

Bridge HIV

Formerly “HIV Research Section”



POPULATION HEALTH DIVISION
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

Protecting and Promoting Health and Equity

Susan Buchbinder, MD

Director, Bridge HIV

November 21, 2017

Health Commission Community Meeting



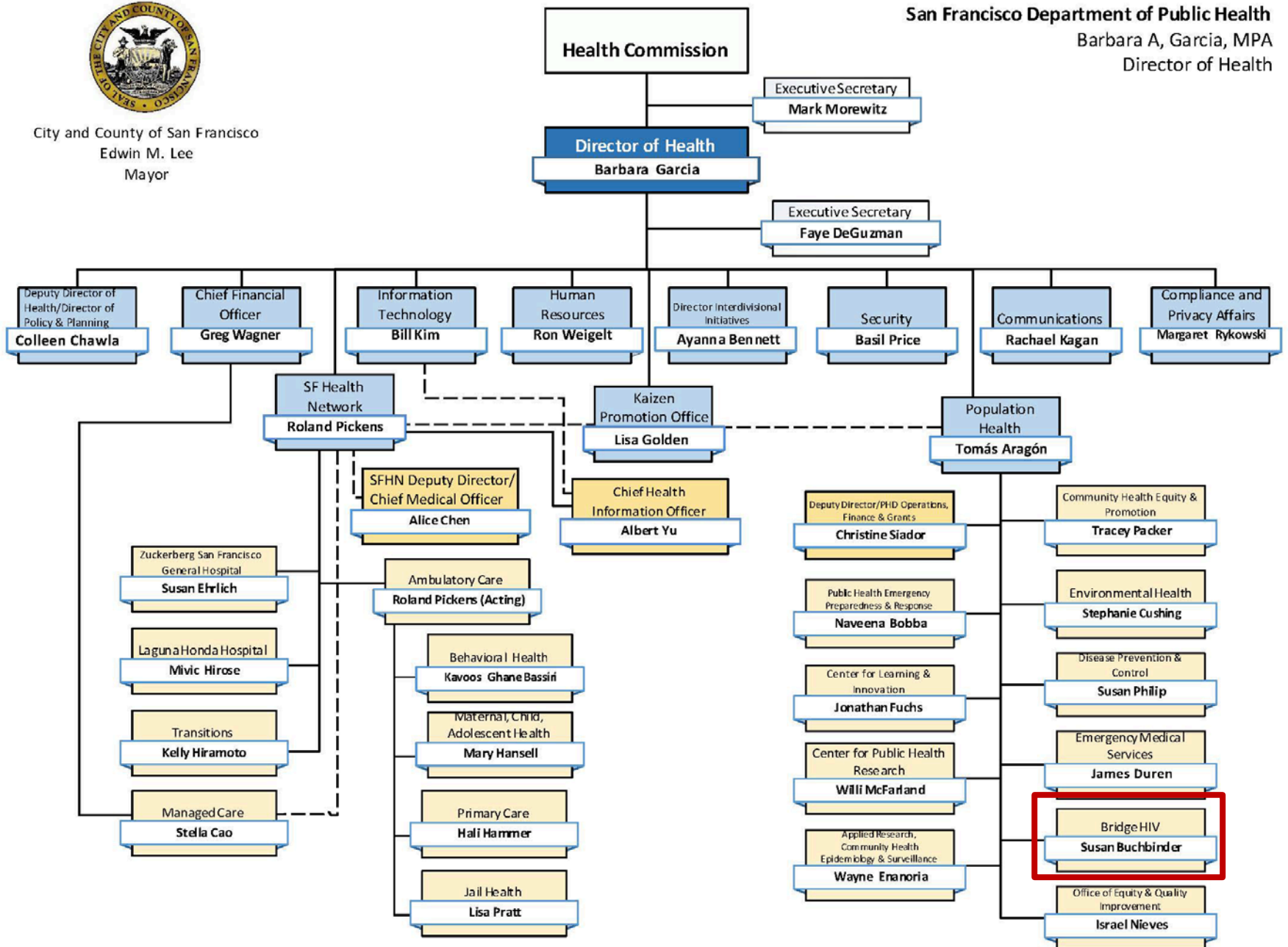
Bridge HIV

- **An HIV Prevention Research unit**
- **Research funded by federal (NIH) and state (UC)**
 - Obtained \$10 million for renovations to 25 Van Ness
 - Approximately \$5 million in grants/year
- **Unique global research housed in local health department**
 - Evaluating HIV prevention interventions and dissemination
 - Focus on addressing disparities
 - Leadership in Getting to Zero SF

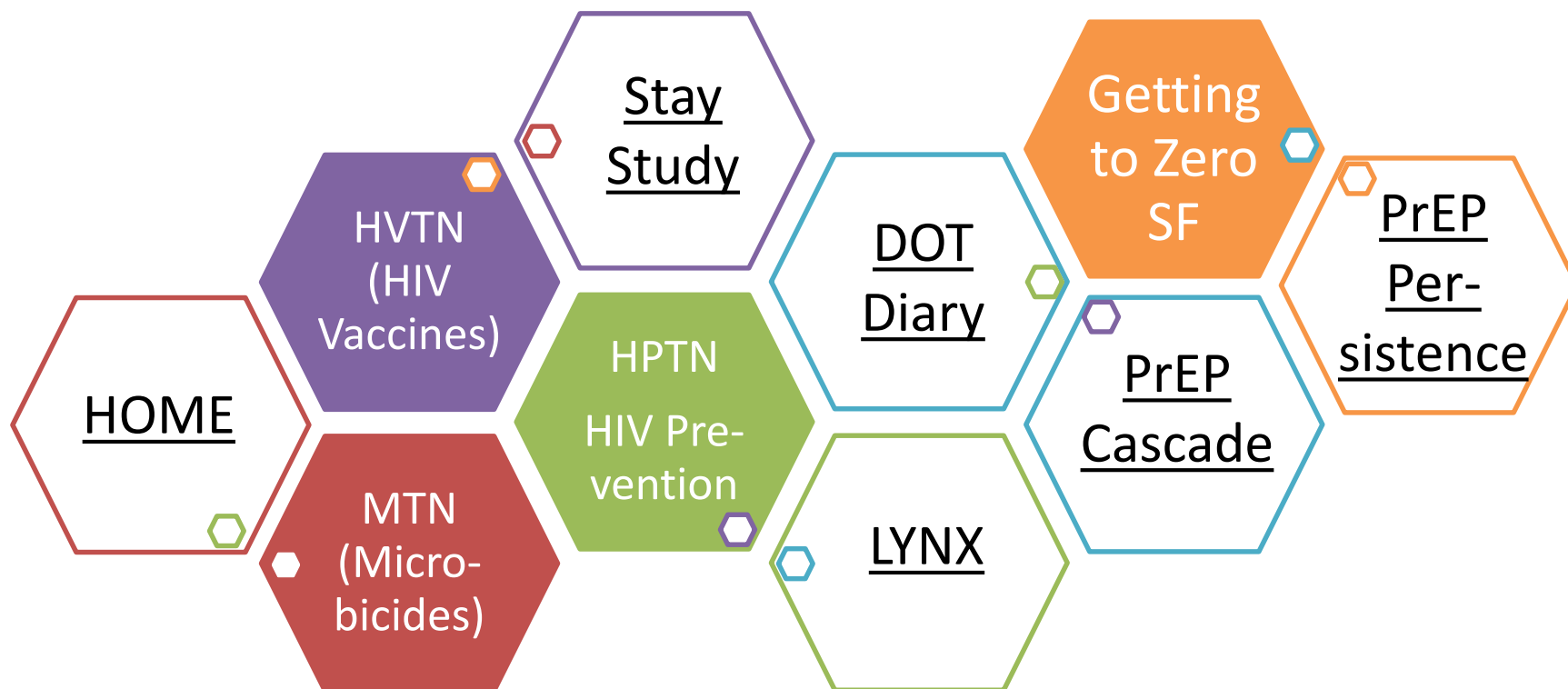


City and County of San Francisco
Edwin M. Lee
Mayor

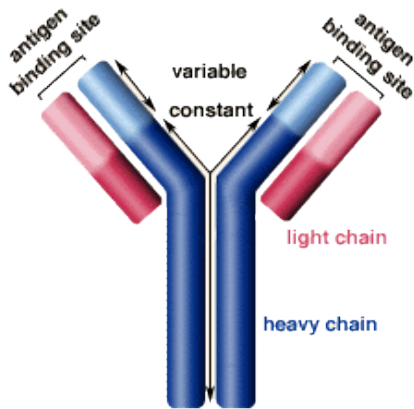
San Francisco Department of Public Health
Barbara A. Garcia, MPA
Director of Health



A sampling of Bridge HIV Research



What is an Antibody?



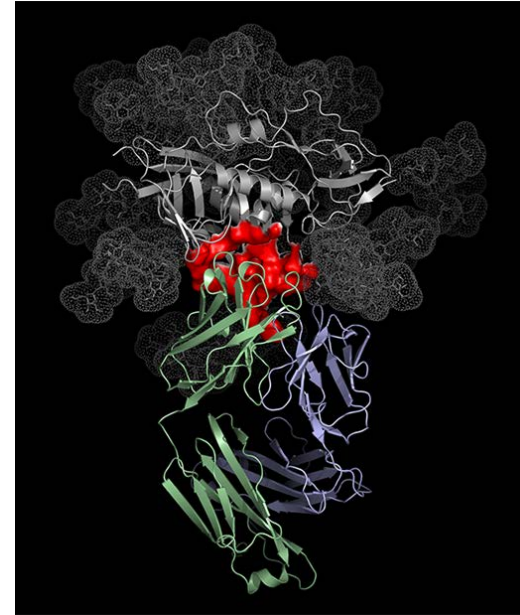
Antibodies are proteins made by the immune system to help fight infection.

- “Broadly Neutralizing Antibodies” (bnAbs) are rare antibodies that have been effective at stopping a wide range of HIV types from replicating
- Found in long-term non-progressors, then synthetically manufactured

AMP: Antibody Mediated Prevention

The AMP Study will test if a special bNAb (VRC01) against HIV will protect people from HIV infection.

Conducted in 14 sites in the US and in Africa (7 countries), South America (2 countries), Europe (1 country)



Gray: gp120

Red: CD4 binding site (CD4bs)

Purple & Green: VRC01 attached to the CD4bs

What is Pre-Exposure Prophylaxis (PrEP)?



- With PrEP, an HIV negative person starts anti-HIV medication before exposure to HIV and continues throughout periods of risk.
- The daily pill Truvada (TDF/FTC) was found to be safe and effective in preventing HIV and was approved by the FDA in 2012.
- Studies are now testing new medications and forms of PrEP.

Injectable PrEP – Advantages and Caveats

Advantages

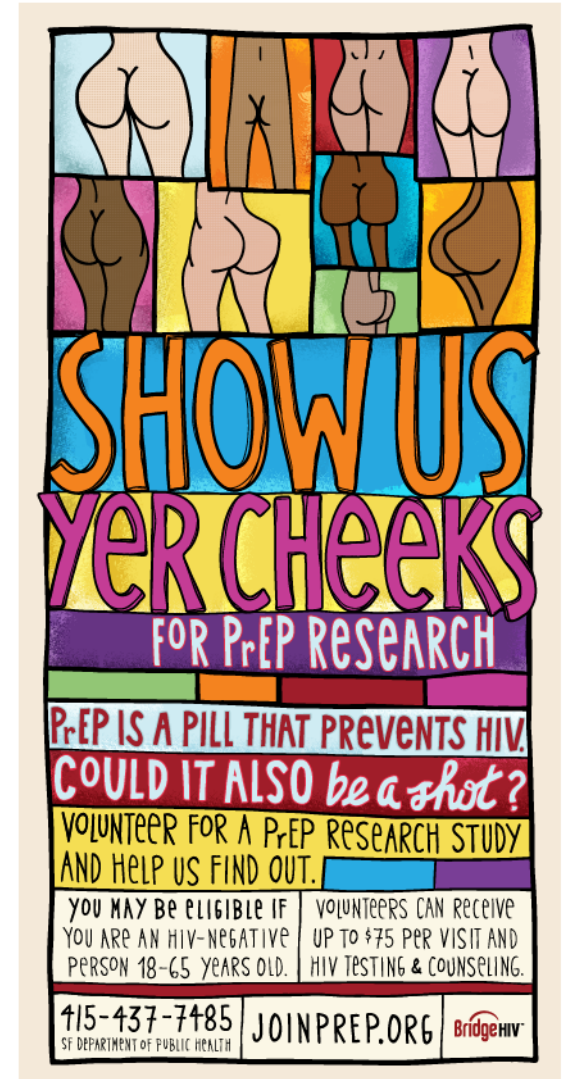
- Injection can be given every 2 months (rather than taking a daily pill)
- Cabotegravir (injectable PrEP) -> less concern for HIV resistance

Caveats

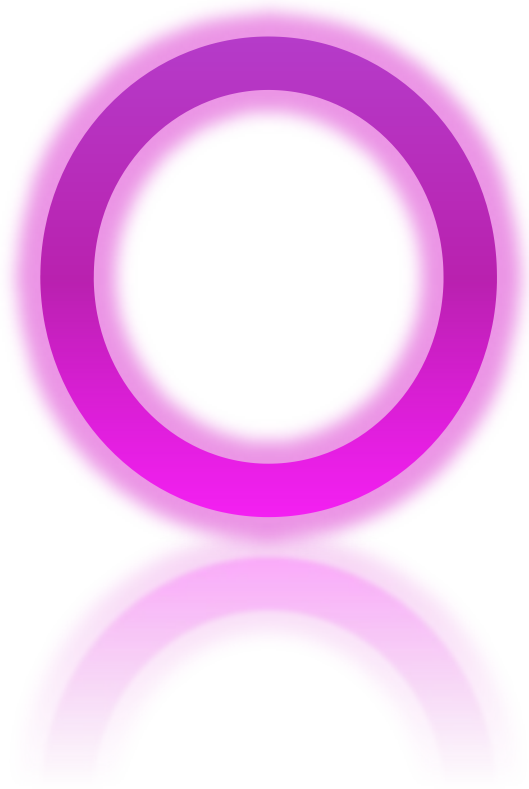
- Drug levels decrease slowly over time – low levels that persist may lead to HIV resistance if infection occurs
- Cannot be removed once given → important to try oral medication before starting injections

Being tested in

- **US, Brazil, Peru in MSM**
- **Botswana, Kenya, Malawi, South Africa, Swaziland, Uganda, and Zimbabwe in women**



Why a vaginal ring?



- Unlike a daily pill, the ring only needs to be changed periodically
- Discreet
- Can be used independently of sex
- Vaginal rings (VRs) have been used successfully for contraception (NuvaRing™)
- Modest efficacy (31%) in women in Africa
- Testing in Microbicide Trials Network



#STAYMAGICAL

STAY
STAYSTUDY.ORG



#STAYAWARE

STAY
STAYSTUDY.ORG



#STAYSEXY

STAY
STAYSTUDY.ORG



#STAYRESILIENT

STAY
STAYSTUDY.ORG



#STAYKNOWLEDGEABLE

STAY
STAYSTUDY.ORG

STAY

NOW THERE'S A PILL THAT CAN HELP PREVENT HIV INFECTION FOR TRANS PEOPLE. IT'S CALLED PrEP. IT'S SAFE. IT CAN HELP YOU STAY HIV-NEGATIVE.

AWARE

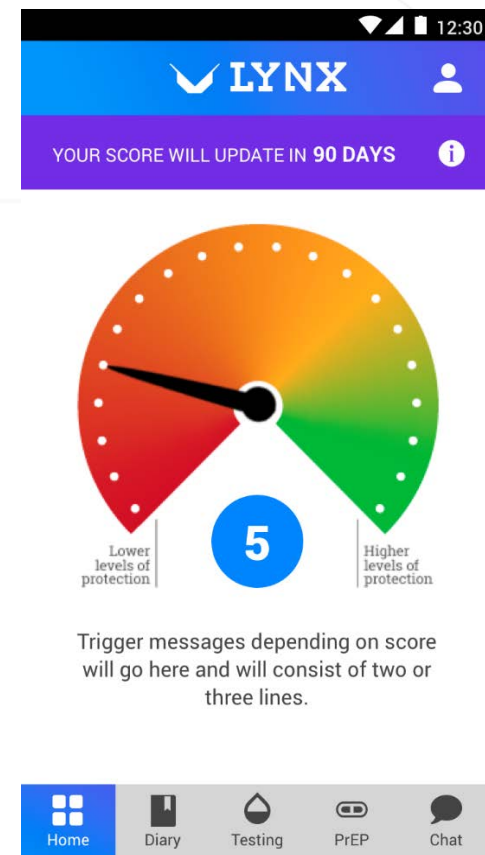
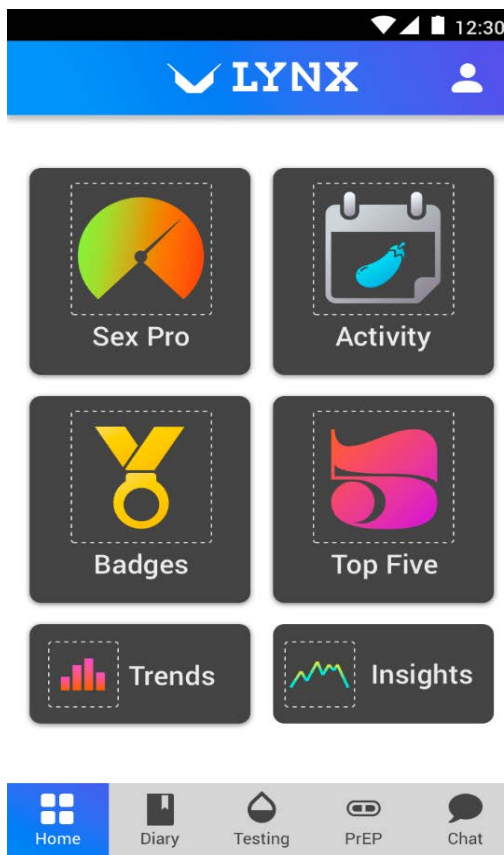
Get PrEP for free, the support you need to take it every day and up to \$375.

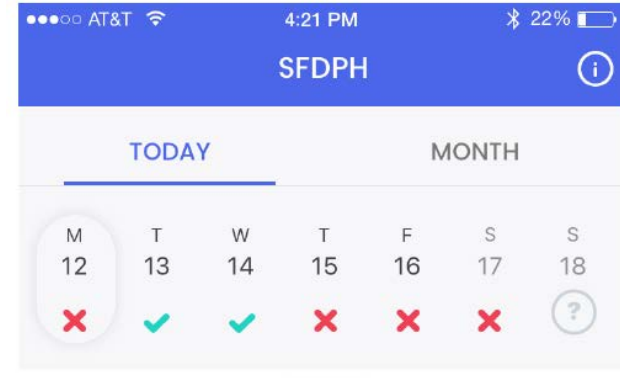
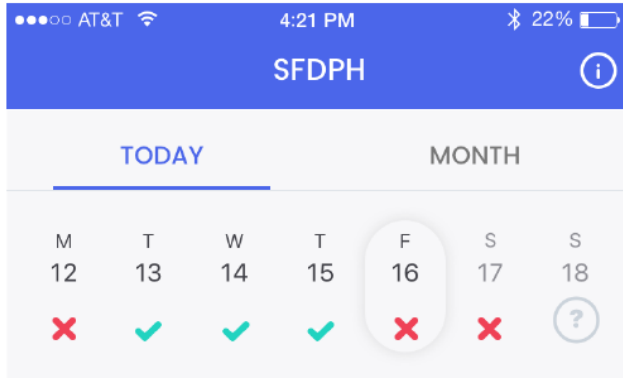
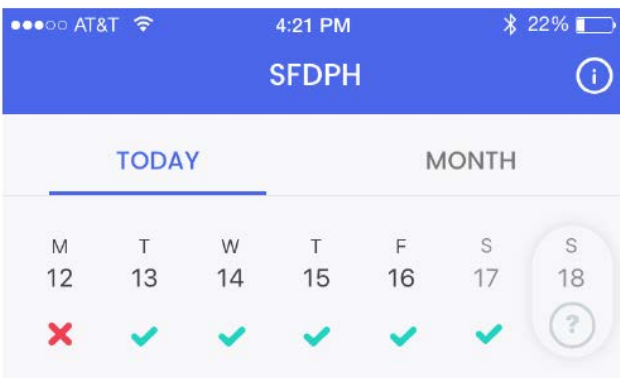
Text "STAY" to (617) 826-9932 to find out how or visit us at StayStudy.org



HIV Testing & PrEP Uptake

Novel mobile app designed to increase HIV/STI testing and support PrEP uptake among YMSM. Informed by the Information, Motivation, and Behavioral skills (IMB) model.





TODAY
June 18th, 2017

Protection Level
HIGH

Your last dose was 1 day ago.

Continue taking PrEP daily!



FRIDAY
June 16th, 2017

Protection Level
MEDIUM

Your last dose was 2 days ago.

Take PrEP today to be protected!



MONDAY
June 12th, 2017

Protection Level
LOW

Your last dose was 3 days ago.

Take PrEP for 4 more days to reach high protection!



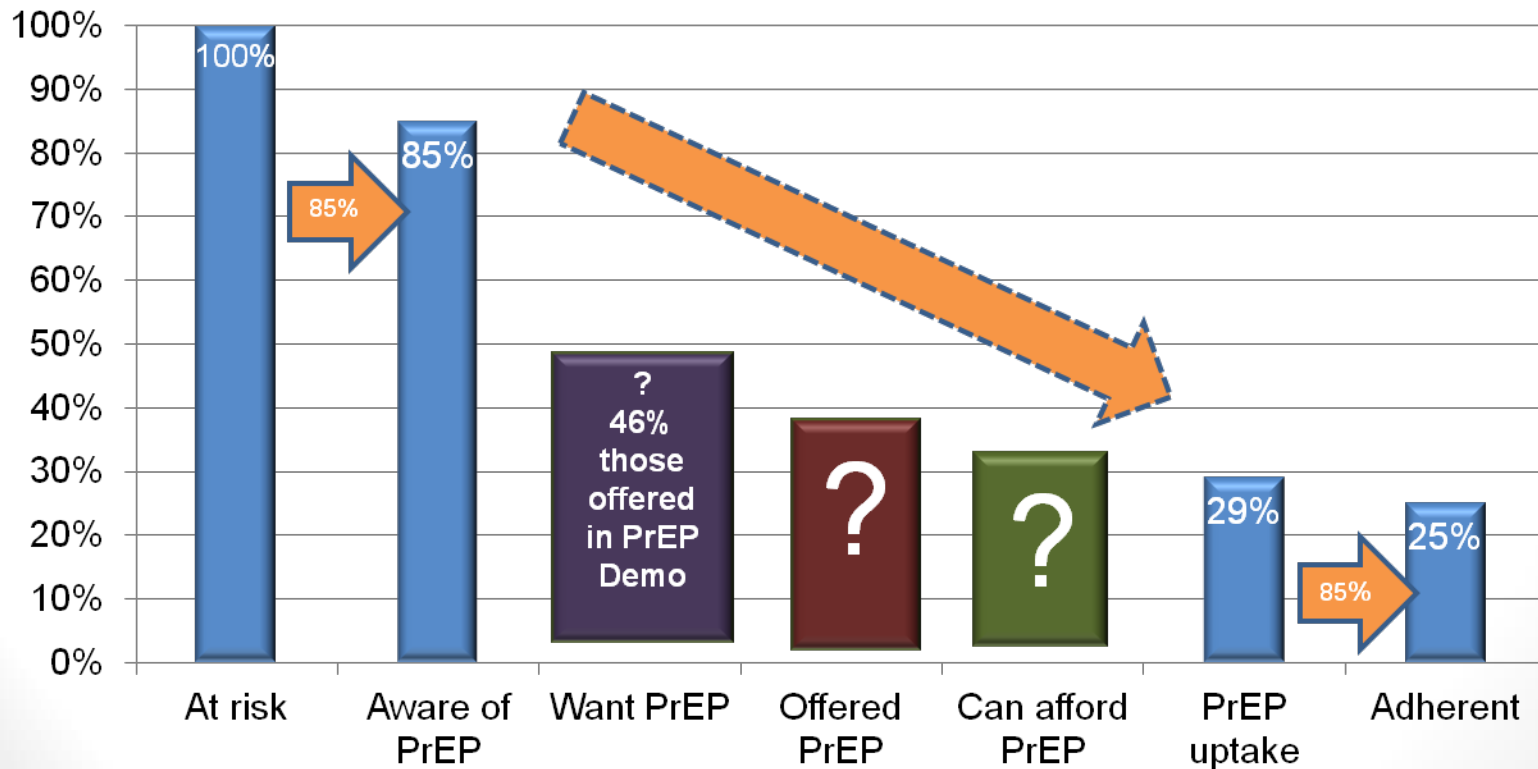
Calendar | Take Pill | Diary

Calendar | Take Pill | Diary

Calendar | Take Pill | Diary

PrEP Cascade

- Treatment “cascade” tracks people from HIV diagnosis through viral suppression to see how well we are treating people with HIV, who we are missing
- No similar data on PrEP currently available

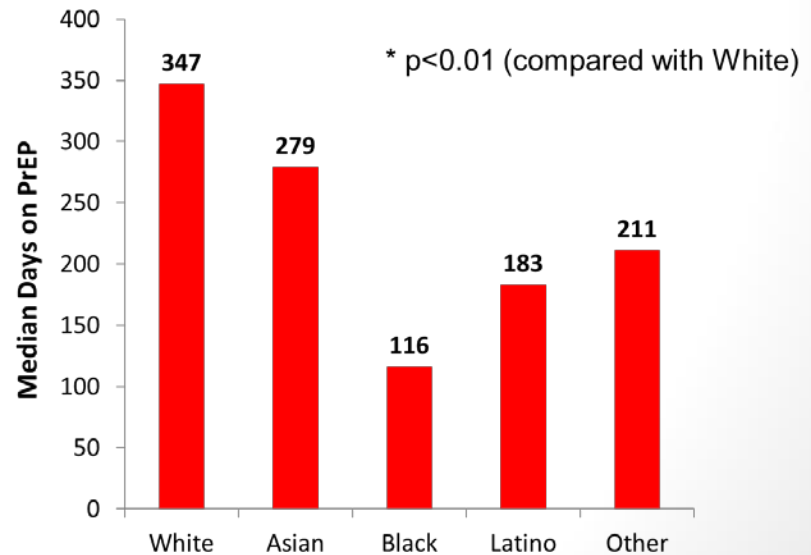


Background

- Preliminary analysis of 148 patients prescribed PrEP at SFDPH primary care clinics found substantial racial/ethnic disparities
- Discontinuation rates were substantially higher among African American and Latino patients than white patients

Race/Ethnicity	PrEP Persistence
African American	50%
Asian/Pacific Islander	75%
Latino	57%
White	68%
Other	69%

Median Duration on PrEP



Thank you and Questions?

