Plan to Support Ending the HIV Epidemic in King County

Public Health – Seattle & King County and
Washington State Department of Health

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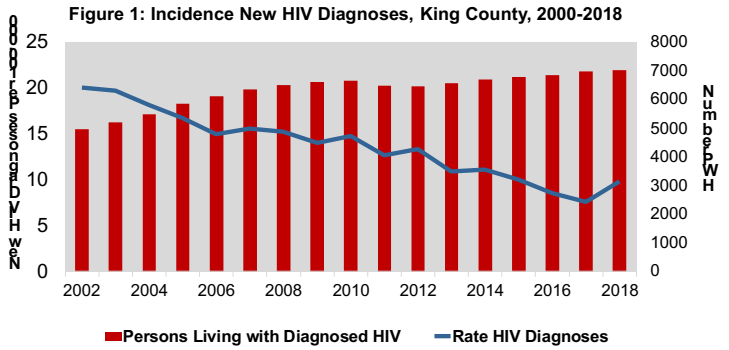
Table of Contents

SUMMARY

In 2015, King County became the first urban area in the U.S. to achieve the World Health Organization 90-90-90 objective, and in 2018 an estimated 93% of all persons living with HIV (PLWH) were aware of their status, 92% of newly diagnosed persons were linked to HIV care within one month of testing positive and 85% of diagnosed persons were virally suppressed. Our county had made remarkable progress in the fight against HIV. But our success was accompanied by a troubling trend: the social marginalization of HIV. HIV incidence continues to disproportionately affect Black and Latinx men who have sex with men (MSM), and both viral suppression and PrEP use is lower among Black MSM than among White MSM. Also, the time from contraction to diagnosis among MSM - estimated using the median HIV inter-test interval among newly diagnosed cases – has not changed for more than a decade, suggesting that our progress testing those at greatest risk for HIV has stalled. Finally, and perhaps most importantly, King County faces a new and locally unprecedented HIV epidemic among persons who inject drugs (PWID). Fueled by growing epidemics of homelessness and injection drug use, the number of non-MSM PWIDs newly diagnosed with HIV increased over four-fold in 2018, resulting in the largest one-year increase in the number of new HIV diagnoses in King County since 2002. However, the number of new diagnoses among persons with other risks, including MSM who do not inject drugs, remained stable.



King County confronts a new HIV epidemic, one that will require a new plan if we are to achieve the End the HIV Epidemic (EHE) goal of reducing new HIV diagnoses by 75% by 2025. The EHE initiative seeks to strengthen the HIV healthcare and public health workforce in areas of the U.S. most affected by HIV, including King County, through four key pillars: 1) diagnosing PLWH as quickly as possible following infection; 2) treating PLWH as soon as they are diagnosed and assuring their sustained viral suppression; 3) protecting persons at high risk for acquiring HIV using scientifically proven interventions, particularly HIV pre-exposure prophylaxis (PrEP); and 4) rapidly detecting and responding to growing clusters of PLWH to halt further spread of HIV.

In this document we outline our approach to engaging community stakeholders in developing an EHE plan for King County, summarize the epidemiology of HIV in King County and the results of a situational analysis to assess current needs of people at high risk for HIV infection and gaps in strategies to address their needs through existing HIV prevention, HIV care, and social service systems, and culminates in a detailed plan for how Public Health – Seattle & King County (PHSKC) will use EHE funding to implement targeted activities under each pillar to achieve rapid and radical decreases in HIV incidence over time. This plan is a living document and will be updated at least annually.

SECTION ONE: COMMUNITY ENGAGEMENT

To develop the King County EHE plan, we sought out new voices and engaged a large set of community stakeholders with long-standing commitment and experience with our HIV prevention and care as well as stakeholders from populations and organizations completely new to HIV, and for some, public health. The overarching frame of their work was to identify actionable strategies to promote fundamental healthcare system change and tailored interventions for populations most impacted by the contemporary HIV epidemic. Our planning collaborators included people from populations at risk for acquiring or living with HIV, community-based organizations (CBOs) - especially those located in north Seattle and south King County, medical providers and healthcare organizations (HCOs) and social service providers from throughout King County, and representatives from state and local governmental agencies - especially those outside of public health (e.g., from systems specific to corrections, homelessness, and substance use). Beyond planning, however, engaging these new stakeholders helped create a foundation and relationships needed to implement and ultimately achieve the outcomes of our King County EHE plan.

Our experience in collaborating to develop other HIV plans, such as the current Washington State HIV plan, End AIDS Washington (EAW) 2014-2020, and recommendations from the BREE Collaborative (an ongoing, statewide process to improve medical care in WA State that has developed a plan to improve healthcare for gender and sexual minorities), helped shape how we organized the planning process. Specifically, we developed a planning infrastructure that balanced the need for comprehensive input with the need to efficiently develop a plan by September 2020 (prior to the extension). We hired an EHE Planning Coordinator in December 2019 to facilitate the planning process and she, in turn, rapidly convened the first two meetings of the core planning body (the "EHE Planning Committee" (EPC) described below) in January and February of 2020 to define and solidify the formal planning structure, review and identify gaps in the epi synopsis and situational analysis, discuss activities for the CDC EHE application, and start identifying additional new community stakeholders from their respective networks and communities. Unfortunately, soon after the February meeting took place the first cases of Covid-19 in the US were identified in King County and rapidly evolved into a local public health emergency that interrupted the EHE planning process not only for PHSKC but for almost all members of the planning committee. Between February and when the planning was revived almost a fourth of people initially engaged in the planning process were either no longer employed at their agencies or were too busy with addressing the pandemic from within their organizations to continue to engage, and the recently hired EHE planning coordinator took a temporary and then permanent position in coordinating contact tracing for the pandemic. As a result, PHSKC engaged a former employee to return and complete the planning process and when the planning body reconvened, decided to simplify the planning structure to include a smaller number of subcommittees and additional mechanisms for input on proposed activities that did not involve attending formal meetings, such as the ability to review and provide comments online and during a public meeting. Ultimately, the formal planning structure included the following elements:

1. <u>EHE Planning Committee (EPC)</u>
   To involve diverse stakeholders in the EHE planning process, we initially convened an ad hoc subcommittee of the WSDOH HIV Planning Steering Group (HPSG) to solidify an approach to EHE planning. This group and other stakeholders recommended

additional members from populations and organizations serving populations at disproportionately high risk for or living with HIV in King County, including members representing Black and Latinx populations in King county, the varied experiences of populations experiencing homelessness, injecting drugs, and/or engaged in sex work in our region, and the diverse experiences of our LGBTQ community.

Ultimately the EPC was comprised of 27 members with representatives from each large stakeholder group, with 15-20 attending each meeting. This body met five times - twice before the pandemic started and three times since - to discuss and revise the planning process, epi report, situational analysis, draft activities proposed in the HRSA and CDC applications, activities they and other stakeholders suggested be added, and input obtained from meetings of the EPC advisory groups described below.

2. EPC Advisory Groups

To engage additional stakeholders not part of the core planning body, the EPC planning coordinator convened two EHE-specific advisory groups, and solicited input and recommendations from the two existing formal HIV prevention and care planning bodies guiding prevention and care services in King County: the Seattle Ryan White Part A TGA Planning Council and the Washington State HIV Planning Steering Group.

A. *Prevention and Care Advisory Group (PCAG*): The PCAG was comprised of people representing populations at high risk for or living with HIV, community-based organizations and social service providers serving these populations, and other vital community stakeholders. PCAG met twice during the planning process to review and provide input on the epi profile, situational analysis and activities under consideration by EPC. The discussions and recommendations from PCAG were summarized and sent to the group for revise and refinement, then sent to the EPC and reviewed in detail during the next EPC meeting. Input from PCAG members had an immediate impact on the EHE plan, with all recommendations either incorporated as additions or substantive changes or framing lenses for implementation of EHE activities in King County. PCAG was comprised of 27 participants and between 12-20 participated in each meeting.

B. *Healthcare Advisory Group (HCG):* The HCG was comprised of physicians, health systems administrators, and pharmacy managers from all major health care systems, community health centers, large private practices in King County, as well as representatives from our state's Medicaid program. This group met twice during the planning process, first to review and provide input on activities and second to initiate a formal healthcare learning collaborative to address specific EHE activities described below. Of note, many of these individuals and organizations had never engaged in HIV prevention and care planning efforts before and brought new ideas and enthusiasm for achieving the goals of EHE within the various healthcare delivery systems in our county. HCAG was comprised of 43 members and 24 attended the first meeting.

C. *Seattle TGA Part A Planning Council*: The Seattle TGA Part A Planning Council is comprised of a diverse set of stakeholders who work together to understand and use Ryan White Part A funds to address the needs and service system gaps for people with HIV in King, Snohomish, and Island Counties. PHSKC and the EPC incorporated the planning council's most recent needs assessment into the EHE situational analysis, shared information and sought input from council members during regular council meetings at multiple points during the EHE planning process, and encouraged council members to participate in EHE planning as members of the PCAG. The planning council is currently comprised of 22 people.

D. *Washington State HIV Planning Steering Group (HPSG)*: The HPSG is a formal, standing advisory committee comprised of people living with HIV and HIV prevention and care providers throughout the state of Washington. PHSKC and EPC sought input from HPSG twice - first while developing the planning structure and then again to gain their input and recommendations about draft EHE activities. Seven of the 21 HPSG members were people living with HIV or HIV prevention or care providers in King County.

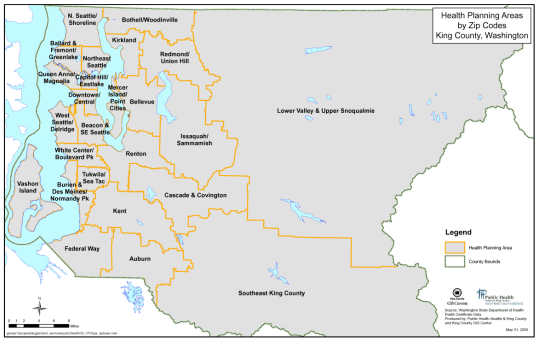
The discussions and recommendations from each advisory group meeting were summarized, sent to each group for review and refinement, and then provided to the EPC for their review and discussion during EPC meetings. Ultimately, EPC decided to incorporate almost all of the advisory bodies' suggestions, adopting some verbatim and including others as overarching values and/or recommendations when moving into EHE implementation.

3. Public Comment and & Public Dialogue Session

To engage people not participating in the formal planning and advisory groups listed above or who were unable to attend the advisory group meetings, we posted the draft EHE plan to the PHSKC website, provided an email address to which people could submit questions and feedback, and facilitated a public information meeting and dialogue via Zoom at the beginning of December. We encouraged members of the planning groups and other relevant programs at PHSKC, including the needle exchange, behavioral health program, and homelessness services groups) to share the link with their respective networks and encourage their feedback on the plan. The feedback and recommendations from public comments and the public meeting will be summarized and reviewed with the EPC prior to finalization of the plan and gaining EPC concurrence.

SECTION TWO: EPIDEMIOLOGIC PROFILE

The epidemiologic profile below is a snapshot summary from the 2019 HIV Epidemiology Report for King County. The 2020 Epidemiology Report will be published in early 2021.

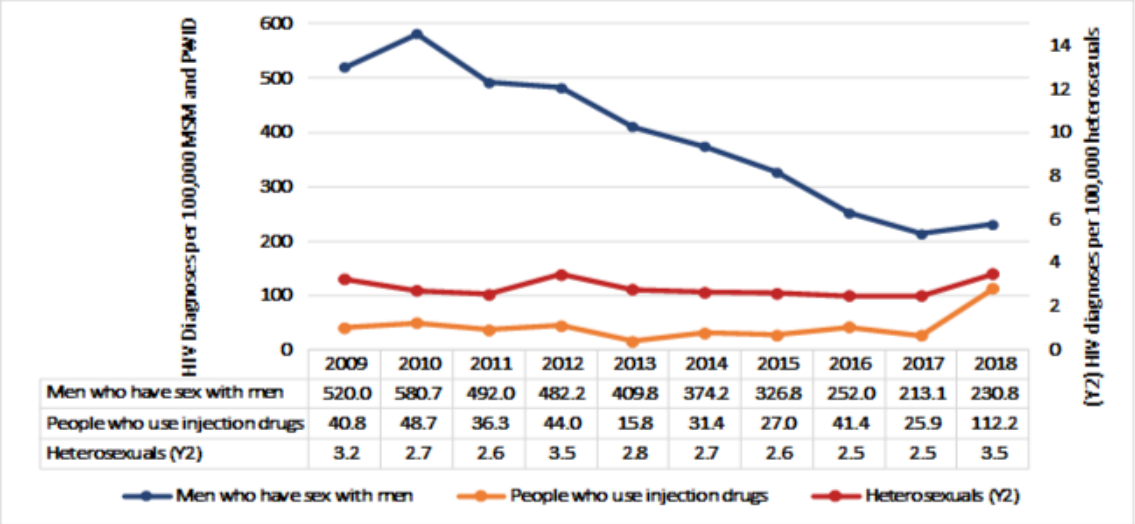


King County is the most populous county in Washington State, and the 12th most populous county in the U.S. with over 2.2 million residents (2018). The area has a rapidly growing population associated with a booming technology sector (about 16% increase between 2010 and 2018), with an associated increase in housing costs and decreasing affordability for lower income persons. The average income of a King County resident is $40,656 a year relative to a U.S. average of $28,555 a year. King County is bordered by Puget Sound to the west, the Cascade Mountains to the East, and Snohomish and Pierce counties to the north and south respectively. King County has seen a steep rise in homelessness over the past decade, as well as increases in methamphetamine and opioid use. The county has a joint city/county health department with 1,400 employees, 40 sites, and an annual budget of $686 million. Public Health – Seattle & King County (PHSKC) has the largest and second oldest syringe services program (SSP/needle exchange) in the nation and exchanged ~8 million syringes in 2018.

There are an estimated 7,468 people living with HIV in King County, including 7,023 (93%) diagnosed with HIV and 5,855 (84%) of whom are virally suppressed. Over the past decade, the county has met numerous goals related to HIV prevention, treatment, and care. It was the first urban jurisdiction in the U.S. to meet the World Health Organization's 90-90-90 goals, ensuring that ≥90% of all persons with HIV (PLWH) know of their status, ≥90% of diagnosed persons receive medical care, and that ≥90% of those in care are virally suppressed. However, in 2018, the area experienced an outbreak of HIV among persons who inject drugs (PWID), raising the possibility that the county's long-term progress was in jeopardy.

Increase in New Diagnoses: In 2018, there were 218 (54%) new HIV diagnoses among King County residents. This was the largest one-year increase in the number of new HIV diagnoses since 2002 (up from 162 diagnoses in 2017). The increase was driven by a 400% increase in the number of new HIV diagnoses among PWID, while the number of new diagnoses in persons with other risks, including men who have sex with men (MSM) who do not inject drugs, remained stable (Figure 2). The increase in HIV among PWID is concentrated among persons who are living homeless, many of whom are women who exchange sex. The occurrence of HIV in this population represents a shift in King County's HIV epidemic. HIV among PWID in King County has traditionally been concentrated in MSM who inject methamphetamine, 40-45% of whom are HIV positive, while 1-4% of non-MSM PWID are HIV positive.

Figure 2: Rate of New HIV Diagnoses for Men Who Have Sex with Men (MSM), People Who Inject Drugs (PWID)[A], and Heterosexuals[B], King County, 2009-2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Men who have sex with men	520.0	580.7	492.0	482.2	409.8	374.2	326.8	252.0	213.1	230.8
People who use injection drugs	40.8	48.7	36.3	44.0	15.8	31.4	27.0	41.4	25.9	112.2
Heterosexuals (Y2)	3.2	2.7	2.6	3.5	2.8	2.7	2.6	2.5	2.5	3.5

[A] People who use injection drugs exclude men who have sex with men.[B] Heterosexuals include individuals with unknown HIV risk.

King County uses the National HIV Strategy (NHAS) as a framework for monitoring progress related to HIV-related goals with annual dashboards, using 2014 data as a baseline (Table 2). Progress towards NHAS Goals are detailed below. In addition to NHAS, King County has been guided by the goals of the End AIDS Washington (EAW) plan to establish new, more ambitious targets in response to program success. EAW seeks to decrease new HIV diagnoses by 50% by 2020, and to ensure that 90% of PLWH are in care and 80% are virally suppressed.

1) **Reduce New HIV Infections**: In 2014, King County aimed to reduce the rate of new HIV infections by 25% by 2020, which mirrors the NHAS goal. We met this goal in 2017. However, the increase in HIV diagnoses among PWID resulted in the county falling short of the 25% reduction goal in 2018.
2) **Improve Health Care Access and HIV-Related Health Outcomes**: NHAS aims to ensure that 90% of people living with HIV are engaged in care and 80% are virally suppressed. King County has higher local goals for both indicators (95% and 90%, respectively). King County has met the national goals with 90% in care and 84% suppressed (see Figure 3, 2018 continuum below), and we are on pace to reach our higher local goals.
3) **Reduce HIV-Related Disparities**: King County has an explicit goal of ensuring that there are no differences in viral suppression or the incidence of new HIV diagnoses by gender or race/ethnicity within HIV risk groups. (In monitoring the HIV epidemic in Blacks, we separately consider US and foreign-born populations since a large proportion of new diagnoses among Blacks in King County occur in immigrants who acquire HIV outside of the US, inflections that are not avertable by local public health.) The county has made mixed progress toward reducing disparities in HIV outcomes across groups defined by race/ethnicity. On the one hand, HIV diagnosis rates continue to be substantially higher for both U.S.-born Black and U.S.-born Latinx persons relative to Whites. On the other hand, differences in viral suppression between groups have declined over the past decade. Table 3 below follows multiple care characteristics of subsets of PLWH.

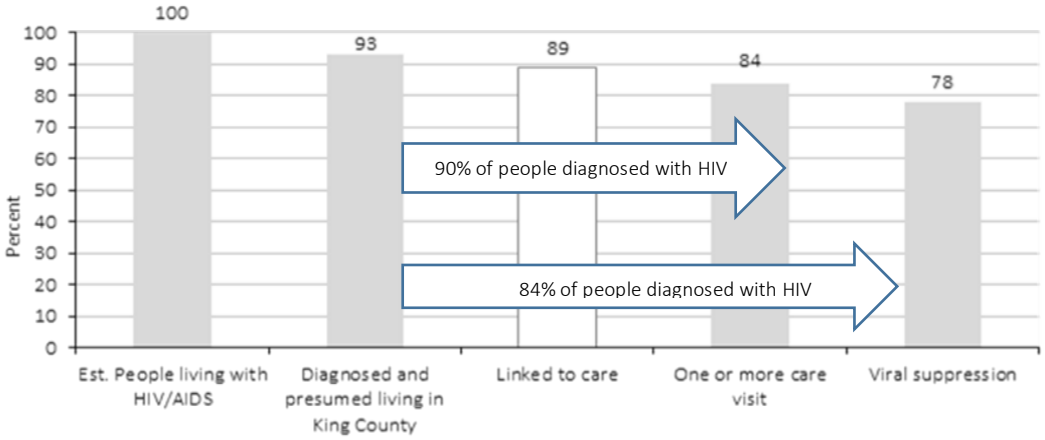
Table 2. King County HIV Goals and Evaluation Metrics: 2019 Dashboard

King Co. 2018 HIV dashboard (partial)	2020 Goals		Data, 2014-2018		Trend (Key Below)
	U.S. Goals	King Co.	2014	2018	
HIV Testing, Case Finding, Prevention					
New HIV diagnoses, rate	↓25%	↓25%	11.0/100,000	10.0/100,000	⊗
Know HIV status	90%	95%	92%	93%	↑★
Late HIV diagnosis	--	<20%	24%	25%	⊗
Recent HIV testing, MSM	--	75%	73%	69%	⊗
PrEP use, high-risk MSM	--	50%	9%	49%	↑
Syringe coverage	200/PWID	365/PWID	258/PWID	300/PWID	↑★
HIV Care, Morbidity, Mortality					
Linked to care in 1 month	85%	90%	88%	89%	↑
Linked to care in 3 months	--	95%	92%	94%	↑
In HIV care	90%	95%	89%	90%	⊗★
Viral suppression	80%	90%	79%	84%	↑★
Viral suppression in 4 months	--	75%	58%	75%	✓
Homelessness	<5%	<5%	14%	11%	⊗
HIV/AIDS mortality	↓33%	↓33% (0.8/100)	1.2/100 PLWdH	0.9/100 PLWdH	↑

Abbreviations: PrEP, pre-exposure prophylaxis for HIV; PLWdH, people living with diagnosed HIV; MSM, men who have sex with men.

Key: ✓ Goal met ↑ On pace to meet goal ⊗ Not on pace to meet goal ★ National goal was met, not local goal

Figure 3: 2018 King County HIV Care Continuum

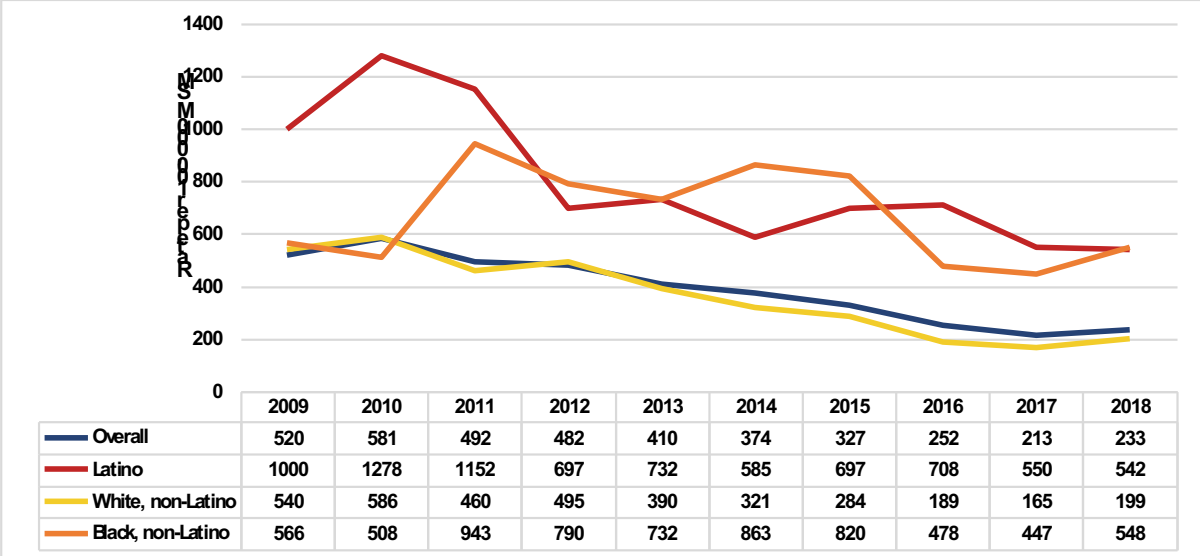


In addition to people living homeless persons, PWID, and others described above, three other populations in King County stand out as those with important HIV care and prevention needs:

Men who have Sex with Men (MSM): Although the diagnosis rate in King County among MSM has declined by more than 50% over the last decade, MSM, including MSM who inject drugs, continue to comprise the majority of new HIV diagnoses in King County (70%). We estimate 9% of all MSM living with HIV, but prevalence varies dramatically by race/ethnicity. About 15% of Black MSM, 14% of Latinx MSM, and 12% of American Indian/Alaska Native MSM have diagnosed HIV, compared to 9% of White MSM. PrEP use is lowest among Black and Native American MSM.

People of Color: HIV also disproportionately affects the overall Black and Latinx populations (Figure 4). Foreign-born Black persons have the highest rate of new HIV diagnosis, although prior work suggests that a majority of people newly diagnosed with HIV in this population acquired HIV prior to arrival in the U.S).The rate of new HIV diagnosis is higher among U.S.-born Black persons than other racial groups, as is the rate among Latinx persons. Differences in viral suppression rates between racial/ethnic groups have narrowed in the past few years, though viral suppression continues to be lower among US-born Blacks than among other racial/ethnic groups.

Figure 4. Rate of New HIV Diagnosis Among MSM Overall and By Selected Race/Ethnicity, King County, 2009-2018



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Overall	520	581	492	482	410	374	327	252	213	233
Latino	1000	1278	1152	697	732	585	697	708	550	542
White, non-Latino	540	586	460	495	390	321	284	189	165	199
Black, non-Latino	566	508	943	790	732	863	820	478	447	548

Foreign-born Populations: The disproportionate impact of HIV on Black persons is partly due to a higher prevalence of HIV among foreign-born Black residents. In 2018, 55% of all Black persons diagnosed with HIV were foreign born, and from 2014-2018 64% of non-MSM Black persons diagnosed with HIV were foreign born (primarily born in sub-Saharan Africa). Foreign born Blacks more frequently have late HIV diagnoses, but typically have higher levels of viral suppression than U.S.-born persons with HIV.

Table 3: HIV Care Metrics, including Late Diagnosis, Linkage to Care, Being in Medical Care and Viral Suppression for Selected Groups Living with HIV (PLWdH), King County, 2018

		NEW HIV DIAGNOSES (2018)[A]			PLWDH IN KING COUNTY IN 2018	
	PWDH (N)	NEW DIAGNOSES IN 2018 [A]	LATE HIV DIAGNOSES (AIDS WITHIN 1 YR OF HIV)	LINKED [B] TO CARE WITHIN 1 MONTH OF DIAGNOSIS	HAD ONE OR MORE CARE VISIT	SUPPRESSED AT MOST RECENT VIRAL LOAD (<200 COPIES)
TOTAL*	6,976	218	26%	89%	90%	84%
GENDER						
Men (sex assigned at birth)	6,095	173	24%	90%	91%	84%
Women (sex assigned at birth)	881	45	31%	89%	90%	82%
Transgender[A,C]	63	11[A]	18%	91%	94%	83%
RACE, ETHNICITY AND NATIVITY						
White	3,819	108	16%	87%	91%	85%
Black	1,404	49	45%	92%	90%	80%
Foreign-born	*613*	*27*	*59%*	*93%*	*91%*	*77%*
U.S.-born[D]	*791*	*22*	*27%*	*91%*	*81%*	*84%*
Latinx	974	39	31%	95%	90%	83%
Foreign born	*486*	*15*	*60%*	*100%*	*91%*	*85%*
U.S.-born[D]	*488*	*24*	*12%*	*92%*	*89%*	*81%*
Asian	295	10	20%	90%	88%	85%
Pacific Islander[A]	77	14[A]	36%	93%	90%	75%
Native American/AK Native[A]	236	33[A]	21%	82%	92%	81%
HIV RISK FACTORS						
Men who have sex with men (MSM)	4,644	106	19%	97%	91%	86%
People who inject drugs (PWID)	274	31	10%	77%	89%	74%
MSM-PWID	638	21	29%	86%	89%	77%
Heterosexual	719	24	50%	96%	90%	82%
Foreign born	*408*	*16*	*69%*	*100%*	*90%*	*85%*
U.S.-born[D]	*301*	*52[A]*	*54%*	*87%*	*90%*	*77%*
OTHER FACTORS						
Foreign Born	1,538	56	48%	96%	90%	85%
Meth use (collected since 2009)	381	51	10%	88%	90%	74%
RACE/ETHNICITY AMONG MSM						
White MSM	3,357	69	14%	93%	91%	87%
Black MSM	561	18	22%	89%	89%	79%
Latinx MSM	793	27	30%	100%	90%	84%
Foreign born	354	9	56%	100%	89%	84%
U.S.-born[D]	439	18	17%	100%	88%	82%

[A] Due to small numbers, fewer than 10 in 2018, newly diagnosed Native Am./AK Natives, Pacific Islanders, U.S.-born heterosexuals, and transgender persons were based on 5 years of diagnoses --from 2014 to 2018. Additionally, note that for Native Americans and Pacific Islanders, multiracial and Latinx persons are included if they are also Native American or Pacific Islander.

[B] "Linked" is based on percent of cases diagnosed in 2018 linking to care based on CD4 or viral load tests within 3 months of diagnosis.

[C] Transgender category, for prevalent cases, includes transgender women (90%) and transgender men (10%); for 5-year incident diagnoses, 9 were transgender women and 2 transgender men.

[D] U.S.-born includes unknown country of birth.

* Total excludes individuals with unconfirmed relocations as of the time of analysis (e.g., identified by online Internet database searches, but not confirmed by the new jurisdiction or another secondary source) and no laboratory results reported in 18 months (N = 47, resulting in 6,976 PLWH)

SECTION THREE: SITUATIONAL ANALYSIS

As noted in the Epidemiologic Profile above, King County confronts a new HIV epidemic, one that will require a new response if we are to achieve the End the HIV Epidemic (EHE) goal of reducing new HIV infections by 75% by 2025. To develop the plan for this new response, we needed to better understand the service needs and gaps related to HIV prevention and care activities in King County. The following snapshot situational analysis of the HIV epidemic reflects the most up to date data available in King county and is framed by the four pillars of EHE, however we have noted where there is overlap in needs and system gaps across pillars. Finally, whenever possible we have integrated information regarding needs and service system gaps that have emerged since the start of the coronavirus pandemic.

Pillar 1: Diagnose

HIV Testing– PHSKC has explicit, validated screening guidelines to promote annual or quarterly HIV/STI screening of MSM and transgender persons based on risk, promotes widespread HIV testing through direct provision of tests, and monitors HIV testing frequency in higher risk populations (Table 4). In 2018, PHSKC performed or collaborated with community-based organizations who performed 15,255 HIV tests, and 28% of all newly diagnosed cases were diagnosed through public funded HIV testing. However, 20% of persons diagnosed with HIV in 2018 had an AIDS diagnosis within a year of their HIV diagnosis, with the greatest risk of late diagnosis seen among foreign-born individuals who are neither MSM nor PWID. There remains a need for sustained, focused efforts to test persons at high risk, while expanding HIV testing as part of routine medical care, particularly among PWID and persons from countries where HIV is highly prevalent.

TABLE 4: PHSKC & WA DOH HIV SCREENING GUIDELINES

ALL RESIDENTS
· Test at least once between the ages of 18 and 64[5] · Test concurrent with any diagnosis of gonorrhea or syphilis · Pregnant women should test in the 1st trimester and women who use methamphetamine, opioids, or exchange sex should test again in the 3rd trimester.
MEN WHO HAVE SEX WITH MEN (MSM) AND TRANSGENDER PERSONS WHO HAVE SEX WITH MEN*
Indications for testing every 3 months (any of below risks in the prior year)*: · Diagnosis of a bacterial sexually transmitted infection (STI) (e.g. early syphilis, gonorrhea, chlamydia) · Use of methamphetamine or poppers (amyl nitrate) · >10 sex partners (anal or oral) · Condomless anal intercourse with an HIV+ partner or partner of unknown status · Ongoing use of HIV pre-exposure prophylaxis (PrEP) MSM and transgender persons who have sex with men without the above risks should HIV test annually+
PERSONS WHO INJECT DRUGS*
· Annual HIV testing all PWID · Every 3 months in PWID who exchange sex for money or drugs or who are pregnant
* Persons should also be tested for syphilis and for gonorrhea and chlamydia at all exposed anatomical sites + Persons who have not had sex in the prior year or who are in long-term mutually monogamous relationships do not require annual HIV/STI testing.

Partner Services – PHSKC has conducted population-based HIV partner services for over a decade. Partner services are voluntary and confidential services available to individuals who test positive for HIV, as well as their sex and needle-sharing partners. PHSKC seeks to provide partner services to all persons with newly diagnosed with HIV to: 1) to ensure that the partners of persons diagnosed with HIV learn of their potential exposure, are tested for HIV, and learn their HIV status; 2) to ensure that persons diagnosed with HIV are linked to sustained medical care and to other social and support services (*Pillar 2)*; and 3) to link

persons at risk for acquiring HIV to prevention services, particularly PrEP *(Pillar 3). (Partner services cluster investigation activities are described under Pillar 4.)* At present, disease intervention specialists (DIS) work with a surveillance epidemiologist to investigate newly reported HIV cases and provide partner services to persons newly diagnosed with HIV. **However, the increase in cases observed in 2018 coupled with the increasing social marginalization of persons newly diagnosed with HIV and the emergence of a new HIV epidemic among PWID has taxed existing staff beyond their capacity; new cases are now harder to locate and require more time for investigation.**

Geographic distribution of new cases – King County encompasses 2,307 square miles and includes 35 cities, the largest of which is Seattle. Throughout this document north and central King County will be referred to as north and central Seattle, respectively, to match local parlance. Among persons newly diagnosed in 2018, 21% lived in central Seattle, 46% in south King County, 17% in north Seattle, and 10% in east and 6% in west King County. The current system of HIV care is highly geographically concentrated: 80% of all PLWH receive care through a medical provider in central Seattle yet **relatively few HIV providers exist outside of the city center.** At present, the availability of HIV care in south King County is very limited, and there is a one month wait for new patients to be seen in Madison Clinic's satellite clinic in south King County. The only significant source of HIV care in north Seattle is Northwest Hospital, which will become part of the UW Medicine system in 2020.The spatial distribution of cases – particularly the many new and unsuppressed cases in north Seattle and south King County - represents a problem in how HIV services are currently organized, with almost all HIV care facilities concentrated in central Seattle, which impacts all EHE pillars.

Populations at high risk for HIV Infection - As described in the epidemiologic profile above, HIV diagnosis rates have declined in groups defined by the major HIV transmission risk categories in the past decade; followed by increases between 2017 and 2018 among PWID, particularly those living homeless and women who exchange sex. HIV diagnoses among MSM who do not inject drugs remained stable. Specifically:

MSM – In 2018, MSM accounted for 59% of all new HIV diagnoses in King County. Since 2009, the number of HIV tests performed among MSM increased by 63%. In 2018, the median time since last HIV negative test among newly diagnosed MSM was 9.5 months. Among MSM diagnosed with HIV in 2018, over two-thirds, 69%, had tested HIV negative in the prior 2 years and only 8% reported never having tested for HIV previously. Of MSM with a negative HIV test prior to an HIV diagnosis in 2018, 48% had tested negative within two years of their HIV diagnosis.

HIV among MSM in King County is characterized by profound racial and ethnic disparities. HIV incidence continues to disproportionately affect Black and Latino MSM compared to White MSM. Latino MSM and Black MSM account for 21% and 14% of all new HIV diagnoses, respectively, but are only 10% and 6% of the estimated King County MSM population, respectively. In 2018, Black MSM diagnosed with HIV were more likely than White MSM to have never HIV tested (12% versus 5%).

U.S. Born People of Color – Among U.S. born Black and Latinx persons, MSM is the predominant risk group (see paragraph above about HIV incidence disparities among Black and

Latino MSM). Over the decade, heterosexual HIV diagnosis rates declined for U.S. born Blacks and Latinx person (32% and 28%, respectively). Several CBOs provide HIV testing services specifically aimed at preventing and otherwise mitigating the impact of HIV on communities of color in Seattle and greater King County but to date have limited case finding.

PWID – King County faces a new and locally unprecedented HIV epidemic among PWID, both MSM and non-MSM, fueled by growing epidemics of homelessness and injection drug use. PHSKC has increased HIV screening efforts for PWID by training syringe services program staff and outreach staff to perform rapid, point of care HIV screening tests, yet we need to do more. In 2018, PHSKC conducted a rapid needs assessment among PWID living homeless in north Seattle (n= 15), following the identification of a new cluster of people recently testing positive for HIV. The following are key findings related to HIV testing from this assessment:

- N. Seattle PWID need education about HIV and the importance of HIV testing and care.
- Financial incentives and increased local access to testing and medical care is the best way to improve HIV testing among PWID in north Seattle.
- Street-based exchange sex in north Seattle increased after an anti-trafficking law (SESTA/FOSTA) passed in early 2018 and resulted in the shutdown of Backpage, Craigslist personals, and other online forums sex workers used to use to advertise. In addition, because of the increase in the supply of people engaged in street-based exchange sex, sex workers in north Seattle report having to charge less to be competitive and engage in more sex work to earn the same amount as they did before the law passed.

Pillar 2: Treat

After an HIV diagnosis, most people in King County seek care and achieve viral suppression within a few months. However, to reduce the incidence of HIV in King County we need to understand and focus Pillar 2 activities on engaging in care PLWH who are OOC/unsuppressed.

Based on HIV surveillance data, data collected through the Medical Monitoring Project (MMP) and D2C activities, and information gathered to inform HIV care and prevention efforts, we have a significant amount of information about OOC/unsuppressed persons, their comorbidities, service needs, and health outcomes (Table 5).[4-7]. We define OOC/unsuppressed as having no CD4 count or viral load reported to surveillance for ≥12 months ("out of care") or a VL >500 copies/mL at the time of last report ("virally unsuppressed"). Compared to the overall population of diagnosed PLWH, OOC/virally unsuppressed persons are younger, more likely to be US-Born Black,[7] and have lower levels of income and education. [7]

Surveillance data suggest that approximately 1000 people with diagnosed HIV in King County are currently OOC/unsuppressed. However, case investigations consistently find that approximately 15% of PLWH who appear to be OOC have moved out of the county, and an additional 10% reside in the county and are in-care, but without recent laboratory test results reported to our health department. **Thus, we estimate that approximately 750 PLWH in King County are OOC/unsuppressed requiring care.**

Table 5. Characteristics of PLWH by HIV care status, 2018, King County, WA.

Characteristic		Estimated Number (%) of Out of Care or Unsuppressed Persons[D] (n=757)	Virally suppressed[D] (n=6,220)	Total PLWH (n=7,023)
	Cisgender Men	640 (85%)	5,399 (87%)	6,079 (87%)
	Cisgender Women	108 (14%)	767 (12%)	880 (13%)
	Transgender persons	9 (1%)	54 (1%)	64 (1%)
Age in 2018	< 25 years	13 (2%)	121 (2%)	135 (2%)
	25-44 years	380 (50%)	2,035 (33%)	2,431 (25%)
	45+ years	364 (48%)	4,064 (65%)	4,457 (63%)
Race/Ethnicity:	White	367 (48%)	3,452 (56%)	3,843 (55%)
	Black or African American	186 (25%)	1,219 (20%)	1,414 (20%)
	Latinx	122 (16%)	852 (14%)	983 (14%)
	Other/Multiracial	82 (11%)	697 (11%)	783 (11%)
Living homeless		167-280 (22-37%)	NA	NA
Region of King County[A]	Central	260 (34%)	2,098 (34%)	2,383 (34%)
	South	262 (35%)	2,295 (37%)	2,570 (37%)
	North	124 (16%)	1,010 (16%)	1,138 (16%)
	East	51 (7%)	329 (5%)	382 (5%)
	West	47 (6%)	414 (7%)	463 (7%)
Substance use[B]	Methamphetamine	26%	18%	19%
	Heroin	5%	4%	4%
	Hazardous alcohol use	15%	NA	NA
	Cocaine or crack	10%	9%	9%
HIV Risk Factor	MSM	441 (58%)	4,205 (68%)	4,679 (67%)
	PWID	42 (6%)	232 (4%)	277 (4%)
	MSM/PWID	89 (12%)	549 (9%)	641 (9%)
	Heterosexual	93 (12%)	615 (10%)	713 (10%)
	Other or Unknown	92 (12%)	545 (9%)	713 (10%)
Incarcerated in jail, prior year[C]		7%	NA	NA

NA=Not available, [A] 87 (1%) of 7025 PLWH had unknown location (13 unsuppressed & 74 suppressed)
[B] Based on 145 unsuppressed/not in care, 1,116 suppressed PLWH and 1,261 overall PLWH with a partner services interview near the time of diagnosis. [C] Includes two of three King County jails.[D] Numbers with suppression and the estimated numbers out of care/unsuppressed will not add up to the total due to exclusion of persons presumed to be out of the jurisdiction

Syndemics

Homelessness, substance use, and mental illness are syndemics that together compound the difficulty of achieving and maintaining viral suppression. Among MSM newly diagnosed with HIV, methamphetamine-using MSM are more likely to be unstably housed (24% vs. 6%), and in the Max Clinic, 45% of patients have concurrent substance use disorders, homelessness and untreated mental illness at the time of enrollment in the clinic. Food insecurity is also common among persons with unstable housing and obtaining food for daily survival takes precedence over seeking HIV care when the two are in conflict. In qualitative interviews with Max Clinic patients, many described how the food they received in the clinic motivated them to seek care and allowed them focus on health issues by temporarily relieving their hunger.

Homelessness – Homelessness is a large and growing care barrier to HIV care in King County. We estimate that 11% of King County residents diagnosed with HIV were living homeless in the

past year. Homelessness among PLWH is a critical problem in King County and an important barrier to ensuring that all PLWH successfully receive life-saving HIV treatment. In 2018, 21% of Ryan White Part A funds were spent to support housing for PLWH. We estimate that 22-37% of OOC/ unsuppressed PLWH are living homeless, based on 2015-17 MMP data (22%) and Ryan White service data (37%). Homelessness is more common among transgender persons (41%), PWID (34%), 18-29 year-olds (30%), cisgender women (28%), non-Latino Blacks (18%), and Latinos (16%). **Unstable housing is the strongest predictor of failure to achieve viral suppression 12 months after a new HIV diagnosis.**

Substance use - We estimate that more than half of OOC/virally unsuppressed PLWH engage in hazardous substance use. Among participants in the D2C program from 2012-16, methamphetamine was the most commonly reported substance used in the past year (26%), followed by hazardous alcohol use (15%), heroin (6%), and crack (6%). **Among MSM diagnosed with HIV in King County, those who use methamphetamine are much less likely to be virally suppressed 6 months following an HIV diagnosis** (31 vs 54%).[8]

Mental health - Untreated mental illness is likewise common among persons who are OOC/unsuppressed and is a barrier to care engagement and viral suppression. Few population-based data are available about mental illness among PLWH in King County. Among Max Clinic patients, 27% have diagnosed psychotic, bipolar or personality disorders and 44% have diagnosed depressive or anxiety disorders. **The Max Clinic experience demonstrates that severe mental illness is common among high-need PLWH, and that a low-barrier HIV clinic can engage PLWH with mental illness.** Additionally, in qualitative interviews, PWID living in north Seattle emphasized that they wanted social and mental health services beyond case management as part of HIV prevention and care.

<u>Unmet Needs</u>

Data on unmet needs among PLWH who are OOC or unsuppressed come from epidemiologic data, focus groups and key informant interviews with PWIDs in north Seattle (n=15), service providers working with PWIDs (n=18), Max Clinic patients (N=25), PLWH who participated in the 2019 Part A Planning Council Needs Assessment focused on people recently OOC (n=) and providers who work with them (n=). These assessments highlighted the following gaps:

- *Geographically accessible care* – The HIV care system in King County is highly concentrated in central Seattle. Interviews with PWID in north Seattle indicated that most were not willing to come into the center of the city for care, reflecting a combination of difficulty with transportation, belief that central Seattle is unsafe, and a preference to stay in their community.
- *Walk-in care* – Interviews with Max Clinic patients and PWID highlight that the availability of walk-in care and support services is essential.[6] Respondents emphasized that they needed walk-in visits to accommodate the unpredictability of their lives and provide immediate attention to acute concerns. Such care also removes the perceived stigma associated with failure to keep appointments. The paucity of clinics providing such care is big deficiency in the existing clinical infrastructure of King County, and strongly argues for the differentiated model of care.
- *Integrated care* – Interviews with PWID emphasized patients' desire to receive integrated services at their HIV care sites, including drug treatment and mental health care. PLWH also

indicated a need for services such as laundry, showers and lockers for medication storage - at present, no HIV-focused clinical services in King Co. are co-located with these sorts of services.

- *Care that is culturally competent* – Many interviewed PWID reported having been poorly treated when receiving medical care, both by medical and ancillary staff. Max Clinic patients identified their relationships with staff, as well as walk-in care and incentives, as the three key factors associated with success in receiving care in the clinic. These relationships involved the entire team: physicians, medical case managers and nonmedical case managers.
- *Housing* – A quarter to one-third of all OOC/unsuppressed persons are unhoused, with additional persons having unstable housing. The need for housing is perhaps the single greatest unmet need among OOC/virally unsuppressed PLWH in King County.
- *Transportation* – Transportation is a major barrier to care. Among PWID key informant interviews, none had a car and the complexity and time involved in navigating public transit was a key barrier to engaging in HIV care downtown.
- *Food and money* –Poverty is a formidable barrier to care as meeting basic needs takes precedence over HIV care. Many OOC/unsuppressed persons in King County lack income and access to food.

Strategies for engaging OOC/unsuppressed PLWH

For PLWH who have difficulty in engaging in HIV care, King County offers differentiated care in central Seattle, partner services, and data-to-care activities to promote linkage to treatment. We propose to expand upon these strategies to address the unmet needs articulated above.

Differentiated Care – As a result of Ryan White funding and Medicaid expansion, no King County resident needs to go without HIV care due to a lack of money or health insurance. For most PLWH, the existing HIV care system is accessible and effective. However, some people with HIV have difficulty receiving HIV care, often as a result of homelessness, mental illness and substance use disorders. In 2015, PHSKC and its collaborators began developing a system of differentiated care designed to alter the health care system and provision of health services to better meet patients' needs. This system includes the Mod (Moderate Intensity) and the Max (Maximum Intensity) Clinics at Harborview Medical Center. Both clinics provide walk-in HIV care and social services, with the Max Clinic also offering high-intensity case management, food, transportation support, and financial incentives to encourage engagement and viral suppression, as well as integration of substance use treatment – particularly medications for opioid use disorder (MOUD) – into clinical services. Among 170 MAX Clinic patients, 64% were virally suppressed at their most recent visit, a significant indicator given the majority were sporadically engaged in care and virally unsuppressed on intake. However, Mod and Max clinics are both located in central Seattle, while 35% of virally unsuppressed persons live in south King County and 16% in north Seattle. Thus **there is a profound need to create low-barrier clinical and support services in north Seattle and south King County that address the unmet needs articulated above**.

Partner services and linkage to care – PHSKC seeks to provide partner services to all persons with newly diagnosed with HIV. DIS work with a surveillance epidemiologist to investigate newly reported HIV cases, define which cases are truly new, provide newly diagnosed persons with partner services, and ensure that patients link to care. DIS do not close new cases until patients have linked to care, and all newly diagnosed cases are discussed at a monthly case

conference comprised of DIS, surveillance staff, and the HIV/STD program director. This process improved linkage to HIV care in King County[1] and resulted in 89% of all newly diagnosed persons linking to care within 1 month of diagnosis in 2018. However, the increase in cases observed in 2018 coupled with the increasing social marginalization of persons newly diagnosed with HIV **taxed existing staff beyond their capacity; new cases are now harder to locate and require more time for investigation and to promote linkage to care**.

Data to Care (D2C) & Real Time Data to Care (RT D2C) – For individuals who do not or cannot seek care, PHSKC has a multi-tiered "data-to-care" (D2C) system. Our current D2C activities include surveillance-based outreach; venue-based D2C with identification of out of care/unsuppressed (OOC/unsuppressed) persons via information exchange with selected emergency departments (EDs), inpatient hospitals, and jails; and referrals from HIV providers and case managers. Our D2C team - which includes surveillance staff, medical leadership and DIS - is integrated with the Max Clinic, linking this work to our broader effort to improve care engagement. Another CDC funded project, PIPER, is underway to work with pharmacies to more rapidly identify persons who stop ART, provide them with outreach services and promote their resumption of treatment.

Our experience, like that of other jurisdictions[2], is that surveillance-based D2C – identifying persons presumed to be OOC/unsuppressed based on surveillance data and using outreach to promote their relinkage – is inefficient. Using surveillance data to identify persons who are OOC/unsuppressed is a sound idea but D2C is less effective without a concurrent effort to alter the medical care system to diminish barriers to successful treatment. Real-time D2C (RT D2C) is an alternative to surveillance-based D2C in which health departments and collaborators identify and re-link to care OOC/unsuppressed persons real time - when they are in EDs, inpatient hospitals, jails, STD clinics or receiving STD partner services. Our team has established real-time D2C systems in the UW Medicine system, two King County jails[3], and through STD partner services. **However, in order to have a comprehensive RT D2C system we need to expand RT D2C to include all hospitals in King County and a third jail.** To achieve this, we plan to implement additional staffing and a commercial data information exchange - Collective Medical Technologies - which will send DIS a notification when OOC/unsuppressed persons register in participating hospitals and clinics. (The Collective Medical system collects data from all hospitals and EDs in King County, as well as the South Correctional Entity).

Pillar 3: Prevent

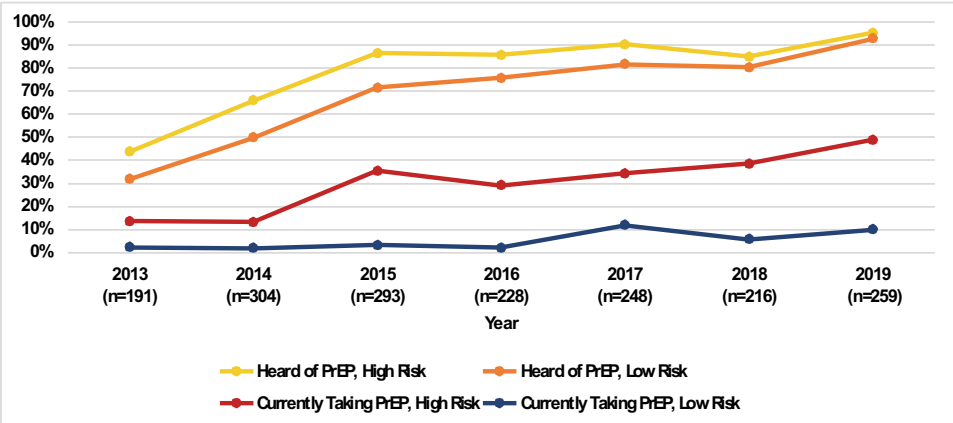
In King County, the main activities for preventing sexual transmission of HIV are pre-exposure prophylaxis (PrEP) and condom promotion and provision. For PWID, prevention activities are largely provided through our syringe services programs (SSPs).

PrEP – King County has made substantial progress using PrEP to prevent HIV infection, with nearly one-half (49%) of King County MSM at high risk for HIV, and 28% of all MSM, on PrEP in 2018. Among 2019 Pride Survey participants who identified as transgender or non-binary/genderqueer and reported cisgender male or transgender women sex partners (n=116), 8% reported currently being on PrEP and 7% reported formerly being on PrEP.

The largest single provider of PrEP in WA State is the PHSKC STD Clinic, which links PrEP provision to population-based partner services, has PrEP navigation services available on-site, and provides same-day start PrEP with a de-medicalized model of PrEP care that only requires

patients to see a medical provider annually. (Non-medical staff assist patients in receiving quarterly HIV/STI testing and renal function testing.) At present, the clinic manages approximately 650 patients on PrEP. The WSDOH supports a PrEP drug assistance program (PrEP DAP) that supports laboratory testing and medications for those who are uninsured or underinsured, as well as PrEP navigation services provided through CBOs.

Figure 5: PrEP awareness and use among MSM in King County- Seattle PRIDE Survey, 2013-19



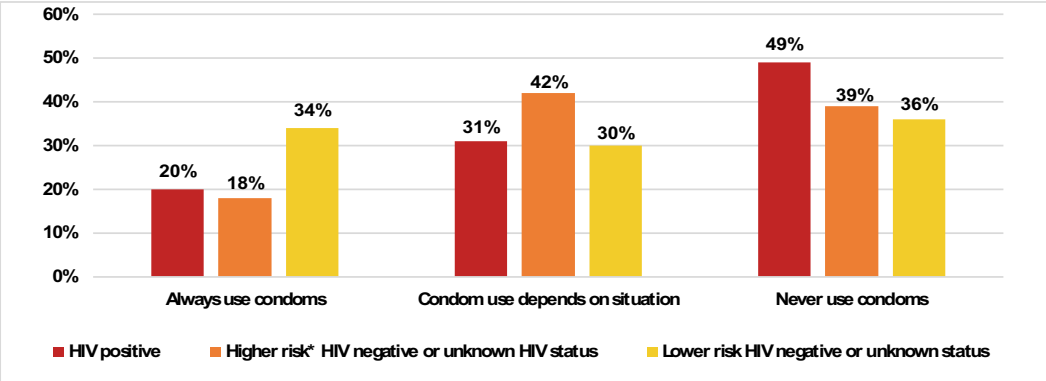
PrEP awareness has grown rapidly over time and is almost universal among both high and low risk MSM (Figure 5). However, respondents to the Black MSM PrEP survey reported lower awareness of PrEP, and black MSM report the lowest level of PrEP use (18%), while Latinx MSM report the highest levels (34%). Black STD Clinic PrEP patients also have lower rates of PrEP retention with over half of those initiating PrEP at the clinic discontinuing use within 12 months. Understanding reasons for PrEP discontinuation is necessary to address low PrEP retention rates. In the Black MSM PrEP survey, knowledge of PrEP and its efficacy and HIV risk perception were the two main barriers to PrEP initiation (and also the main motivators). Increases in PrEP awareness and PrEP uptake are signs of a successful intervention, however failure to retain people on PrEP who are still at risk for HIV remains a challenge.

PrEP use is under 1% among PWID. In 2019, PHSKC conducted focus groups with PWIDs (n=27) and interviews with service providers working with PWIDs (n=18) to explore PrEP delivery models for PWID. **Providers and focus group participants proposed three potential program models for delivering PrEP to PWID: a drug user health center, a mobile health unit, or an "add-on" program within an existing service point (integrated service delivery).** In addition, respondents recommended the following strategies and program features be part of any future PrEP for PWID efforts:

- Use a low-barrier approach.
- Offer a range of comprehensive services for PWID in addition to PrEP.
- Simplify medical and healthcare related processes and offer some level of medication management.
- Create a regular, consistent presence to build trust within the community.
- Provide guidance, recommendations, and training about PrEP at all levels of organizations working with PWID.

Condoms – PHKSC, the WSDOH and community collaborators distributed over 450,000 male condoms in King County in 2018. In addition, in the past two years, PHSKC sought to increase condom use by making free condoms more readily available in economically disadvantaged communities in south King County and through distribution of condom fit kits at the STD Clinic.

Figure 6: Condom use among men who have sex with men, 2019 Seattle PRIDE Survey



Among sexually active MSM respondents to the 2019 PRIDE Survey, 28% reported always using condoms, 34% sometimes used condoms, and 38% never used condoms (Figure 6). Among higher risk HIV negative/unknown status MSM (e.g. 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), most (60%) used condoms at least some of the time, though only 18% reported using them all of the time. Although some evidence suggests that condom use among MSM is declining – a trend that is likely partially, but not completely attributable to PrEP - most sexually active MSM (68-70%) continue to use condoms at least some of the time, and many MSM indicate they are willing to use condoms more.

Among heterosexual youth, a population at high risk for bacterial STIs, condom use remains suboptimal. In 2018, 7% of 8th graders, 19% of 10th graders, and 32% of 12th graders in King County who responded to the Healthy Youth Survey reported ever having had sex and 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 intercourse.

While we are seeing improved access due to recent initiatives, access to free condoms continues to be a barrier to condom use among MSM and heterosexual youth.

Syringe Services Program (SSP) – King County has a robust SSP program, including partnerships with CBOs. In 2018, the PHSKC SSP exchanged approximately 8 million syringes, which is an increase of 1 million syringes since 2017. To our knowledge, King County distributes more syringes per PWID than any other city in the U.S. The SSP also offers substance use disorder treatment referrals, naloxone training and distribution, social work services, and wound care. The SSP conducts a client survey once every two years that provides crucial information about drug use patterns, HIV/STD testing, HCV testing and treatment and health services priorities among SSP clients.

In 2018, PWID living homeless in north Seattle (n=15) who participated in a PHSKC needs assessment described having very limited access to clean injection equipment in north Seattle, despite high demand. Indeed, an increase in HIV cases among PWIDs, **namely a cluster of cases in north Seattle, were in an area with fewer local services, including no regular SSP.**

Thus, despite overall high levels of viral suppression among people living with HIV in King County (including PWID) as well as the highest level of syringe coverage in the U.S., to reduce HIV incidence we must expand SSP access to geographic areas (especially north Seattle) where residents at risk for acquiring HIV currently have insufficient access to syringe services.

Pillar 4: Respond

Molecular Surveillance and Cluster Investigation - PHSKC has had a molecular surveillance program for over 20 years and has identified various clusters through partner services, time-space proximities, and analyses of drug resistance test (molecular) methods. In addition, Washington State participates in CDC-funded molecular surveillance to detect clusters of HIV infection and PHSKC conducts cluster investigations and outreach for cluster members who are virally unsuppressed or out of care. Specifically, PHSKC has an experienced team of DIS's who provide partner notification services, link newly diagnosed PLWH to care, implement D2C activities (*overlap with Pillar 2*) and undertake cluster investigations. Further, collaborating investigators at UW (Drs. Josh Herbeck and Roxanne Kerani) conduct NIH-funded research on phylogenetic analysis and HIV cluster response and PHSKC developed a program to monitor the potential for transmission of "PrEP-resistant" HIV strains and conduct outreach to engage viremic individuals to prevent transmission.

While PHSKC has a robust cluster investigation and molecular surveillance program, after identifying a recent cluster of HIV diagnoses among PWID largely based in north Seattle it became clear that the **current team does not have the resources to do field outreach or the sort of intensive investigation that we would ideally conduct as part of cluster investigations** (*overlap with Pillar 2*). Additional support is needed to help more rapidly identify clusters, increase how often we process and analyze molecular cluster and partner services data, and more robustly conduct outreach activities for cluster members.

Collaboration Needs to Achieve EHE Goals – Collaborating with partners - including Ryan White Part A and B grantees, planning bodies and funded agencies - is essential to identify, link, engage, retain, and achieve and sustain viral suppression. King County's HIV control effort includes HMC, homeless shelters, jails, case management organizations (including LGBTQ community and minority CBOs), supportive housing, and food programs. But service gaps persist, as detailed by pillar above. Our collaboration with two King County Jails is working, but we have no connection to the jail in south King County or those in cities bordering north Seattle. Although we have been successful working with EDs in the UW system, we lack collaborations with other EDs. Finally, while our network of clinical, social service and community collaborators has expanded in response to recent outbreaks among PLWH living homeless, we need to expand our network of collaborators, particularly those who work with and provide care and services to persons who are living homeless. **The changing epidemiology of HIV in our area requires that we find new partners in south King County and north Seattle, and that we cultivate new collaborations with organizations who have the trust of the often marginalized communities – racial and ethnic minority communities, women who exchange sex, substance users - that are increasingly affected by HIV.** We also need to develop new interagency collaborations that integrate clinical care with social services, ideally under a single roof. Addressing these needs will require building new capacities, infrastructure, and collaborations related to clinical care, social services, and information technology.

SECTION FOUR: KING COUNTY EHE PLAN

The following plan articulates King County's goals, outcome measures and activities by EHE Pillar and aims to achieve the following overarching goals of the National EHE Initiative:

- Reduce new HIV infections in King County by 75% in 5 years
- Reduce new HIV infections in King County by 90% in 10 years
- Reduce HIV-related health disparities among people living with HIV

In an effort to decrease disparities and increase equity in HIV prevention and care engagement and ultimately individual and population-level health outcomes, the King County EHE planning committee articulated the following values to guide EHE implementation:

1. EHE activities need to address structural racism.
2. EHE activities need to address stigma in all of the forms experienced by persons at high risk for acquiring and living with HIV infection. These forms include but are not limited to stigma related to PrEP use (and by extension, sexual activity), HIV infection, drug use, homelessness, and current or history of incarceration. Activities need to be implemented in ways that do not inadvertently reinforce or exacerbate stigma.
3. Whenever possible, activities should be provided by organizations comprised of or serving PLWH and/or persons at high risk for acquiring HIV infection. If such an organization is not available or able to provide these services, or through doing so PLWH may experience greater barriers to care related to stigma, we will explore options for creating new services.
4. Encourage partnerships between health care organizations and community-based organizations, and if the partnership is part of a contractual relationship with PHSKC, work to ensure that community-based organizations are in an empowered role in the partnership.

Pillar One: Diagnose

Pillar One Key Activities:

1. *Increase routine HIV testing in clinical settings*– We will work with healthcare organizations and community health centers throughout King County to identify and implement strategies to increase routine HIV testing in clinical settings, including emergency departments, FQHCs, and other primary care settings, with an emphasis on entities serving people outside of the central Seattle core. We will encourage and if possible incentivize innovative health care and community-based partnerships to increase HIV testing among persons at high risk for acquiring HIV. And as part of this activity we will encourage clinical settings to also increase testing for Hepatitis C, STI's, and other conditions comorbid with HIV.
2. *Increase HIV testing in non-clinical sites*– To reach additional populations at high risk for HIV infection, we will expand HIV testing to new non-clinical sites, including community-based organizations (especially those providing services in north Seattle and south King County), shelters and service sites for people experiencing homelessness/unstable housing, jails and outreach sites. As part of this activity we will encourage non-clinical settings to also increase testing for Hepatitis C, STI's, and other conditions comorbid with HIV.
3. *Increase partner notification services* – Current resources are insufficient to provide HIV partner services to all persons with newly diagnosed HIV infection in King County. We will intensify partner notification services to increase the number of exposed partners identified, tested, and linked to PrEP or HIV care.

4. *Develop and implement health education-related strategies to increase HIV testing among people of color* –We will work with community-based organizations and people from diverse communities, especially in north Seattle and south King County, to develop and implement health education related activities, such as public awareness and testing mobilization campaigns, to increase awareness of HIV and HIV testing, reduce HIV-related stigma, and increase HIV testing among Black and Latinx residents as well as residents for whom English is not their primary language. Whenever possible, these strategies will also educate and promote testing and care for Hepatitis, STI's, and other conditions comorbid with HIV.
5. *Allocate resources for incentives* - We will dedicate resources to provide incentives to encourage persons at high risk for acquiring HIV to engage in the Pillar 1 activities described above.

Workforce: For Pillar 1, key partners include PLWH, CBO's, faith-based organizations, community media outlets, social service providers, FQHCs, healthcare systems, private clinicians, hospitals and emergency department leadership, jails, and social marketing firms.

Monitoring Data Sources: For Pillar One, relevant data sources include the Washington State HIV/AIDS Reporting System (eHARS), lab slip database and partner services database.

Potential Funding Resources: CDC Prevention and Surveillance Funds, State funding, County funding, EHE Initiative funding, Medicaid, private insurance, and additional in-kind resources that support the non-EHE funded work of key partners above.

Pillar Two: Treat

Pillar Two Key Activities:

1. *Expand low barrier HIV care* – Expanding the availability of low barrier care is a key component of our EHE plan. Most King County PLWdH are virally suppressed but achieving viral suppression among the remaining unsuppressed PLWH will require new, more intensive efforts to diminish structural barriers to care and integrate support services into care delivery. We will expand our system of differentiated care in the following ways:
    a. *Expand number of PLWH receiving low-barrier care at the Max Clinic (central)*
    b. *Expand number of PLWH receiving lower-barrier care at the Mod Clinic (central)*
    c. *Open a new low-barrier clinic in north Seattle*
    d. *Open a new low-barrier clinic and/or initiate a variety of low-barrier HIV care services addressing the needs of different populations in south King County*
        i. *As part of this activity we will engage in rapid formative work in south King County to inform the location(s) and types of low-barrier services to initiate - this may involve a brick and mortar clinic, investing in existing clinical settings, mobile services, or a combination of these, depending on the needs of the communities in south King county.*
2. *Provide co-located treatment adherence and psychosocial support in care sites* –We will expand the availability of adherence support, substance use, and mental health services by co-locating services at low-barrier care sites, with services solicited from organizations working in and with the communities living in each geographic area. We will encourage low

barrier care sites to provide information to PLWH about the availability of peer support services and help them engage those services if they are interested in them.

3. *Increase the availability of lower-barrier care within traditional HIV care delivery settings* - We will work with Ryan White and non-Ryan White-funded HIV care providers to increase the availability of evening and weekend hours for people with HIV who can navigate traditional care systems but cannot attend visits during regular business hours.
4. *Enhanced linkage to care for persons with newly diagnosed with HIV*– We will enhance monitoring of all newly diagnosed PLWH until they achieve viral suppression, intervening to promote engagement for those with a lapse in care and those who do not have evidence of declining viral loads leading to suppression (indicators of "early disengagement").
5. *Expand real-time data-to-care (RT D2C)*– We will expand our RT-D2C system to enable health departments and collaborators identify OOC/unsuppressed persons when they present to EDs, inpatient hospitals, jails, STD clinics, pharmacies, or receive STD partner services.
6. *Expand existing HIV clinical capacity in south King county.* We will engage members of the EHE Health Care collaborative, local HIV clinical training programs, and the MWAETC to identify ways to increase the capacity of existing clinical providers in south King county to provide HIV clinical care to PLWH.

Pillar 2 activities build upon our comprehensive system of care funded through the Ryan White Part A program for people living with HIV who have low incomes, specifically:

- *Early intervention Services* to identify high-risk persons who do not know their HIV status, provide them HIV education and targeted HIV testing, and refer those who test positive to HIV care and support services.
- *Medical Case Management services* are funded through the WA State DOH Ryan White Part B program and support medical case management for PLWH in King County.
- *Non-Medical Case Management* helps PLWH identify and access services for non-medical needs such as housing, oral health, food/meal, and adherence support.
- *Housing Services* provide limited short-term assistance to help PLWH experiencing homelessness or unstable housing access emergency placements at local homeless shelters and motel/hotels, as well as transitional housing placements.
- *Food bank/Home delivered meals* services include delivery of prepared meals and provision of grocery bags, essential household items (toiletries), and nutritional counseling and skills building to Ryan White clients.
- *Medical transportation* services provide reimbursement for one-way rides for Ryan White clients to get and/or from core medical or support service appointments.
- *Oral health* services ensure Ryan White clients receive diagnostic, preventative and therapeutic oral health care.
- *Outpatient Ambulatory Health Services - Treatment Adherence* services support in-person and phone encounters with PLWH around treatment readiness, medication adherence, medication education and directly observed therapy.
- *Psychosocial support* services include individual and group support sessions.

Washington state is a Medicaid expansion state and as such the Seattle Part A TGA has a core services waiver and does not use Ryan White funding to support medical or mental health services in King County.

Workforce: For Pillar Two, key partners include PLWH, healthcare systems, FQHCs, private clinicians, CBO's, faith based organizations, social service providers, hospitals and emergency department leadership, jails, MWAETC, and the HIV prevention training centers.

Monitoring Data Sources: For Pillar 2, the relevant data sources includes eHARs, CAREWare/Provide (Ryan White), partner services database, Comprehensive HIV/AIDS Relinkage database (CHARD) and a commercial data information exchange - Collective Medical System - which collects data from all hospitals and EDs in King County, as well as the South Correctional Entity.

Potential Funding Sources: CDC Prevention and Surveillance Funds, HRSA Ryan White funding, WA DOH funding, King County funding, City of Seattle funding, EHE Initiative funding, Medicaid, private insurance, and additional in-kind resources that support the non-EHE funded work of key partners above.

Pillar Three: Prevent

Pillar Three Key Activities:

1. *PrEP access and delivery* –We will expand access to PrEP by increasing the number of providers offering PrEP (especially in north Seattle and south King County) and incorporating PrEP availability through telehealth, mobile outreach efforts and pharmacy models. We will encourage pharmacists to offer referrals and facilitate access to primary care for persons initiating PrEP through pharmacy models. Finally, we will work with pharmacists to identify and provide education to primary care providers reticent to prescribe PrEP.
2. *PrEP care navigation and retention* – We will work with health providers and community partners who provide PrEP and/or work with populations underserved with PrEP to develop and incentivize new models of care to diminish barriers to PrEP initiation and retention, such as integration of PrEP navigation into clinical settings (and encourage healthcare organization-community partnerships to do so), identification of locations for high volume prescribing, and linkage to the state PrEP Drug Assistance Program.
3. *Conduct PrEP education with communities of color* – To improve acceptability and uptake of PrEP in communities of color, we will work with community partners to develop and implement educational activities for persons at high risk for acquiring HIV and providers to address stigma related to HIV and PrEP.
4. *Expand condom access project* – We will expand geographical condom distribution in King County through FQHCs, CBOs, jails, local businesses and schools. In alignment with the WA Integrated HIV Prevention and Care plan, we plan to make condoms more available and acceptable for persons at high risk of HIV infection.
5. *Increase syringe services programs (SSP)* – King County already has robust SPPs, however we will expand the geographical sites for distribution of clean syringes, especially in north Seattle, to increase the number of clean syringes distributed per PWID.
6. *Expand availability and accessibility of medication for opioid use disorder medications* – As recommended by the End AIDS Washington Plan, we will add waivered suboxone providers at clinics and in field settings.
7. *Improve delivery of whole-person care for LGBTQ by medical providers* – As recommended by the BREE collaborative, we will educate providers on whole-person care delivery,

collaborate with WSDOH to ensure the layout of case management tools and databases is informed by the BREE recommendations, and convene learning collaboratives to implement Bree recommendations specific to different facets of our healthcare delivery systems.

Workforce: For Pillar 3, key partners include PLWH, CBO's, Black PrEP Expansion Group, social service providers, FQHCs, healthcare systems, private clinicians, jails, local businesses, schools, and WA Bree Collaborative partners.

Monitoring Data Source: To monitor Pillar 3, we will use the National HIV Behavioral Surveillance (NHBS) survey, the Behavioral Risk Factor Surveillance Survey (BRFSS), PRIDE Survey and Syringe Services Program (SSP) data.

Potential Funding Sources: CDC Prevention Funds, State funding, County funding, EHE Initiative funding, Medicaid, private insurance, and in-kind resources that support the non-EHE funded work of key partners above.

Pillar Four: Respond

Pillar Four Key Activities:

1) *Community engagement for increased transparency and acceptance of cluster investigation and molecular surveillance* – We will engage community members and medical providers through presentations and web-based information to improve transparency and acceptability of cluster investigation and molecular surveillance activities.
2) *Conduct molecular surveillance and cluster investigations* –We will conduct cluster analysis no less than monthly to identify new clusters and new cluster members, increasing how often we process and analyze molecular cluster and partner services data.
3) *Provide outreach services to known cluster members* – We will provide outreach services to cluster members with an unsuppressed viral load to help them achieve viral suppression, offer them partner services, and test and link their partners to HIV care or PrEP.

Workforce: For Pillar 4, key partners include PLWH and other community members, healthcare providers, and University of Washington epidemiologists and researchers with expertise in cluster network analysis and molecular surveillance.

Monitoring Data Source: We currently have three molecular surveillance methods for identifying clusters: CDC's Secure HIV Trace, CDC's Microbe Trace and Divein (a UW system). Additional data will be collected using the partner services and CHARD databases.

Potential Funding Sources: Core HIV Surveillance funding from CDC**,** EHE funding from HRSA and/or CDC and NIH CFAR funds.

Pillar Five: Sustain

Pillar Five Key Activities:

1) *Develop and implement an ongoing infrastructure for community engagement* - We will develop a structure for ongoing discussion and input with community stakeholders, convening the group(s) at least annually to review progress on EHE goals, identify revisions or modifications as needed, and discuss approaches to sustaining activities over time.
2) *Conduct a mid-initiative evaluation and implement a sustainability plan by the end of EHE initiative* - In the middle of year 3 or beginning of year 4 - depending on the mid-point for each EHE activity - we will initiate a mid-initiative evaluation to identify specific activities that appear to have been successful in reducing HIV incidence in King county and then develop and implement a plan for sustaining them after the EHE initiative funding ends.
3) *Increase cross-systems collaboration* - In order to address structural barriers to care and social determinants of health that cannot be addressed through EHE initiative funding alone, we will identify planning bodies and advisory groups serving people with HIV outside of the traditional HIV care system (for example, those serving people experiencing homelessness or unstable housing, substance use disorders, mental health conditions, and food insecurity) and collaborate to engage HIV systems' representative(s) in their planning and/or advisory bodies and for representatives from their systems to participate in the HIV prevention and/or care system planning and advisory bodies.
4) *Workforce capacity development* - in addition to expanding geographic HIV clinical capacity addressed in Pillar 2 above, we will work with community stakeholders to identify and address barriers to a robust HIV prevention and care workforce in King County. Some examples of barriers include current limits on phlebotomy training available for new staff at CBO's and lack of awareness among healthcare organizations of successful peer and community health worker models to support HIV prevention and care engagement.

Workforce: For Pillar 5, key partners include 1) PLWH, 2) healthcare systems, FQHCs, private clinicians, CBO's, and social service providers involved in implementing EHE activities, 3) PHSKC EHE staff, 4) government and planning/advisory bodies for systems specifically focused on people experiencing homelessness, substance use disorders, mental health conditions, and food insecurity, and 5) state and local governments, capacity building providers, and others who can help address barriers to HIV prevention and care workforce capacity.

Monitoring Data Source: Most of Pillar 5 activities are process measures - as such, program records will serve as the primary data source. For Activity 2, evaluation of the success of initiative activities will be based on each activity's pillar-specific metrics as well as the overall EHE outcome of marked reduction in HIV incidence by the time of the evaluation.

Potential Funding Sources: Pillar 5 activities will be initially fully supported by EHE initiative funding, followed by increasing leveraging of funding and in-kind resources available through other systems serving persons at high risk for acquiring or living with HIV and organizations focused on workforce capacity development.

SECTION FIVE: CONCURRENCE PROCESS

As noted in Section One, King County does not currently have a local planning body that addresses both HIV care and prevention. The state has the WSDOH HIV Planning Steering Group, which includes several King County representatives, and the Seattle TGA Ryan White Planning Council which focuses on HIV care planning for a three-county area. In considering the needs of the King County EHE plan, our group, including both PHSKC and the WSDOH staff, believed that the best body from which to seek concurrence is the EPC, which was designed to include a more diverse cross section of representatives of King County communities and providers than either the full HPSG or the Ryan White Planning Council. However, as noted above, the EHE plan incorporates data and needs assessment information from each of these planning bodies and PHSKC shared updates and sought feedback from each group over the course of the planning year.

Ultimately, concurrence was the culmination of an 18-month process of engaging a wide variety of stakeholders through 14 in-person then online meetings (EPC (5), PCAG (2), HAG (2), Planning Council (3), and HPSG (2)) and two public input mechanisms. The EPC discussed all input provided by advisory groups and the public, selecting those changes they felt held the greatest potential for achieving the goals of radically decreasing incidence of HIV and disparities in diagnosis and care outcomes among specific populations over the next decade. After reviewing the final input from advisory bodies and the public in early December, the EPC made final revisions to the EHE plan and provided formal concurrence at their final meeting on December 14th, 2020. (update if not) The EHE plan will be posted on the WSDOH and PHSKC websites and will continue to be updated during and in response to lessons learned during the plan's implementation.

Appendix: References (to be updated)

1. Hood JE et al. Integrating HIV Surveillance and Field Services: Data Quality and Care Continuum in King County, Washington, 2010-2015. Am J Public Health 2017;107:1938-43.
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