Africa of Forced Marriages

The New York Times on Sunday examined the practice in some remote villages in Africa in which young girls are married off — “sometimes to husbands as much as half a century older” — in transactions with other families. In some communities, girls often “must leap straight from childhood to marriage at a word from their fathers,” sometimes “years before they reach puberty,” according to the Times. Such forced marriages can lead to “staggering” consequences, including the spread of HIV, a lack of education, early pregnancies and high-risk births, and a life of subservience, the Times reports (LaFraniere, New York Times, 11/27).

Source: Kaiser Daily HIV/AIDS Report - Monday, November 28, 2005

## Prevention Issues and Challenges

### U.K. Microbicides Development Programme Begins Enrollment of Phase III Trial in Africa

The U.K. Microbicides Development Programme will begin enrolling women in Uganda and South Africa in a Phase III clinical trial of Lexington, Mass.-based Indevus Pharmaceuticals' experimental microbicide PRO 2000, Indevus announced on Tuesday, BBC News reports (BBC News 10/24). PRO 2000 can be applied before sexual intercourse and is formulated to prevent HIV from attaching to human cells. The 39-month trial will be conducted by MDP — a \$74 million partnership between the U.K. Department for International Development and the U.K. Medical Research Council — and administered by the MRC Clinical Trials Unit and Imperial College London. Researchers plan to enroll more than 10,000 women in South Africa, Tanzania, Uganda and Zambia (Kaiser Daily HIV/AIDS Report, 4/7). Participants in the trial will randomly be given either a placebo or one of two strengths of PRO 2000 (Press Association/Scotsman, 10/25). The women will be asked to apply the product before sexual intercourse, and each participant also will be given condoms and HIV prevention counseling. The program has opened enrollment for the trial at clinics in Johannesburg,

South Africa, and the Masaka district in Uganda and plans to open additional sites in South Africa, Tanzania and Zambia (Indevus release, 10/25).

#### Reaction

Julie Bakobaki, MRC clinical trials manager, said, "Early safety studies of this particular microbicide have been extremely encouraging," adding, "It's very exciting after four years of preparatory work to reach the point of enrollment into this trial. Showing this microbicide protects against HIV would represent a tremendous breakthrough in the fight against the spread of HIV/AIDS" (AFP/News24.com, 10/25). Indevus CEO Glen Cooper said PRO 2000 also is being tested in an NIH-sponsored trial at sites in the U.S. and Africa, adding, "We believe, upon successful completion of the trials, we would be in a position to file marketing applications with regulatory authorities, including a new drug application with [FDA]" (Indevus release, 10/25).

Source: Kaiser Daily HIV/AIDS Report - Wednesday, October 26, 2005

## Prevention Issues and Challenges

### **Merck and Bristol-Myers Squibb License New AIDS Drugs to IPM for Development as Microbicides to Protect Women from HIV New Nature study shows potential of “entry inhibitor” compounds as HIV prevention tool**

New York - In a first-of-its-kind joint announcement, two of the world's leading pharmaceutical companies, Merck & Co., Inc. and Bristol-Myers Squibb have each announced today that they have signed separate license agreements with the International Partnership for Microbicides (IPM) to develop new antiretroviral compounds as potential microbicides to protect women from HIV. Under the two separate agreements, Merck and Bristol-Myers Squibb will each grant the non-profit group a royalty-free license to develop, manufacture and distribute their compounds for use as microbicides in resource-poor countries.

Announced on the eve of the TIME Global Health Summit, this agreement marks the first time a pharmaceutical company has licensed an anti-HIV compound for development as a microbicide when the class of drugs is so early in development. The compounds are part of a new class of antiretrovirals known as “entry inhibitors.” Some of the compounds bind directly to HIV; others bind to the CCR5 receptor. They are designed to prevent HIV from efficiently entering host cells, thus preventing infection.

A study published in this week's Nature will report that entry inhibitor compounds developed by Merck (CMPD 167) and by Bristol-Myers Squibb (BMS-378806), when used as vaginal microbicides, protected some macaque monkeys from infection with a virus similar to HIV. The research team was led by Dr. John Moore of the Weill Medical College of Cornell University and Dr. Ronald Veazey of the

Tulane National Primate Research Center; the study was funded primarily by US National Institutes of Health and other groups. Merck and BMS are providing IPM with royalty-free licenses to these drugs or other closely related compounds.

These microbicides could be developed as products, such as gels or creams, that could be applied topically in the vagina or in a vaginal ring that releases the drug gradually over time, reducing transmission of HIV during vaginal intercourse. It is estimated that even a partially effective microbicide could prevent 2.5 million HIV infections over a period of three years.

“These historic agreements mark a turning point in the pharmaceutical industry's commitment to developing a safe and effective microbicide to protect women from HIV,” said Dr. Zeda Rosenberg, Chief Executive Officer of IPM. “These entry inhibitors hold significant promise as potential microbicides. We are grateful to Merck and Bristol-Myers Squibb for their leadership and commitment in helping us develop new technologies to protect millions of women.” Dr. Rosenberg pledged that IPM's scientific team would move quickly to develop and test these compounds as microbicides.

“Merck is proud to contribute the results of our research and development to this worldwide effort to protect women,” said Dr. Adel Mahmoud, Chief Medical Advisor for Vaccines and Infectious Diseases at Merck. “This agreement builds on Merck's longstanding work in HIV/AIDS, both through our research and development of new anti-

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### Microbicide Development (continued)

HIV drugs and candidate vaccines, and through public-private partnerships such as our program with the government of Botswana and the Bill & Melinda Gates Foundation."

"We take our responsibility as a corporate citizen seriously," said John L. McGoldrick, Executive Vice President of Bristol-Myers Squibb. "This agreement and other Bristol-Myers Squibb programs, such as our Secure the Future program that is dedicated to helping women and children impacted by AIDS in Africa, demonstrate our company's commitment to help people in developing countries effectively respond to HIV/AIDS." Under the agreements, Bristol-Myers Squibb and Merck will provide royalty-free licenses to IPM to develop, manufacture and distribute the compounds as microbicides in developing countries. Three leading pharmaceutical companies have now entered partnerships with IPM. In March 2004, the group signed an agreement with Johnson & Johnson subsidiary Tibotec Pharmaceuticals Ltd. to develop the company's TMC120 non-nucleoside reverse transcriptase inhibitor as a microbicide.

"These innovative agreements demonstrate how the public and private sectors can work together to move exciting new technologies forward to protect women from acquiring HIV," said Dr. Helene Gayle of the Bill & Melinda Gates Foundation, which is a major supporter of IPM. "Bristol-Myers Squibb, Merck and J&J are leading by example in entering into partnerships to develop their most promising compounds as potential new HIV prevention technologies. We hope other

companies with promising anti-HIV compounds will make similar commitments."

"These companies could not have been more cooperative in providing their compounds for our research, and now in providing intellectual property rights to a non-profit group like IPM to develop them as microbicides," said Dr. Moore. "This is a very significant step forward." Moore noted that his research was also funded by Bristol-Myers Squibb's Freedom to Discover program, a no-strings-attached grant program funding biomedical research.

"The search for an effective microbicide is crucial to providing women with more options to protect themselves against HIV infection," said Dr. Peter Piot, Executive Director of UNAIDS. "The partnerships announced today by the International Partnership for Microbicides with the pharmaceutical companies Bristol-Myers Squibb and Merck & Co., Inc., represent the kind of innovative collaboration needed with the private sector not only to make this technology a reality, but also to ensure that it reaches the millions of women around the world who could benefit from it."

### About IPM

The International Partnership for Microbicides was established to accelerate the development and accessibility of vaginal microbicides to prevent the transmission of HIV. More information is available at [www.ipm-microbicides.org](http://www.ipm-microbicides.org).

Source: CDN-WOMEN mailing list  
<http://list.web.net/lists/listinfo/cdn-women>

## Women's Health Spectrum

### 90M Girls Worldwide Missing Primary School Education Because of HIV/AIDS, Pregnancy, Other Factors, UNICEF Report Says

About 90 million girls worldwide are not receiving primary school education, compared with 25 million boys, because of factors including HIV/AIDS, early marriage and teen pregnancy, according to a UNICEF report released Friday, the AP/Seattle Post-Intelligencer reports (Klapper, AP/Seattle Post-Intelligencer, 11/25). Poverty, war, natural catastrophes and traditional gender roles are other factors that keep girls out of school, according to the report, titled "Gender Achievements and Prospects in Education" (BBC News, 11/25). As a result, almost 50 countries will fall short of reaching a U.N. Millennium Development Goal target of achieving gender parity in primary education by the end of this year.

Lack of education puts girls at greater risk of contracting HIV and other diseases, as well as becoming victims of violence, abuse, poverty and exploitation, the report says (Reuters AlertNet, 11/25). UNICEF Head of Education Cream Wright said that sub-Saharan Africa "is the worst affected region in the world in terms of getting children into school

overall," but the situation in South Asia is "slightly" worse when comparing the percentage of girls who attend school (De Capua, VOA News, 11/25).

To achieve the MDG target of universal primary education, the report recommends eradicating school fees; providing scholarships and other financial incentives for disadvantaged children; putting a cap on school uniform costs and other fees; offering immediate funding and technical support to countries with low enrollment; and using the school system to deliver services such as nutrition, immunization and hygiene education to children (UNICEF release [1], 11/25). The report urges that solutions be backed by political will from the international community, Wright said. The report was presented on Saturday at the global advisory committee for the U.N. Girls' Education Initiative in Beijing (UNICEF release [2], 11/25).

Source: Kaiser Daily HIV/AIDS Report - Monday, November 28, 2005

## Women's Health Spectrum

### Mother-to-Child Hepatitis C Transmission Twice As Likely Among Girls As Boys

Pregnant women living with hepatitis C are about twice as likely to transmit the virus to an infant girl as they are to a boy, according to a study published in the Dec. 1 issue of the *Journal of Infectious Diseases*, Reuters Health reports. Pier-Angelo Tovo from the Università degli Studi di Torino in Turin, Italy, and colleagues examined 1,787 pregnant women living with hepatitis C and their infants at 33 centers in Europe and recorded a mother-to-child transmission rate of 6.2%. The researchers also found that elective delivery by caesarean section did not prevent infants from contracting the virus. In addition, breastfeeding, maternal history of injection drug use and premature birth were not significantly associated with higher rates of vertical transmission of hepatitis C, according to the study (Reuters Health, 12/15). Women co-infected with HIV and hepatitis C had a higher hepatitis C transmission rate — 8.7% — than the

other women participating in the study — 5.5% — but the finding was not statistically significant (Tovo et al., *Journal of Infectious Diseases*, 12/1). The researchers said the higher rate of hepatitis C infection among infant girls suggests hormonal or genetic differences between girls and boys affect an infant's risk of contracting the virus. In an accompanying *JID* editorial, Palmer Beasley from the University of Texas School of Public Health said that the study's finding on gender differences is "interesting, provocative and worth further investigation." Beasley adds that the finding is consistent with recent observations regarding gender differences in vertical HIV transmission (Reuters Health, 12/15).

Source: Kaiser Network Daily HIV/AIDS Report, Dec 19, 2005

## Testing, Treatment and Care

### Changes Planned in Use of Oral HIV Test; Blood to Be Checked Quickly to Confirm Any Positive Results

Acting on news of an unusually high number of false positives with a rapid-result oral HIV test in two cities, federal health authorities soon will issue new guidelines for its use. San Francisco public health clinics have recorded 49 false positives with the OraQuick Advance HIV test since May. New York clinics logged 10 false positives in October and 30 in November, San Francisco officials said.

CDC plans to advise that clinics immediately follow up positive oral test results by performing a rapid-result blood test, said Dr. Bernard Branson, associate director for laboratory diagnostics at the agency. "What we intend to suggest is that if someone is tested with oral fluid and is positive, that person, if it is possible at the clinic, should get a finger-stick test." The same OraQuick test is licensed to test oral fluid, blood droplets or blood drawn into a test tube. The blood-testing method also delivers results in 20 minutes; however, no comparable reliability issues have been raised for it. If the second test's result is negative, the patient would still need to undergo the more sophisticated Western Blot lab tests. Results for this can take a week, but in the meantime, the patient could be sent home with the assurance that the initial oral test's positive result was likely wrong.

CDC will probably issue the advisory in the next edition of its Morbidity and Mortality Weekly Report, Branson said.

Large-scale monitoring of the test showed an accuracy rate of 99.6 percent, which is comparable to the best blood tests available. But Branson said he is "not comfortable" with the clusters of false positives reported in San Francisco and New York.

Douglas Michels, CEO of test maker Orasure Technologies, said despite the San Francisco false positives, the test's performance has been within guidelines set by the Food and Drug Administration. The agency approved the test for professional use in March 2004 and is considering an application for over-the-counter sales. Michels declined to comment on the reported New York numbers and said he had not discussed with CDC a change in the recommendations for the test's use.

Source: CDC HIV/STD/TB Prevention News Update 12/12/2005  
Original Source: San Francisco Chronicle (11.10.05): Sabin Russell

## Testing, Treatment and Care

### Small Tears in Placenta May Be Relaying HIV to Babies

Mother-to-child HIV transmission (MTCT) may be occurring via small tears in the placenta during birth, a recent study suggested.

Without treatment, 25-35 percent of babies born to HIV-positive mothers become infected, resulting in an estimated 500,000 HIV-positive newborns worldwide each year. With HIV treatment, MTCT is sharply reduced, though in many countries these treatments are either not available or not acceptable.

"The question has always been, how does the virus get from the mothers to the babies? We have known very little about it," said Dr. Steven Meshnick, epidemiology professor at University of North Carolina-Chapel Hill's School of Public Health and the study's senior investigator.

In the study of 149 pregnant HIV-positive women in Malawi, Meshnick and an international team sought to assess whether MTCT is caused by a breakdown of the placental barrier. Each mother received a single-dose antiretroviral drug to diminish MTCT risk. Researchers used placental alkaline phosphatase (PLAP) as a marker for maternal-fetal blood exchange.

"This enzyme, made in the placenta, is very big, usually too big to pass through the natural barrier that protects babies from disease-causing organisms that mothers carry before birth," said Meshnick. "We figured if we found it in blood from the umbilical cord, which links the placenta to the baby, that would be an indication of mixing, that something tore in the placenta and leaked the mothers' virus-contaminated blood to the infant."

Researchers found a "very strong correlation" between PLAP in the cord blood and HIV infection in infants. For each tenfold PLAP increase, risk of MTCT nearly tripled. Researchers suggested MTCT occurred during labor, in the period of contractions, rather than when the infants passed through the birth canal. Sanitization of the birth canal would not be as helpful compared to ARV treatment if this were the case.

"This work shows strongly for the first time that what we call placental microtransfusions during birth are responsible for a large part of the transmission of HIV from mother to baby," said Meshnick. "It has been known for a long time that HIV-infected women who undergo caesarian section before they go into labor do not transmit the virus, whereas those who underwent emergency C-sections after they go into labor do transmit it. What we saw was consistent with this. It looks like direct mother-to-child blood-mixing occurring during labor leads to infection," he said.

The full report, "Maternal-Fetal Microtransfusions and HIV-1 Mother-to-Child Transmission in Malawi," was published online in the Public Library of Science Medicine (2005;doi:10.1371/journal.pmed.0030010).

Source: CDC HIV/STD/TB Prevention News Update 12/13/2005  
Original Source: Scripps Howard News Service 11.22.05; Lee Bowman