FEATURED RESEARCH

Acceptability and feasibility of continuous diaphragm use among sex workers in Madagascar

Objectives: The diaphragm, a woman controlled, reusable contraceptive device, might prevent some sexually transmitted infections (STIs). We assessed the acceptability and feasibility of use of silicone Wide-Seal Arcing Diaphragms (Milex Products, Chicago, IL, USA) by sex workers in Madagascar. Methods: Over 8 weeks, we evaluated method acceptability by examining patterns of and problems with women’s diaphragm use. We also evaluated several measures of study feasibility, including recruitment and follow up methods. Results: 91 women from three cities (Antananarivo, Tamatave, and Mahajanga) participated, and 87 (96%) completed follow up. At enrolment, participants reported a median of six sex acts with five clients in the previous week. During the follow up period, participants reported a median of three sex acts with three clients during the previous 2 days, and self reported continuous diaphragm use during the previous day increased from 87% to 93%. Seven women became pregnant (incidence 53 pregnancies per 100 woman years). Self reported use of male condoms and diaphragms was fairly constant over the study period: women reported condom use in 61% to 70% of acts and diaphragms in 95% to 97% of acts. The number of participants reporting diaphragm problems decreased from 15 (16%) at the first visit to six (7%) at the final visit. 20 women (22%) needed replacement devices during follow up because their original diaphragms were lost, were the wrong size, or became seriously damaged. Conclusions: Given the high use and steady decrease in reported problems during the study, we believe diaphragms are acceptable and feasible in this resource poor, low education sex worker population.

Barrier method preferences and perceptions among Zimbabwean women and their partners

In Zimbabwe, adult HIV prevalence is over 25% and acceptable prevention methods are urgently needed. Sixty-eight Zimbabwean women who had completed a barrier-methods study and 34 of their male partners participated in focus group discussions and in-depth interviews to qualitatively explore acceptability of male condoms, female condoms and diaphragms. Most men and about half of women preferred diaphragms because they are female-controlled and do not detract from sexual pleasure or carry stigma. Unknown efficacy and reuse were concerns and some women reported feeling unclean when leaving the diaphragm in for six hours following sex. Nearly half of women and some men preferred male condoms because they are effective and limit women’s exposure to semen, although they reportedly detract from sexual pleasure and carry social stigma. Female condoms were least preferred because of obviousness and partial coverage of outer-genitalia that interfered with sexual pleasure.
Introducing diaphragms into the mix: what happens to male condom use patterns?

The objective of this analysis was to assess the effect of introducing the diaphragm on condom use patterns. Participants included one hundred eighty-nine women attending family planning clinics in Harare, Zimbabwe who reported less than 100% condom use. The proportion of acts where at least one method was used significantly increased over follow-up; male condom use remained stable. A diaphragm was used with 50% to 54% of acts; male condoms were also used about 50% of the time. The proportion of acts where a female condom was used decreased. Women who used both male and female condoms were more likely to use diaphragms than those who reported not using female condoms. Introducing the diaphragm increased the overall proportion of protected acts. The proportion of acts where a male condom was used did not change. Female condom use declined because concurrent use with the diaphragm is not possible.

Challenges in recruiting women to HIV prevention trials: Informal settlements compared with established townships
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Participant recruitment and retention is a key aspect of trial conduct. Working in communities with varied socio-economic levels and infrastructure raises challenges in how to engage communities and disseminate recruitment messages. The Perinatal HIV Research Unit (PHRU), based in Soweto, South Africa, undertook a quantitative analysis of recruitment efforts and challenges encountered during implementation of a large HIV prevention trial for women.

A total of 1,216 women from greater Soweto and surrounding areas were recruited into the study using various approaches. Strategies included door to door, group presentations, print media in the form of pamphlets, posters, wall advertisements, and electronic media using community radio. The first seven months of recruitment were focused on established townships while the latter five months expanded to include informal settlements. Three times as many women were recruited in the latter period (932) as compared to the initial phase (284). Screening also increased from between 26 to 59 visits per month in the initial stage to between 94 and 293 visits per month in the second stage.

Researchers surmised that in informal settlements, where resources are limited and the unemployment rate is high, there were fewer HIV/AIDS related activities such as voluntary counseling and testing services and research programs. Thus, women in these less saturated areas were more willing to participate. Women responded to door to door visits, community meetings and group presentations as they were eager for opportunities that could bring development into their communities. In contrast, women in established townships often lacked interest in HIV/AIDS issues, may have felt overexposed to HIV messages, and were often focused on other economic development issues making participation in HIV research a low priority. Therefore, printed materials and electronic media such as local radio were more effective in engaging women in these areas.

It is imperative for researchers to examine community needs and gaps before areas are chosen for recruitment efforts so that appropriate strategies can be employed and recruitment targets met.

Priorities Conference Highlights
Cervical Barrier Research

The 12th Priorities in Reproductive Health and HIV Conference took place in October 2005. Held in Stellenbosch, South Africa, this unique conference is recognized in Africa as being one of the major platforms for the presentation of research undertaken in the region. Several presentations highlighted research related to barrier methods, two of which are highlighted in this newsletter (female condom consultation and recruitment strategies).

In addition, two other relevant topics were presented: Teresa Harrison of Ibis Reproductive Health presented a poster: “Quality of information available on the internet about cervical barrier methods.” Ethel Qwana of Ibis Reproductive Health presented findings from a qualitative study: “Providers’ knowledge, perceptions and attitudes toward diaphragms in South Africa.” For more information about the conference, go to www.rhra.co.za/site/PrioritiesConference/Priorities.htm
Hosted by PATH from September 26-29, 2005, the global consultation on the female condom (FC) brought together a range of participants from policymakers and program managers to advocates and regulatory agency representatives. The goal of the meeting was to create an action plan focusing on advocacy needs, introduction practices, research gaps, development of new prototypes, and strategies for increasing FC supplies. The meeting began with a review of activities from prior key international meetings on the FC. Although research has demonstrated that the FC is comparable to other barrier methods for pregnancy prevention, further evidence is required to demonstrate the FC’s STI prevention capacity. The lack of evidence from human trials on protection from HIV was raised as a key research need but there was little hope for funding to address this gap.

New designs for female condoms were presented at various stages of development. The Female Health Company, producer of the currently available female condom (FC1), has also developed the FC2 which appears almost identical to the FC1, but is made of synthetic latex rather than polyurethane. The performance and acceptability of FC2 is comparable to the FC1, but would be slightly cheaper at current distribution levels (USD$0.60). The PATH-Soft Cling Woman’s Condom is inserted like a tampon with a cap that dissolves after insertion. Foam shapes on the body of the condom cling lightly to the vaginal wall to ensure stability. The original prototype was evaluated by couples for ease of insertion, comfort, sensation and stability and is being modified based on these findings. The Reddy V-amour FC, made of latex, encases an anchoring sponge and costs approximately USD $0.30-0.40. It is currently available in some African countries and is expected to be distributed in Brazil, India, China, Russia and South Africa within 6 months. The final product presented was the Belgium female condom (MEDITEAM), made of natural latex. It has been evaluated in a student population and was presented as an affordable option. The Natural Sensations panty condom, made of polyethylene, is a re-usable thong panty with replaceable condoms. The initial price of the Panty plus 3 condoms is USD$5.00. It is available in Panama, Costa Rica, Dominican Republic, Venezuela and Spain. The Silk Parasol panty condom has a similar design with refill condoms purchased separately. The current cost of the panty alone with one condom is USD$2.25.

FC programs current and future potential: Large-scale FC programs were presented from Brazil, South Africa and Zimbabwe demonstrating that government commitment and careful planning are essential components of successful programs. Emerging programs in India, Ethiopia and Nigeria were also highlighted as well as a new global initiative by UNFPA that offers training and logistics support. Population Services International (PSI), which has launched FCs in 30 countries since 1995 provided an update on social marketing strategies. PSI described attractive packaging aimed at the local market and strategic packaging to attract the male buyer as key elements to FC promotion.

A comparison of funding for female and male condoms shows that for every USD $1 spent on MCs only $.05 cents is spent on FCs. Between 2001 and 2003, FC distribution represents only 0.1-0.2% of total condom distribution with 10.9 million FCs distributed compared to 2.7 billion male condoms (MCs). It was noted that the FC community may be able to learn from the microbicides and HIV vaccines fields which have raised a great deal of funding for these potential HIV prevention products. The cost of FCs remains prohibitive for many programs. However, cost will not decrease until sales volumes increase - creating a difficult cycle to break. Reuse of FCs was raised as a potential solution to addressing some cost issues. Another concern was that donors and others require evidence that FCs will not replace MCs and instead will create a new user base resulting in extra protection against STIs.

Participants decided on the following key action items: strengthen advocacy initiatives, promote south-to-south skills transfer, address research gaps, share program experience, and support product development. The consultation was successful in renewing commitment toward raising the profile of the FC as an existing female-initiated method with huge potential for future prevention efforts.
UPCOMING EVENTS

**Event:** American Medical Women’s Association  
**Date:** February 16-19, 2006  
**Location:** Tucson, AZ  
**Website:** [http://www.amwa-doc.org/](http://www.amwa-doc.org/)  
**Description:** Find out about the latest trends in complementary and alternative medicine; see how innovative anti-aging therapies and aesthetics can help you reach new patients; learn new strategies to improve quality of life for patients with chronic illnesses like heart disease, diabetes and osteoporosis; and discover a host of other techniques to enhance your practice, develop your leadership skills, and achieve balance in your own work/life synergy.

**Event:** Population Association of America (PAA)  
**Date:** March 30-April 1, 2006  
**Location:** Los Angeles, California  
**Website:** [http://www.popassoc.org/meetings.html](http://www.popassoc.org/meetings.html)  
**Description:** PAA is a nonprofit, scientific organization, which promotes research on population issues. Members include demographers, sociologists, economists, public health professionals and other individuals interested in research and education in the field of population. Over 1,700 participants are expected to attend the conference.

**Event:** Microbicides 2006  
**Date:** April 23-26, 2006  
**Location:** Cape Town, South Africa  
**Website:** [http://www.microbicides2006.org](http://www.microbicides2006.org)  
**Description:** This conference intends to provide updates on recent microbicide research, a forum for the discussion of new developments in microbicide research and to present opportunities for knowledge sharing between microbicide researchers, public health workers, advocates, communities and civil society organizations. We have added in a new focus for the conference (Track D), on Advocacy and Community, we look forward to receiving abstracts and papers addressing these important issues.

**Event:** The American College of Obstetricians and Gynecologists  
**Date:** May 6-10, 2006  
**Location:** Washington, DC  
**Website:** [http://www.acog.org/acm/program/welcome.cfm](http://www.acog.org/acm/program/welcome.cfm)  
**Description:** This conference will include presentations about genomics, stem cells, cloning, and technologic developments, such as the use of simulation systems for improving patient safety and clinical training.

What are cervical barriers?  
Most people think of cervical barriers primarily as the diaphragm and cervical cap but a broader definition would encompass Lea’s shield, female and male condoms, the sponge and microbicides. For more information about the range of cervical barrier methods, go to [http://www.cervicalbarriers.org/information/methods.cfm](http://www.cervicalbarriers.org/information/methods.cfm).

Mission of CBAS  
Established in 2004, the Cervical Barrier Advancement Society (CBAS) aims to raise the profile of cervical barrier methods for pregnancy prevention and provide information about research on the potential of cervical barriers to prevent sexually transmitted infections, including HIV.

Membership  
CBAS membership is free and open to all who are interested in joining. CBAS’s goal is to create an international, professional networking organization including clinical and social science research groups, academic institutions, advocacy groups, trade associations, and pharmaceutical, biotech, and medical device companies. As a member, you will have the opportunity to network and collaborate with other professionals in the field; keep abreast of new research; share information and ideas; and receive a semi-annual newsletter.

**CBAS Contact Information:** For more information, contact Julia Matthews, CBAS Executive Director at jmatthews@cervicalbarriers.org. CBAS is hosted by Ibis Reproductive Health and based in Cambridge, Massachusetts.

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To comment on anything you read in the CBAS newsletter or to contribute a story, event, or news item, please email info@cervicalbarriers.org.

www.cervicalbarriers.org