

STIs IN SAN FRANCISCO: EPIDEMIOLOGY, PROGRAM ACTIVITIES AND OPPORTUNITIES

SFDPH STI Update, November 4th, 2021

Stephanie Cohen, MD, MPH

Medical Director, SF City Clinic

STD Controller, SFDPH



Roadmap

- Impact of COVID-19 on HIV and STI screening, prevention and epidemiology
- Innovations and opportunities in HIV/STI prevention
 - Congenital Syphilis prevention
 - Home testing
 - PrEP
 - DoxyPEP



HIV and STI cases declined in 2020.
What do you think was the **main** driver of
this decline?

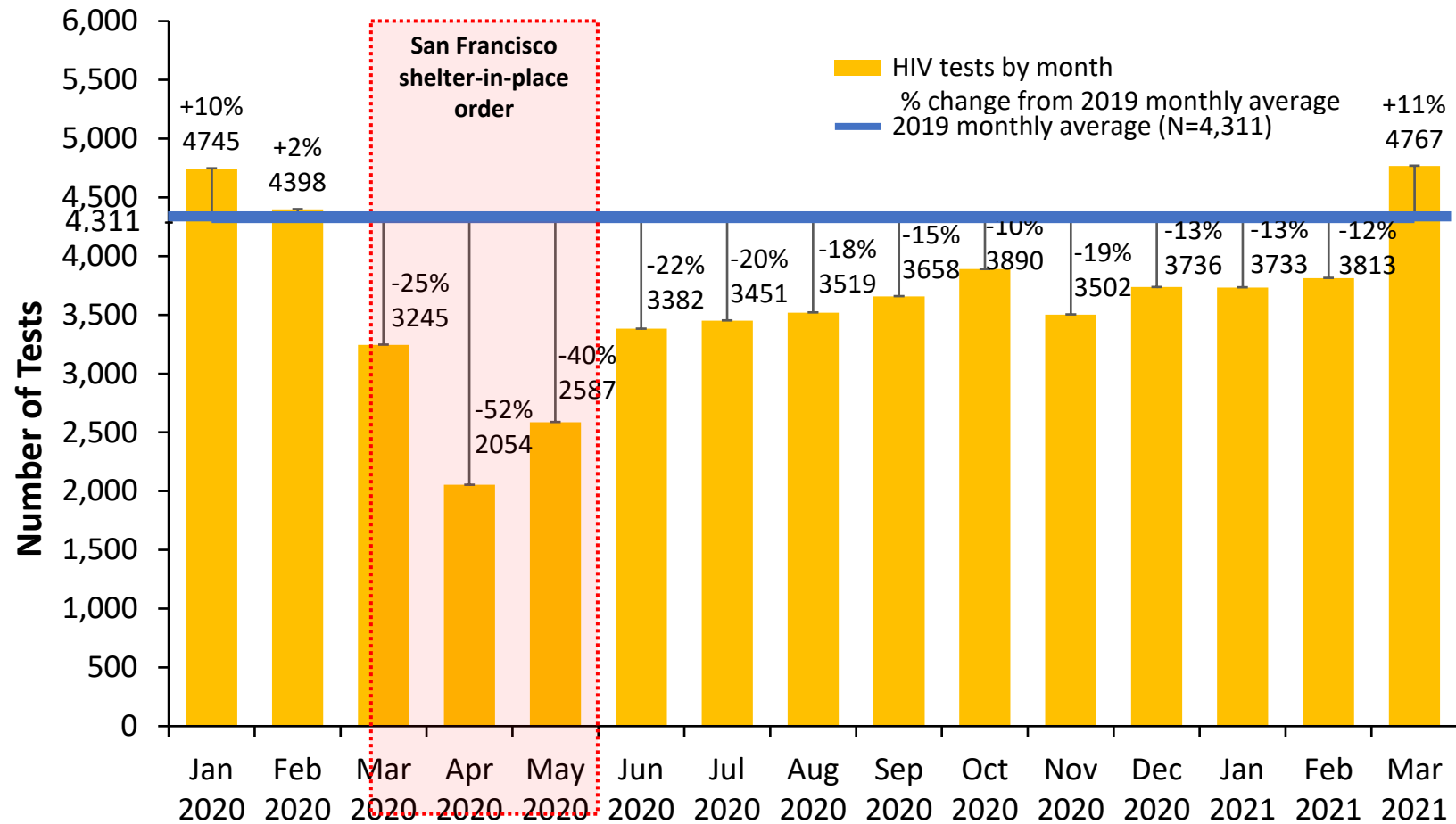
- 1) Change in sexual behaviors (decline in # of sexual partners or frequency of sexual encounters) due to the pandemic
- 2) Decline in asymptomatic screening

Impact of COVID-19 on HIV and STI Screening, Prevention and Care Services

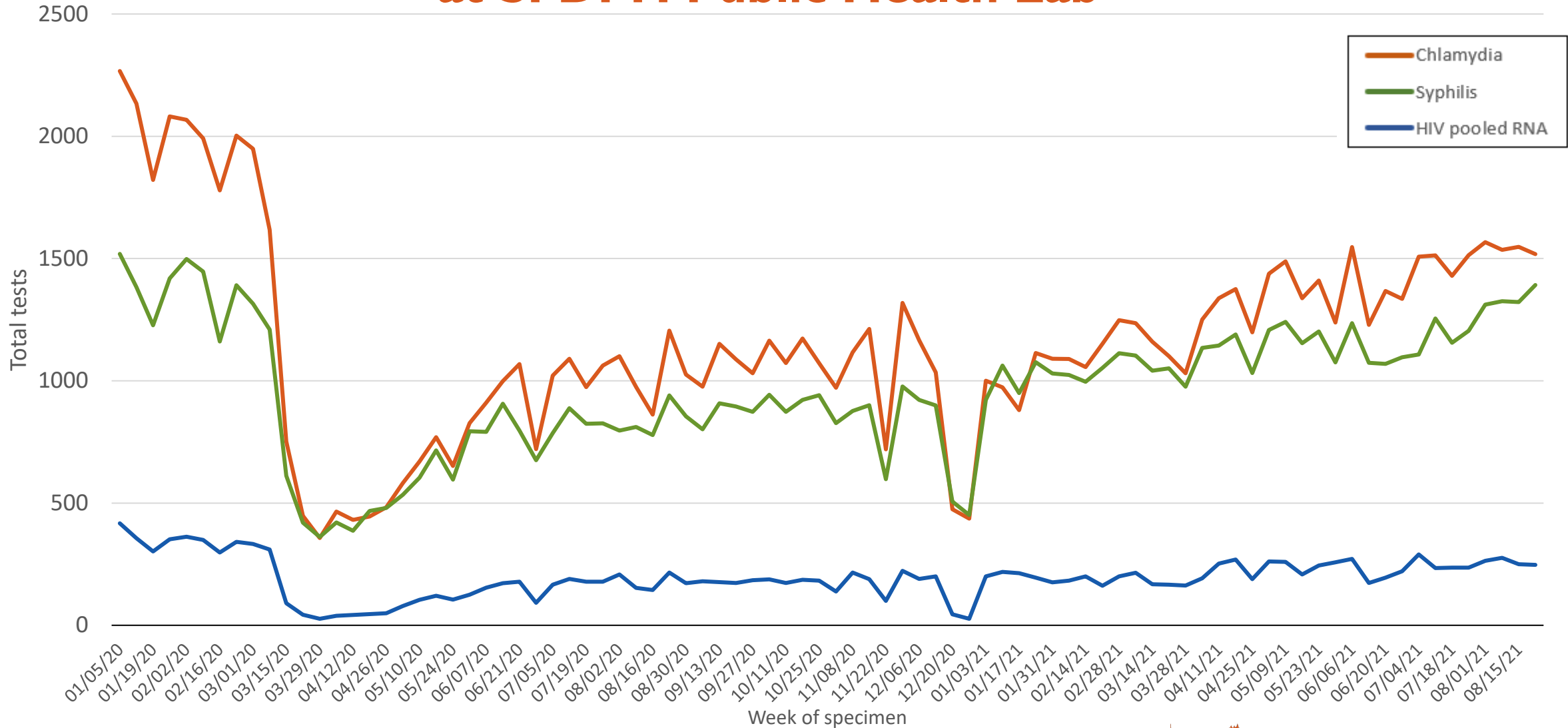
- Communities with higher rates of HIV, HCV and STIs also disproportionately impacted by the structural effects of COVID-19
- When Shelter-in-Place went into effect, many clinical and community-based services shut down or moved to a virtual platform
- Public health workforce re-directed to COVID-19
- There were dramatic declines in HIV antibody, HIV viral load and STI testing (city-wide) with potential to worsen existing disparities



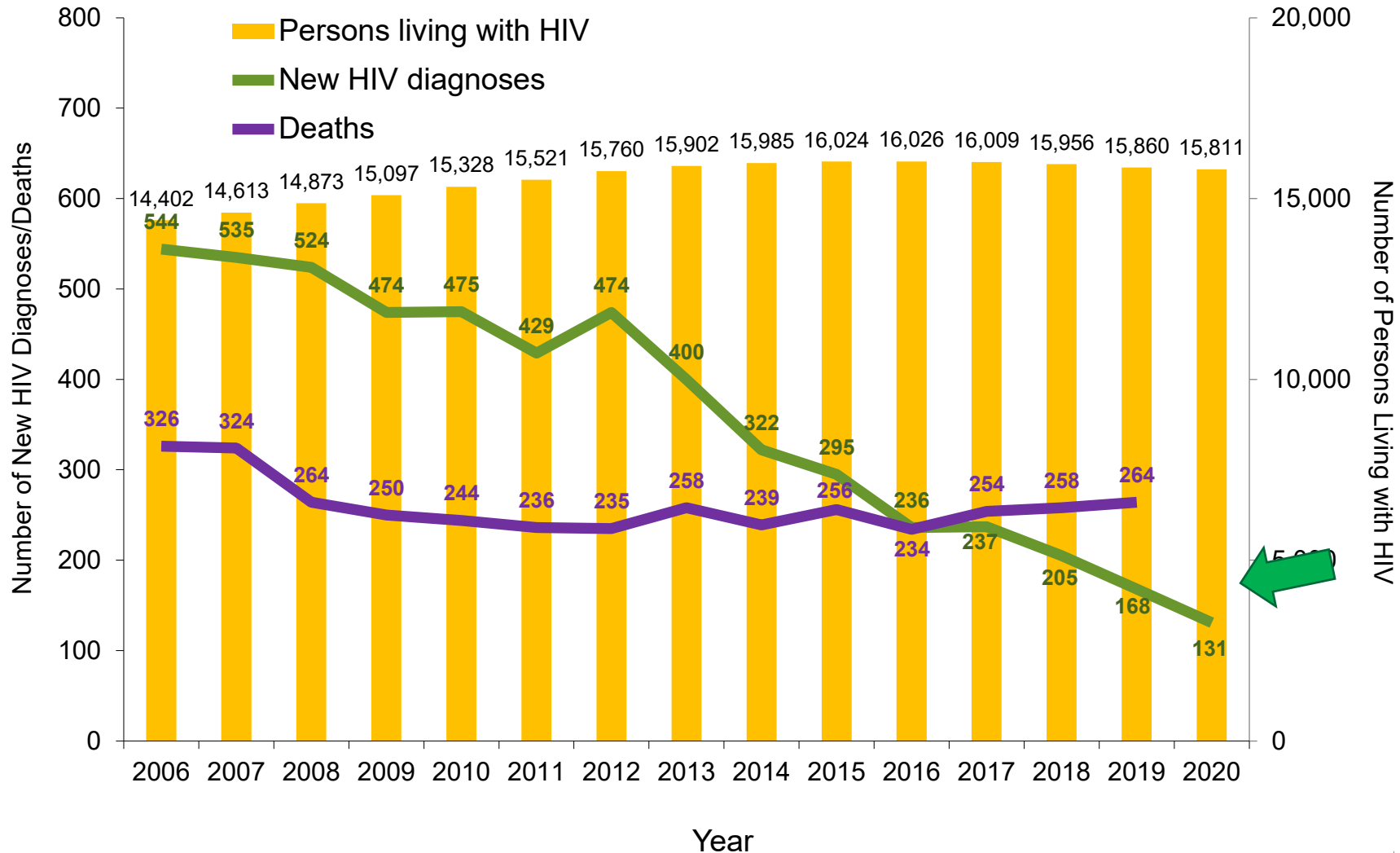
HIV Screening Tests at Select Medical Facilities January 2020-March 2021 Compared to 2019



Chlamydia, Syphilis and HIV Screening Tests at SFDPH Public Health Lab



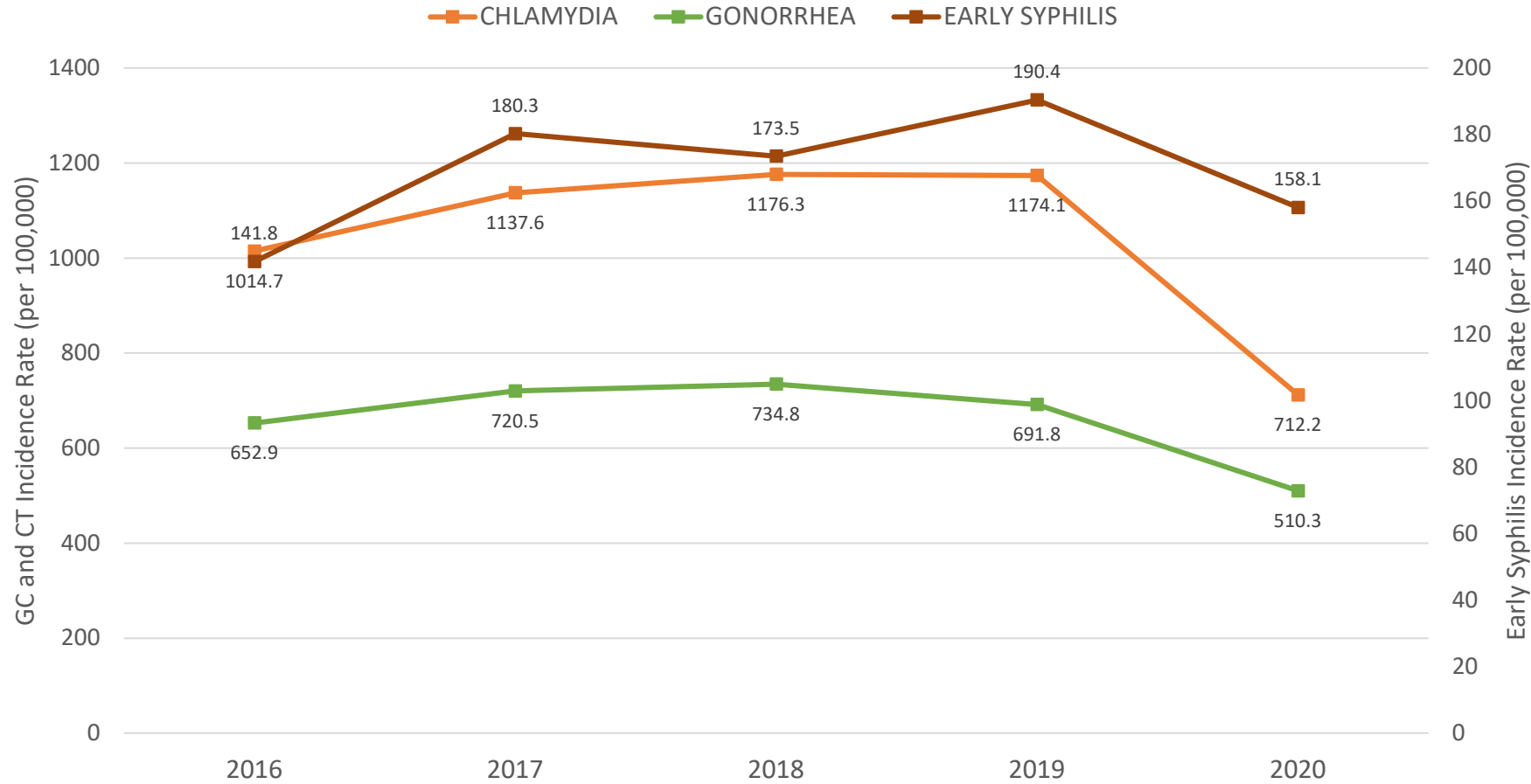
HIV Diagnoses, Deaths, and Prevalence, 2006-2020



- Continuing decline in new diagnoses
 - 2019-2020: -22%
 - 2018-2019: -18%
 - 2017-2018: -14%
- Deaths remained relatively stable
 - HIV-related causes continued to decline
- Nearly 16,000 SF residents at diagnosis living with HIV
 - 70% ≥ 50 years
 - Out-migration (6,600+) greater than in-migration (3,000+)



Gonorrhea, Chlamydia, and Early Syphilis Incidence Rates San Francisco, 2016-2020

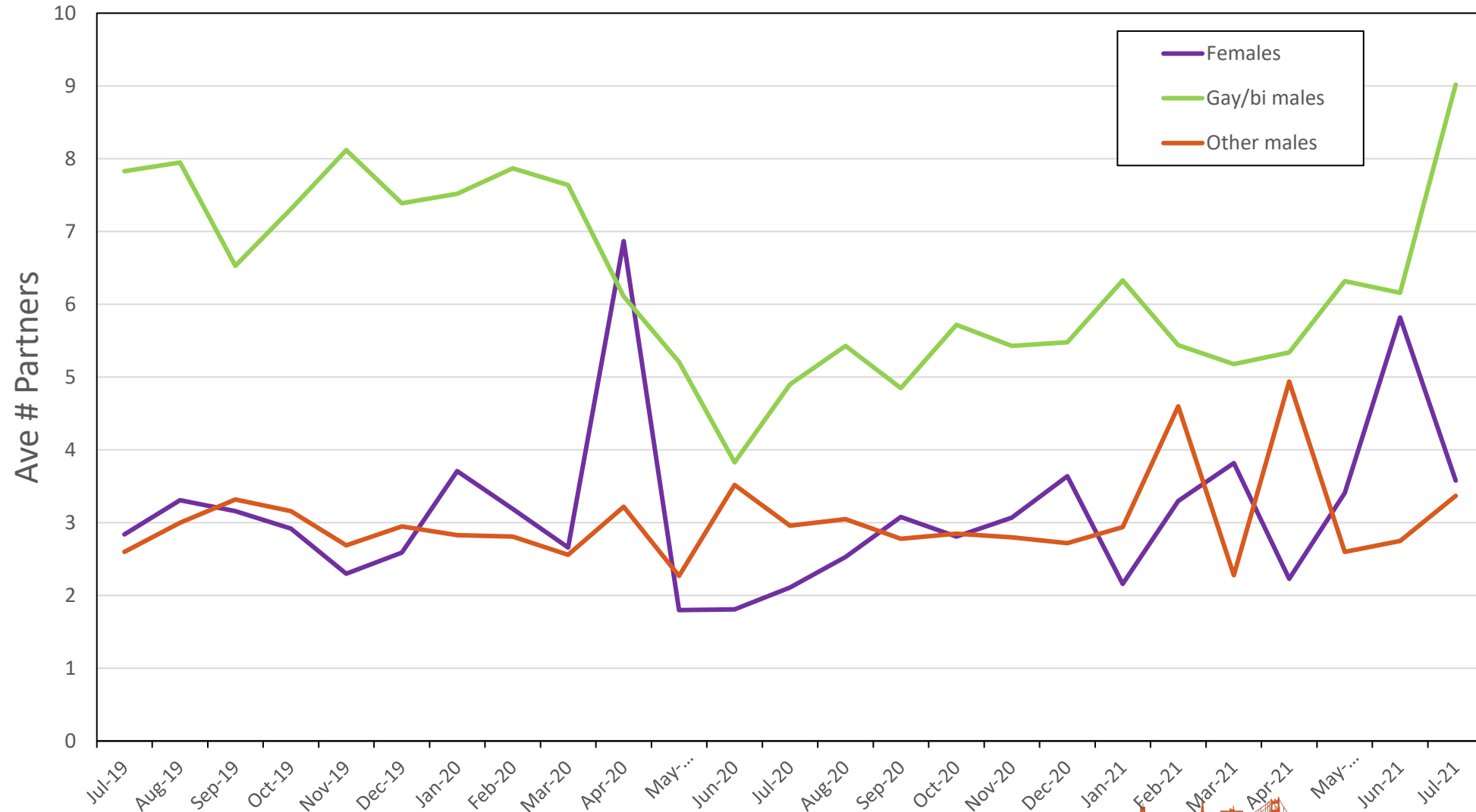


From 2016-2019:
 Syphilis 34%
 Chlamydia 16%
 Gonorrhea 12%

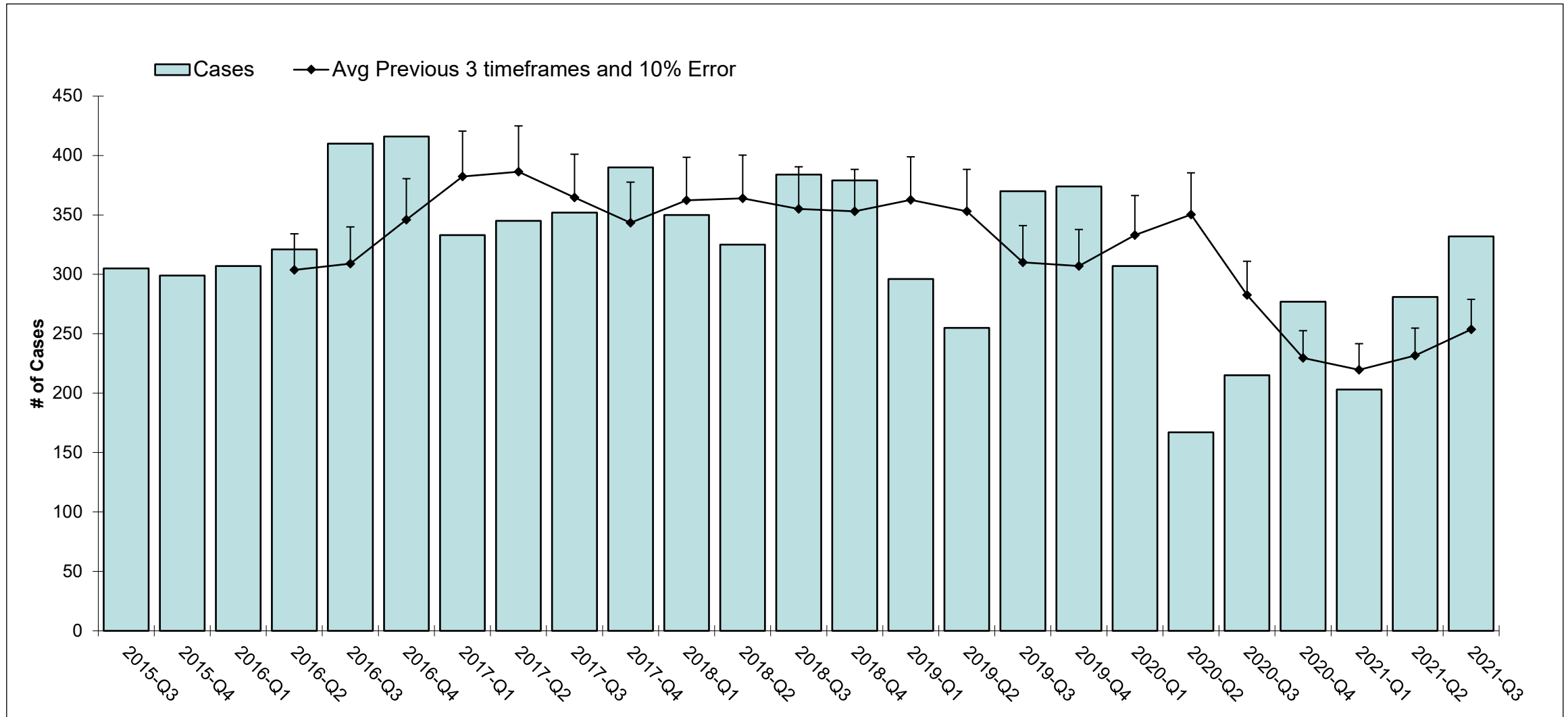
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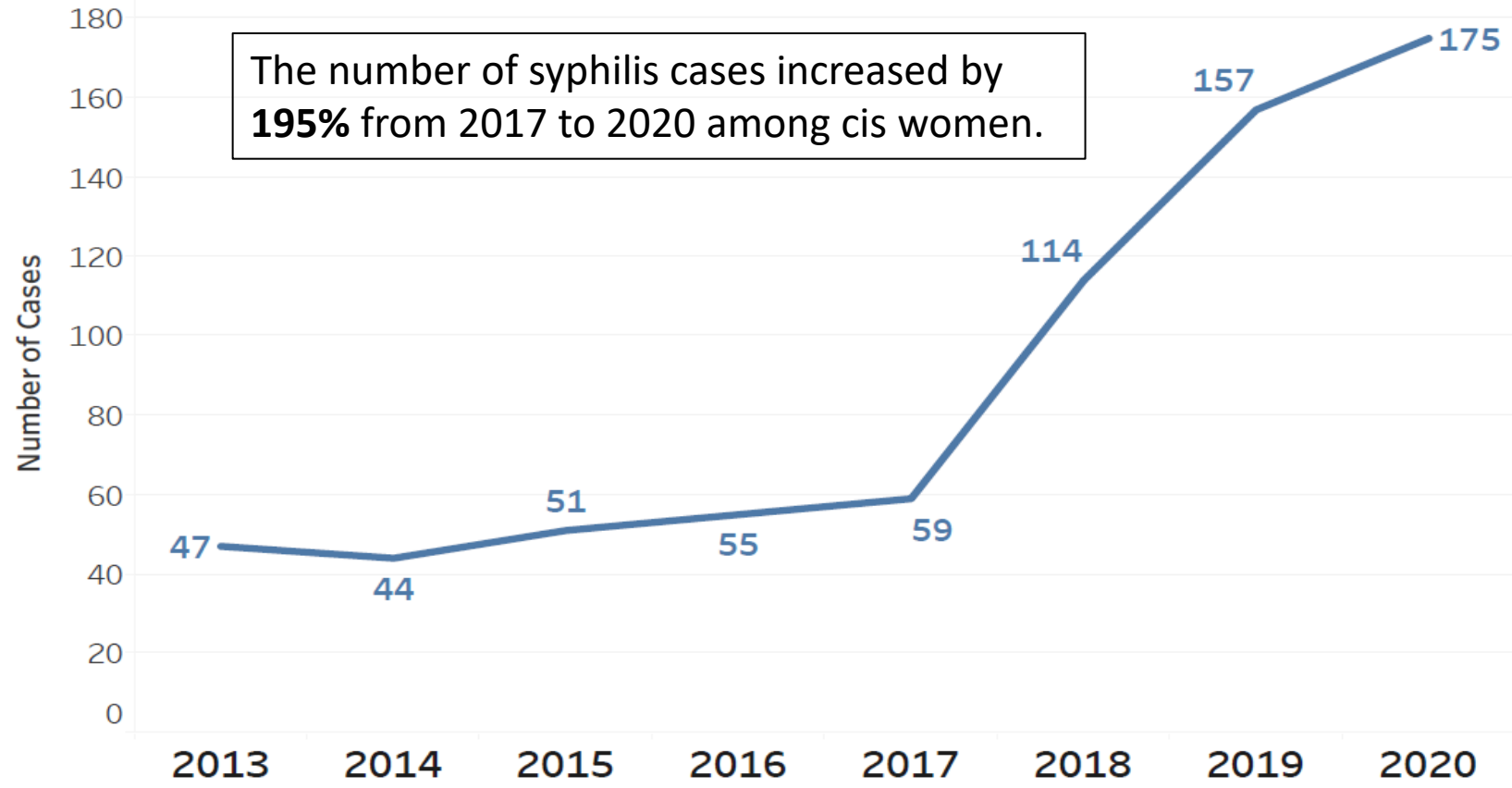
Average Number of Sex Partners in Last 3 Months for City Clinic Patients



Urethral Gonorrhoea Infection, Cis men San Francisco, 2015-2021



Total Syphilis Cases, Cis Women (all stages) San Francisco, 2013-2020

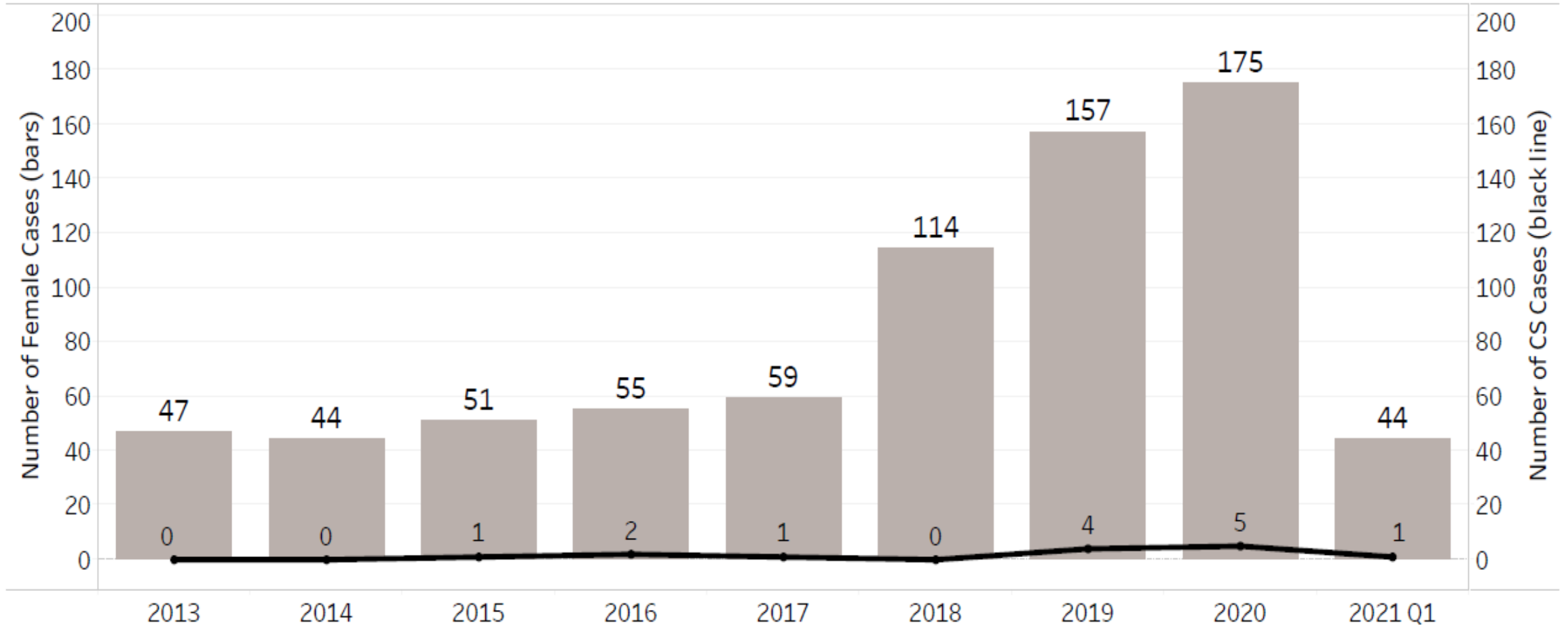


The number of syphilis cases increased by **195%** from 2017 to 2020 among cis women.

v1.0 Preliminary Data as of 7/16/2021



Total Female Syphilis Cases and Congenital Syphilis Cases San Francisco, 2013-2021 Q1



STI and HIV 2020 Epi Summary

- HIV and STI testing declined significantly in 2020
 - HIV and most STIs are asymptomatic; decline in testing = missed diagnoses
- Overall HIV diagnoses continued to decline (168 to 131)
- Cis women experienced a 29% increase in new HIV diagnoses (from 14 to 18) and a 12% increase in syphilis diagnoses (from 157 to 175)
- No perinatal HIV transmissions, but 5 congenital syphilis cases, including one infant demise



STI Program Updates



STI Prevention Strategic Framework

Mission:

To provide information, services, and policies that prevent STIs and HIV, promote sexual and reproductive health, and enable all people in San Francisco to have safe, healthy sexual lives.



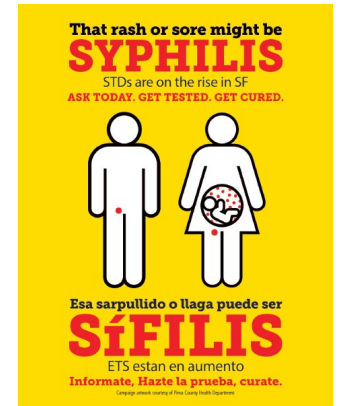
Top Priority is Preventing Congenital Syphilis

- This devastating outcome of syphilis can result in stillbirth or neonatal death
- CS cases are increasing in the U.S and CA
 - In CA, CS cases increased by >900% from 2012 to 2018
 - 25% of US CS cases in 2018 from CA
- Associated with high vulnerability
 - Substance use
 - Experiencing homelessness
 - Lack of prenatal care



Congenital syphilis taskforce

- Transitioned from partial activation of ICS to multidisciplinary, cross-departmental taskforce
- Developed A3 to guide work
- Syphilis screening in the ED, urgent care, Jail Health and street medicine
- Referral and coordination of ED, homeless services, behavioral health and pregnancy-related services
- Increase providers' knowledge and comfort with sexual health care



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Expanded Syphilis Screening Recommendations for the Prevention of Congenital Syphilis

Guidelines for California Medical Providers

2020

These guidelines were developed by the California Department of Public Health (CDPH) Sexually Transmitted Diseases (STD) Control Branch in conjunction with the California STD/HIV Controllers Association, and the California Prevention Training Center.



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RISING RATES OF HIV AND SYPHILIS AMONG WOMEN

April 1, 2021

Situational Update

Since 2017, there was a 190% increase in San Francisco of reported syphilis cases among cisgender women (from 62 to 180 total cases), the majority of which were among women of childbearing age. In 2020, there were five congenital syphilis (CS) cases in San Francisco, the highest number in 26 years.

Moreover, in 2020 we saw a 29% increase in the number of women diagnosed with [HIV](#) from the year prior (from 14 to 18 cases). Risk factors for HIV and syphilis among cisgender women include unstable housing and homelessness; substance use (particularly methamphetamine use); sex work; sex in exchange for money, housing or drugs; intimate partner violence; a history of incarceration; sex with a partner who may be at risk for syphilis or HIV; and history of an STI in the past year.

Aligned with [California DPH's expanded syphilis screening recommendations](#) and given the increase in rates of syphilis in women and alarming rise in CS and HIV among women experiencing homelessness, we are urging clinicians to increase syphilis and HIV screening among people who are or could become pregnant in order to ensure detection, timely treatment, and subsequent CS prevention.

Actions Requested of Clinicians

1. **Test all individuals who report methamphetamine use or are experiencing homelessness for pregnancy, syphilis, HIV, and HCV at least annually**, including in emergency department (ED), urgent care, and correctional settings. In addition, all sexually active people who could become pregnant should receive at least one lifetime screen for syphilis, regardless of risk, and at the time of each HIV test.



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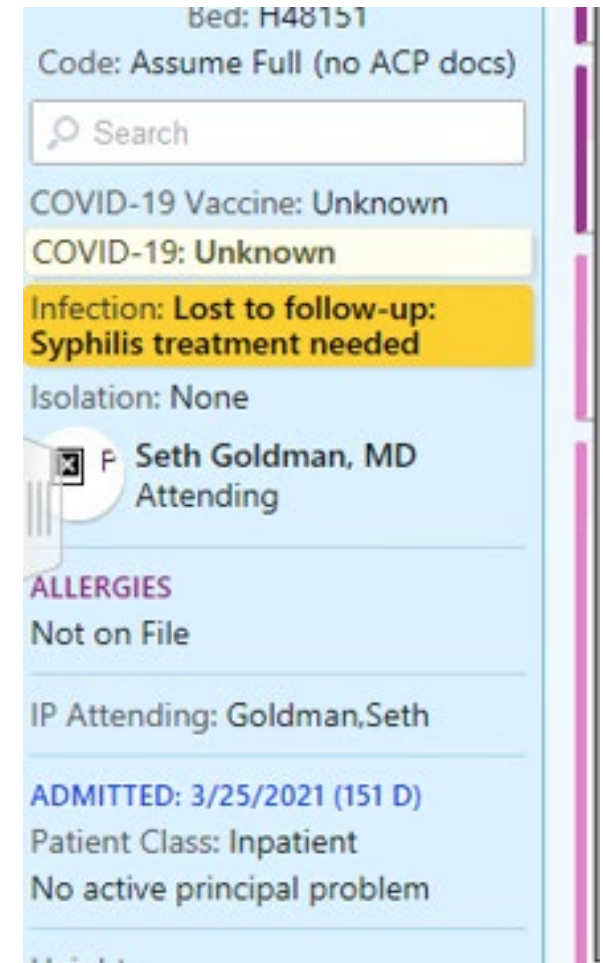
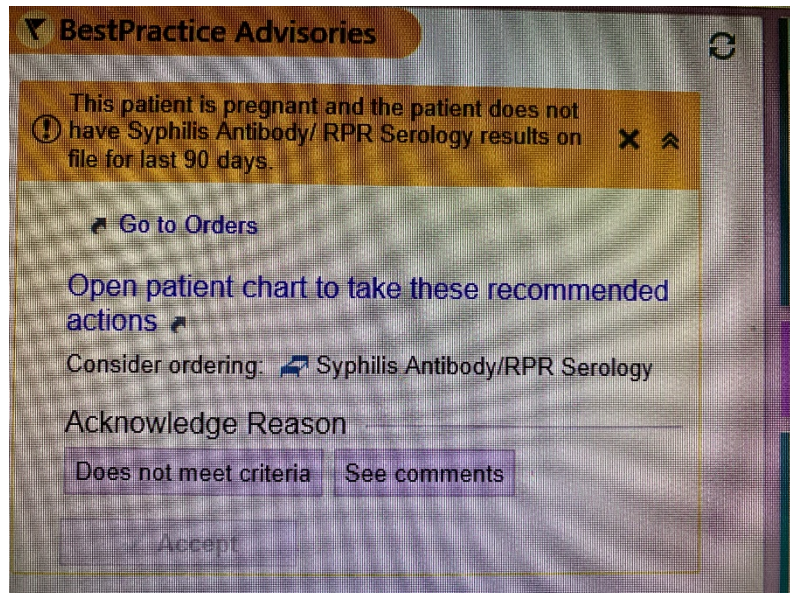
California Expanded Syphilis Screening Guidelines – 12/2020

- Screen all pregnant patients at least twice during pregnancy.
 - Once at 1st prenatal visit (ideally 1st trimester) and again during 3rd trimester (28-32 weeks gestation)
- Screen pregnant women @ delivery unless at low risk and with a documented negative screen in 3rd trimester.
- All sexually active people who could become pregnant should receive at least one lifetime screening for syphilis.
- All sexually active people who could become pregnant should be screened for syphilis with each HIV test.
- In jurisdictions where congenital syphilis morbidity is high*
 - Emergency department providers should consider confirming syphilis status of pregnant people prior to discharge.
 - People who are or could become pregnant should be screened at intake into adult correctional facilities.

*Defined as jurisdictions with a rate >8.4 congenital syphilis cases per 100K live births in any of the past 3 years

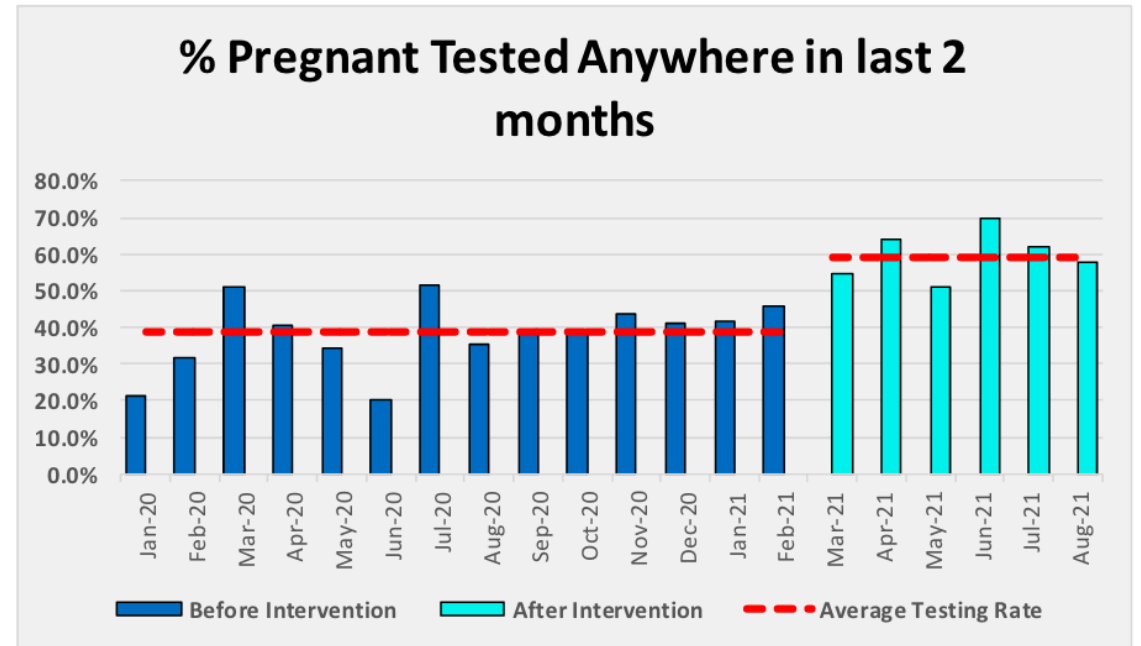
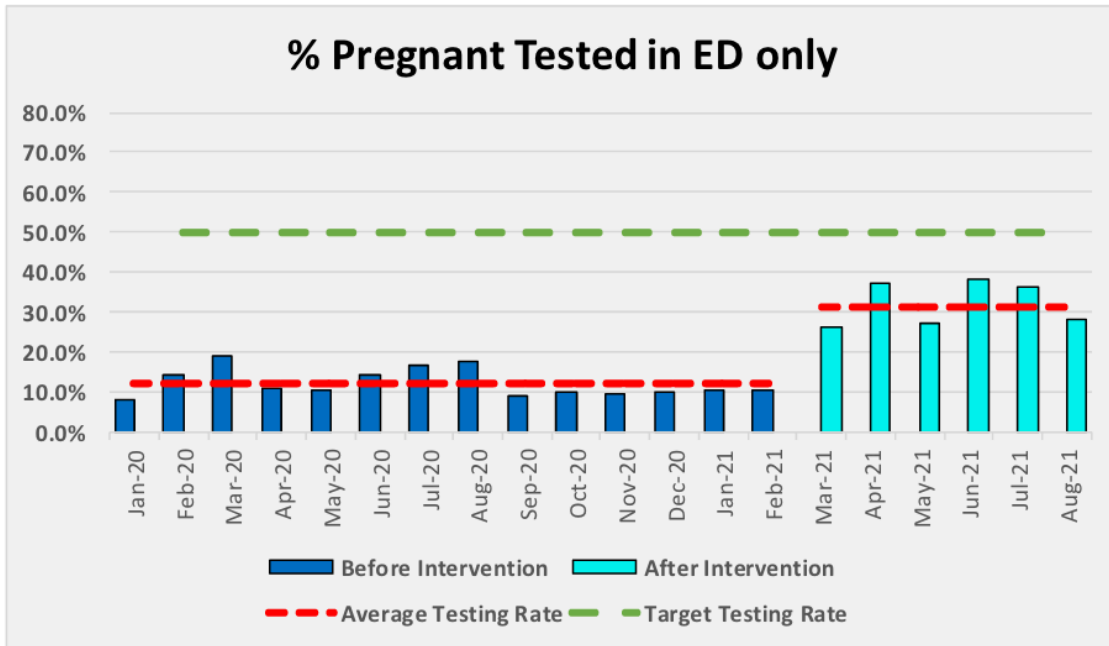
Improvements in EPIC to facilitate screening and treatment

- Untreated syphilis can be added to infection status column
- Best Practice Alert if pregnant patient in ER has not had a syphilis test in prior 3 months



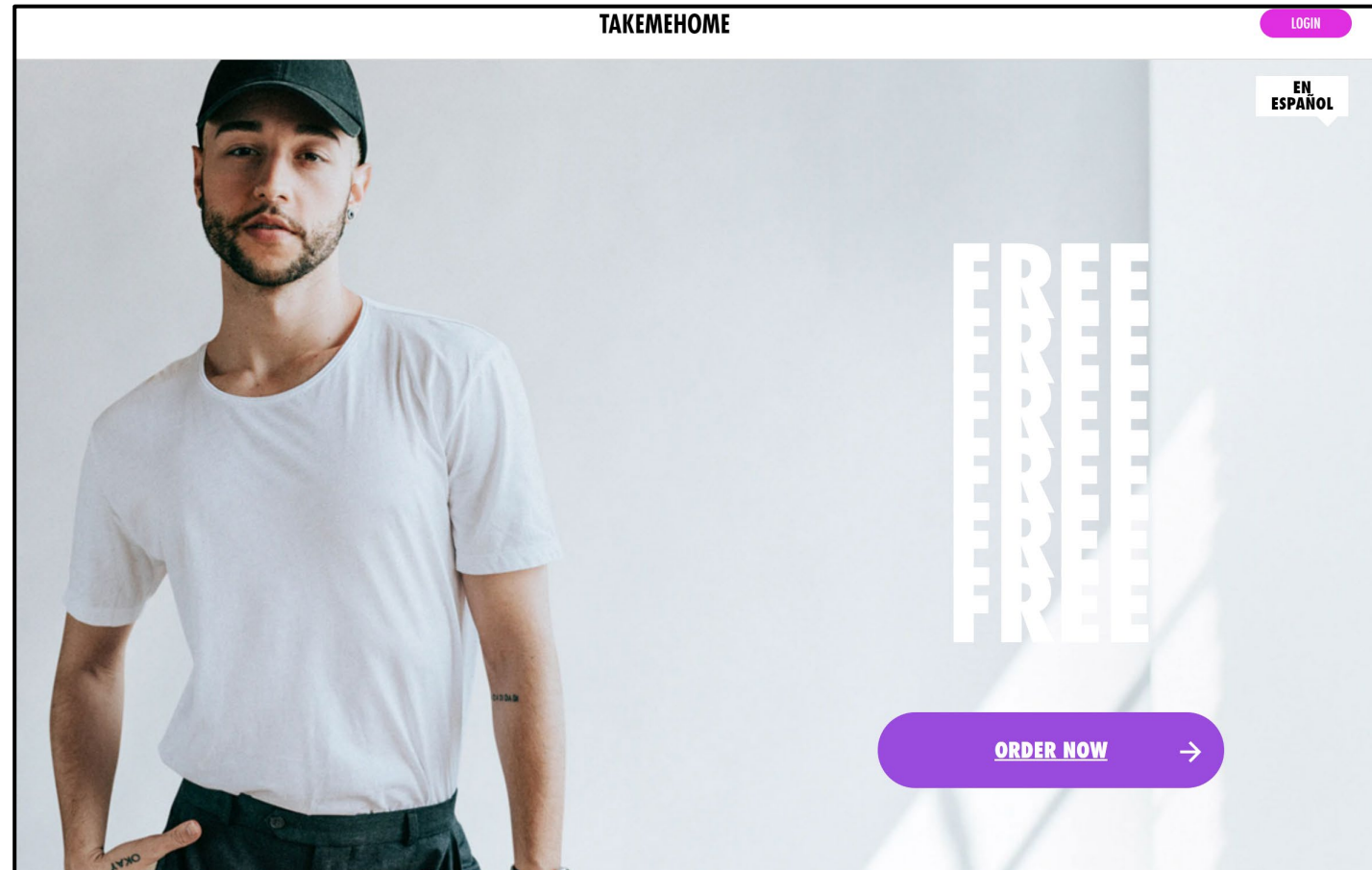


Increased syphilis screening in ZSFG ER



Home STI Testing: Takemehome.org

- Free sexual health home testing program, currently launched February 2021
- **FREE** HIV tests and STI tests that clients can take in the privacy of their home.
- **SF priority population:** Black & Latino MSM men
- Eligibility: Resides in SF and has not been tested for HIV and STIs in prior 3 months



HaveGoodSex

Social media ads and influencers, Comcast commercials, YouTube

HAVE
GOOD
SEX.

Stay Good. Stay Tested.

HAVE
GOOD
SEX.

Stay Good. Stay Tested.

GOOD SEX
is so much more
than *just* sex...



SWIPE UP
to learn more

GOOD SEX
is so much more than *just* sex...



I know.

Welcome to dontthinkknow.org

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or enter your zip code below.

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SAN DIEGO >

Enter zip code

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PrEP for HIV prevention: USPSTF Grade A

JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Preexposure Prophylaxis for the Prevention of HIV Infection US Preventive Services Task Force Recommendation Statement

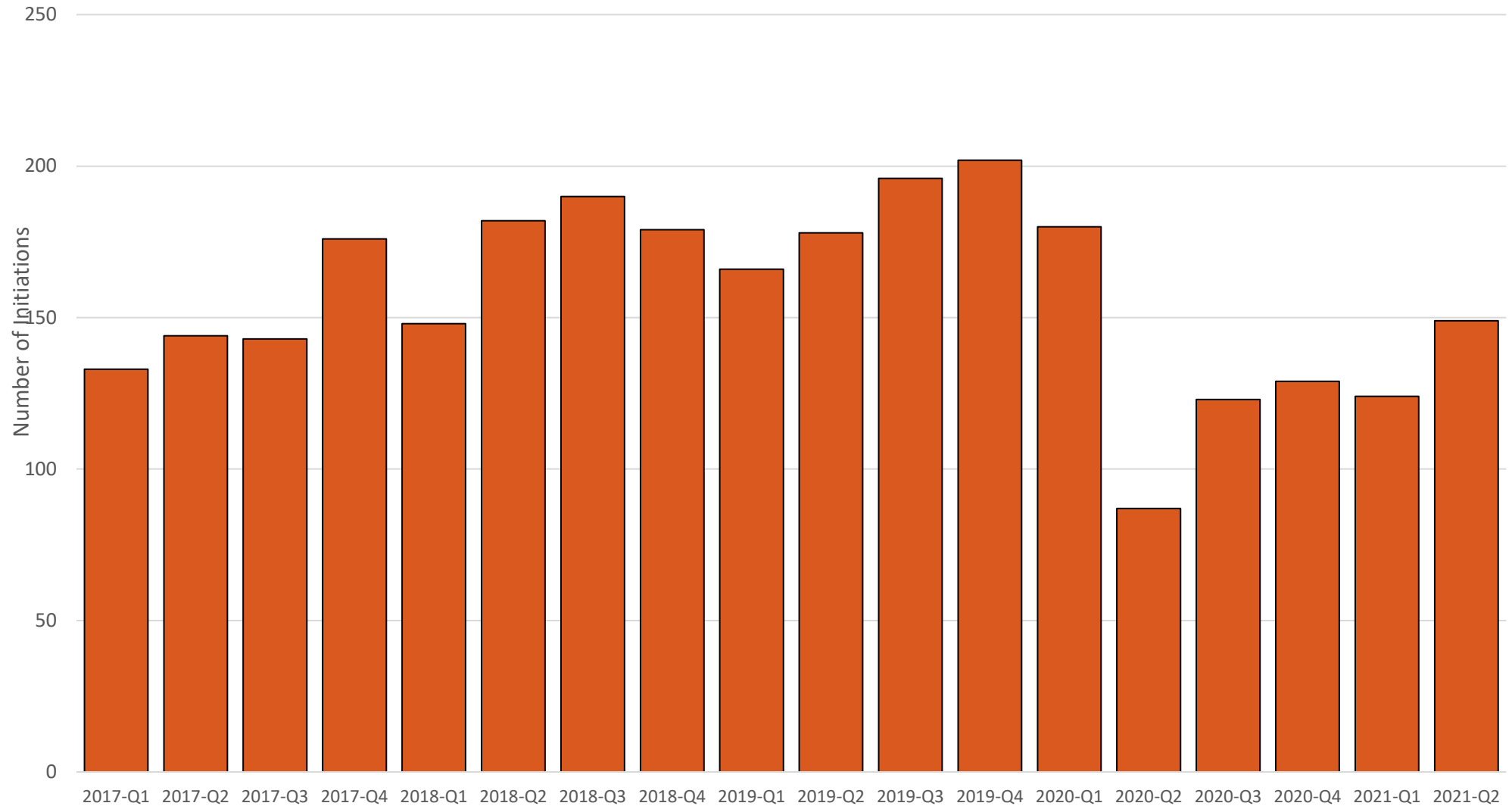
Efficacy by Blood Detection of Tenofovir

CONCLUSIONS AND RECOMMENDATION The USPSTF recommends offering PrEP with effective antiretroviral therapy to persons at high risk of HIV acquisition. (A recommendation)

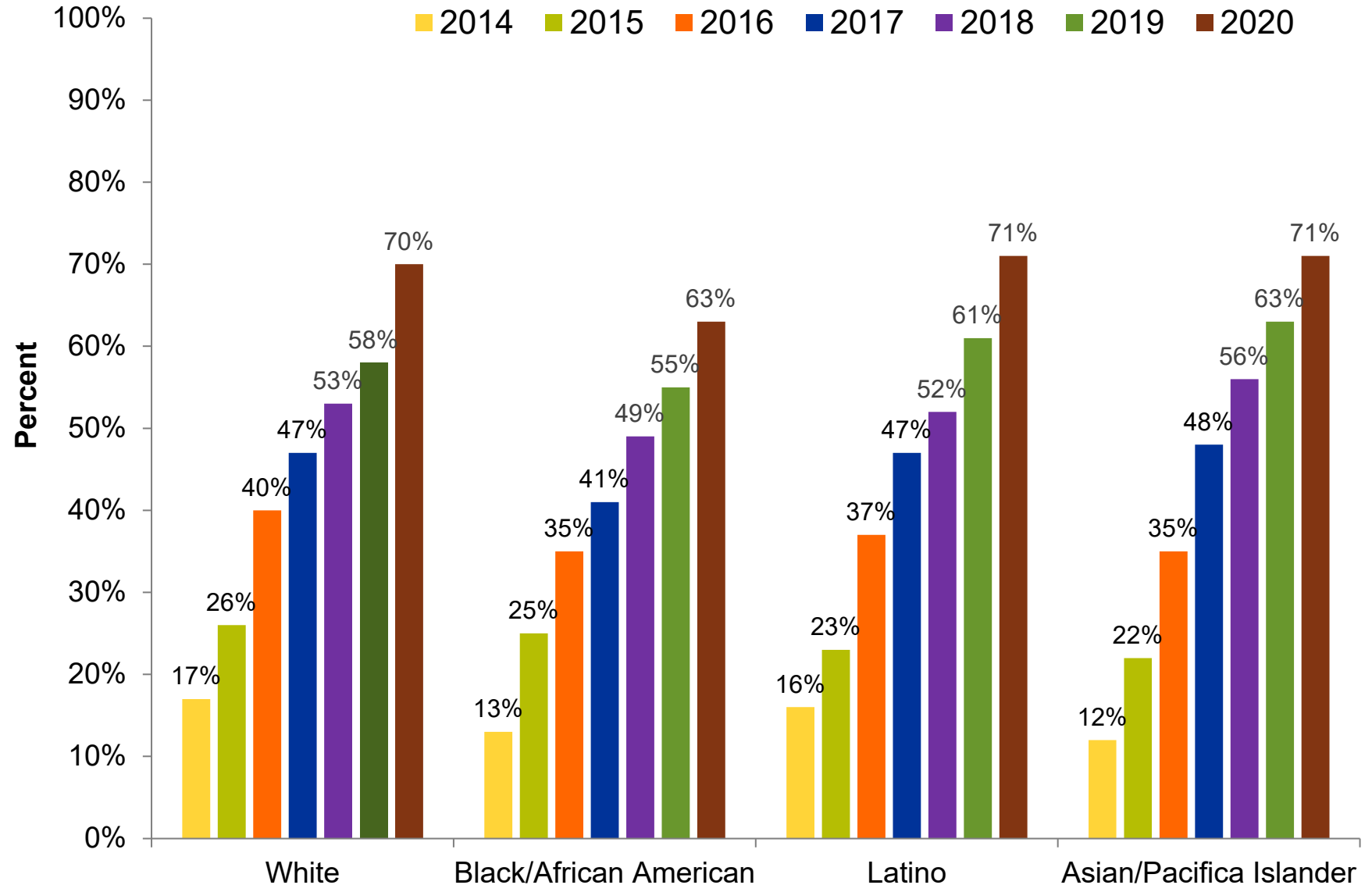
JAMA. 2019;321(22):2203-2213. doi:10.1001/jama.2019.6390



PrEP Initiations by Quarter: San Francisco City Clinic 2017 - 2021 Q2



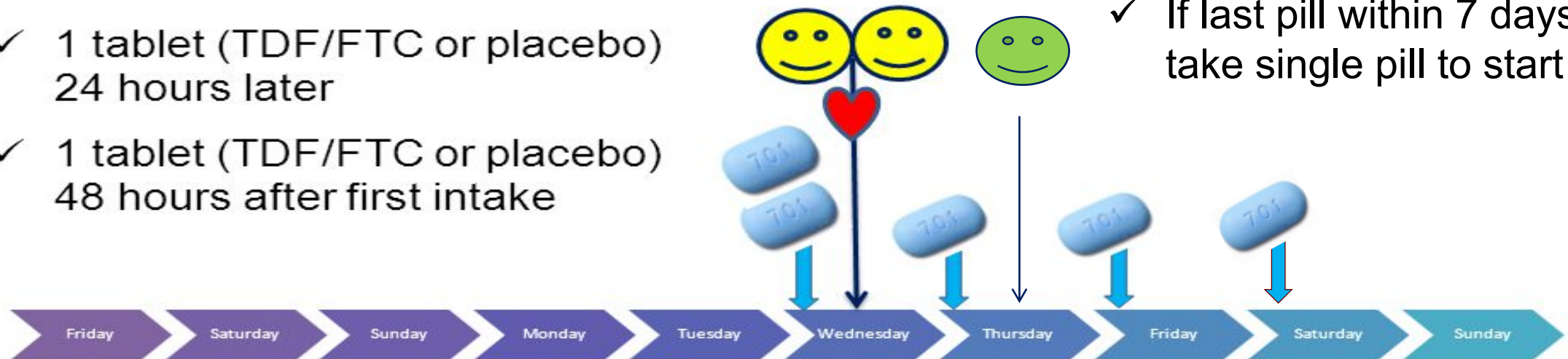
Proportion of MSM currently on PrEP by race/ethnicity (SFCC) continues to increase every year



Ipergay : Event-Driven iPrEP

- ✓ 2 tablets (TDF/FTC or placebo)
2-24 hours before sex
- ✓ 1 tablet (TDF/FTC or placebo)
24 hours later
- ✓ 1 tablet (TDF/FTC or placebo)
48 hours after first intake

- ✓ Daily pills until 48 hour
after last dose
- ✓ If last pill within 7 days,
take single pill to start



“2-1-1-1-1....”

PrEP updates: Two options for dosing

PrEP updates: Two options for dosing

	2-1-1 PrEP	Daily PrEP
Who can use it?	Only studied in MSM*	Anyone
Chronic HBV	Can trigger a flair	Can be safely used
Planning	Need to plan sex at least 2hrs in advance	No planning needed
“Forgiveness”	Not forgiving of missed doses	Forgiving of missed doses during the week

- CDC continues to recommend daily TDF/FTC PrEP - only licensed indication by FDA
- IAS-USA guidelines recommend 2-1-1 TDF/FTC PrEP as alternative to daily PrEP for MSM
 - Use if can plan ahead for pre-dose, can take post-doses, use with all partners
 - Does not avoid adverse events

*Recent PK data suggest on-demand PrEP may be an option for transgender women and warrants further study.

F/TDF (Truvada) is now generic


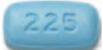
- F/TDF generic as of 9/30/2020
- Effective January 1, 2021 – Most insurance plans in California required to cover PrEP medication and all medical services necessary for PrEP initiation and follow-up care without cost sharing
- \$30.00 for 30 pills



Quick Clinical Guide: HIV PrEP Pre-Exposure Prophylaxis

Updated February 2020

F/TAF (Descovy) for patients with renal insufficiency

PrEP medication	 Truvada[®] Tenofovir disoproxil fumarate 300 mg + Emtricitabine 200 mg (F/TDF)	 Descovy[®] Tenofovir alafenamide 25 mg + Emtricitabine 200 mg (F/TAF)
Indications	Truvada [®] is approved for use for all adults and adolescents ≥35 kg with indications for PrEP.	Descovy [®] is approved for use for adults and adolescents ≥35 kg at risk for sexually acquired HIV, excluding individuals at risk only from receptive vaginal/front hole sex or only from injection drug use.
Dosing	1 pill once daily unless using a PrEP 2-1-1 schedule	1 pill once daily
“On-Demand” PrEP: 2-1-1 dosing Note that while there is substantial published data supporting this strategy for MSM, it has not been reviewed by the FDA or recommended by the CDC. The International AIDS Society of the US (IAS-USA), World Health Organization (WHO), and European AIDS Clinical Society (EACS) all endorse the option of this dosing strategy.	2-1-1 for MSM with anal exposures only: 2 pills 2-24 hours before anal sex (24 hours before for optimal protection) - then 1 pill 24 hours after first dose - then 1 pill 24 hours after second dose. <ul style="list-style-type: none"> • If there is another exposure within 7 days of the last dose, take 1 pill 2-24 hours before anal sex, then 1 pill 24 hours after first dose, then 1 pill 24 hours after second dose. • If there are continued daily sexual exposures, continue 1 pill daily until 48 hours has passed since last sexual encounter. For a detailed 2-1-1 guide , go to: tinyurl.com/HIVPrEP211 .	The PrEP 2-1-1 dosing schedule is not recommended for use with Descovy [®] outside of a clinical trial.
Side effects	Generally safe and well tolerated <ul style="list-style-type: none"> • Headache (7%) and abdominal discomfort (3%), which often resolve in a few weeks • Small decrease in eGFR, which improves upon discontinuation of Truvada[®] • Slightly decreased bone density, but no increased risk of fractures 	Generally safe and well tolerated <ul style="list-style-type: none"> • Abdominal discomfort, nausea (5%) and headache (2%), which often resolve in a few weeks • Small increase in LDL cholesterol • Slight increase in body weight
Other notes	Estimated GFR or CrCl by serum labs should be ≥60 ml/min (Cockcroft-Gault) to safely use Truvada [®] . A generic form of Tenofovir disoproxil fumarate + Emtricitabine (F/TDF) is anticipated in October 2020.	Estimated GFR or CrCl by serum labs should be ≥30 ml/min (Cockcroft-Gault) to safely use Descovy [®] .

Long-acting injectable Cabotegravir for PrEP

- Cabotegravir IM q8 weeks highly effective at preventing HIV
 - The HPTN 083 - 4,566 cisgender men and transgender women who have sex with men in the United States, Latin America, Asia and Africa
 - HPTN 084 - 3,000 young cisgender women in sub-Saharan Africa
- FDA approval expected January 2022

Trials	Total Infections	Infections in CAB-LA Arm	Infections in Oral F/TDF Arm	Hazard Ratio in CAB-LA vs. F/TDF arm
HPTN 083	52 Incidence 0.81%	13 Incidence 0.41%	39 Incidence 1.22%	0.34 (95% CI 0.18-0.62) 66% risk reduction
HPTN 084	38 Incidence 1%	4 Incidence 0.21%	34 Incidence 1.79%	0.11 (95% CI 0.04-0.32) 89% risk reduction

A 29 yo HIV-negative MSM who is on HIV PrEP presents to your clinic requesting doxycycline for STI prevention. He has had syphilis once and rectal chlamydia 3 times and heard that some of his friends were taking Doxy. Would you:

- 1) Prescribe Doxycycline 100 mg PO daily to take with his HIV PrEP
- 2) Prescribe Doxycycline 200 mg for PEP to take after every sexual encounter
- 3) Counsel him that there are no consensus recommendations on Doxy for STI prevention, and you are not comfortable given unknowns
- 4) Refer him to the DoxyPEP study at SF City Clinic

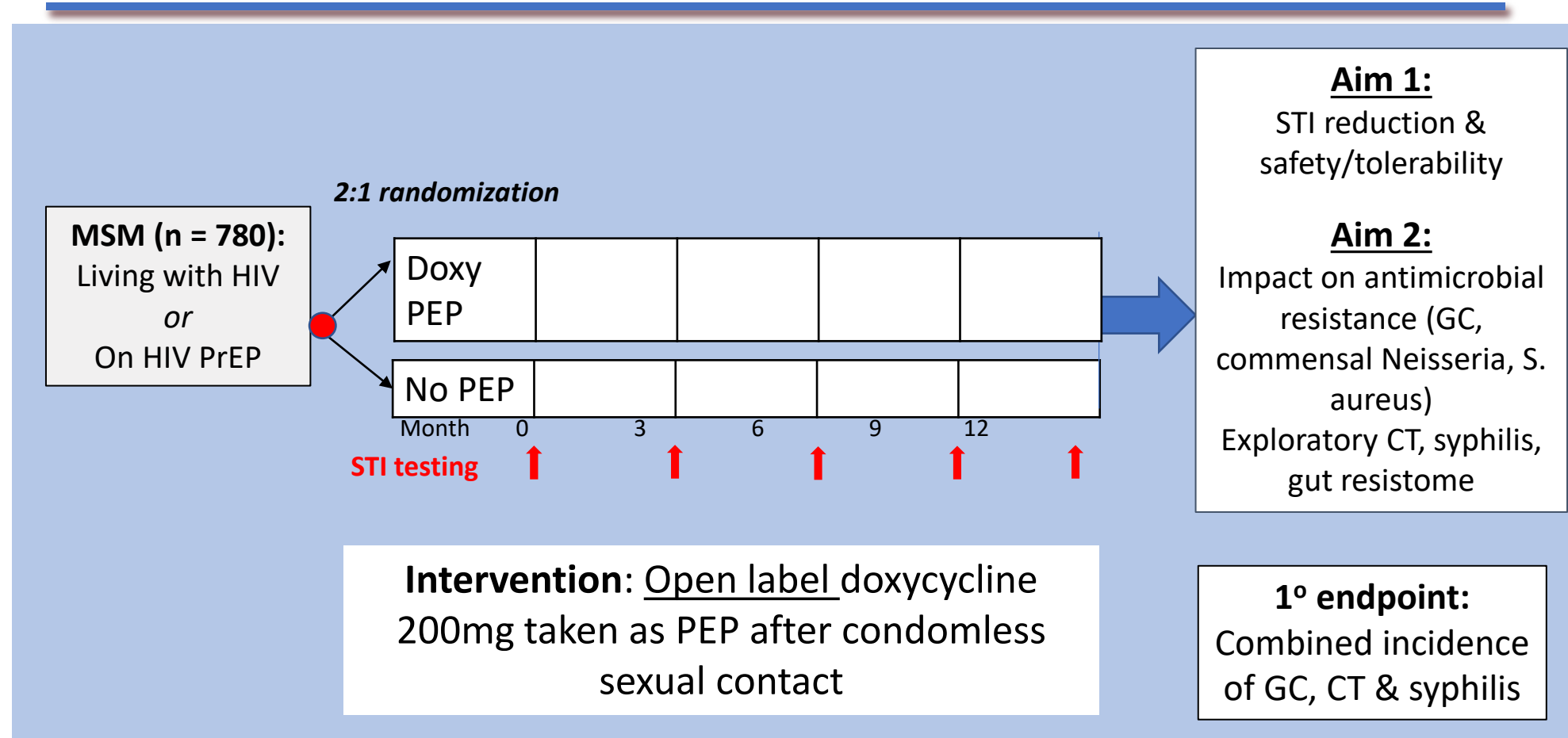
What about PEP or PrEP for STI Prevention?

Randomized Controlled Trial of Doxy PEP

Study population	HIV-negative MSM enrolled in open-label extension of the IPERGAY study of on-demand HIV PrEP (n=232)
Intervention	Doxycycline 200 mg approx. 24h after sex, up to 72h (≤ 6 pills/week)
Study design	Randomized 1:1 to Doxy vs. no PEP
Follow-up	Q2 months x 10 months
Overall reduction in STI	47% HR 0.53 (0.33-0.85, p=0.008)
Reduction in syphilis	73% HR 0.27 (0.07-0.98, p=0.047)

Impact on anti-microbial resistance among STIs and non-STI pathogens (staph aureus, GI flora, microbiome) unknown

DOXYPEP



Ending the HIV Epidemic: A Plan for America

GOAL:

reaching
75%
reduction
in new HIV
infections
by 2025
and at least
90%
reduction
by 2030.



HHS will work with each community to establish local teams on the ground to tailor and implement strategies to:



Diagnose all people with HIV as early as possible after infection.

Treat the infection rapidly and effectively to achieve sustained viral suppression.



Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).

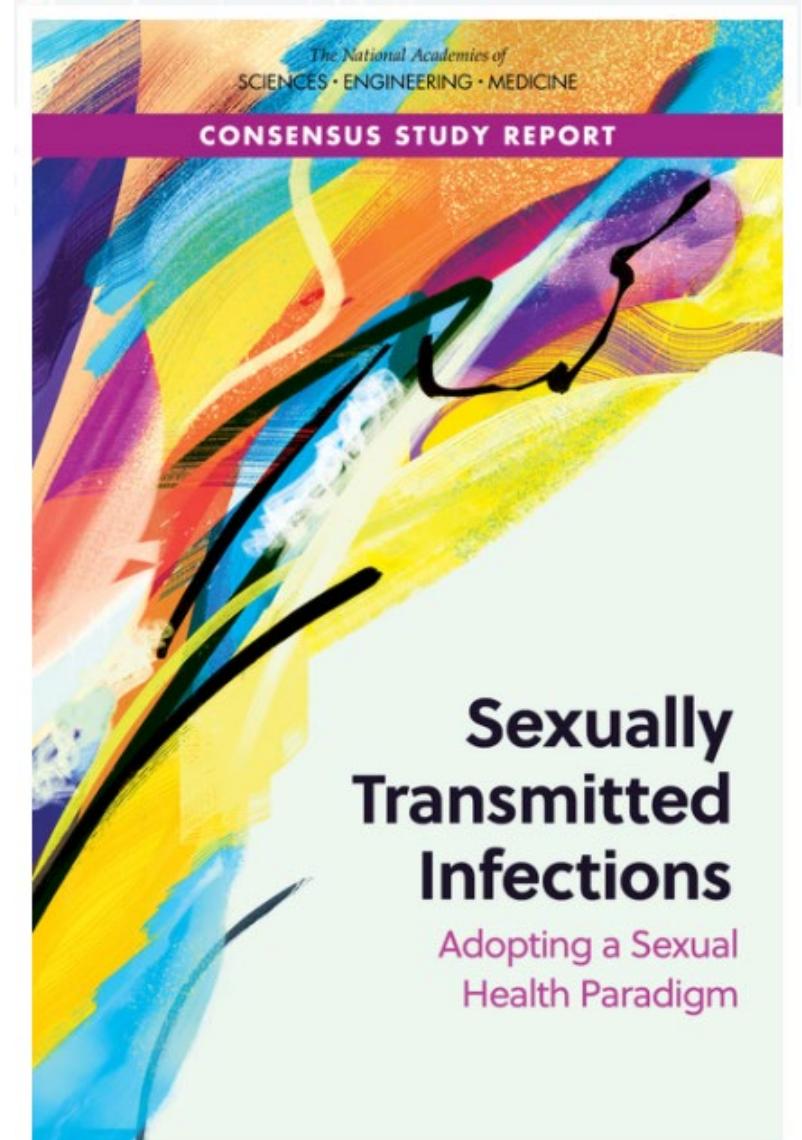
Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.



Sexually Transmitted Infections

National Strategic Plan

for the United States | 2021-2025



Key Policy Decisions will Help or Hinder the Fight

- Affordable Care Act
 - Covered prevention services
 - Young adults remain on parent's plan
- LGBTQ rights
 - Supportive policies=better sexual health outcomes
- Justice System
 - Differential sentencing distorts sexual networks in communities of color
- Income Inequality
- Public health investment post pandemic

Thank you!

- Ling Hsu
- Alyson Decker
- Trang Nguyen
- Bob Kohn
- Maddie Sankaran
- Rilene ng
- Nikole Trainor
- Al Liu
- Angie Miller
- Dominika Seidman
- Annie Leuktemeyer
- Oliver Bacon
- Susan Philip

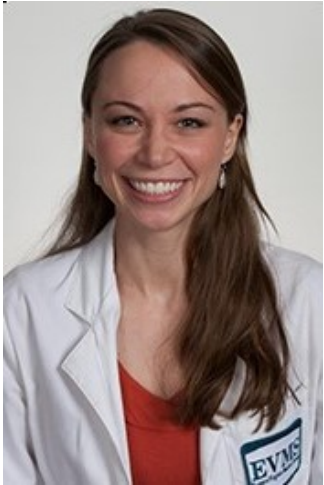


Webinar Agenda

9:00-9:10	Introduction and Welcome
9:10-9:50	Epidemiology and program updates – Dr. Stephanie Cohen
9:50-10:40	Syphilis – Dr. Kelly Johnson
10:40-10:50	Break
10:50-11:50	CDC STI treatment guidelines update
11:50-12:50	Case Panel – Dr. Bacon with guests Yvonne Piper, FNP; Terrence Marcotte, FNP; Dr. Meena Ramchandani
12:50-1:00	Closing



Kelly Johnson, MD, MPH



Dr. Kelly Johnson is a Public Health Medical Officer in the STD Control Branch at the California Department of Public Health, an Assistant Professor of Medicine in the Division of Infectious Diseases at the University of California San Francisco, and a Clinical Faculty member with the California Prevention Training Center. She is board-certified in both Internal Medicine and Infectious Diseases, and currently works as an HIV primary care provider at Zuckerberg San Francisco General Hospital. Her research interests include the intersection between HIV and bacterial STIs as well as real-world implementation of HIV PrEP.

Assistant Professor of Medicine, Division of Infectious Diseases, University of California San Francisco
Public Health Medical Officer, STD Control Branch, California Department of Public Health
Clinical Faculty, California Prevention Training Center