

What is PrEP?

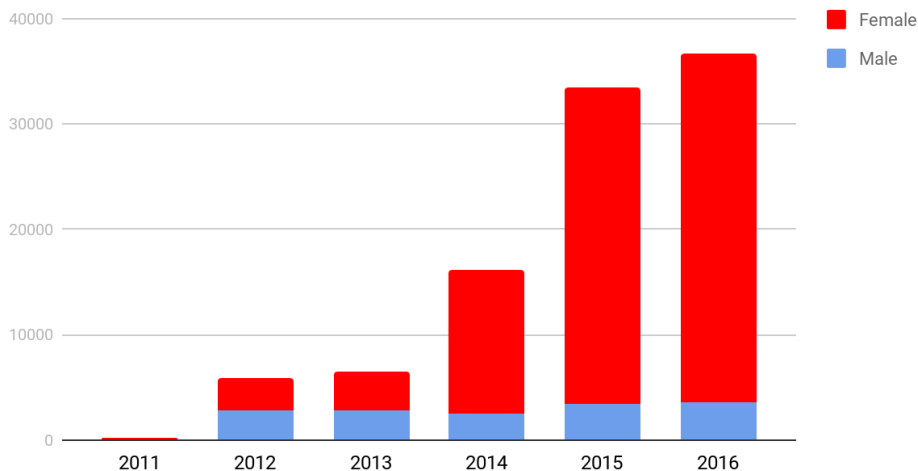
- PrEP is a Pre-Exposure Prophylaxis. It's the use of medication to help keep someone who does not have HIV from getting infected with it.
- It's a new HIV prevention strategy approved by USFDA in 2012.
- A combination of two HIV medicines (tenofovir and emtricitabine), sold under the name Truvada® (pronounced tru vá duh), is approved for daily use as PrEP to help prevent an HIV-negative person from getting HIV from a sexual or injection-drug-using partner who's positive.
- Studies have shown that PrEP is highly effective for preventing HIV if it is used as prescribed. PrEP is much less effective when it is not taken consistently.
- PrEP is protecting T-Cells from HIV.

Why it's important? Needs?

- PrEP is for people without HIV who are at very high risk for getting it from sex or injection drug use
- HIV continues to be a worldwide health crisis. In the US alone there's an estimated 1.2 million people living with HIV and many of them do not know they're infected.
- About 50,000 new infections in the U.S. every year.

Market context

Men and Women Starting Utilization of PrEP



<https://www.poz.com/article/estimated-136000-people-prep-us>

Survey

Physicians and nurse practitioners were surveyed in 2009 (n = 1500), 2010 (n = 1504), 2012 (n = 1503), 2013 (n = 1507), 2014 (n = 1508) and 2015 (n = 1501) to assess their awareness of PrEP, willingness to prescribe PrEP, and whether they support use of public funds to pay for PrEP. Pharmacists (n = 251) were surveyed about PrEP in 2012 only. Descriptive statistics were computed for physician demographics and PrEP-related questions. Prevalence ratios for

willingness to prescribe PrEP were computed using Poisson regression analysis.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892482/>

Awareness of PrEP was low among clinicians (2009: 24%, 2010: 29%) but increased after trials reported effectiveness (2012: 49%, 2013: 51%, 2014: 61%, 2015: 66%). Following a description of PrEP with an estimated effectiveness of 75%, across 6 of the study years 91% of clinicians indicated a willingness to prescribe PrEP to at least one group at high risk of HIV acquisition. A smaller majority of clinicians indicated support for public funding of PrEP in 2009: 59%, 2010: 53%, and 2013: 63%. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892482/>

In surveys conducted before and after the release of PrEP trial results, primary care clinicians were largely unaware of PrEP. They indicated high levels of willingness to prescribe it for patients at high risk of HIV acquisition and expressed interest in education about how to deliver this new clinical HIV prevention method. It will be important to continue monitoring clinician knowledge, attitudes, and practices as the use of PrEP increases in the US.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892482/>

Interviews

Post-exposure prophylaxis requires quick action from exposed individual within 72 hours. The idea for pre-exposure prophylaxis is to “engage with people during a calm moment, not the morning after”.

The iPrex Study whose subjects were gay men and transgender woman throughout the world found PrEP to be over 99% effective for those who took the pill daily.

Prolonged use has found no serious adverse effects beyond a 1-in-200 chance of decreased kidney function that is easily detectable and reversible; and a 1% loss in bone density that has not resulted in fractures.

Challenges for broader use of PrEP include: The requirement to take it daily, educating those who provide preventive care to uninfected communities, and educating patients on its usage.

PrEP - Full Interview with Dr. Robert Grant <https://www.youtube.com/watch?v=SNbhvsJ41uE>

Resources

- <http://whatisprep.org/>
- CDC Fact Sheet | New HIV Infections in the United States
<https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/new-hiv-infections-508.pdf>

PreP Studies HIV transmissions risk lowest when participants took PrEP consistently

STUDY	OVERALL	Detectable level of medication in the blood. Reduced in risk of HIV infection.
iPrEx	44%	>90%
TDF2	62%	---
Partners PrEP	75%	90%
BTS	49%	74%

Adapted from summary of research at
<https://www.cdc.gov/hiv/research/biomedicalresearch/prep/index.html>