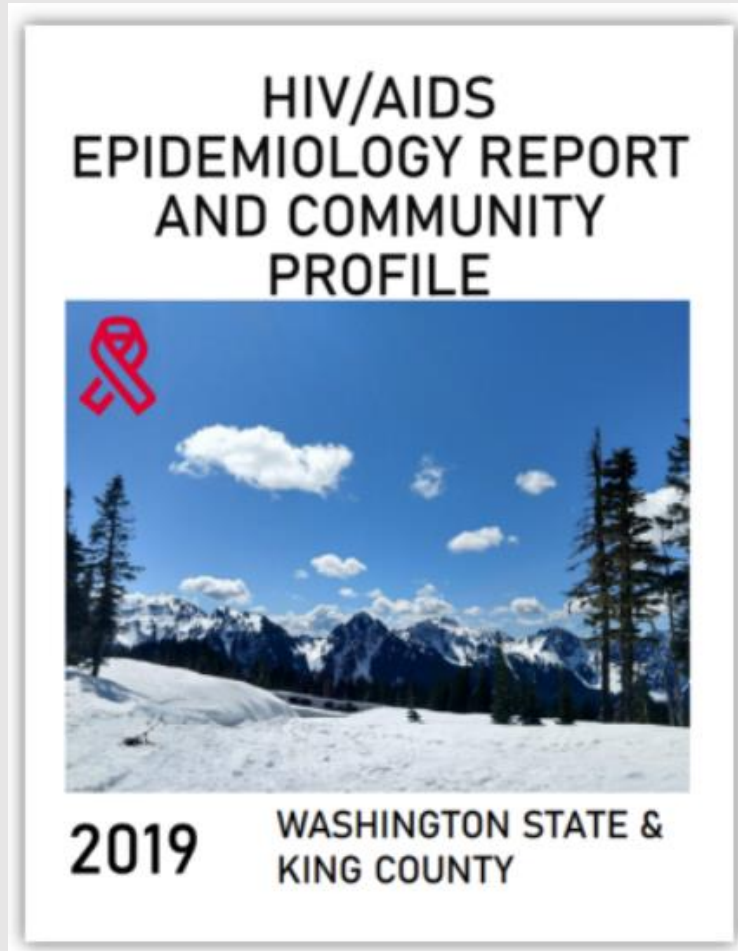

HIV/AIDS EPIDEMIOLOGY REPORT

KING COUNTY

February 3, 2020

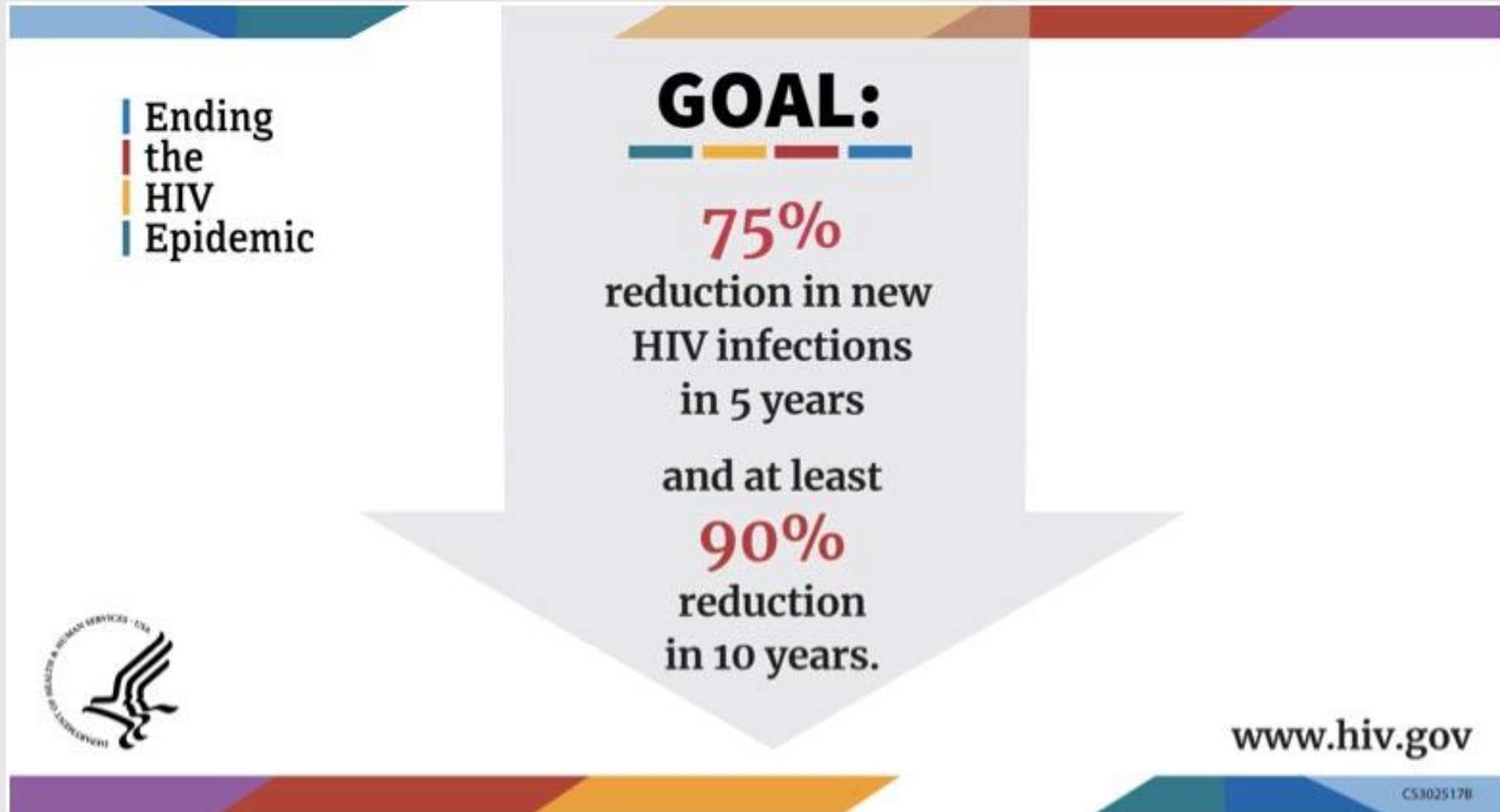
Susan Buskin, PhD MPH
Audrey Brezak, MPH

HIV/AIDS Epidemiology Report and Community Profile, King County, 2019



**Important caveat:
2019 report = 2018 data**

Ending the HIV Epidemic



The infographic features a large, light gray downward-pointing arrow in the center. To the left of the arrow, the text 'Ending the HIV Epidemic' is written vertically, with each word preceded by a colored bar (blue, red, yellow, blue). Inside the arrow, the word 'GOAL:' is at the top, followed by '75%' in red, 'reduction in new HIV infections in 5 years' in black, 'and at least' in black, '90%' in red, and 'reduction in 10 years.' in black. In the bottom left corner, there is a circular logo for 'TREATMENT FOR HEALTH & HUMAN SERVICES - USA' with a stylized bird. In the bottom right corner, the website 'www.hiv.gov' is listed, and below it, the code 'CS302517B' is visible.

Ending
the
HIV
Epidemic

GOAL:

75%
reduction in new
HIV infections
in 5 years
and at least
90%
reduction
in 10 years.

TREATMENT FOR HEALTH & HUMAN SERVICES - USA

www.hiv.gov

CS302517B

Ending the HIV Epidemic: the four pillars



1. Diagnose earlier



2. Treat upon diagnosis and sustain viral suppression



3. Prevent new infections



4. Identify and respond to HIV clusters

Pillar I: Diagnose



HIV testing

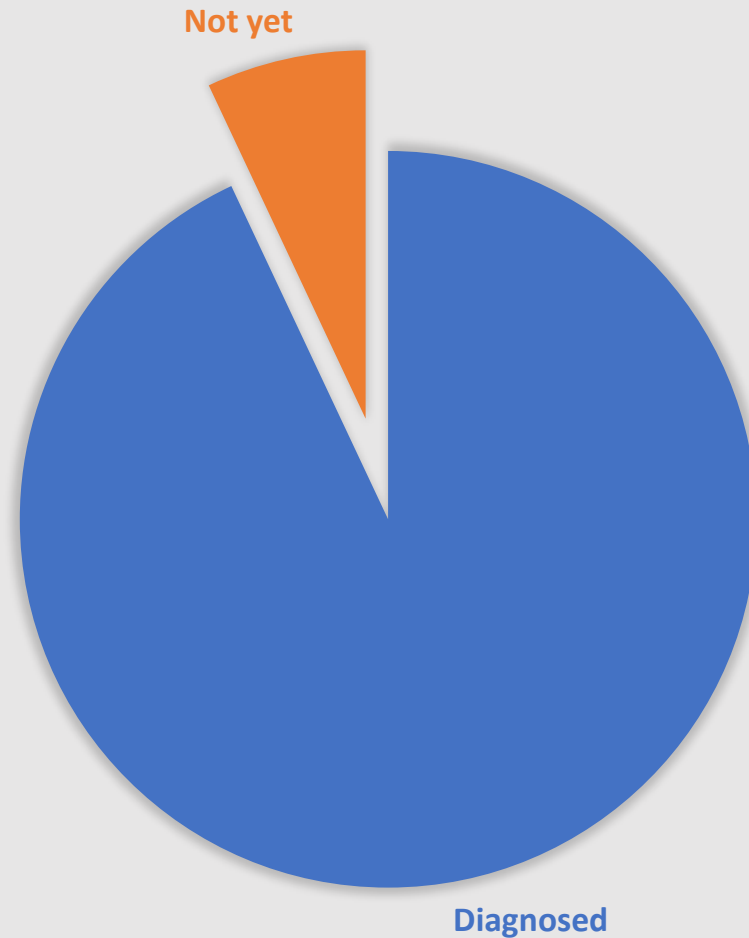
Validated testing guidelines
which differ by risk



Partner services

Voluntary and confidential services
available for people who test positive for
HIV, includes HIV testing of partners

In King County, we estimate 93% of people living with HIV are diagnosed



In 2018, 15,255 HIV tests performed by PHSKC or CBOs

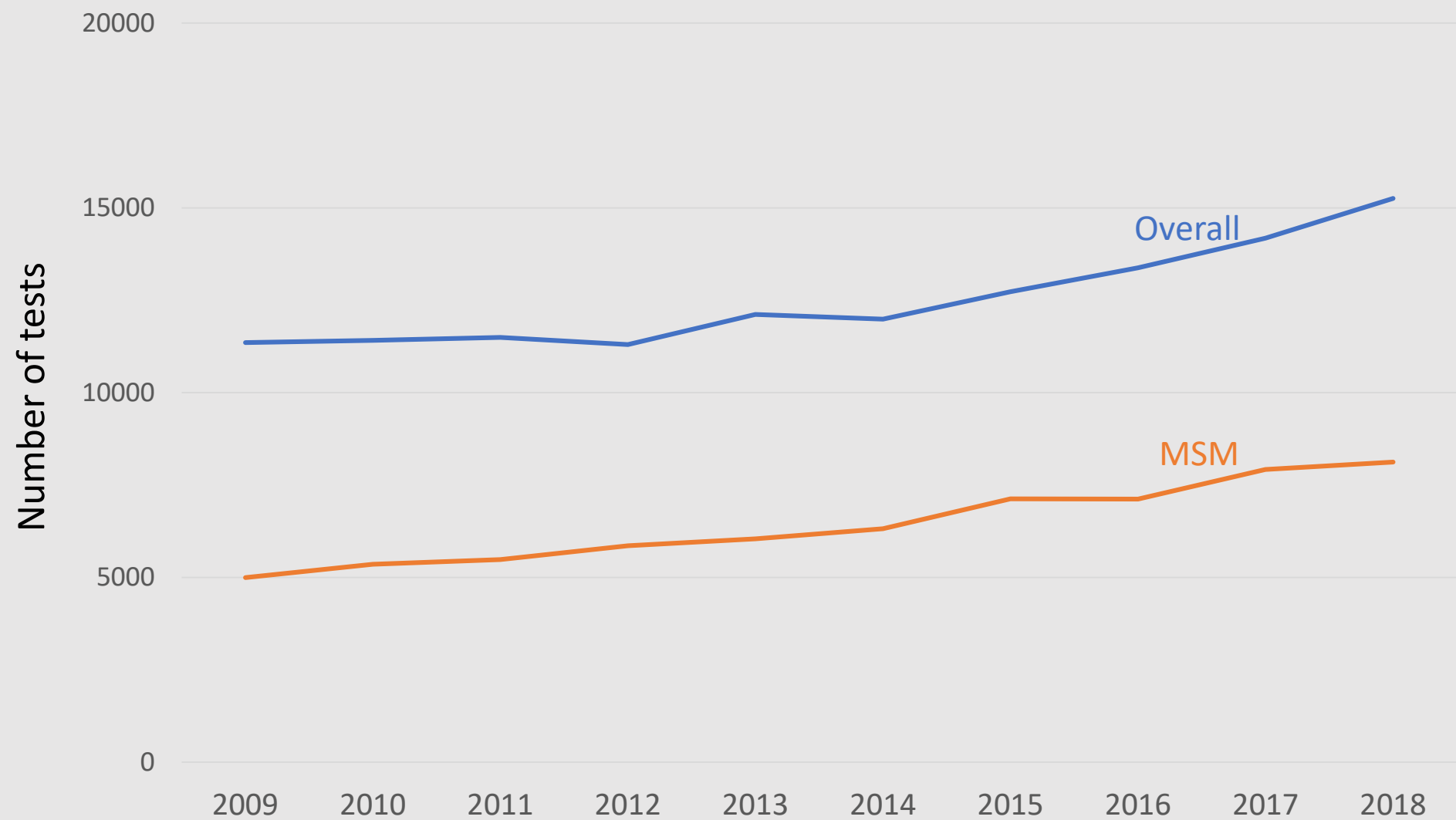
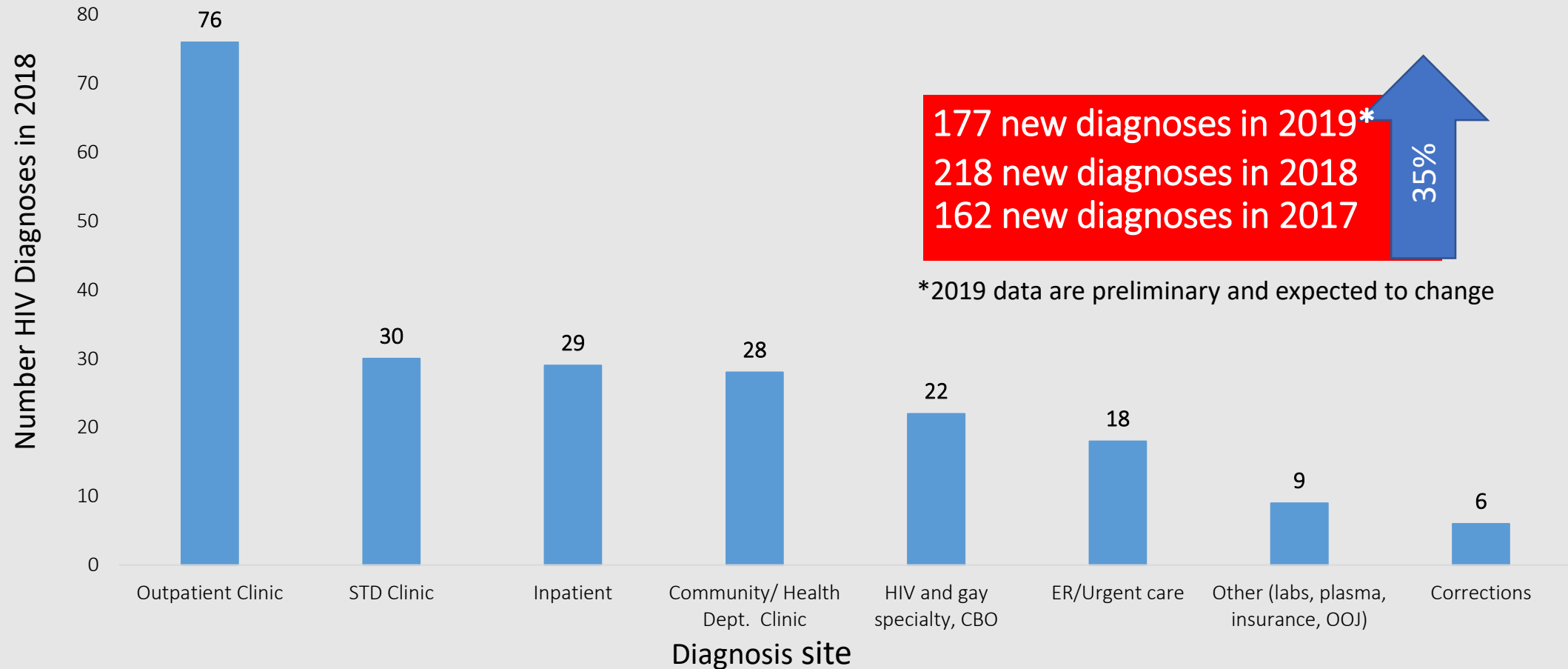


Figure 8-7: Publicly Funded HIV Tests in King County Overall and among Men Who have Sex with Men (MSM), 2009-2018. Washington State and King County HIV/AIDS Epidemiology Report and Community Profile 2019.

In 2018, **218** KC residents diagnosed with HIV

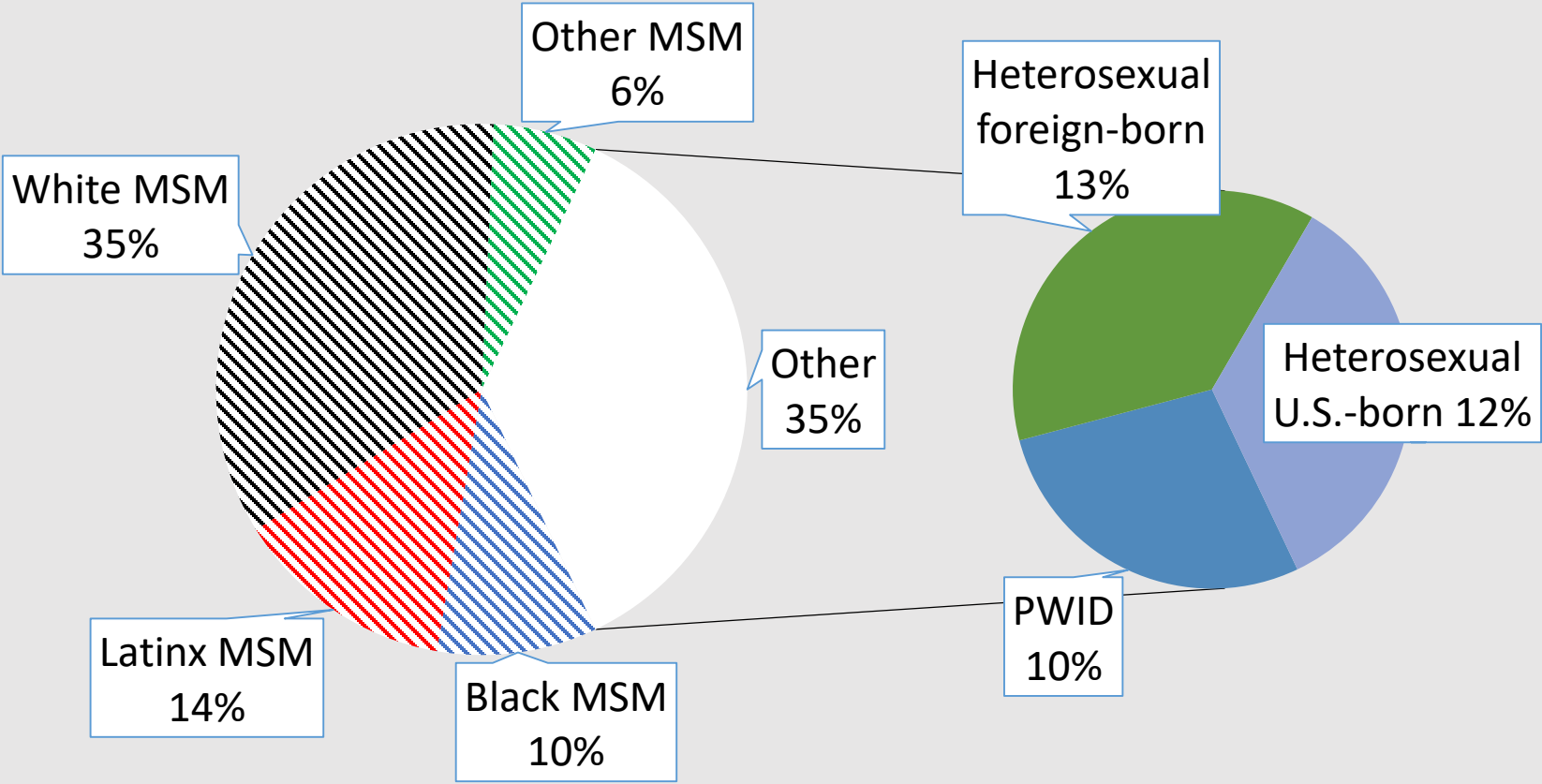


- **Breath.** 38% of new diagnoses occurred in 56 outpatient settings, none diagnosed more than 6 cases
- **Reach.** PHSKC STD clinic (including outreach) was the largest diagnosing site, diagnosing 14% (n=30)

Individuals Newly Diagnosed with HIV in 2017/18 (N=379)

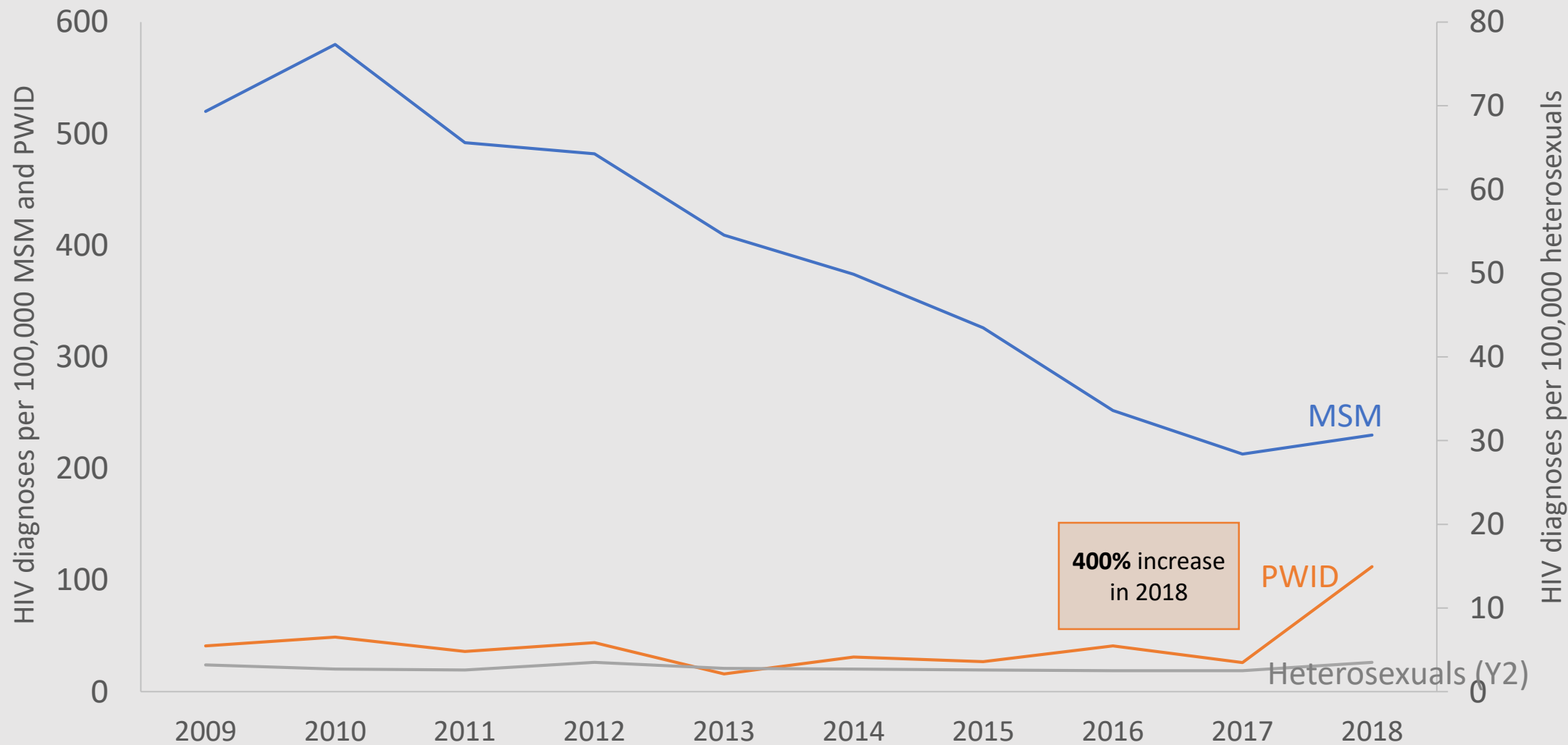
MSM* = 65% of new diagnoses

*MSM defined here by male birth sex & sexual behavior

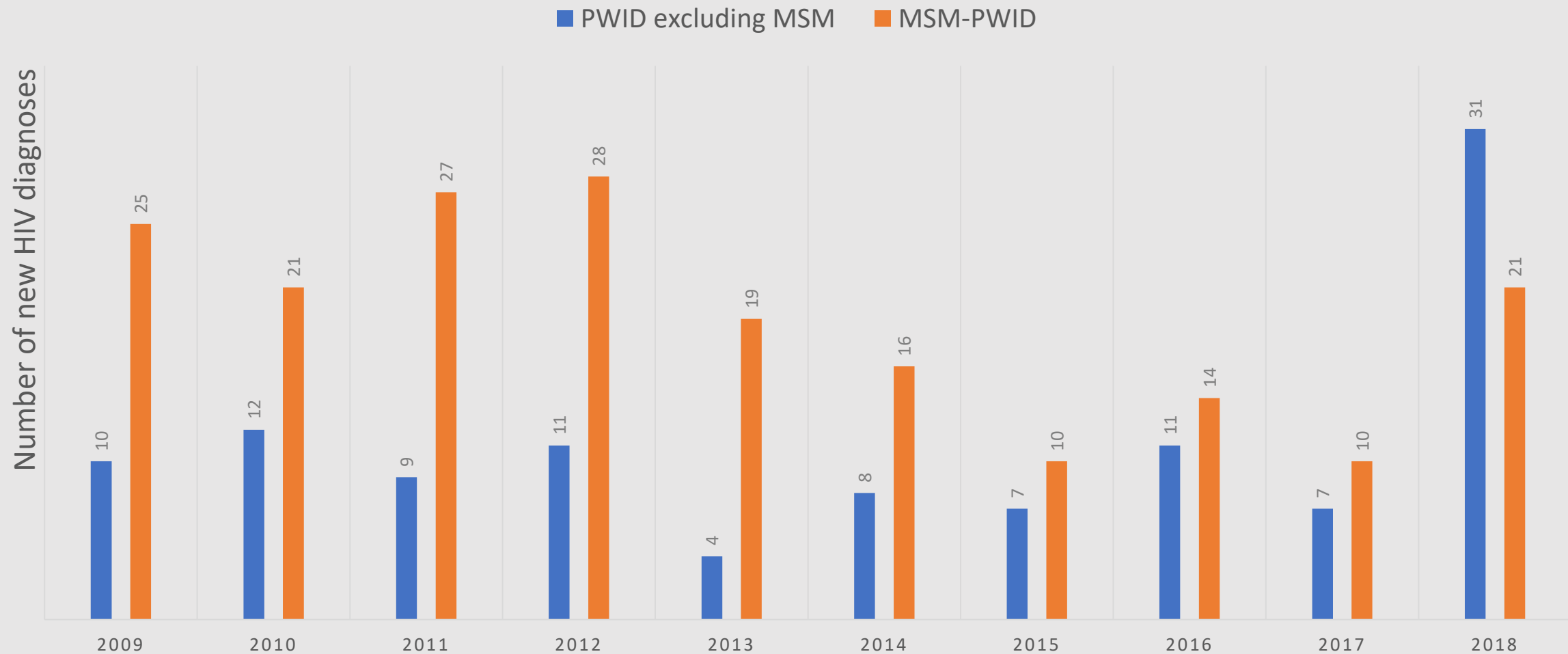


MSM/PWID: 8% of total (w/in MSM)
Transgender: <1% of total (10 persons newly diagnosed)

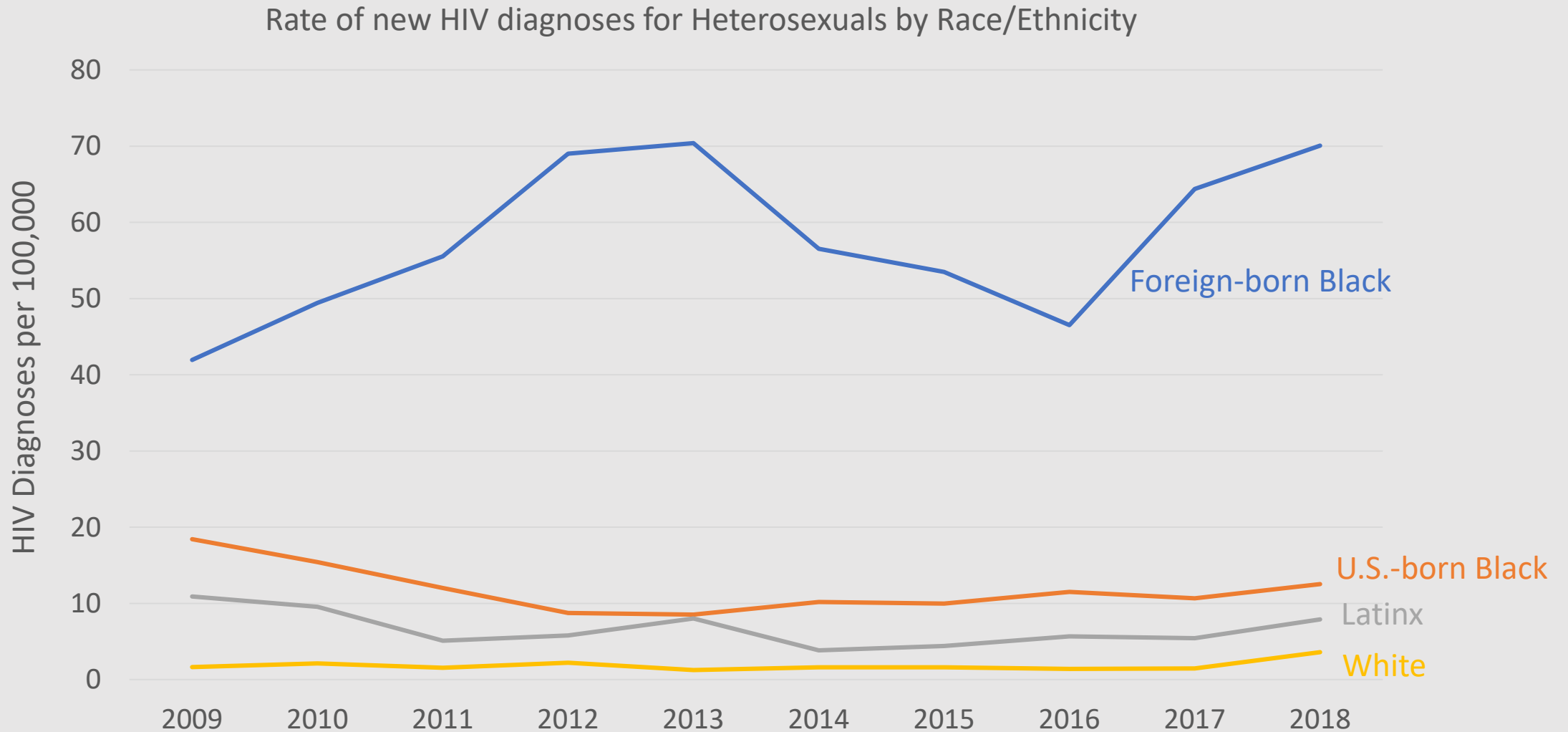
HIV emerges in persons who inject drugs, 2018



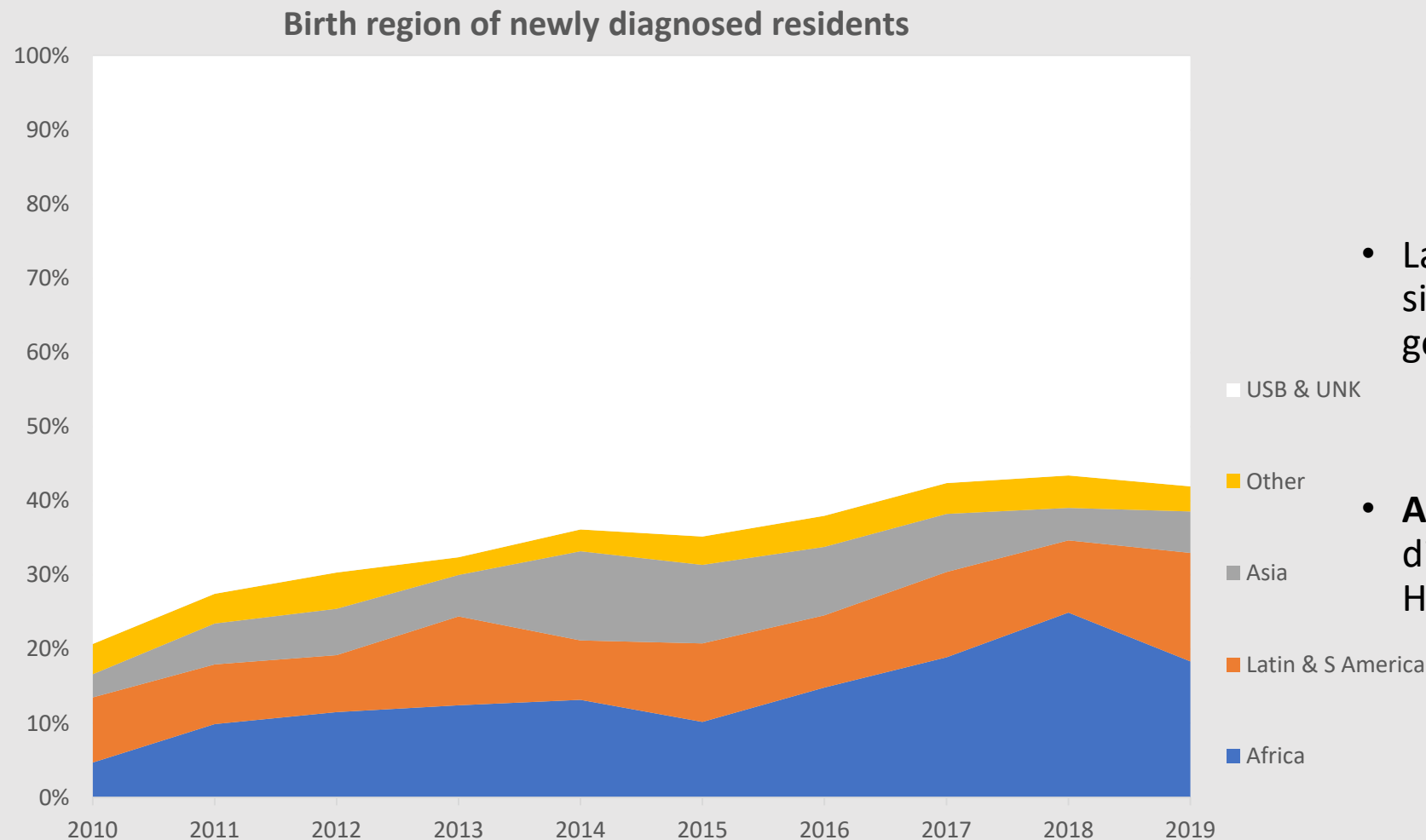
Increase in HIV diagnoses among PWID, 2018



HIV rates increasing among heterosexuals in 2018



Who are our newly diagnosed foreign-born residents in King County?



- Latin American-born and Asian-born similar to U.S.-born by HIV risk factor and gender, African-born more likely female

- **Acquisition?** Estimate 74% of newly diagnosed foreign-born persons acquired HIV before coming to King County

Pillar One: Local activities

- HIV testing
 - Clinical settings
 - Non-traditional settings
 - Home (self-testing)

Discussion

- What are your questions about King County diagnosis data?
- What diagnosis data would you like to see?

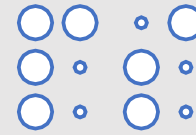


Pillar II: Treat



Data to care

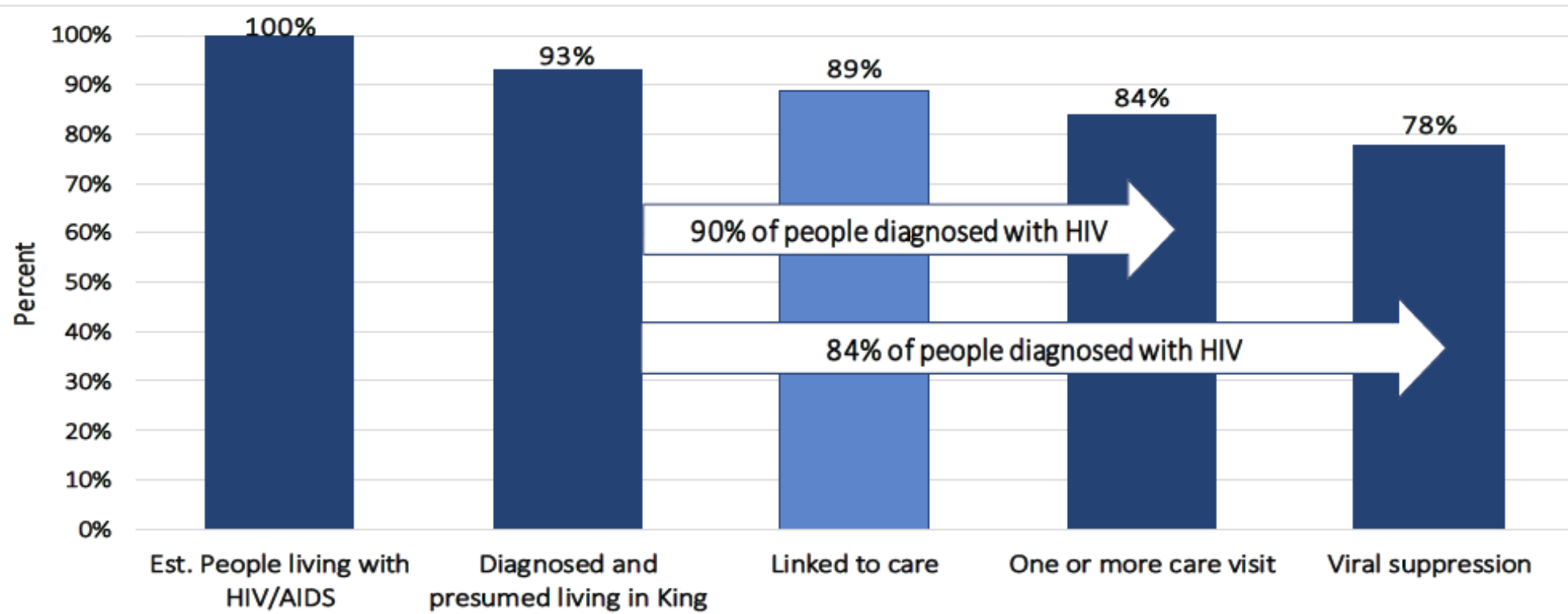
Re-engaging persons living with HIV
who are out of care



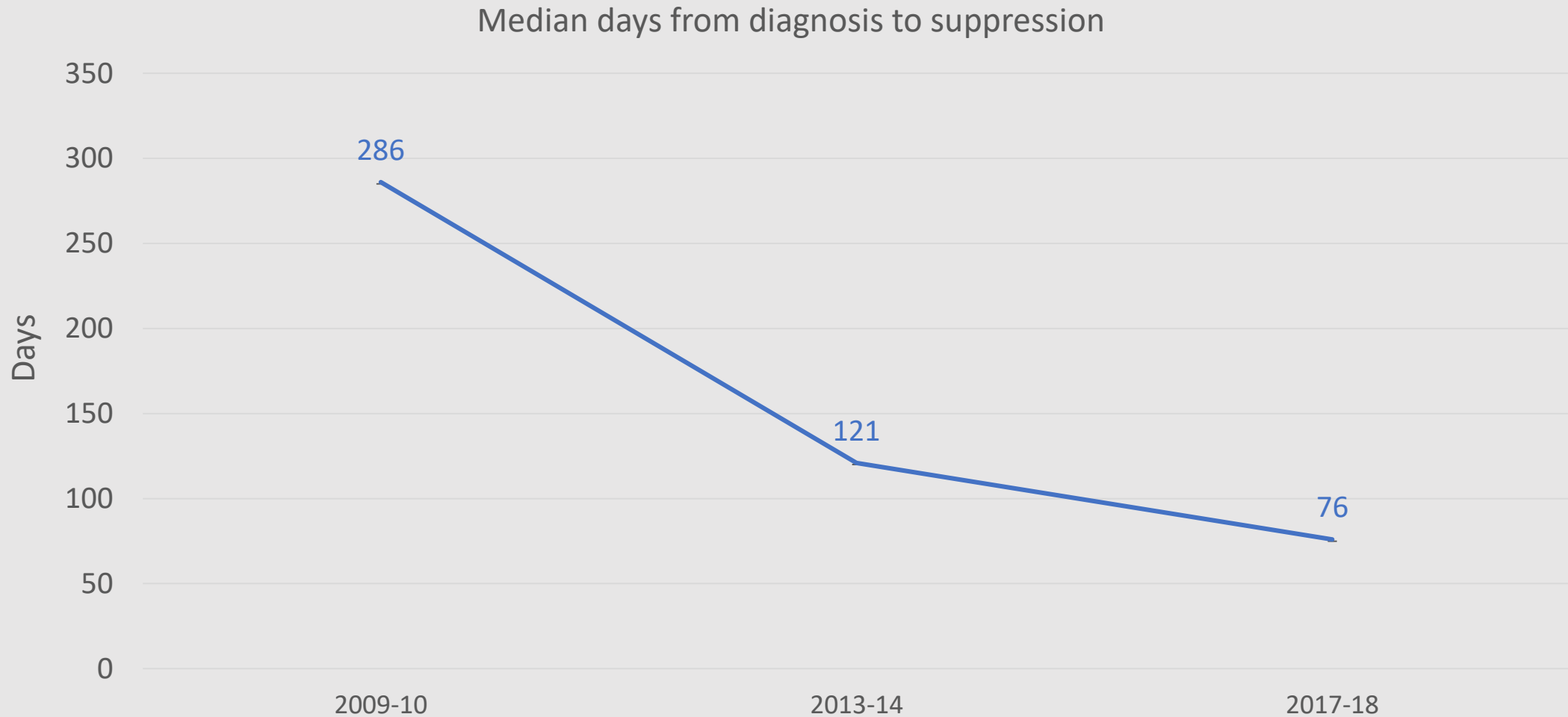
Differentiated care

Expanding care models for HIV services

King County HIV Care Continuum 2018



Decreasing time to viral suppression from diagnosis



73% reduction in median days from diagnosis to suppression from 2009 – 2017

So who is out of care or unsuppressed?

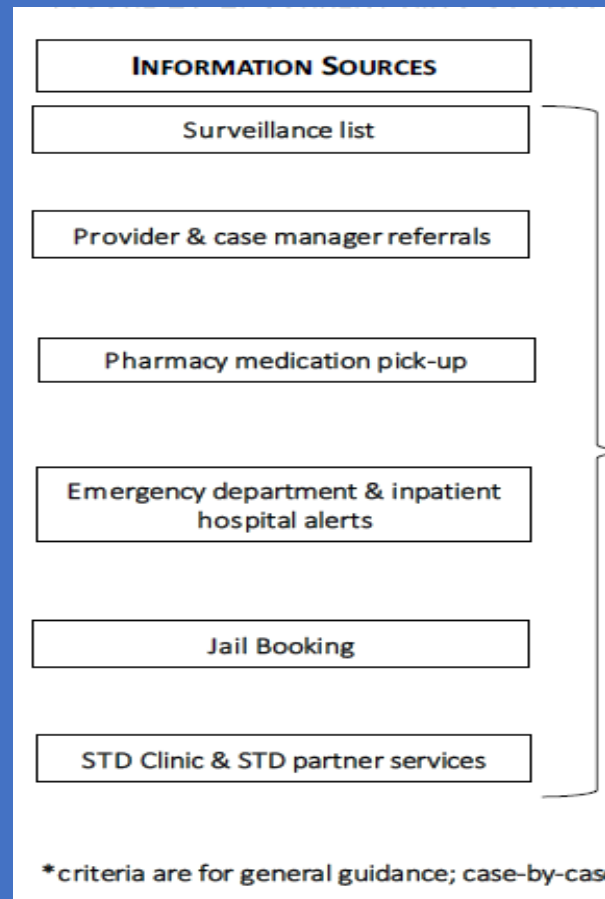
Out of care: having no CD4 count or viral load reported to surveillance for ≥ 15 months

Unsuppressed: a VL > 200 copies/mL at the time of last report

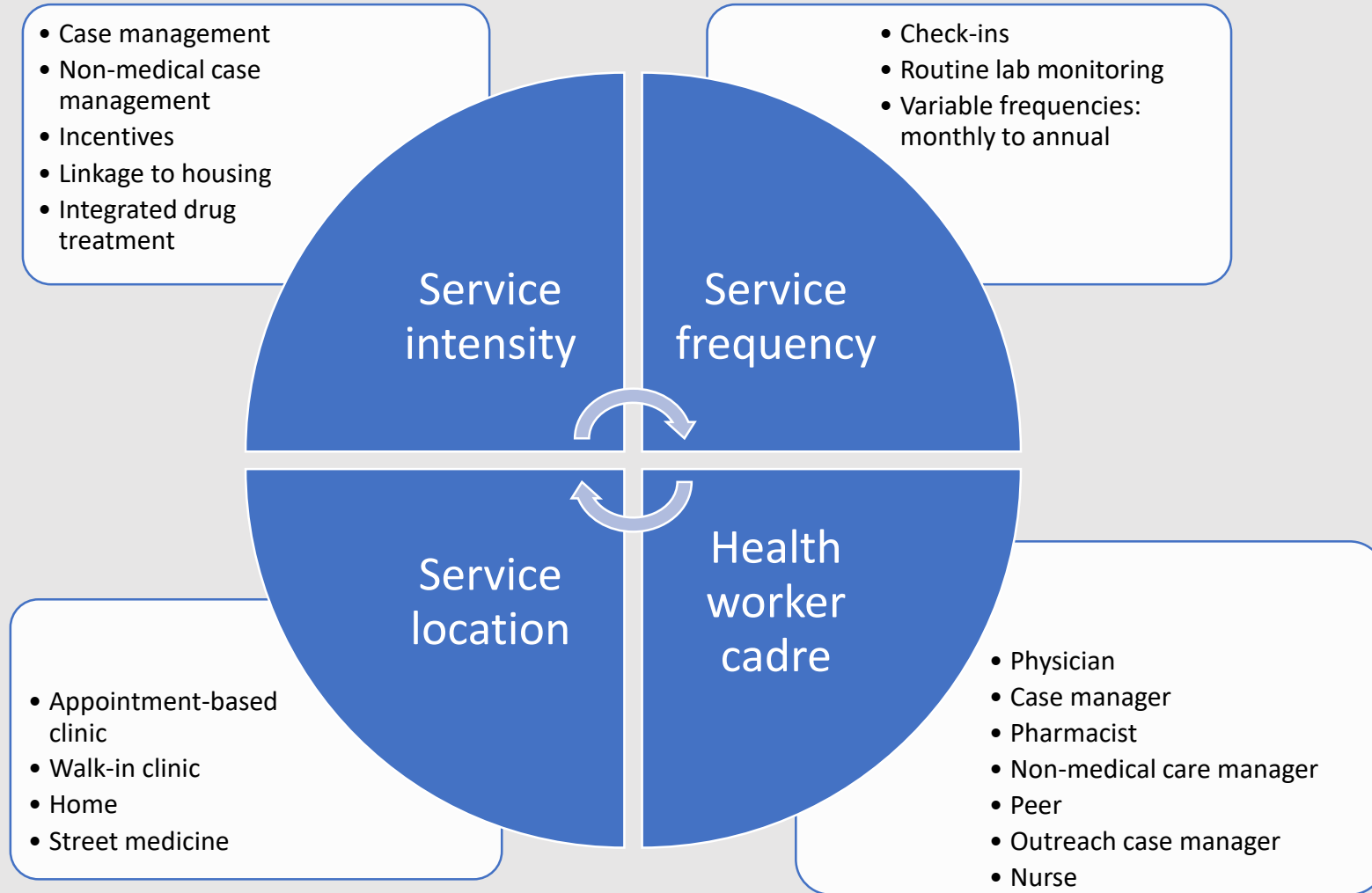
We estimate ~750 persons living with HIV are out of care or unsuppressed in King County

King County's Approach: Data to Care

Data to Care is a public health strategy that uses HIV surveillance data to identify people with HIV who are out of care or virally unsuppressed in order to re-engage them in care



What is Differentiated Care?



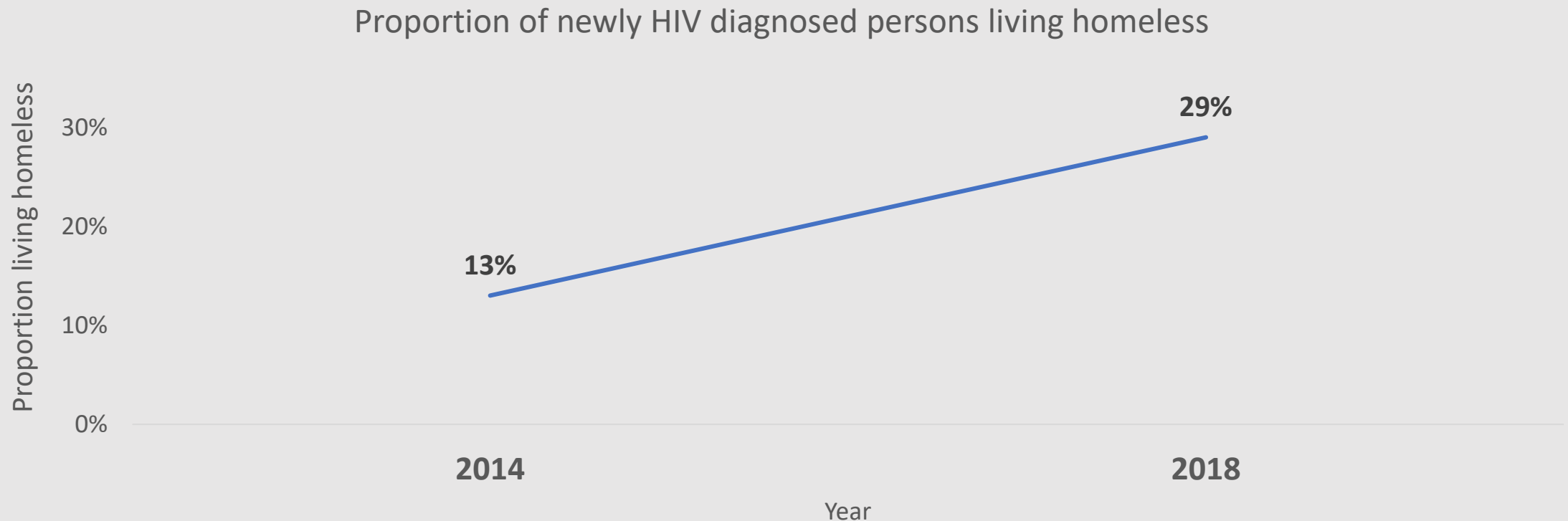
How are we utilizing models of differentiated care currently?

- Maximum intensity walk-in clinics (low-barrier)
- Moderate intensity walk-in clinics
- Safe, Healthy, Empowered (SHE) mobile clinic
- MSM/trans specialty care
- Ryan White Program funded care
- HIV specialty care



Why the need for differentiated care?

Increasing social marginalization of HIV...



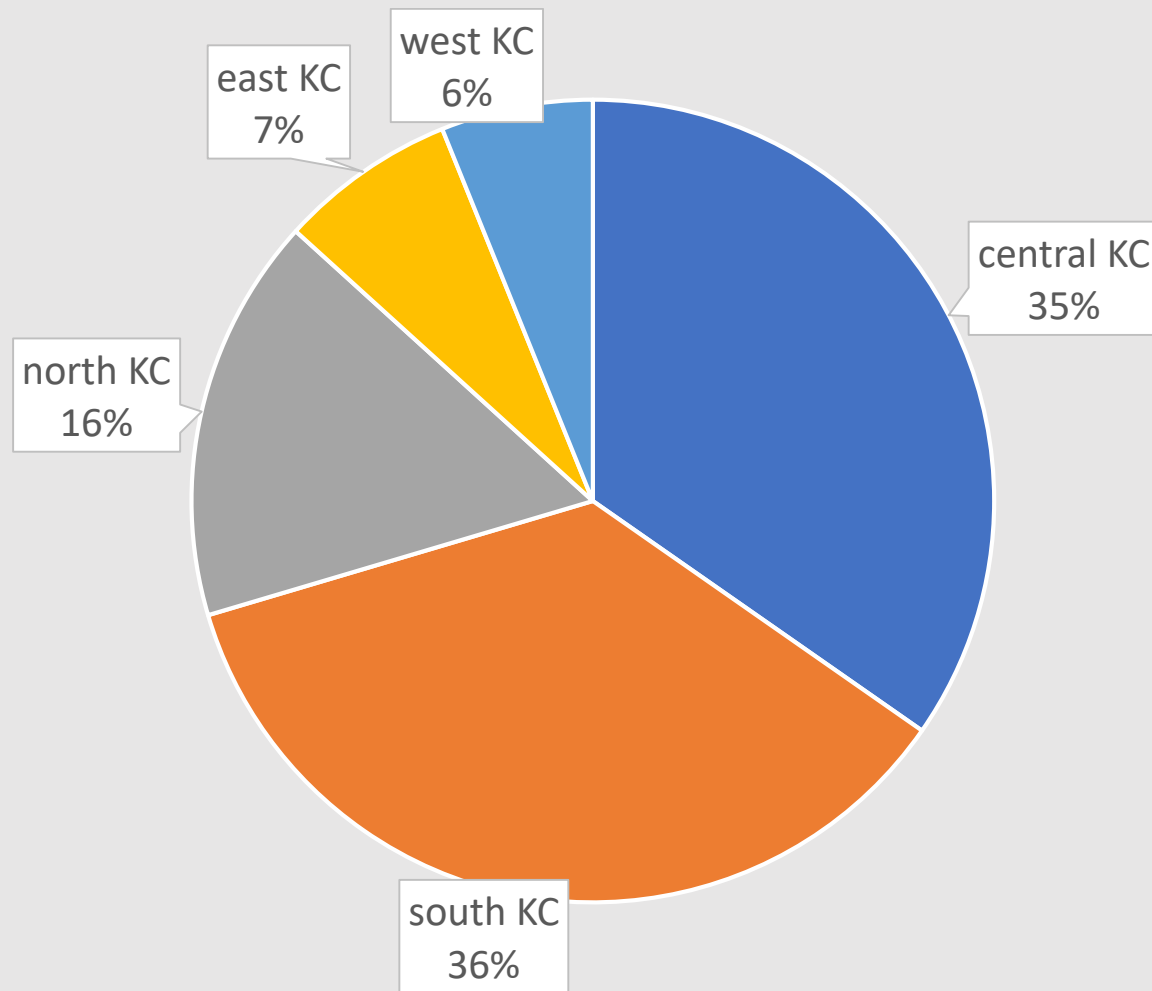
Unstable housing is the strongest predictor of failure to achieve viral suppression 12 months after a new HIV diagnosis

So who is out of care or unsuppressed?

Compared to the overall population of diagnosed PWH, **out of care/virally unsuppressed persons** are:

- **Younger**
- More likely to be **U.S.-born Black**
- Lower levels of **income** and **education**
- Less likely to be stably **housed**

Residential location: out of care or unsuppressed



We estimate that 22 –37% of OOC and unsuppressed PWH are living homeless

Pillar Two: Local activities

Treatment

- Data to care
- Differentiated care
- Supportive services
 - Adherence support
 - Drug treatment
 - Housing

Discussion

- What are your questions about the treatment data?
- What data are missing?



Pillar III: Prevent



Antiretrovirals



Syringe services



Condoms

Vaccines?

The elusive HIV vaccine: how Seattle scientists' frustration is turning to hope

Originally published July 18, 2016 at 6:00 am | Updated July 18, 2016 at 9:22 am



HIV RESEARCH (3:13)
Without HIV vaccine volunteers, 'We would not have a team'

The people battling HIV include the scientists and doctors working in state-of-the-art labs in Seattle and Cape Town, and the volunteers in South African townships enrolling in clinical trials. (Erika Schultz & Corinne Chin / The Seattle Times)

We traveled to South Africa to show you the new, critical research — led by Seattle scientists — that could wipe out HIV. Thousands of volunteers are being recruited to enroll in clinical trials.

Monday, February 3, 2020

Experimental HIV Vaccine Regimen Ineffective in Preventing HIV



"An HIV vaccine is essential to end the global pandemic, and we hoped this vaccine candidate would work. Regrettably, it does not," said NIAID Director Anthony S. Fauci, M.D. "Research continues on other approaches to a safe and effective HIV vaccine, which I still believe can be achieved."



Antiretrovirals



- **Treatment as prevention (TasP):** treat persons with HIV until they have an undetectable viral load
- **Pre-exposure prophylaxis (PrEP):** treat persons not living with HIV at ongoing risk of HIV acquisition to protect against HIV acquisition
- **Post-exposure prophylaxis (PEP):** treat persons not living with HIV with immediate, single HIV exposure to protect against HIV acquisition
- **Post-exposure prophylaxis in-pocket (PIP):** provide post-exposure prophylaxis prescription for persons not living with HIV with 0 – 4 HIV exposures per year (new!)



Who is using PrEP?

- **Men who have sex with men**
 - PrEP use reported by 49% of MSM at high HIV risk*
 - PrEP use reported by 27% of all sexually active MSM
- **Transgender, non-binary, genderqueer people who have sex with men**
 - PrEP use reported from 8 – 35% current use & 15 – 38% ever use
- **Persons who use injection drugs**
 - PrEP use under 1%
- **Women who exchange sex**
 - PrEP use reported from 1 – 2%

*In King County, “high-risk MSM” are defined as HIV-uninfected MSM with any: methamphetamine/popper use, 10+ sex partners, non-concordant condomless anal sex, bacterial STI diagnosis in the past year.



PrEP Cascade among cis-MSM

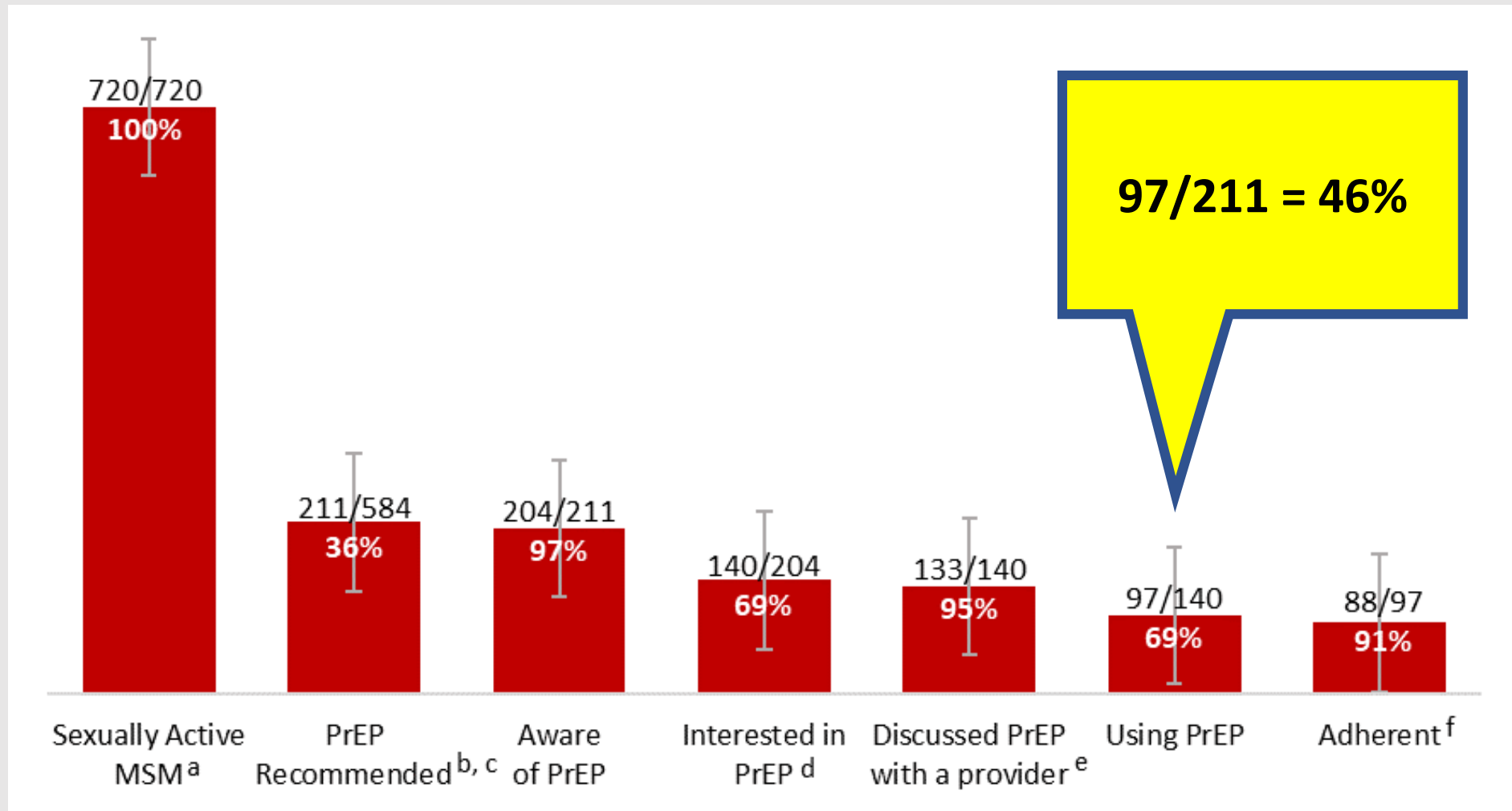
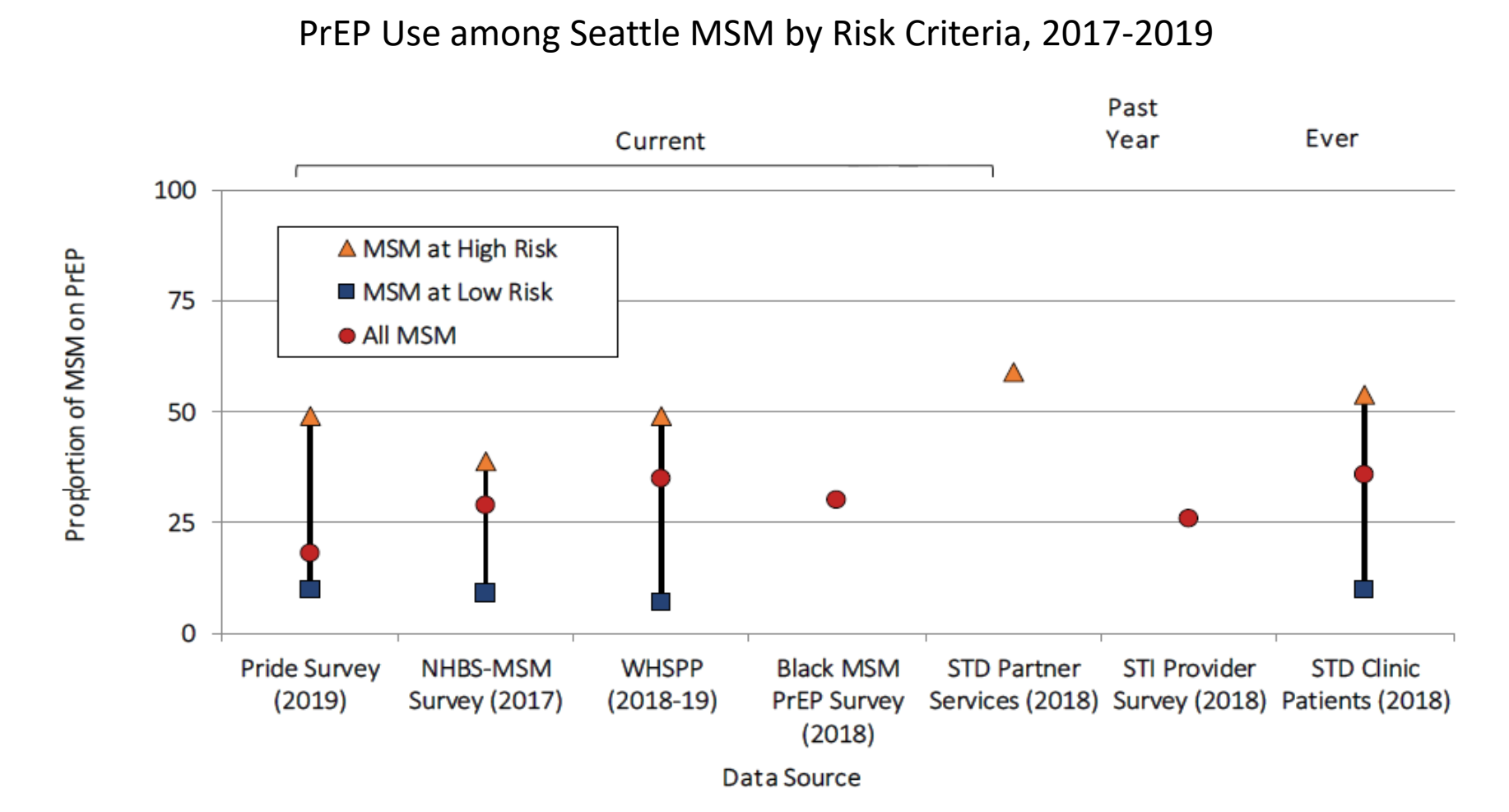


Figure 2. Washington HIV Prevention Project. Key findings, 2018-2019

PrEP use among MSM varies by risk



*In King County, “high-risk MSM” are defined as HIV-uninfected MSM with any: methamphetamine/popper use, 10+ sex partners, non-concordant condomless anal sex, bacterial STI diagnosis in the past year.

Figure 5-2. PrEP Use among Seattle Men who have Sex with Men (MSM) MSM by Risk Criteria, 2017-2019. Washington State and King County HIV/AIDS Epidemiology Report and Community Profile 2019



How to find PrEP prescribers:

Getting a PrEP prescription

Your doctor should be able to prescribe PrEP for you. [See list of local PrEP providers in King County](#) (PDF) or see map below.



Syringe Services Program (SSP)



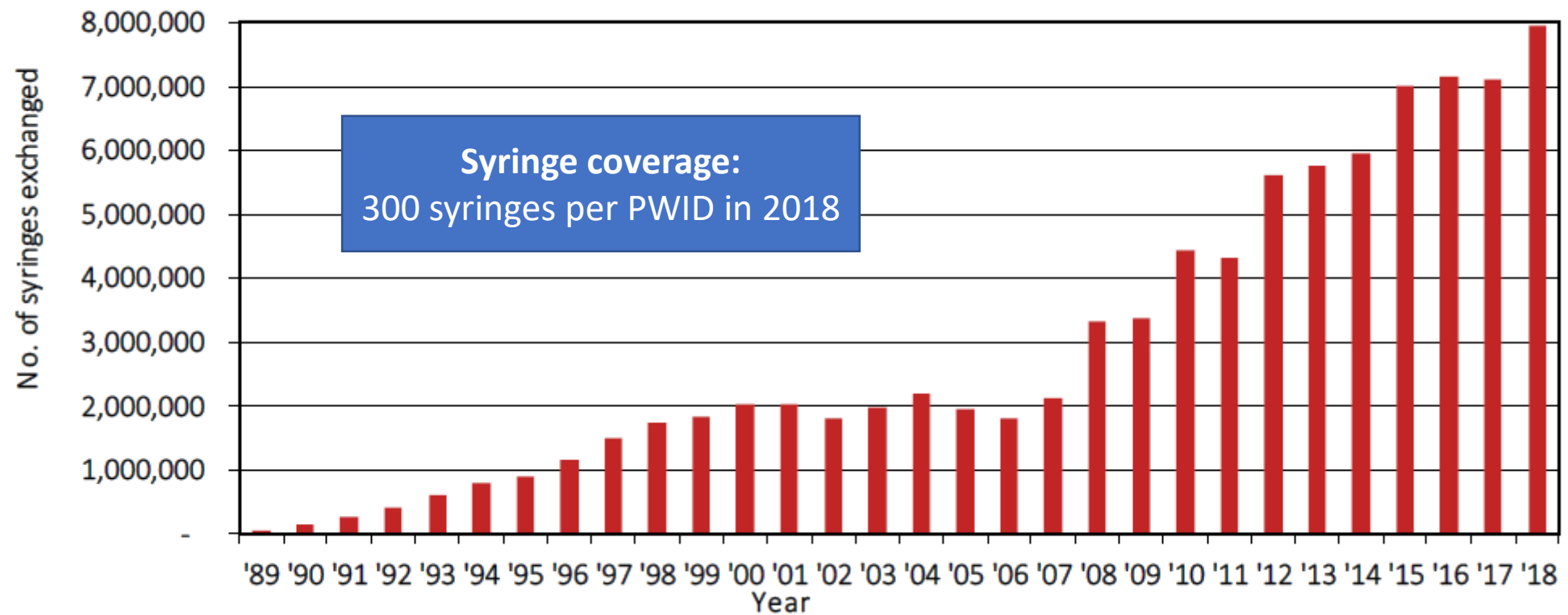
King County distributes more syringes per PWID than any other city in the U.S.

- 1st to meet WHO goal of 200+ syringes per PWID (incl. PHRA partnership)
- SSP includes:
 - substance use disorder treatment referrals,
 - naloxone training/distribution,
 - social work services,
 - wound care,
 - HIV testing (recently more SSP staff promoting testing, and all staff trained to test in 2019)



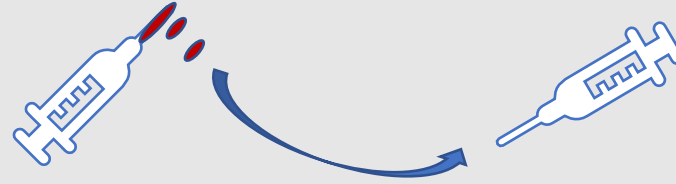
Increasing syringe exchange capacity in King County

PHSKC Syringe Distribution Volumes, 1989 – 2018





Moving the needle: Preventing HIV in PWID



HIV Testing. Increase in HIV testing in past year from 57% in 2017 to 66% in 2019

PrEP. Among clients who were not living with HIV, 51% had ever heard of PrEP and <1% had ever used PrEP

Syringe Sharing. Decrease in any reported sharing from 22% in 2017 vs. 15% in 2019

HIV Diagnosis. 6% of SSP clients reported a prior HIV diagnosis

EXCHANGE = PREVENTION

Goal: 0 new HIV infections in PWID



Gaps in injection drug use safety

Beyond the PHSKC SSP, data collected among National HIV Behavioral Survey respondents (N=555):

- 29% reported any needle sharing in past year
- 66% reported sharing cookers, cottons, water or backloading in past year
- 40% reported they had *given* their needle to 1 or more people after using it

Condoms

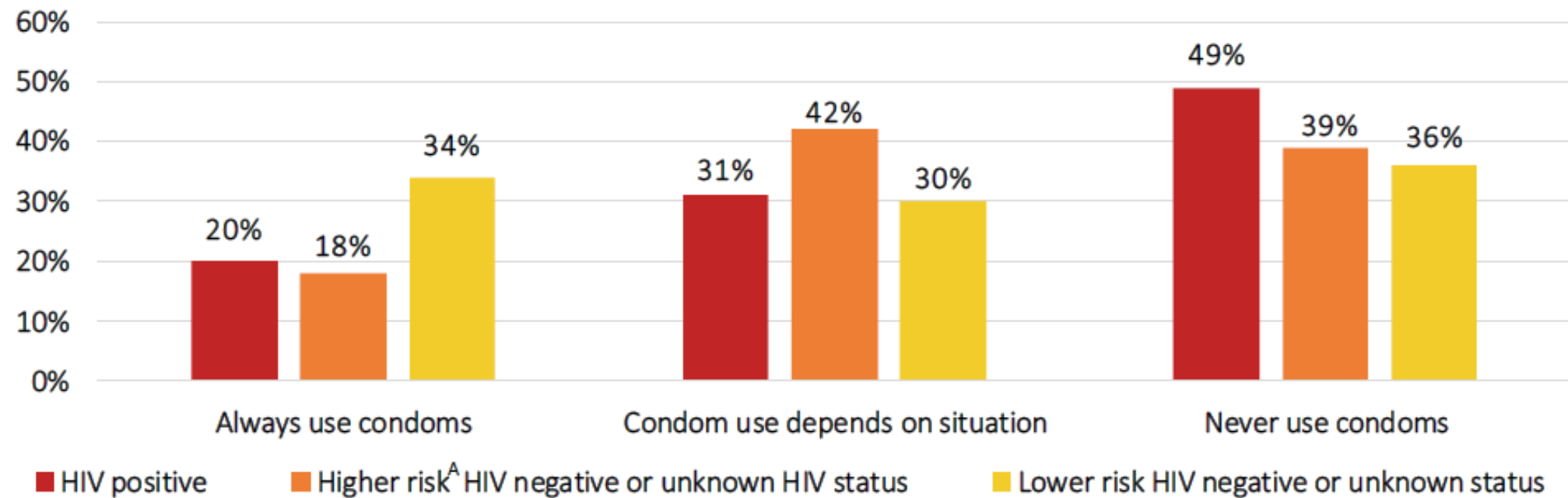


- 450,000 male condoms and 121,457 packets of lubricant distributed by PHKSC & partners in King County in 2018



Use of Condoms among MSM

Condom Use Among Men Who Have Sex with Men, 2019 Seattle Pride Survey



^A Higher risk was defined as men who reported in the past year: serodiscordant condomless anal sex, 10 or more anal sex partners, methamphetamine or popper use, or an STI diagnosis



Condom use among Youth

- **High Schoolers.** Among sexually experienced respondents, 46% of 8th graders, 54% of 10th graders, and 53% of 12th graders used a condom the last time they had sex (Healthy Youth Survey, 2018)
- **Young People.** Among heterosexual youth ages 18 to 24, 48% of sexually active youth reported condom use at last sex (BRFSS, 2019)



Free condoms in Washington

← → ↻ 🏠 🔍 <https://www.freecondomswa.com/map> 📄 ☆

FREE CONDOMS IN WASHINGTON

Search for Free Condoms by Neighborhood 🔍

1st Security Bank Different
614 Broadway E, Seattle, WA, 98102
[Hours of Operation](#)

7-Eleven
11657 Des Moines Memorial Dr, Burien, WA, 98168
[Hours of Operation](#)

Absolute Ink
11614 Ambaum Blvd SW, Burien, WA, 98146
[Hours of Operation](#)

Aids Housing Associates of Tacoma
301 N L St, Tacoma, WA, 98403

Airport Video
11732 Airport Rd, Everett, WA, 98204

Alianza Youth Leadership
600 1st Ave, Seattle, WA, 98104

All Brands Liquor
14227 Tukwila International Blvd, Tukwila, WA, 98168
Must be 21

All Fitness Kent
21028 84th Ave S, Kent, WA, 98032

Map Legend hide legend

- Condom Cube
- Free Condoms

Go to: <https://www.freecondomswa.com/map>

Prevention EXPANDED

- ✓ ARV: PrEP, PEP, & TasP
- ✓ Syringe services
- ✓ Condoms
- SUD MOUD
- PMTCT/neonatal screening
- Nosocomial/universal precautions
- Blood/tissue/organ/semen screening
- Social determinants of health
- Serosorting
- Vaccines!
- Prevention of morbidity & mortality

Discussion

- What are your questions about the prevention data?
- Where do you see prevention data gaps?



Pillar IV:
Identify
clusters and
respond

Identification:



Partner services



Molecular
detection



Time-space
proximities

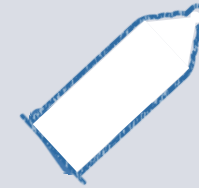
Response:



HIV testing



Syringe services

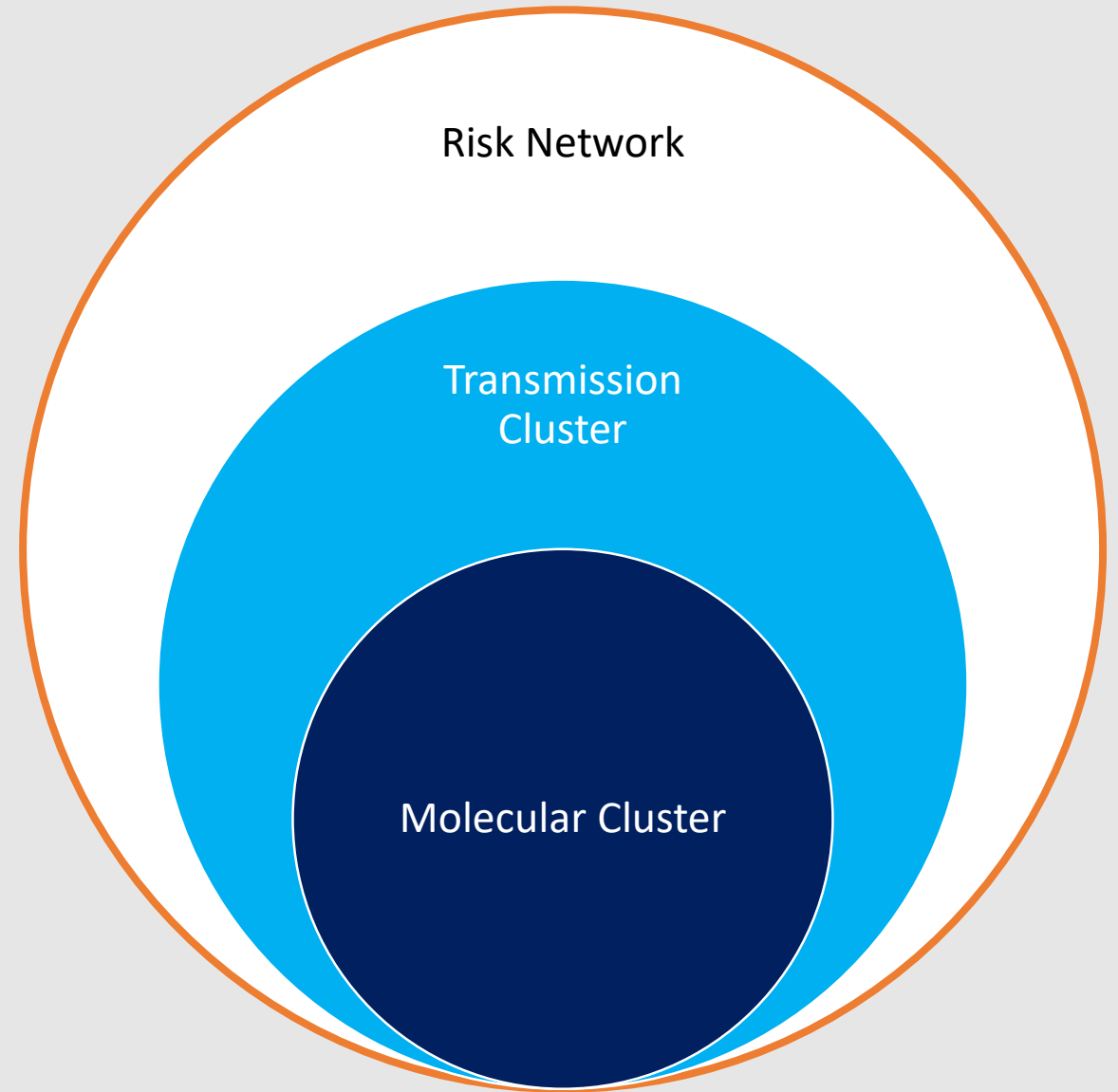
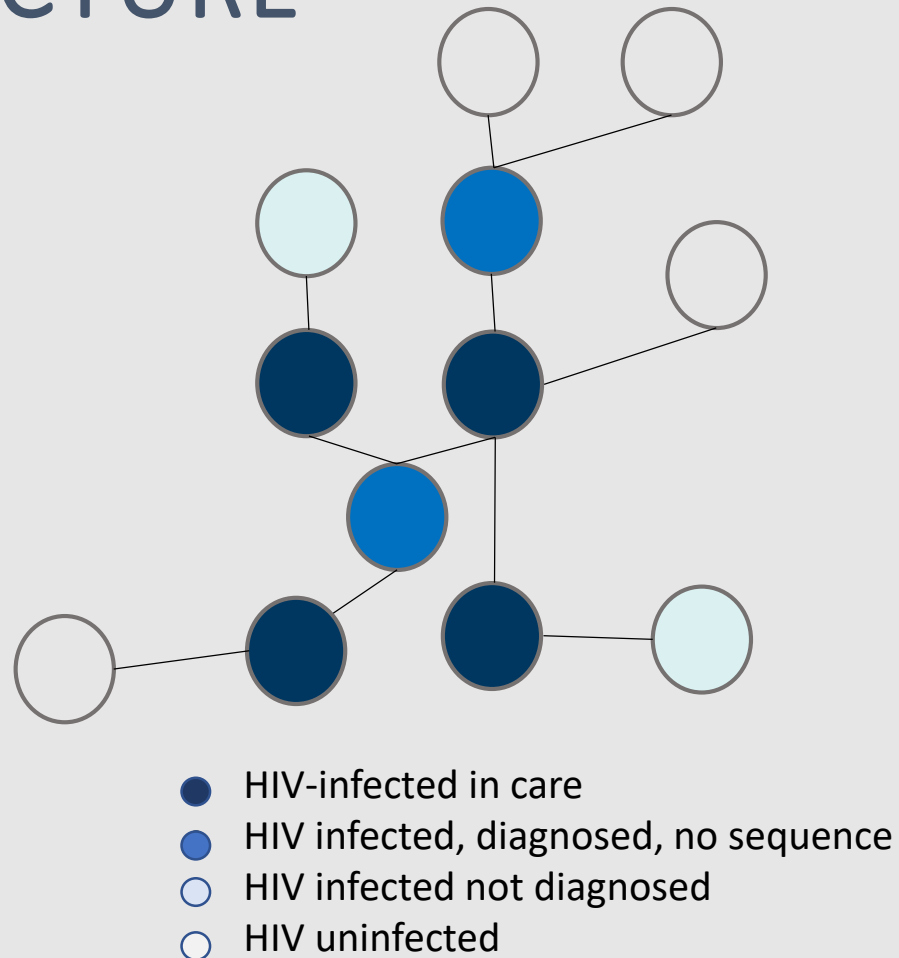


Condoms

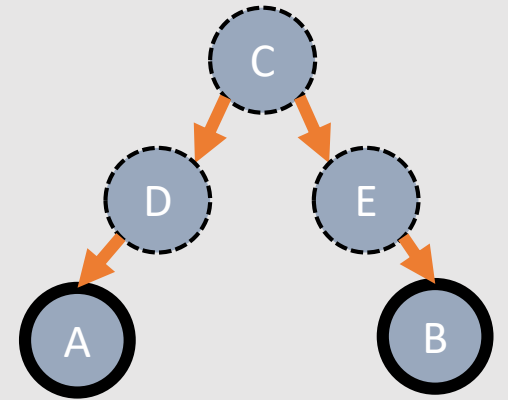
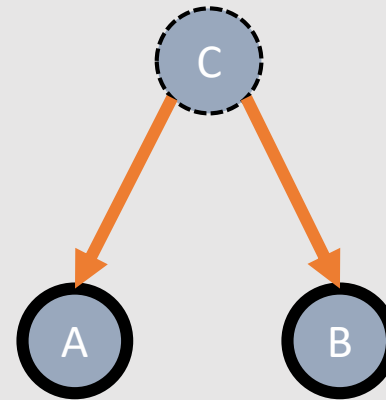
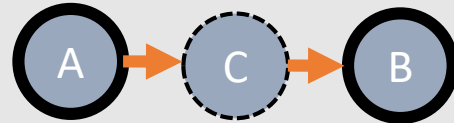
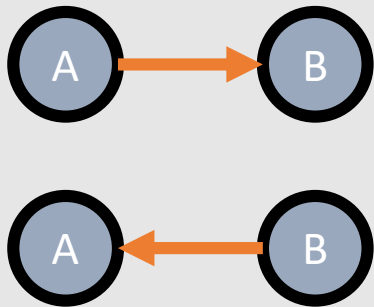


Antiretrovirals

MOLECULAR CLUSTERS: ONLY PART OF THE PICTURE

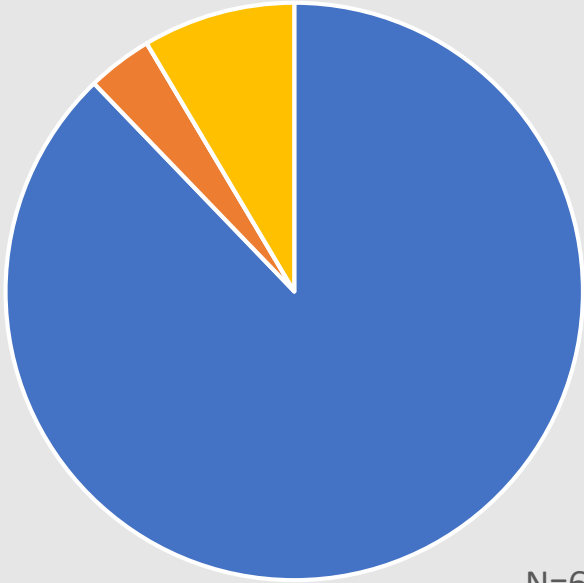


Genetic Relatedness \neq *Direct* Transmission



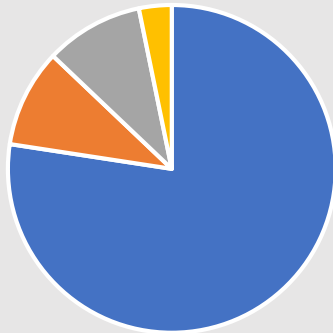
HIV molecular clusters in King County

N=82; 4 new

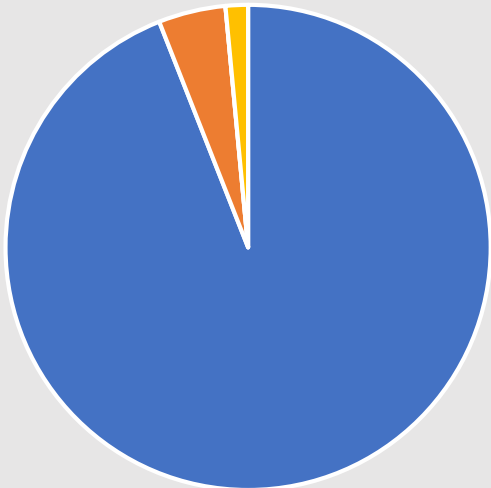


■ %MSM ■ %MSM-IDU ■ %IDU ■ %Other

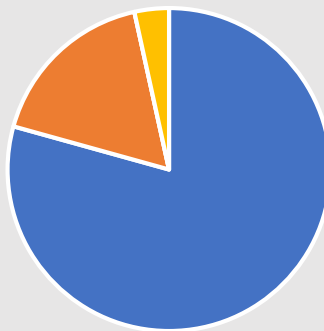
N=31; 6 new



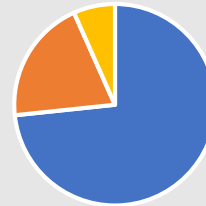
N=67; 4 new



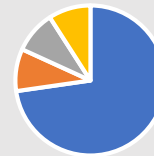
N=29; 8 new



N=15; 3 new



N=11; 3 new



N=6; 3 new

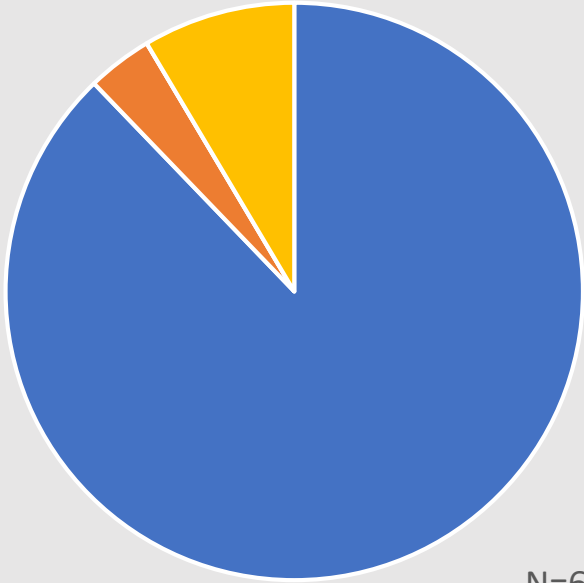


48

Includes clusters with >10% King County residents. New diagnoses are among persons diagnosed in last 12 months.

HIV molecular clusters in King County

N=82; 4 new

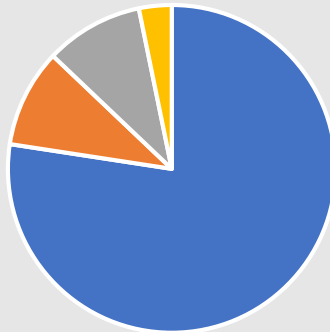


■ %MSM ■ %MSM-IDU ■ %IDU ■ %Other

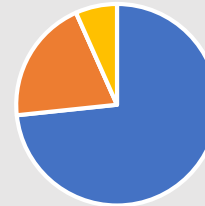
N = 24; 4 new



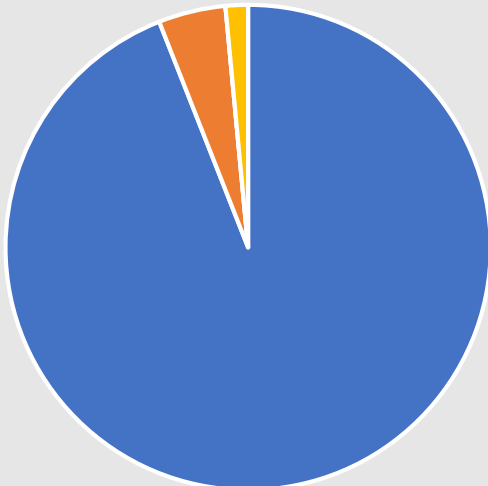
N=31; 6 new



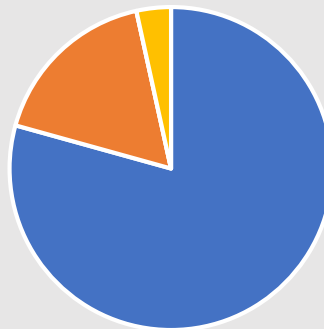
N=15; 3 new



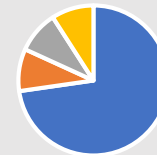
N=67; 4 new



N=29; 8 new



N=11; 3 new



N=6; 3 new



HIV outbreaks and clusters among PWID since 2015

King County, WA
27 HIV cases from IDU in 2018 (up from 7 in 2017)

Partner Services Identified

Multnomah County, OR
42 HIV cases mostly from IDU in Jan 2018 – June 2019 (up from 25 in 2016-2017)
(<https://www.oregon.gov/oha>)

Scott County, IN
237 HIV cases from IDU in 2014-2015 (up from 5 in 2004-2013)
(<https://secure.in.gov/isdh/>)

Providers Identified

Cabell County, WV
80 HIV cases from IDU in 2018-2019 (up from <5 annually)
(Source: news media, 10/1/19)

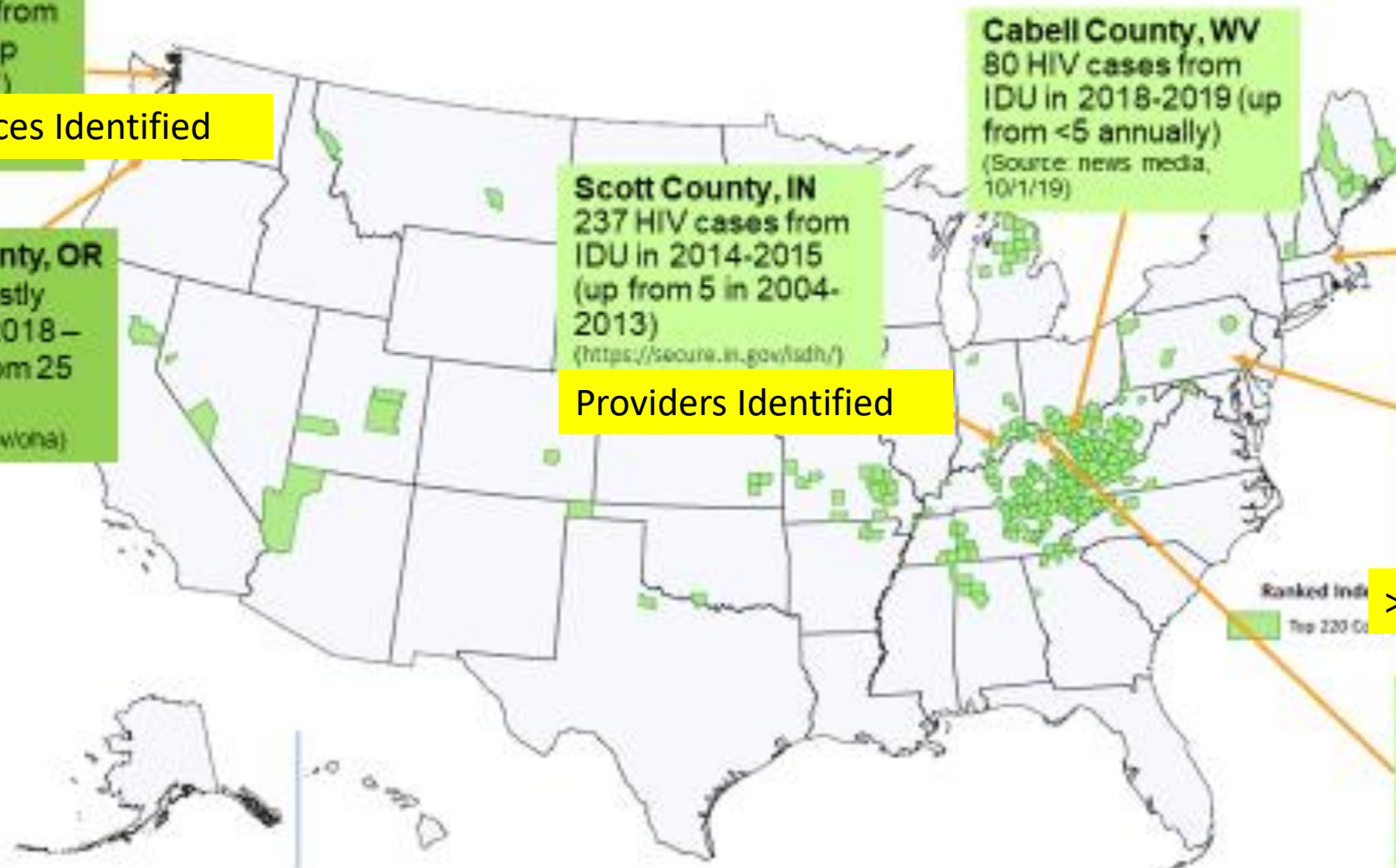
Lowell and Lawrence, MA
129 HIV cases from IDU in Jan 2015 – June 2018 (up from <1 per month in Lawrence in 2014-2015)

Providers Identified

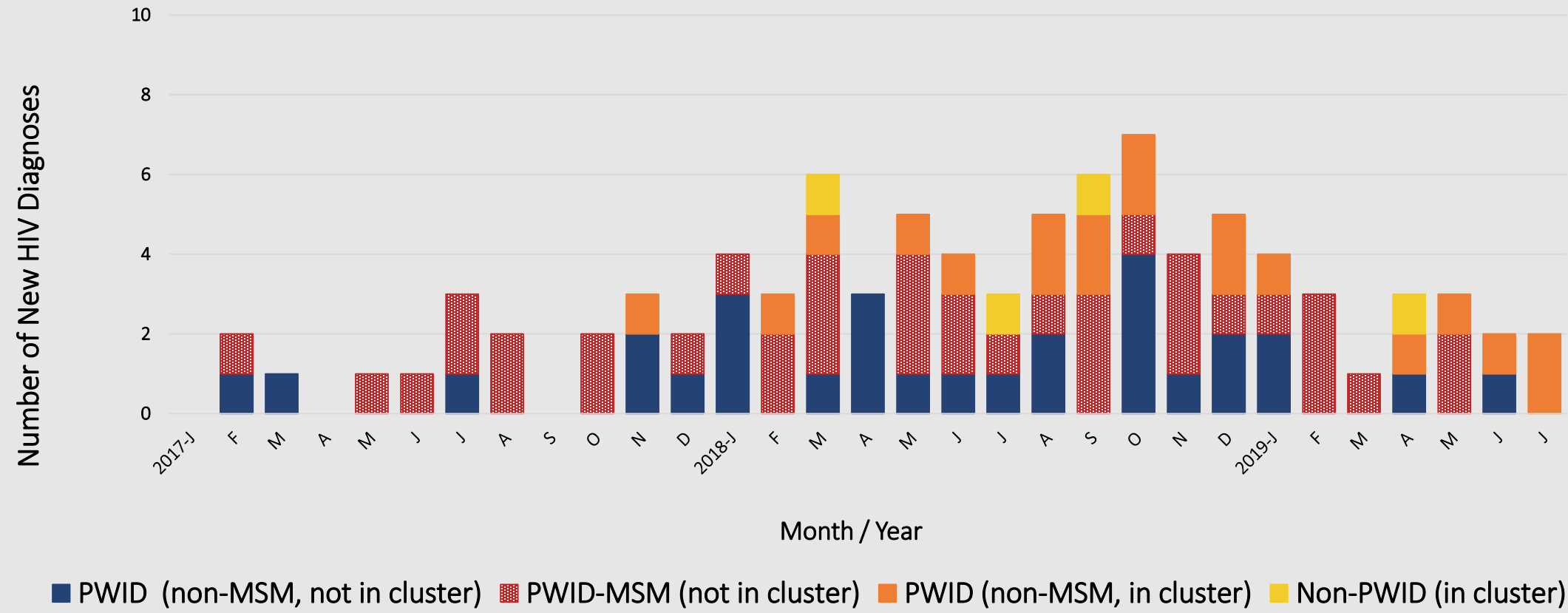
Philadelphia, PA
46 HIV cases from IDU in Oct 2017 – Sept 2018 (up from 31 in prior year)

> 20% Identified in jails

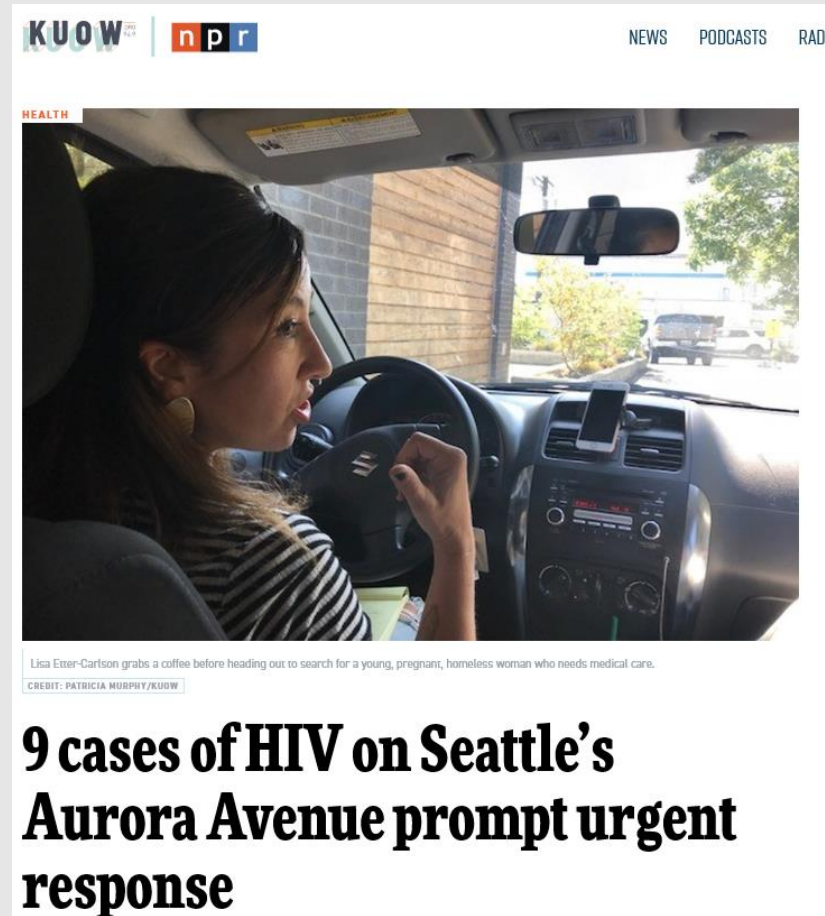
Northern KY/OH
154 HIV cases from IDU in Jan 2017 – Oct 2018 (up from <20 annually)
(Source: Vogel et al 2019, NHPC 2019)



Increases in HIV diagnoses, King County, 2017—2019



HIV cluster highlights disparities in care



RESPONSE

- Field workers helped all get medical care
- Increased outreach including jails & E.D.s
- Street & Mobile services
- More syringe services
- Increased PrEP and care promotion
- No new diagnoses since July!



Ending the HIV Epidemic: Cluster Detection Is Critical



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

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



Protect people at risk for HIV using potent and proven prevention interventions, including PrEP, a medication that can prevent HIV infections.



Respond rapidly to detect and respond to growing HIV clusters and prevent new HIV infections.



GOAL:

75%
reduction
in new HIV
infections
in 5 years
and at least
90%
reduction
in 10 years.



Discussion

- Do you have questions about cluster identification data?
- What data would you like to see regarding cluster detection and response?

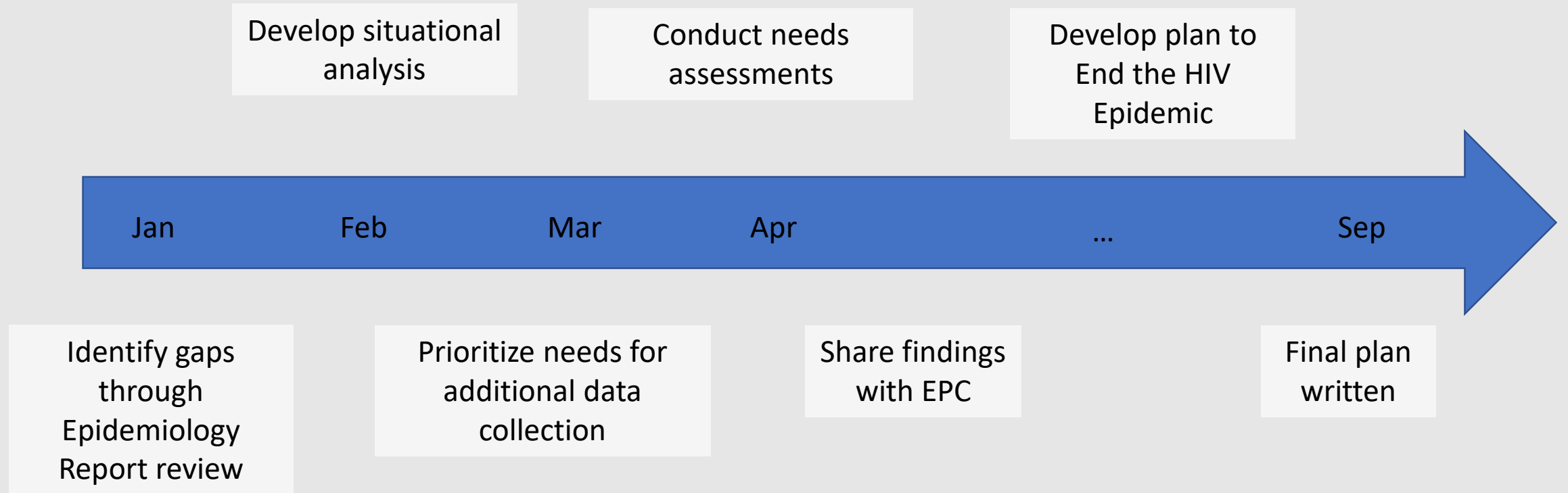


Consider for the next EPC Meeting

- **Review the Epi Profile (this session) and the draft Situational Analysis**
- **Come prepared to share and discuss:**
 - What remaining questions do you have about HIV prevention and care in King County?
 - What additional data you would like to see?
 - Populations of interest
 - Geographic focus
 - Social determinants of health
 - Current interventions and activities

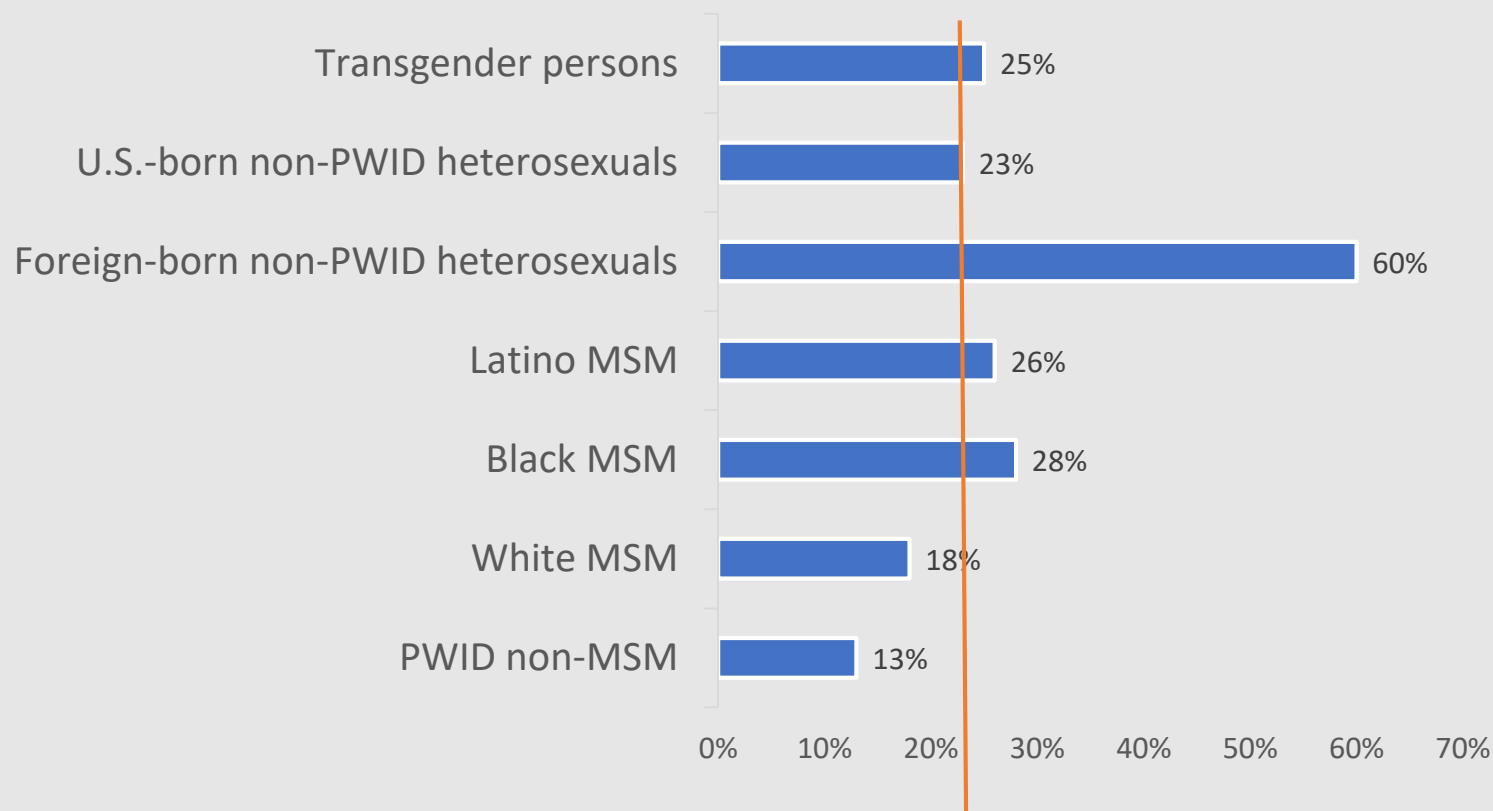
Extra slides

Timeline: where are we going next?



Late HIV diagnosis common among foreign born

Proportion of persons diagnosed with AIDS within 12 months of HIV diagnosis



Overall, 22% of persons diagnosed with HIV in 2017 were diagnosed with AIDS within 1 year

Needs Assessments

In progress (RWPA Planning Council)

- PWH not in care, or recently reengaged

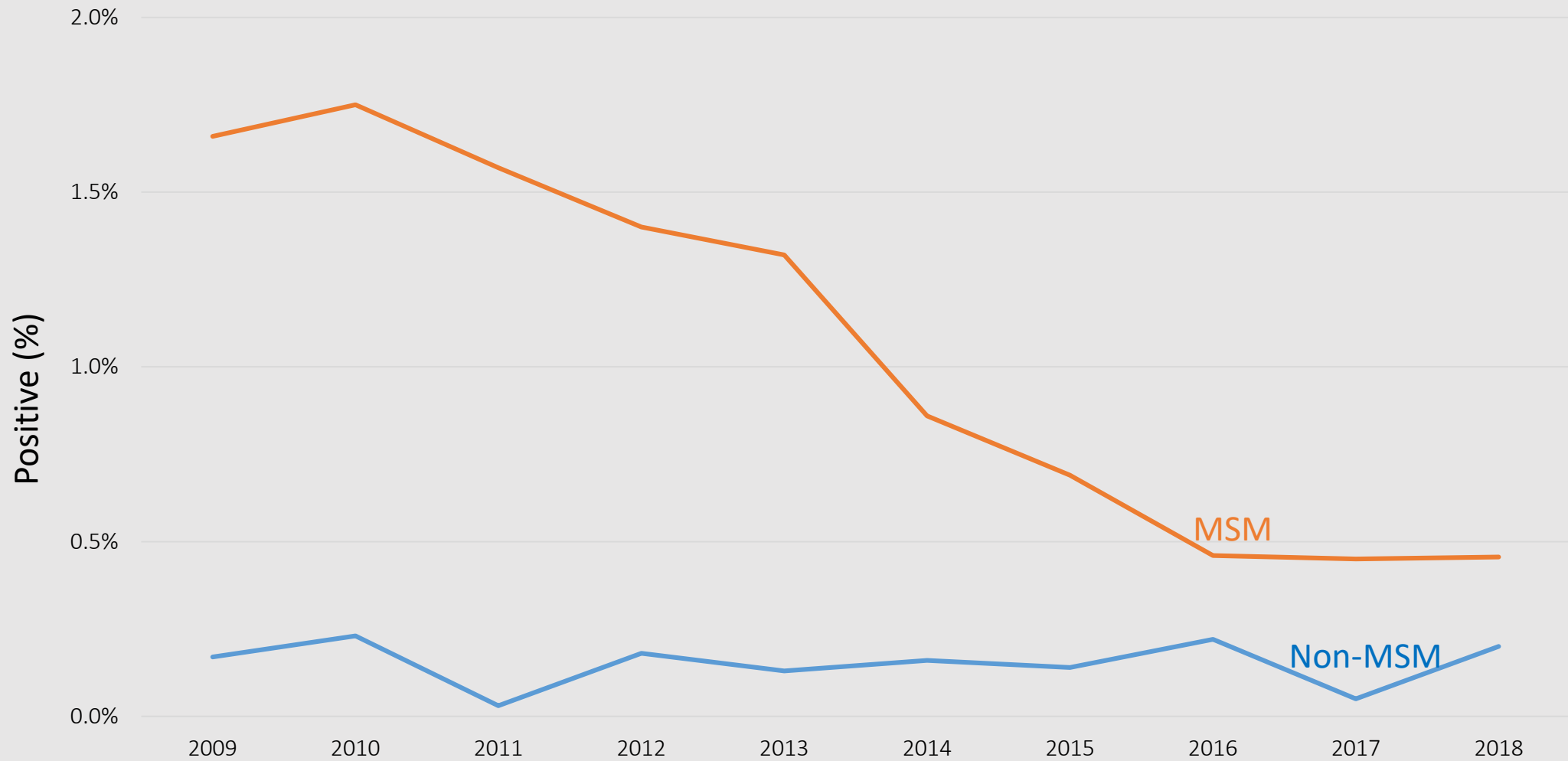
Planned (RWPA Planning Council)

- Native Americans and Alaska Natives
- South King County

Done (PHSKC, UW, CBO)

- N Seattle PWID
- Aurora Commons

Increasing HIV positivity among non-MSM, 2018



HIV testing more recent among MSM

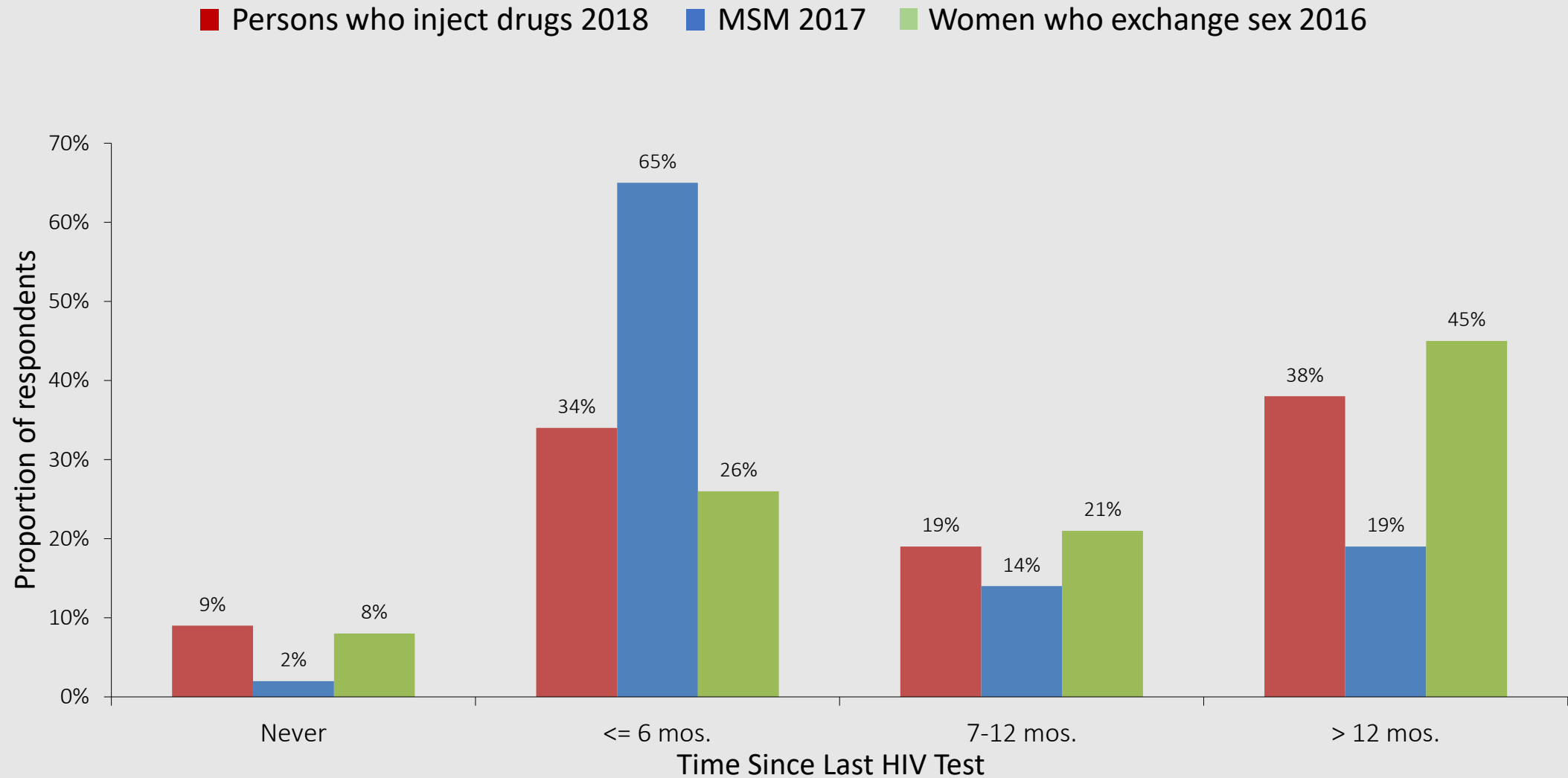
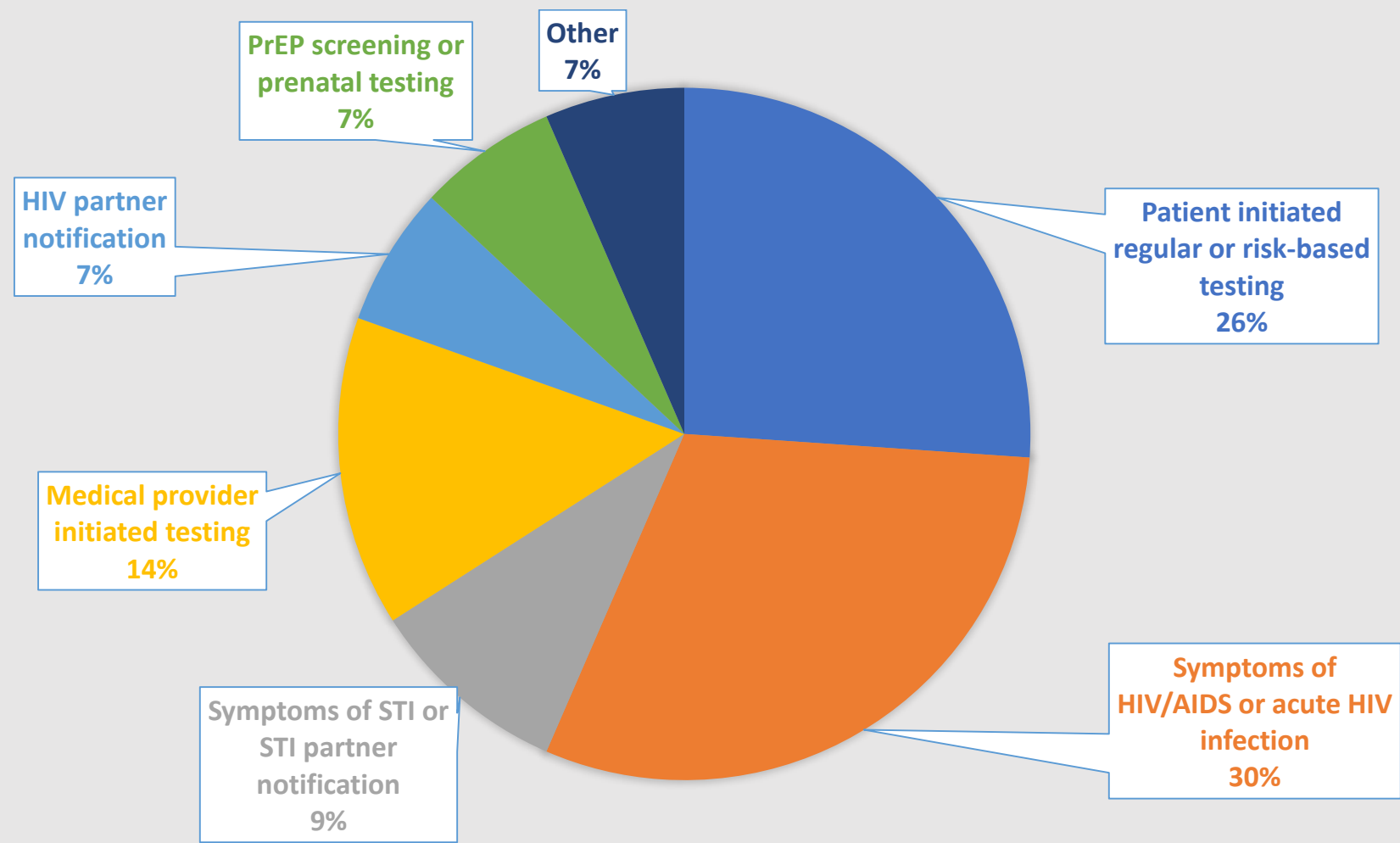
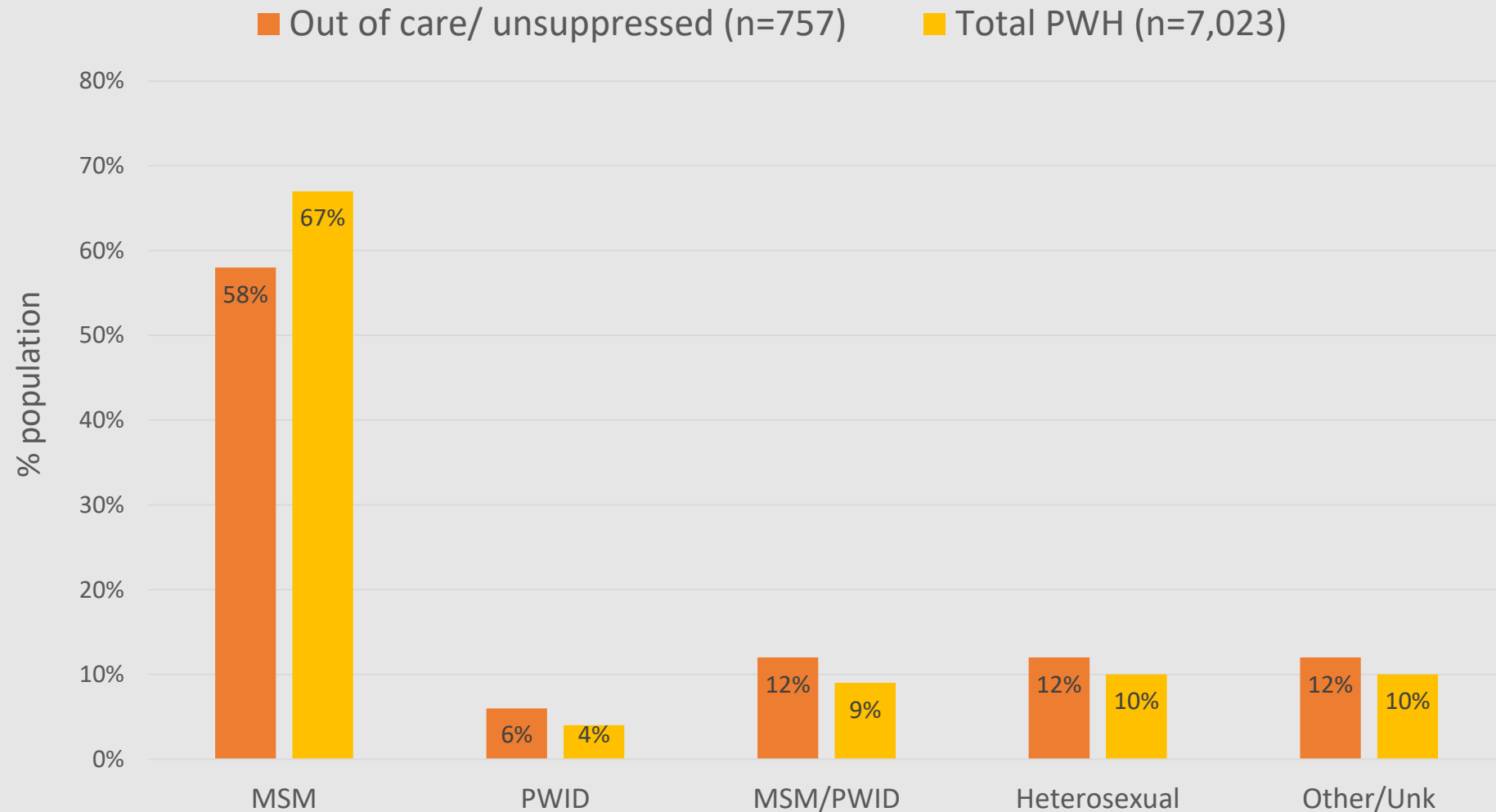


Figure 8-1. HIV Testing History (Time Since Last HIV Test) Among Men Who Have Sex With Men (MSM), Women Who Exchange Sex for Drugs or Money (WES), and People Who Inject Drugs (PWID), Seattle Area National HIV Behavioral Surveillance System, 2016-2018. Washington State and King County HIV/AIDS Epidemiology Report and Community Profile 2019

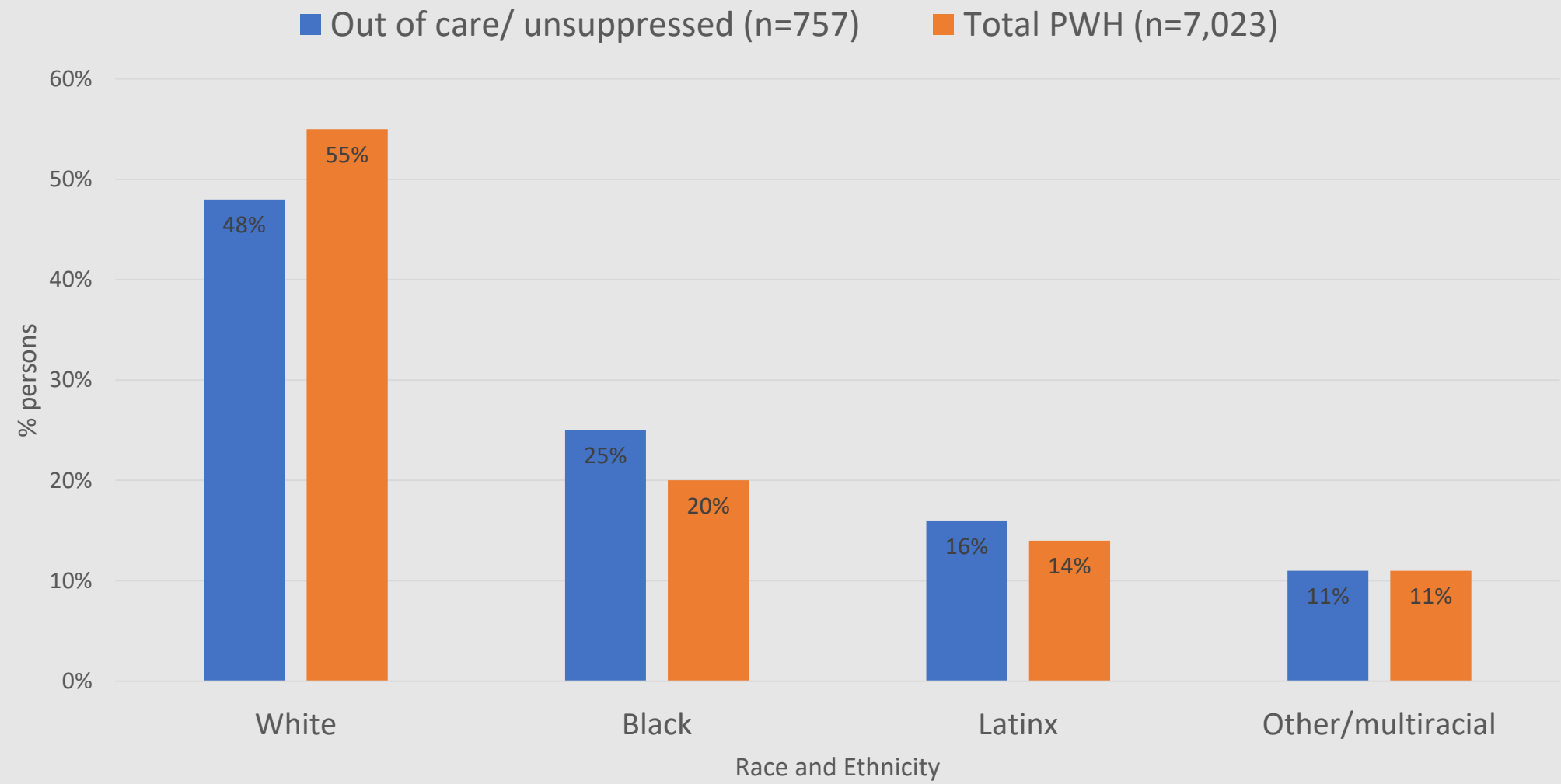
Reason for HIV Testing among persons diagnosed with HIV, 2018



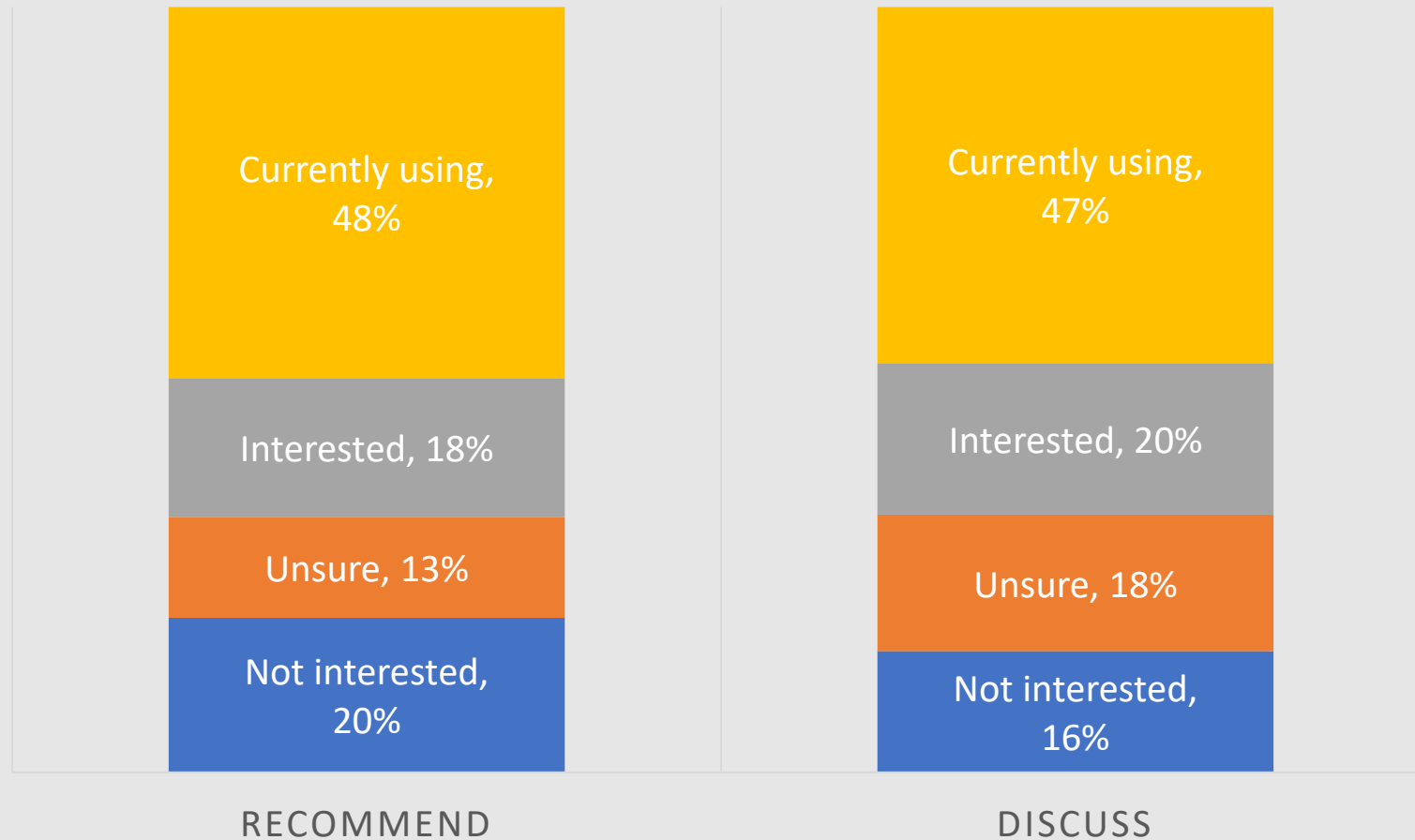
HIV behavioral risk factor: out of care or unsuppressed



Race/Ethnicity: out of care or unsuppressed

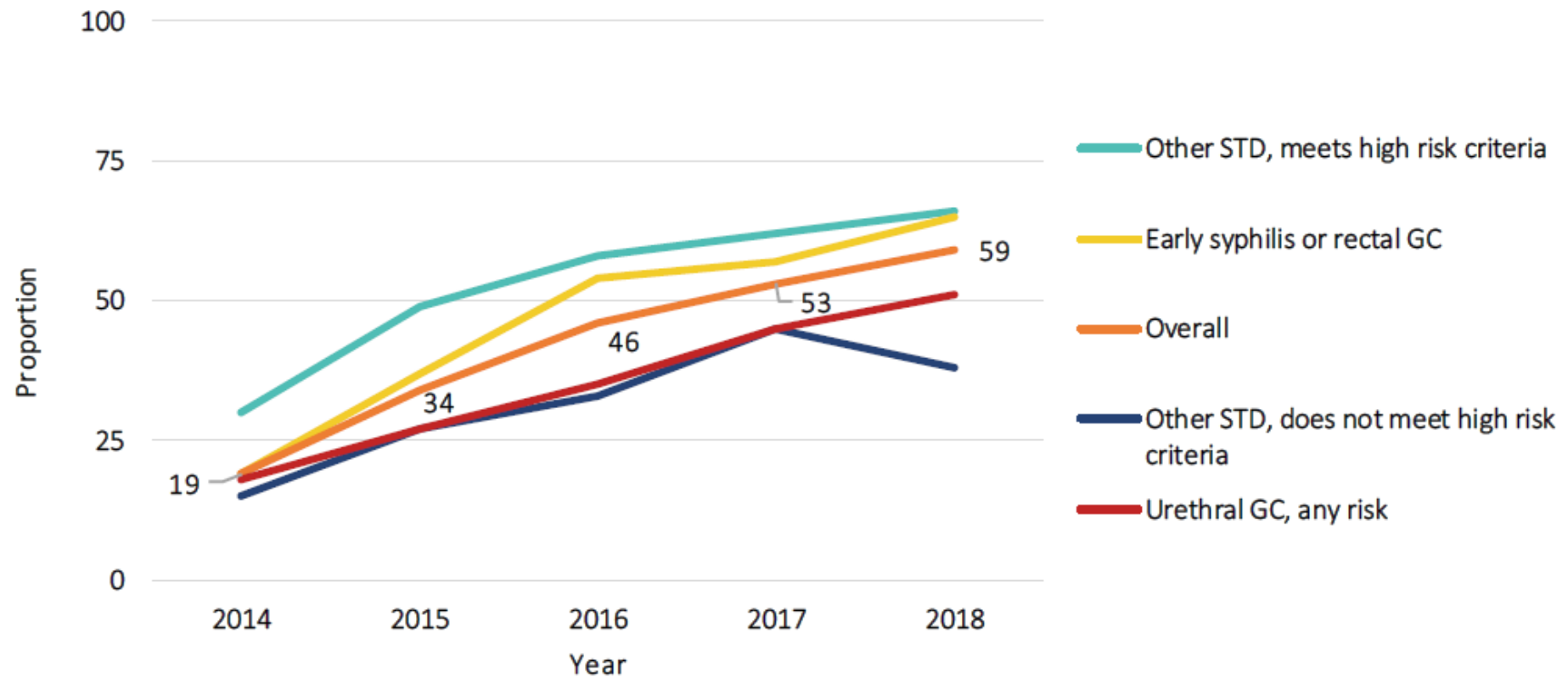


PrEP use and interest among MSM (N=449)



PrEP use has increased in at risk MSM

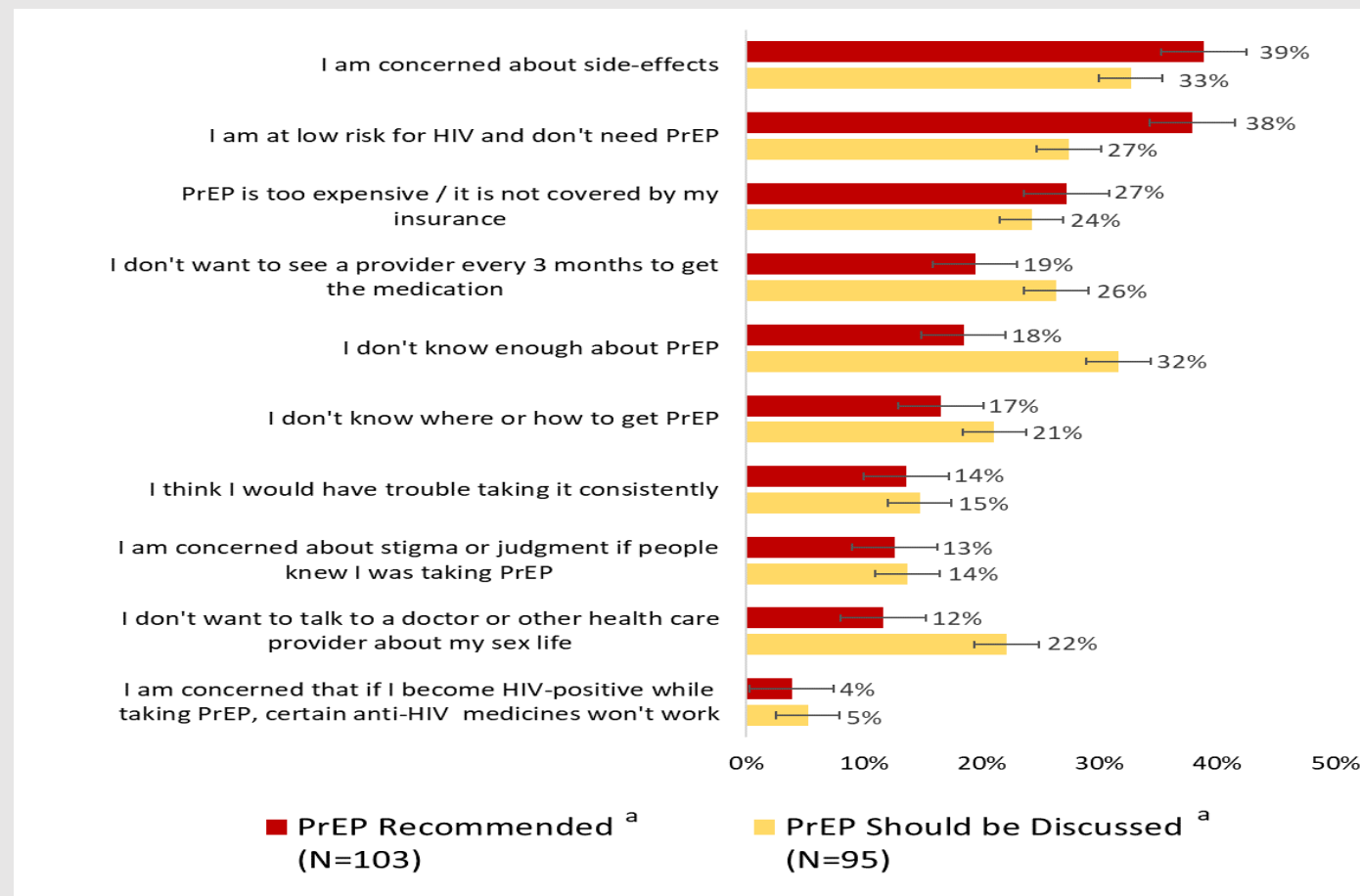
Current PrEP Usage among Men who have Sex with Men (MSM) Diagnosed with a Bacterial Sexually Transmitted Infection (STD) Completing a Partner Services Interview, 2014-2018



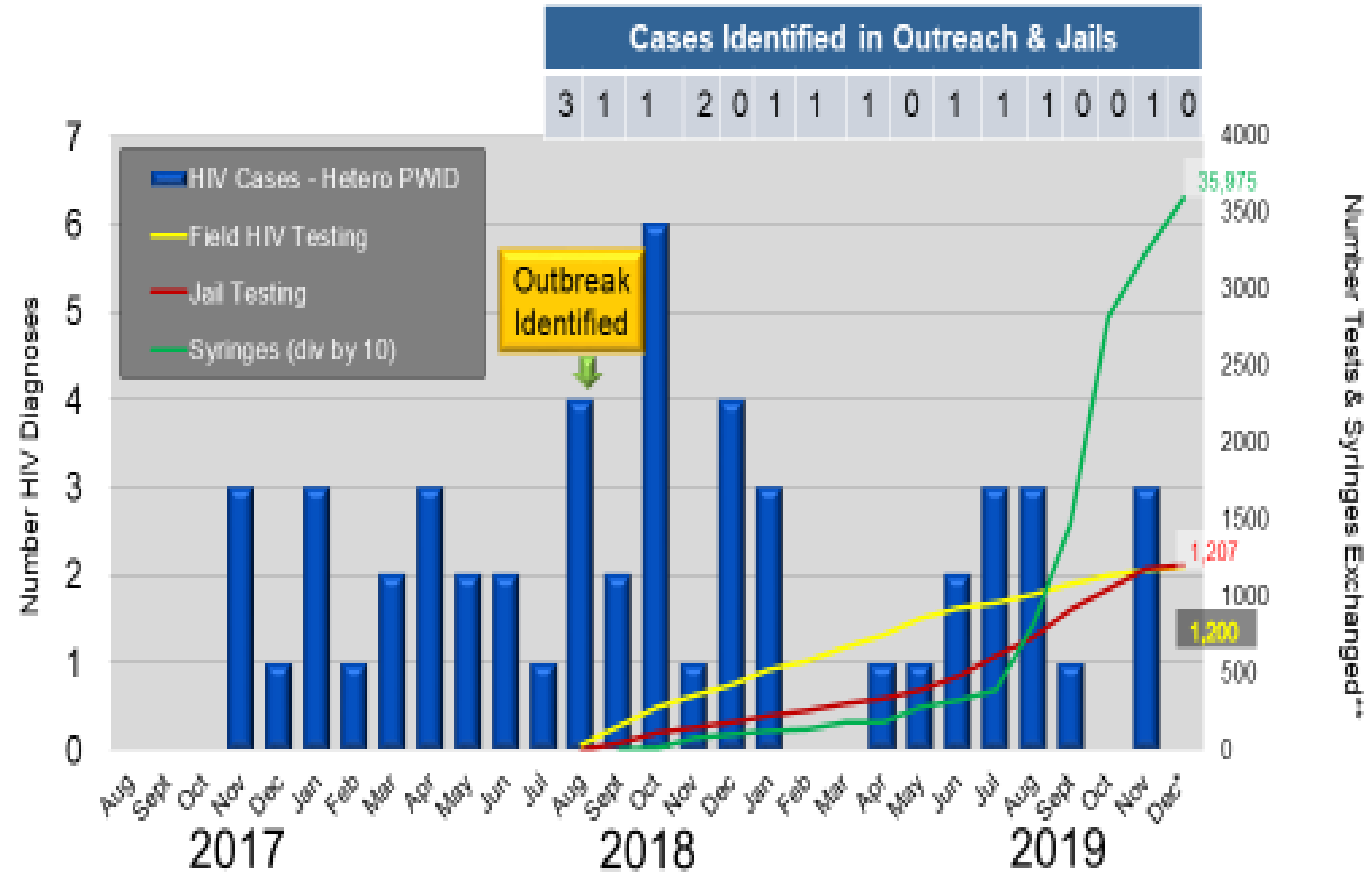
Abbreviations: STD=sexually transmitted disease; GC = gonorrhea

Why are some MSM not on PrEP who may be good candidates?

Reasons for not taking PrEP by PrEP candidacy among cisgender male respondents not diagnosed with HIV who had sex with men in the past 12 months

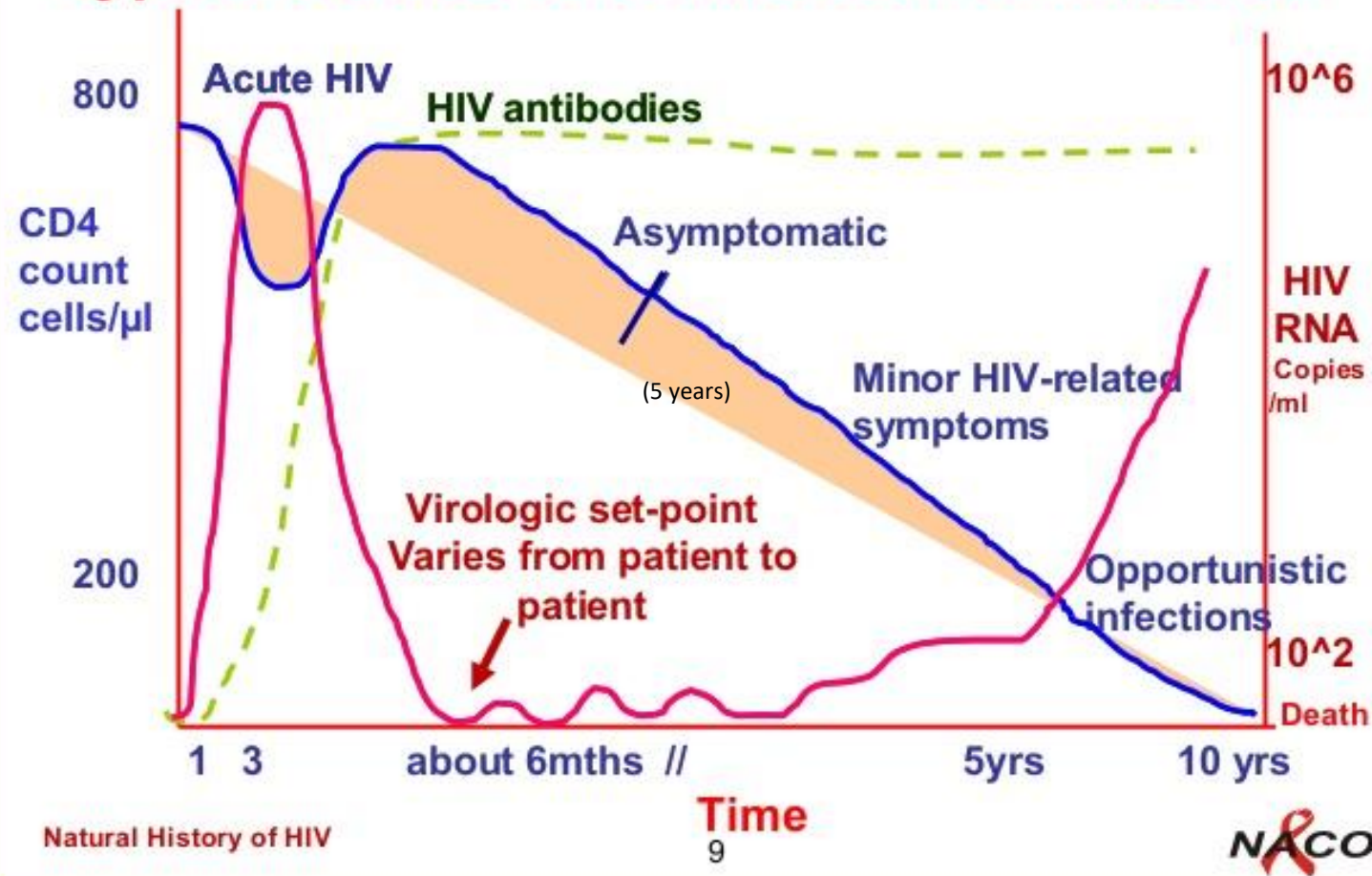


Number of Diagnoses of HIV in Heterosexual PWID & HIV Testing and New Syringe Exchange Activities



* End of 2019 numbers are subject to change; ** Number syringes are divided by 10 to fit scale of other activities; PWID = People who inject drugs

Typical Course of Untreated HIV Infection



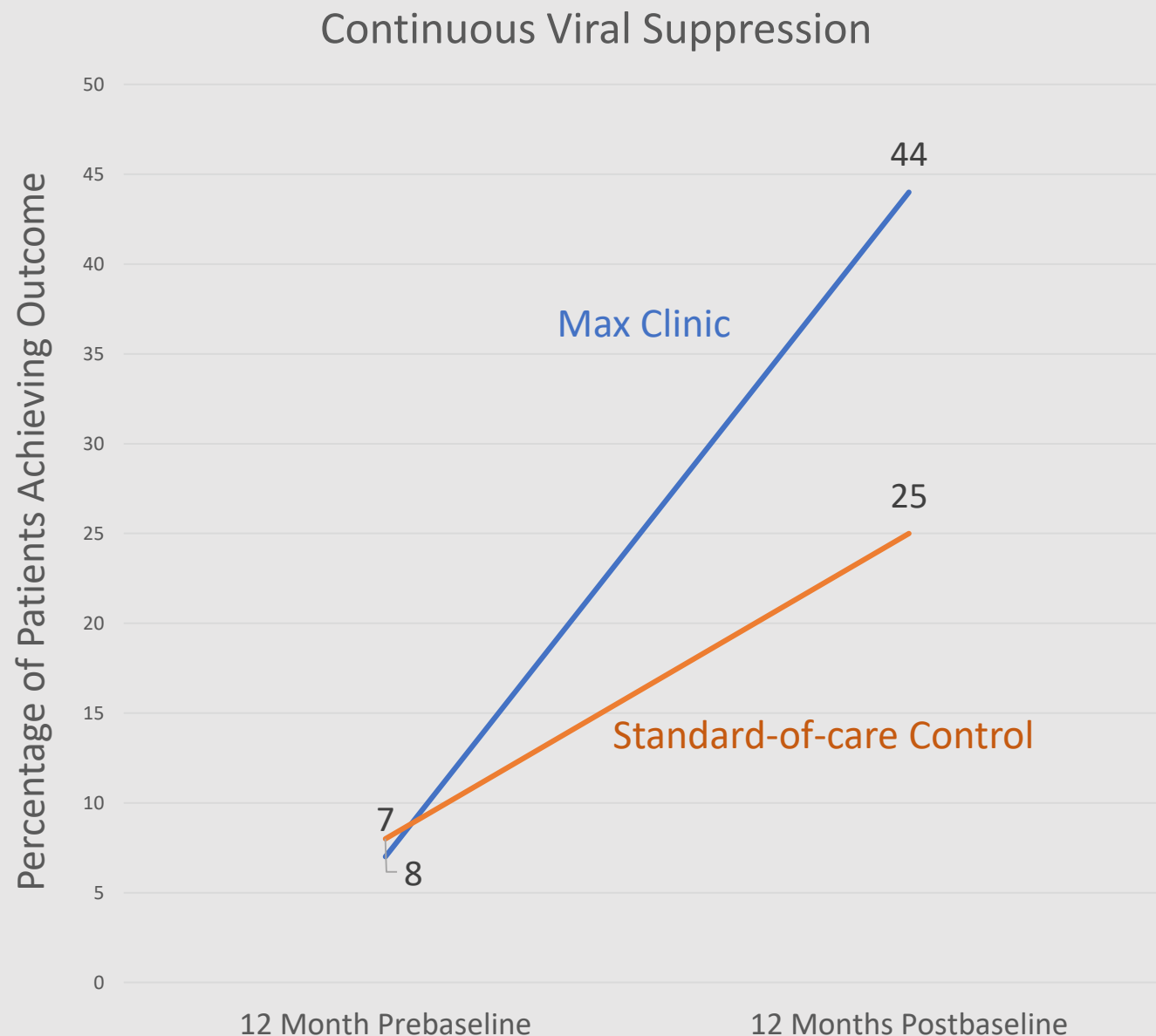
The Max clinic intervention

is designed to serve persons for whom serial efforts to engage them in HIV care has not been successful, and provides walk-in HIV care, social services, and incentives to help individuals get in HIV care, stay in care, and achieve viral suppression.

Components of the Max clinic that differ from the standard of care approach	
Low-barrier access	<ul style="list-style-type: none">• Walk-in access to medical care 5 afternoons/wk• Walk-in access to medical and nonmedical case management 5 afternoons/wk• Text message and direct phone access to case managers
High-intensity support	<ul style="list-style-type: none">• Case managers provide care coordination, navigation, and support• Case managers have low case load (~50 patients) compared with standard of care (~150 patients)
Incentives	<ul style="list-style-type: none">• Food vouchers worth \$10 up to once weekly• Snacks available at each visit• No-cost bus passes to provide unrestricted transportation support• Cell phones• Cash incentives for visits with blood draws and viral suppression
Intensified care coordination	<p>Case managers serve as primary contacts for patients, providers, and for coordination between Max Clinic and other agencies, including:</p> <ul style="list-style-type: none">• Release planning team in King County jails• Housing and mental health case management agencies• Office-based opioid treatment nurse managers and methadone providers

Evaluating the Max Clinic intervention: early results

Comparing the first 50 Max patients enrolled to 100 comparison patients at Madison clinic



Evaluating the Max Clinic intervention: lessons learned



“The key implication of our findings is that an alternate structure of HIV care can improve outcomes in hard-to-reach patients.”

*“Our impression, based on experience working with patients and the clinic’s staff, is that 3 elements of a clinic for high-need patients are essential: **walk-in** primary care visits, some type of **incentive** to encourage care attendance (not necessarily cash), and intensive **case management**.”*

-Study authors



The SHE Clinic

Colocation of clinic and
community drop-in center

Partnership between: Aurora Commons,
PHSKC, Pacific Hospital Preservation and
Development Authority, WS DOH

<https://www.auroracommons.org/programs>

- Aurora Commons:
 - Provides day-use space with accessible food, laundry, hygiene, and clothing
 - 287 women accessed in 2018; >90% report exchanging sex
- Safe, Healthy, Empowered (SHE) Clinic collocated in Aurora Commons
 - 1 day/wk mobile clinic: ID physician, nurse, medical social worker
 - Operations started July 2018



- Among first 50 SHE Clinic patients:
 - 96% report unstable housing
 - 80% report injection drug use
 - 40% diagnosed with HCV
 - 70% report transactional sex
 - 30% report condom use
 - 50% diagnosed with trichomoniasis
 - 8.5% diagnosed with HIV
 - 45% prescribed PrEP



The SHE Clinic

"Our experience highlights both the need and feasibility of developing collaborative, new approaches to providing medical care to the populations in greatest need of medical and social services."

- Authors



Dr. Shireesha Dhanireddy, photo by Grace Beck.

HIV Post-exposure prophylaxis (PEP)

- “HIV PEP, it’s like the morning after pill for HIV”
- PEP is for HIV-negative people who may have been exposed to HIV by a needle stick or unprotected sex
 - Best if started in 2-3 hours, and must be within 3 days (72 hours)
 - Continued for 28 days
- HMC Madison Clinic and Harborview ED are local PEP providers
- If multiple PEP episodes, providers encourage PrEP instead

HIV Pre-Exposure Prophylaxis (PrEP)



An option for those not living with HIV, but at risk of acquiring HIV

Washington State PrEP Implementation Guidelines

PrEP is recommended for individuals who meet the following criteria:

- Men and transgender persons who have sex with men and...
 - have been diagnosed with rectal gonorrhea or syphilis in the past 12 months
 - or used methamphetamine or poppers in the past 12 months
 - or have provided sex in exchange for money or drugs in the past 12 months
- All persons in ongoing sexual partnerships with HIV-positive partner(s) who are not taking or are within 6 months of starting antiretroviral therapy (ART), or who are not virally suppressed

Providers should discuss use of PrEP with individuals who meet the following criteria:

- Men and transgender persons who have sex with men and...
 - have had condomless anal sex (CAS)^a outside of a mutually monogamous long-term partnership with a man who is HIV negative,
 - or have been diagnosed with urethral gonorrhea or rectal chlamydia in the past 12 months
- All persons who...
 - are in ongoing sexual partnerships with HIV-positive partner(s) who have been on ART for more than 6 months and are virologically suppressed
 - or use injection drugs not prescribed by a medical provider
 - or are completing a course of post-exposure prophylaxis (PEP) for non-occupational exposure to HIV
 - are seeking a prescription for PrEP
 - or are in ongoing sexual partnerships with HIV-positive female partner(s) who are trying to get pregnant
 - or are females with a history of providing sex in exchange for money or drugs

Discussion

- What else can be done to prevent HIV?
 - In addition to condoms, SSP, PrEP, TasP, and PEP
 - Population specific
- What are the largest barriers for prevention?
 - Ideas on overcoming these?
 - Population specific



PHSKC & WA DOH HIV SCREENING GUIDELINES

ALL WA STATE RESIDENTS

- Test at least once between the ages of 18 and 64
- Test concurrent with any diagnosis of gonorrhea or syphilis
- Pregnant women should test 1st trimester
- Pregnant women who use methamphetamines, opioids, or exchange sex should test again (including syphilis) 3rd trimester

How do we know we are screening efficiently?

Questions	Metrics for Insight	Implications
Who should be testing for HIV?	<ul style="list-style-type: none">• Trends in HIV incidence (stratify by transmission risk, age, race, ethnicity, housing status, geography)• Foreign-born populations - country of origin prevalence• Clusters of related infections (partner services)	<ul style="list-style-type: none">• Implement testing in geographic hotspots• Tailor risk communication and education to transmission risk group/country of origin
How can we target testing efficiently?	<ul style="list-style-type: none">• Positivity rate	<ul style="list-style-type: none">• Test where positivity yields are highest
How to improve earlier diagnosis?	<ul style="list-style-type: none">• Late HIV diagnoses• Time of last HIV test	<ul style="list-style-type: none">• Target early screening to foreign-born persons born in high prevalence settings• Target increased screening to individuals at highest HIV risk

Percent of PPL diagnosed with HIV whom are Foreign Born (FB)

