



Key Findings

Background

FEM-PrEP is a Phase III randomized, placebo-controlled, clinical trial designed to assess the safety and effectiveness of a daily oral dose of Truvada for HIV prevention among women. Truvada combines two antiretroviral drugs—tenofovir disoproxil fumarate (TDF 300 mg) and emtricitabine (FTC 200 mg)—into a single daily pill, which has been proven safe and effective as a treatment for HIV-infected people. Truvada prevents the HIV virus from reproducing itself in HIV infected people. The purpose of the FEM-PrEP trial is to test whether Truvada could also be used safely and effectively to *prevent* HIV infection—an approach known as pre-exposure prophylaxis (PrEP).

HIV-negative women between the ages of 18 and 35 who were at higher risk for HIV infection volunteered to take part in FEM-PrEP. The trial was conducted at four sites in three countries: Bondo, Kenya; Bloemfontein and Pretoria, South Africa; and Arusha, Tanzania. A site in Harare, Zimbabwe, was scheduled to begin FEM-PrEP in mid-2011 but the site was never initiated due to the early closure of FEM-PrEP. Because community involvement is important to FHI and FEM-PrEP investigators, community engagement activities were carried out at all four sites before and during the trial; community engagement activities had begun in Harare, Zimbabwe. Socio-behavioral research was also conducted at three sites before and during the trial.

Study participants were randomly assigned to receive either Truvada or a placebo pill. All participants received monthly individual risk-reduction counseling, free male condoms, and free female condoms (where available). As part of the risk-reduction counseling, participants were encouraged to use a condom every time they had sex. Testing and treatment for curable sexually transmitted infections were provided at screening, at the final study visit, and at other visits when indicated. In addition, study participants' sexual partners were tested for sexually transmitted infections and, if requested, they received treatment for curable infections as part of the study. Participants were tested for pregnancy at each study visit.

Participants who became HIV positive during the clinical trial received counseling and were referred to medical and social services available in the community. Each study site had strong links and formal referral agreements with local organizations that provided these services.

FEM-PrEP Preliminary Findings

Following a scheduled interim review of the FEM-PrEP study data, the Independent Data Monitoring Committee (IDMC) advised that the FEM-PrEP study will be highly unlikely to be able to demonstrate Truvada's effectiveness in preventing HIV infection in the FEM-PrEP study population even if it continued to its originally planned conclusion. FHI subsequently concurred and has therefore decided to initiate an orderly closure of the study over the next few months. The final analyses have not yet been conducted. At this time, it cannot be determined whether or not Truvada works to prevent HIV infection in women.

Only preliminary FEM-PrEP data are available at this time:

- As of February 18, 2011, the study had screened 3,752 women and enrolled 1,951: 739 in Bondo, Kenya; 764 in Pretoria, South Africa; 432 in Bloemfontein, South Africa; and 16 in Arusha, Tanzania. The most common reason for women not being enrolled was existing HIV infection. The overall HIV prevalence was 21 percent among women screened for enrollment across the sites.
- Preliminary data indicate about 90 percent of the participants were retained in the study.
- Self-reported adherence to study product was approximately 95 percent when the study product was available for use.
- As of February 18, the approximate rate of new HIV infections among trial participants was 5 percent per year. A total of 56 new HIV infections had occurred, with an equal number of infections in those participants assigned to Truvada and those assigned to a placebo pill.
- Women in FEM-PrEP were required to use an effective method of contraception. At enrollment, 66 percent were using injectables and 30 percent were using oral contraceptives. The overall pregnancy rate was 9 percent; the highest pregnancy rates were among women using oral contraceptives.
- Among study participants randomly assigned to the Truvada arm, observed pregnancy rates were higher than among women randomly assigned to the placebo arm. This is unexpected and inconsistent with known drug interactions involving tenofovir (TDF) and contraceptive hormones, and with known metabolic effects of emtricitabine (FTC). Possible explanations include differential pill adherence by group, previously undefined drug-drug interactions, chance, or a combination of factors (including yet unknown factors).
- Women reported an average of 3.7 vaginal sex acts in the 7 days prior to enrollment, consistent with the average of 3.6 acts reported during follow-up.
- The use of Truvada was associated with some known side effects that were not serious.

Further analyses of the data are planned. The database will not be final until all participants complete their final study visits in a few months' time. The cleaning of the database and subsequent analyses will take several months. The results will be shared once they are known.

How can I learn more about the FEM-PrEP clinical trial?

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