

“What is PrEP?”

How little blue pills that could save lives aren't reaching the people that need it most.

BY ALEX FURUYA



It's another busy day at the Uptown Neighborhood Health Center, located on 845 W Wilson, Chicago. Clients wait in long lines, parts of the building are under construction and receptionists are answering calls on every floor. Leticia Sustaita seems to float past the chaos to her clinic, nestled in a small corner of the health center.

“The office is usually quite busy,” says Sustaita. “We have several programs and several offices and a small space. We have clinics, we have medical case management, we have HIV testing, mental health services for our clients as well...” She pauses to think, “I can't even remember what else.”

As the program director of the University of Illinois Health Community Clinic Network, Sustaita is in charge of creating outreach programs to reach populations such as young men of color or low-income individuals that may be at risk of getting HIV but do not have resources, including basic healthcare. One of Sustaita's most important jobs is to answer questions her clients might have about the human immunodeficiency virus (HIV). Recently, however, many of her clients have been asking about pre-exposure prophylaxis (PrEP), a relatively new method of preventing HIV infections with a single blue pill.

“We are already offering PrEP at the FCID clinic and that's open to the general public,” Sustaita says. “You don't have to have insurance for it. You do have to apply to the AIDS Drug Assistance Program, which does cover the PrEP treatment.”

Sustaita's job is not an easy one. While PrEP is a great medical advancement in HIV prevention, getting the regimen to the people who need it has been a hurdle. There are a few explanation for this challenge. First, when the FDA first approved the regimen, misinformation about PrEP and the misconceptions surrounding it discouraged some people from seeking PrEP. Some people considered those who took PrEP to

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be promiscuous, or even “Truvada Whores.” The other big barrier is that certain people may not even know about intervention in the first place. Those who lack primary health care due to socioeconomic conditions often do not receive the information they need to access Truvada. Therefore, factors such as race and gender can affect one’s access to PrEP or information about it. To top it off, the new presidential administration has caused many health care professionals to feel unprepared for upcoming cuts to healthcare.



PrEP is a pharmaceutical regimen that prevents HIV infections for HIV-negative people. HIV is the virus that lead to AIDS, or acquired immunodeficiency syndrome, a disease that attacks the immune system. Approximately 1.2 million people in the U.S. are living with HIV and there are about 50,000 new HIV infections every year, according to CDC. The virus attacks CD4 cells, also known as T-cells, which are an essential part of the body’s immune system, according to the U.S. Department of Health and Human Services. After the virus destroys enough CD4 cells, the body becomes susceptible to infections and infection-related cancers. This can lead to serious health complications and even death. Fortunately, HIV is a fragile virus and can only be transmitted through bodily fluids such as blood, semen and breast milk – but not saliva. The virus, therefore, can only spread through sexual intercourse or sharing injection drug equipment.

As of now, there are no known cures for HIV. Luckily, there are treatments called antiretroviral therapy (ART) that

can control HIV. Today, people living with HIV can live nearly as long as someone who does not have HIV. That said, ART is expensive. In 2010, the average annual cost of HIV care for an individual was \$19,912, according to a study published in the *Journal of the International AIDS Society*. The number varies depending on how advanced one’s disease is and whether there are other comorbidities, or other diseases, present.

Until recently, there were only a few ways to prevent HIV infections via sexual intercourse. People could use condoms or engage in sex that did not transfer fluids. If someone believed they had had risky sex, they could opt to seek post-exposure prophylaxis (PEP), a regimen similar to PrEP. However, PEP had two substantial limitations. First was that the person has to recognize they might’ve been exposed to the virus, and second is that they have to start the therapy within 72 hours after the potential exposure episode.

Then came PrEP, The regimen that consists of taking a drug called Truvada once a day. The drug, which includes emtricitabine and tenofovir disoproxil fumarate, tenofovir DF, lowers the chances of getting infected by HIV.

“Prophylaxis is prevention,” says Dr. Peter Anderson, the director of the Pharmaceutical Sciences graduate program at University of Colorado Boulder and one of the researchers in the development of PrEP. “Both antiviral drugs inhibit the replication of virus.”

The drugs act as agents that inhibit the virus from infecting the body. “If you’ve got the drugs on board before you’re exposed to HIV at a high enough concentration, the virus can’t replicate at all because the drugs are there to stop

it and that essentially aborts the ability of the virus to infect the host,” says Dr. Anderson.

Emtricitabine and tenofovir DF both belong to a class of HIV drugs called nucleoside reverse transcriptase inhibitors (NRTIs), according to the U.S. Department of Health and Human Services. These inhibitors block an enzyme, or a protein that starts a chemical reaction, in the virus. This particular enzyme is called reverse transcriptase and is responsible for the virus’ ability to replicate. By blocking the enzymes, NRTIs essentially stop the virus from replicating. By taking Truvada everyday, the cells in the body are essentially protected by the NRTIs and block the virus from infecting the body.

Truvada, in theory, isn’t the only drug that could be used for PrEP. There are other antiretroviral drugs that could potentially be used to prevent HIV infections. However, the specific drug was chosen, according to Dr. Anderson, because of its efficacy and general lack of serious side effects.

After the 2012 Preexposure Prophylaxis Initiative (iPrEx) trial which found that Truvada could prevent HIV infections among men who had sex with men (MSM), the FDA approved the regimen for HIV negative individuals.



At first, PrEP was seen as groundbreaking. “Today’s approval marks an important milestone in our fight against HIV,” said FDA Commissioner Margaret A. Hamburg, M.D in an FDA news release. Soon thereafter, misconceptions about PrEP began to spread online and in conversation. Many

HIV Prevention Methods			
	Condoms	Post-Exposure Prophylaxis (PEP)	Pre-Exposure Prophylaxis (PrEP)
Relative Risk Reduction	80%	92%	92%
Benefits	Most accessible HIV prevention method.	Efficient in preventing HIV and is only a month-long treatment	Prevents possible HIV transmission before the risk episode happens.
Possible Challenges	Some people prefer not to use condoms and there are chances of breakage or slippage.	You must go on PEP within 72 hours after the risk episode and there some side-effects.	Must be taken everyday and also includes a routine check-up every three months. Also possible side-effects.

Source: CDC

Even today, MSM of color have a higher risk of getting HIV, according to Sustaita, who works with Latino MSM. In addition to encountering language and

organize and plan outreach programs. “Outreaching to [the undocumented] community is probably the best way to get a hold of that population,” Sustaita

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-Professor Amy Partridge

cultural barriers, Latino MSM also face legal barriers if they are undocumented. In 2015, black gay and bisexual men accounted for almost 40 percent of HIV diagnoses in the United States, according to CDC. Black women, too, are also a population that is at high risk for HIV.

Just as HIV was codified as a “gay disease,” stigma surround PrEP as well.

“PrEP gets coded as promiscuous,” Dr. Norton says. “That’s a negative stereotype that attaches to people who are on PrEP.”

“On the flipside of that, I’ve experienced in sexual communication, someone saying, ‘Oh you’re not on PrEP? I don’t want to have sex with you because you’re not on PrEP.’ So you can have stigma that moves in both directions.”

In addition, some may not know their options to prevent HIV infections. If a person does not know about PrEP, says Norton, then he or she will not seek it.

says. “We can educate them and let them know that we’re here and give them the knowledge about what PrEP is. A lot of people have misconceptions.”

Health professionals, however, find that creating the perfect outreach programs to be challenging.

“Outreach is great in a whole of range of ways and it’s a public health priority to make MSM have access to things like PrEP to avoid getting HIV because that’s where we the highest rates currently,” Partridge says. However, “There is always a question about being the target of a public health strategy. Individually it is great to have access to [treatment], but what does it mean to be on the receiving end of a public health strategy?”

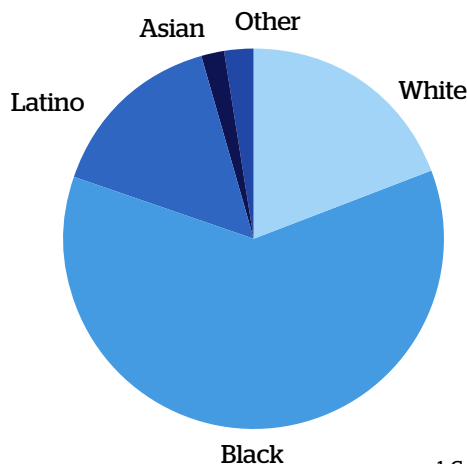
Margaret Pollak, a lecturer in the Global Health Studies and Anthropology departments at Northwestern University, finds this to be particularly true in her research on diabetes intervention. Certain strategies that target a group of people can create pessimism. “With diabetes in Native communities, people feel really fatalistic,” Pollak says. “A lot of people see that everybody in the community has it or has a family member with diabetes. Having posters with a Native face representing diabetes can have a detrimental effect because it makes it easier to say, ‘Well, I’m going to get diabetes, so I’m not going to do anything about it or try to prevent it.’”

In HIV prevention, this issue is not new. “In general, what we’ve seen over the course of 25 years is that very vexed or complicated set of dimensions in reaching out to intervene and try to reduce people’s risk of HIV,” says Dr. Norton.

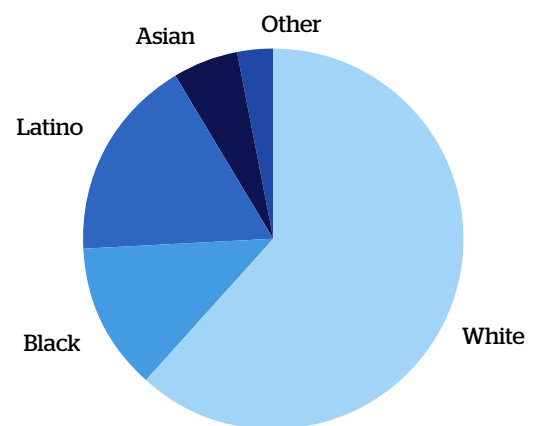
Say you have an initiative to have young black MSM use more condoms. “What kind of representation do you use?” asks Dr. Norton. “Do you use a person of color? Or does the person of color end up recapitulating or reaffirming the stereotypes of people of color of being more likely to be diseased which has been a long-time narrative for the past one-hundred years of history?”

Disproportion in race between new HIV infections and US population among women

New HIV Infections Among Women in 2015¹



US Women Population by Race in 2014²



1. Centers for Disease Control and Prevention. HIV Surveillance Report, 2015; vol. 27.

2. U.S. Census Bureau, “Table 10. Projections of the Population by Sex, Hispanic Origin, and Race for the United States: 2015 to 2060,” Population Projections (2014).

That is where health professionals believe outreach can make an impact. Outreach, in terms of public health, is the act of reaching out to a population and providing services that they might not otherwise have. In this case, health professionals are attempting to reach out to MSM of color and provide information and even prescription for PrEP. Some health entities create signs or promotional content to advertise PrEP or HIV testing. Some, like Sustaita,

