



## Adherence

### **What is adherence?**

“Adherence” is the term used to describe how closely a person follows the directions for taking a drug. For example, in the FEM-PrEP clinical trial, participants were instructed to take the study pill once a day for one year. Participants achieved good adherence if they were able to take the drug almost every day for a year.

We know that many people find it difficult to follow treatment or prevention regimens in their everyday lives. In HIV prevention trials, adherence to prevention regimens—such as daily pill taking or use of a vaginal gel—has proved to be challenging. Measuring adherence among participants in a study is also very difficult, and there is no “gold standard” of measurement.

### **Why is adherence important?**

Adherence is critical to the interpretation of the results in an HIV prevention trial. If the study pill is not taken as directed, a highly effective pill may appear to be ineffective.

### **What was the study pill regimen in FEM-PrEP?**

Participants were randomly assigned to one of two groups: One group received Truvada and the other group received a placebo. The participants in each group were asked to take the study pill—Truvada or the placebo—once daily (as close to every 24 hours as possible) for 52 weeks.

### **Did the participants know whether they were taking Truvada or a placebo?**

The study was double-blinded, which means that neither the participants nor the study’s staff members knew who was taking Truvada and who was taking the placebo.

### **What steps did FEM-PrEP take to try to achieve high adherence?**

FEM-PrEP used several different approaches to support participant adherence:

- **Incorporated socio-behavioral preparedness data into the adherence support program**  
The FEM-PrEP study teams conducted in-depth interviews with potential participants at several sites before the trial began in order to identify factors that might facilitate or serve as barriers to the use of the study pill. They also talked to women about the best way to incorporate pill-

taking into their daily lives. These data were incorporated into counseling procedures and messages to support adherence.

- **Implemented a vitamin “run-in” period**

Participants were given an opportunity to practice taking a pill daily before being given the study pill. Between screening and enrollment, participants were asked to take one vitamin at the same time each day. The vitamins were similar in size to the study pill. Potential facilitators and barriers that might have helped or hindered adherence during the vitamin run-in period were discussed during adherence counseling at enrollment. Counselors then helped the participants to develop targeted plans for adherence to the study regimen.

In addition, as part of the trial’s eligibility criteria, each woman was asked to take a vitamin in front of study staff at enrollment; those who could not swallow the tablet could not be enrolled in the study.

- **Provided participant-centered and goal-oriented adherence counseling**

Together with trained counselors, participants developed their own adherence plans by focusing on how to integrate pill-taking into their daily activities and social context. During each follow-up visit, participants and counselors discussed potential strategies to overcome personal barriers to daily pill-taking, and the participant’s adherence plans were refined as needed. Messages about adherence to the study pill were strategically delivered during counseling over the course of the trial. The use of reminders to take pills, such as cell phone alarms, a pill organizer, and a calendar, was encouraged. Pharmacists also provided brief messages on adherence when distributing the study pill.

- **Enhanced adherence counseling based on real-time data**

Self-reported adherence data were collected monthly during the implementation of the trial; these data were reviewed regularly to improve counseling provided to participants. For example, these data were used to identify the reasons that participants did not take the study pill or to examine whether pill fatigue was occurring over time. Counselors then used this information to devise strategies to enhance support for adherence.

At some sites, a random sample of participants was interviewed periodically about their experiences with adherence. Data from these in-depth interviews were analyzed and summarized for study staff so the information could be used to enhance support for adherence.

### **How was adherence measured?**

FEM-PrEP used several different approaches to measure adherence: self-reports, pill counts, and laboratory tests to determine the levels of TDF in the blood.

- **Self-reported adherence**

Using a structured questionnaire, interviewers asked participants at each study visit to describe their pill-taking behaviors during the past four weeks. These interviews took place before the adherence counseling session, and they were conducted by staff members who were not involved in adherence counseling. By separating the interviews from adherence counseling, we aimed to reduce the chances that participants might overestimate their levels of adherence to please the interviewers.

At week 52, after participants stopped taking the study pill, interviewers administered a questionnaire, which asked each participant to describe her perception of her pill adherence throughout the trial.

- **Pill counts**

Participants received a 30-day supply of the study pill at each visit. They were asked to return the pill bottle every four weeks; any pills left in the returned bottles were counted and recorded.

- **Blood tests**

After the study is unblinded, stored blood samples from some of the participants in both groups (Truvada and placebo) will be analyzed to measure the concentrations of tenofovir (one of Truvada's active ingredients). These results will provide an indication of the participants' adherence to the study procedures.

### **FEM-PrEP Preliminary Adherence Findings**

Self-reported adherence to study product was approximately 95 percent when the study product was available for use.

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

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

Please contact Beth Robinson, Associate Director, Project Communications. E-mail: [brobinson@fhi.org](mailto:brobinson@fhi.org)