Bridge HIV: Research Overview Innovations in HIV Prevention

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# Who we are?

NIH-funded Clinical Trials Unit which operates within the San Francisco Department of Public Health and is affiliated with UCSF

### Bridge HIV Mission

To collaborate with communities in conducting innovative research that will guide HIV prevention locally and globally.









SF City Clinic

Cohort Study

HIV antibody test

- Natural history

- Long term nonprogression (LTNP)

Bridge HIV: A Tradition of Innovative Research to Prevent HIV/AIDS



#### Vaccine Preparedness Studies

- Recruitment and retention of at-risk cohorts
- Risk factors for infection
- Per-contact risk



# Behavioral and Biomedical Interventions

- Individualized, client centered counseling
- Preventive Vaccines\*
- STD interventions (HSV-2 suppression)
- Pre-exposureProphylaxis\*
- Rectal and vaginal microbicides\*
- Peer navigation among Black and Latino MSM\*
- Home HIV and STI testing\*



# Intervention Delivery and Building Research Capacity

- Combination Prevention\*
- Implementation Research\*
- Fostering a new generation of HIV researchers\*



\*Active studies













HIV Vaccines bNAbs Novel PrEP agents

Long acting PrEP formulations

Integrated Strategies

Vaginal Rings
MPTs
Rectal microbicides





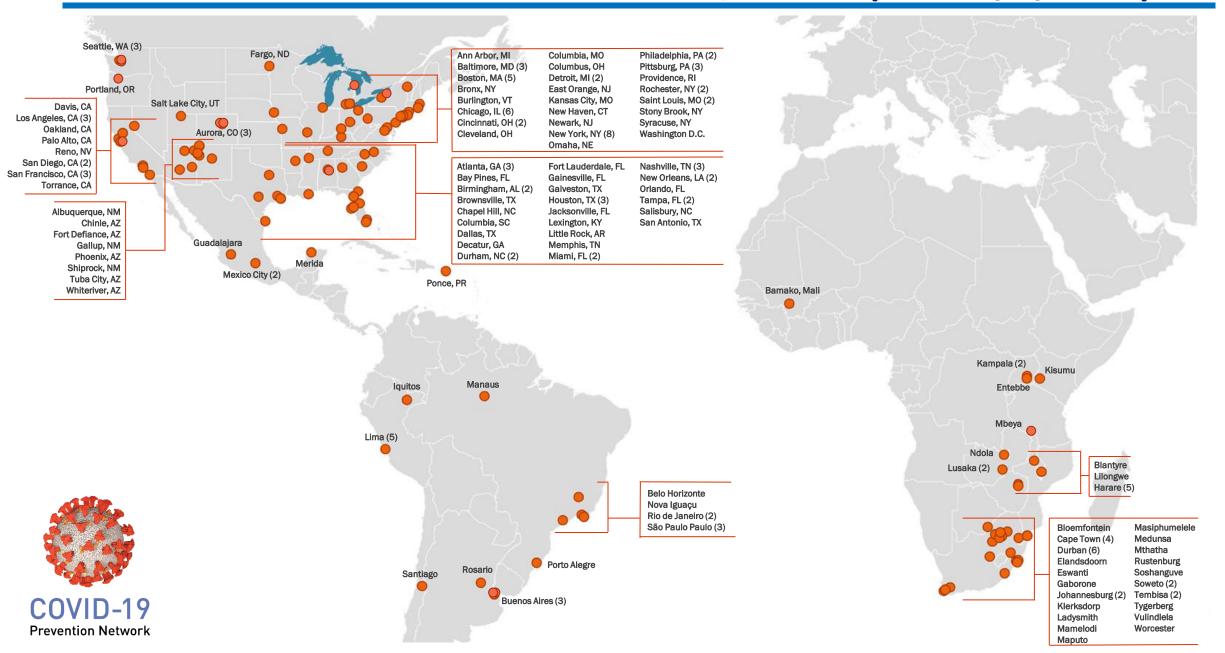


## **COVID-19 Prevention Network (CoVPN)**

- Formed by NIAID at NIH
  - Global network of NIAID sites and Clinical Research Organization sites, as needed
  - Links together multiple NIH-sponsored networks
  - Local sites include Bridge HIV (SFDPH), UCSF/ZSFG, EBAC (Oakland), SFVAH
- Mission: To conduct Phase III efficacy trials to prevent infection and COVID-19 disease
- Plan to open 5 Phase III vaccine efficacy trials in 2020 early 2021



#### NIAID COVID-19 Prevention Network, N=189 (as of 8/1/2020)



# **AZD1222 Study in San Francisco**

 Plan to enroll approximately 500 study participants at two sites in San Francisco (SFDPH-Bridge HIV & UCSF-ZSFG)

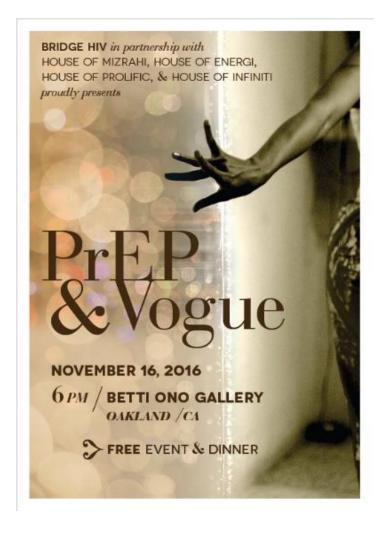
- Prioritizing access and Black, Latinx, Pacific Islander, and Native American study participants
  - Goal: Vaccine study participants reflect the communities most impacted by COVID-19
- Bridge HIV Site: 133/250 Enrolled
  - 23% Black, 44% Latinx, 13% White, 13% Asian, 2% Native Hawaiian/Pacific Islander
  - 32% over 60 yo

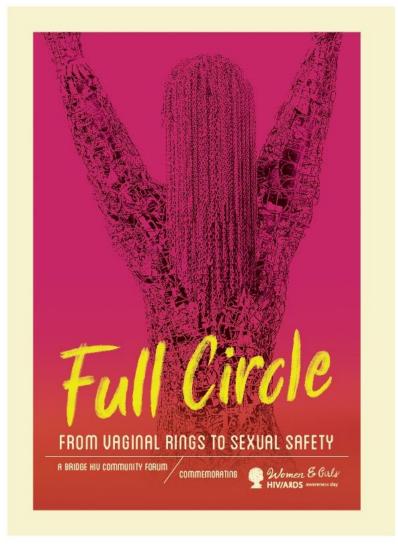






## **Community Engagement is Key**











# **COVID-19 Vaccine Community Engagement**





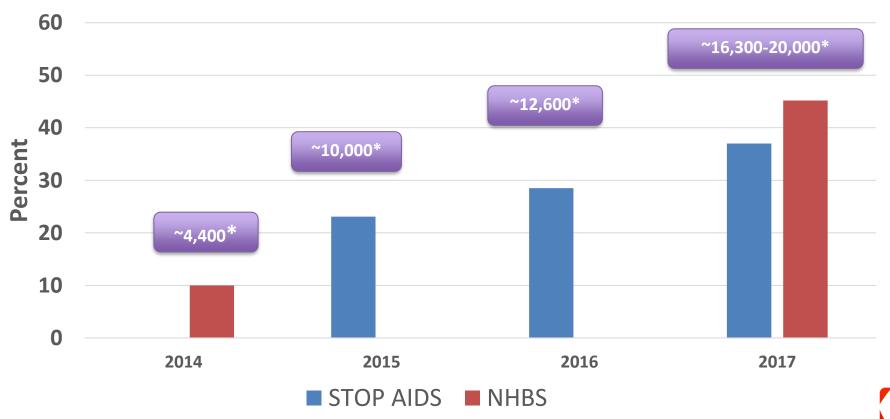






#### PrEP initiations have increased substantially in SF

PrEP use among MSM in San Francisco: NHBS and STOP AIDS surveys



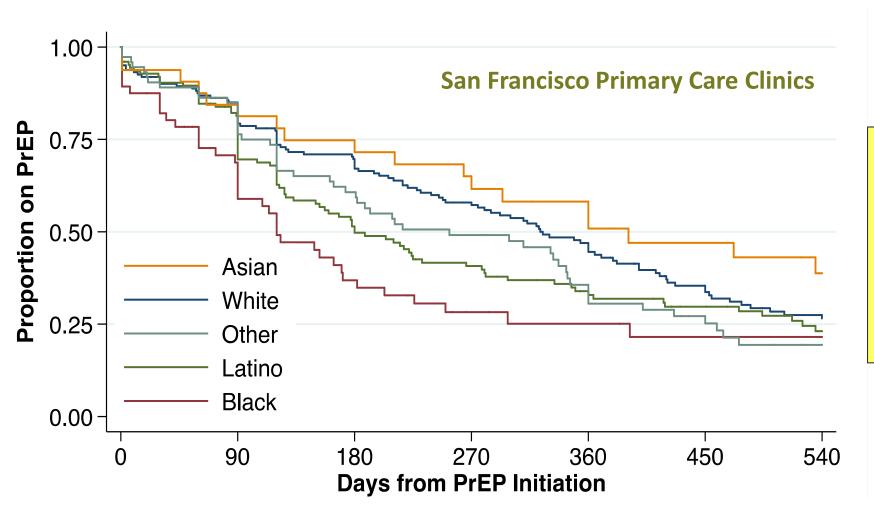
<sup>\*</sup>Based on estimated sample size of 44,154 HIV negative MSM in SF in 2014 Hughes et al, J Urban Health 2017; Buchbinder CROI 2018





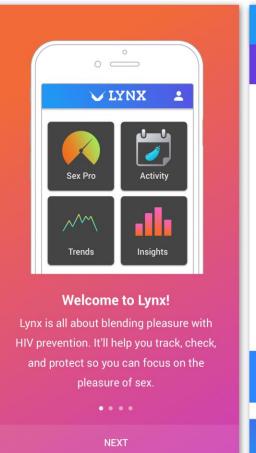


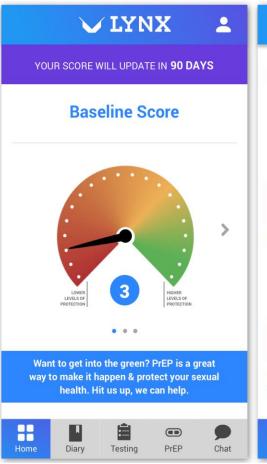
### Lack of PrEP persistence accentuates disparities

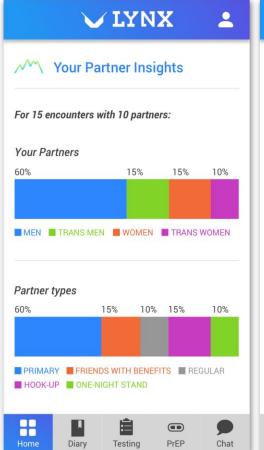


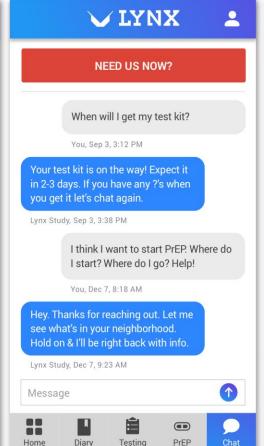
- Median duration: 8.3 mo
- Retention at 12 mo: 38%
- Higher discontinuation:
  - O Youth
  - African American
  - > PWID
  - Transwomen

# LYNX: Mobile app to increase HIV testing and PrEP uptake (ATN 140 and ATN 143)





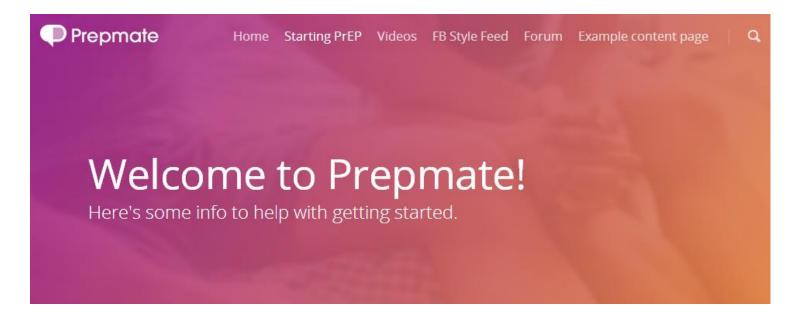








# SMS Support for PrEP Retention & Adherence



- Patterned after the WelTel model of weekly textmessage check-ins to support ARV adherence
- Impact primarily through personalized communication between participants and clinic staff; doubled adherence to PrEP



How is PrEP going?



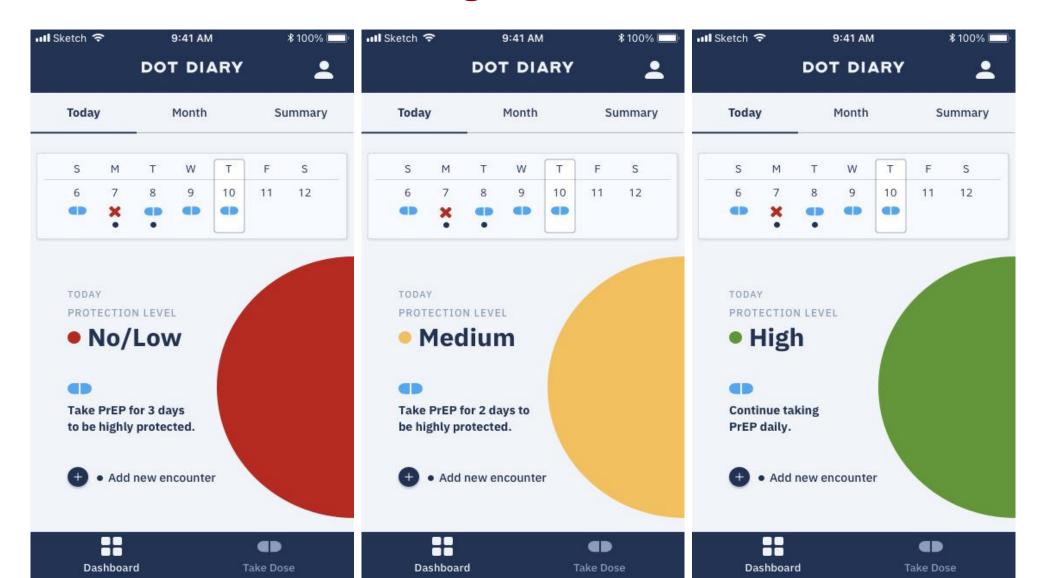
Not great.





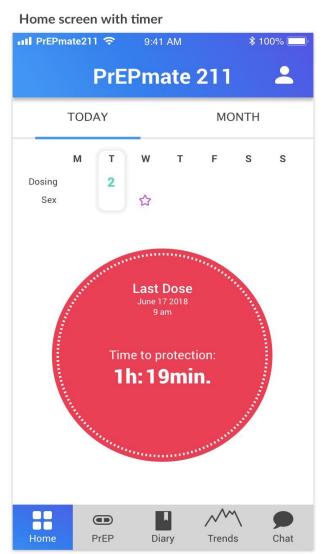


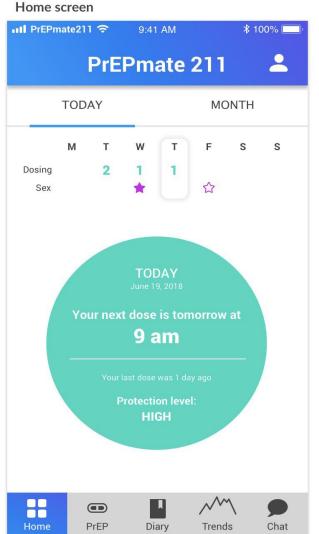
### **Adherence Tracking and Protection Levels**

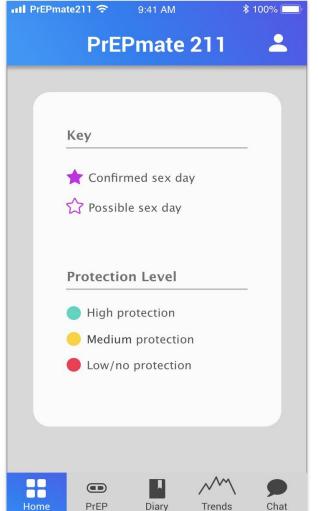


## **Digital Support for PREP 2-1-1**

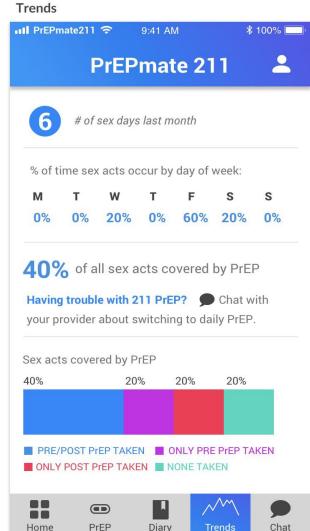
PI Liu, R34 MH121139







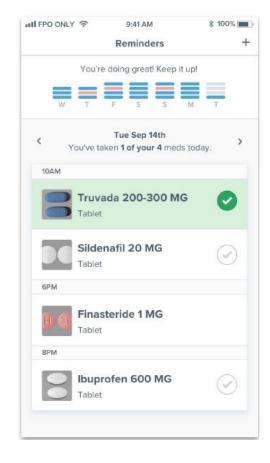
Legend



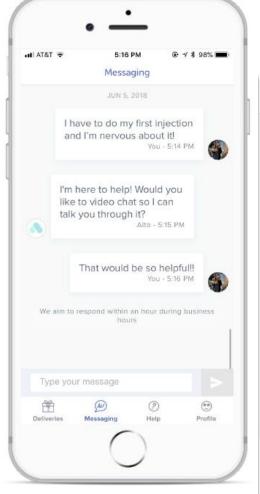
# PrEP-3D: Digital Diary and Delivery for MSM

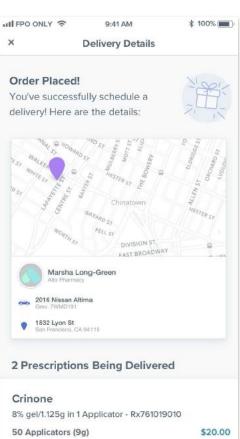


- Pharmacy-led models of PrEP delivery are feasible and sutsainable can reduce burden on clinics<sup>1, 2</sup>
- PrEP-3D
  - Online pharmacist provides PrEP Rx, orders/tracks lab monitoring through collaborative practice agreement
  - Medication delivery through courier
  - Online tools (pill/sex diary, bi-directional messaging) support adherence and persistence



Buchbinder R01 MH119956-01



















### Studies on the horizon

- CoVPN:
  - AstraZeneca trial: enrolling 250 ppts
  - Sanofi trial starting in January
- Merck
  - New monthly PrEP pill for MSM/TGW
- Gilead
  - New semi-annual injectable PrEP for TGW
- AMBER
  - Socio-behavioral research to guide PrEP implant development in MSM, cisgender women, and TGW
- PrEP implementation
  - PCORI: Comparative effectiveness trial evaluating 2 mobile technologies to support PrEP use
  - Writing several grants

# Thank you!





