PrEP: What Does It Mean For Women?

Fact Sheet

What is PrEP?

PrEP stands for "pre-exposure prophylaxis". It means using medicine in advance (before you are exposed to something) to prevent yourself from getting a disease or condition. We use several kinds of medicines this way.

Sunscreen is one example of PrEP. We rub lotions or crèmes onto our skin to prevent sunburn if we know that we are going to be out in strong sunlight for a long time. Another example is taking anti-malaria medication when we travel to areas where we may be bitten by mosquitoes carrying malaria. When the medicine is already in a person's system before the bite, the chances of the person getting malaria are greatly reduced.

These are two examples of pre-exposure prophylaxis. In PrEP, the medicine you take before exposure becomes a shield to help protect you from getting a specific disease or infection.

When we talk about PrEP in connection with HIV, we are referring to the idea of HIV-negative people taking antiretroviral drugs (ARVs) in order to reduce their risk of becoming infected with HIV if they are exposed to it. **PrEP is not recommended for HIV prevention now because we do not know yet whether it will actually work to prevent HIV. Research is going on to see if it works or not.**

How might PrEP prevent the spread of HIV?

If proven effective, the PrEP medication would keep HIV from being able to reproduce in the body of someone who is taking it regularly (or possibly just at the time of exposure to the virus). Here is how this would work. When cells are infected with HIV, they become little factories that make thousands of new HIV viruses every day. ARVs work by blocking some of the production steps that HIV uses to make copies of itself. If an HIV-negative person already has an ARV in her blood stream when she is exposed to HIV (during unprotected sex, for example), the medicine might be able to keep the HIV from making enough copies of itself to "take hold" and cause her to become infected.

Again, it has not been proven that using ARVs as PrEP actually works to reduce a person's risk of becoming HIV infected. This approach is still being researched. Even if PrEP is proven to reduce HIV risk, it will not be as effective as condoms. Keeping HIV out of the body altogether is clearly a more effective way to prevent HIV infection than trying to disable it once it is already inside.

What evidence is there so far that PrEP might work?

Researchers started conducting clinical trials on PrEP after it had been shown to work in animal trials. Animals do not get HIV, but monkeys can get two viruses (SIV and SHIV) that are the "close cousins" of HIV. Scientists use these viruses to try out possible drugs in animals to see if they are worth pursuing for human use. One study compared monkeys who were given PrEP to those that were not. Both groups were exposed to SHIV and all but one of the monkeys in the untreated group (those not getting PrEP) became infected. However, between 50 and 80 percent of monkeys receiving PrEP did not get SHIV, even after repeated exposure to it. Results like this do not tell us what PrEP would do in people, but they do give researchers a reason to study it further to find out.

What is happening now?

Six clinical trials are now underway to test the effect of daily use of PrEP. One is a relatively small study in the US looking at how safe PrEP is. The other trials, occurring in the US, Africa, Latin America and South-East Asia, are looking at whether it is effective. We expect to hear results from two of these effectiveness trials in 2010. One is a trial enrolling men who have sex with men and the

other is a trial that enrolled injection drug users. All together, the current PrEP trials are enrolling thousands of women and men around the world and they will produce data between now and 2012. All participants in these trials receive HIV prevention services, including free supplies of condoms and safer sex and behaviour counselling to help them reduce their HIV risk.

What would PrEP mean for women at high risk of HIV?

Even if these trials show that PrEP is effective, a lot more work will have to be completed before PrEP could be marketed for public use. This includes improving the health care system so people can access PrEP effectively. HIV testing, for example, will need to be more widely adopted **because only people who know that they are HIV negative can use PrEP safely.** If you use it when you are already HIV positive, you are very likely to develop drug-resistant virus, which you may then pass on to other people. Having drug resistant virus may also make it harder to treat your HIV infection.[1].

PrEP is a promising tool for women who want and need HIV prevention strategies they can use without their partner's cooperation. Around the world, women have opinions about what PrEP and have raised some important questions. How would they access HIV testing, especially if their partner opposes getting tested? How would taking PrEP affect pregnancy or breastfeeding? Would they be able to get PrEP if they do not know their partner's HIV status? Would a man be likely to refuse to use condoms if he knows his partner is taking PrEP? Would women be able to keep the PrEP pills prescribed to them? Some women worry that the pills would likely be taken away from them and given to another family member who is viewed as "needing them more".

What are the advocacy issues? What needs to be done?

If PrEP works, we need to advocate not only for the additional research (such as studies on the impact of PrEP on pregnancy and breastfeeding) but also for "PrEP readiness"—putting systems in place before PrEP is marketed to make sure that communities can use it safely.

More widespread HIV testing is one of the things communities will need. Access to PrEP without frequent testing is exactly what could trigger the widespread development of drug-resistant HIV. Right now, about 80 to 90 percent of all HIV-positive people in the countries hit hardest by HIV do not know their HIV status. Creative solutions will be required to overcome barriers to testing.

Massive, targeted community education about the benefits and risks of using PrEP is also vital. Especially in poor communities, there will be a temptation for people to sell their PrEP pills or share them with other people who do not have prescriptions. This kind of casual drug distribution would promote drug-resistant HIV, so systems will be needed to prevent this from happening. People will need to understand clearly that they endanger their own health—and the community's health—if they use PrEP without a prescription or buy it on the street.

If PrEP works, women in high-risk communities need to be involved in determining:

1. how to make HIV testing as easily and safely accessible to women as possible;
2. where and how PrEP should be distributed and packaged for women; and
3. what messages will help women understand and explain their need for PrEP in such a way that pills will not be taken away from them and given to someone else to use.

Most of all, we need to persuade policymakers that these social and educational supports are essential. Without them, it is likely that PrEP—like condoms and circumcision—will primarily become an HIV prevention tool for men, if it is effective. Addressing some of the barriers to prevention that women experience is what can help to put much-needed HIV prevention tools into women's hands.

[1] To learn more about this, see the Global Campaign for Microbicides' fact sheet *Understanding Drug Resistance*, at http://www.global-campaign.org/clientfiles/FS-DrugResistance%5bE%5d.pdf.