
Results from the 2015 Washington State Drug Injector Health Survey

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BACKGROUND

Injection drug use occurs across Washington State. A conservative estimate of the number of people who inject illegal drugs in Washington State is 25,636.¹ Recent injection drug use was reported by 12,687 Washingtonians who entered publicly funded treatment for the first time between 2006 and 2015. While new HIV infections have remained low within this population (injection drug use has accounted for only 10%-12% of newly reported HIV cases in Washington in recent years)², the prevalence of hepatitis C is much higher. One recent Seattle area study of people who inject drugs (PWID) found a hepatitis C prevalence rate of 73%.³ Drug overdose fatalities have been rising steadily across the state; at least 293 people died from a heroin-related overdose in 2014, roughly double the number who died from heroin in 2008. Deaths involving cocaine, methamphetamine, and pharmaceutical opioids continue to persist.

In 2015, there were at least 20 organizations operating syringe exchange programs (SEP) around the state. These programs exchange new syringes for used ones to prevent the spread of infectious disease, distribute clean injection equipment (e.g., cookers, cottons, alcohol wipes) to prevent bacterial infections, and provide other health services such as HIV and hepatitis C testing, wound care, health insurance enrollment, and referrals for drug treatment. SEPs across WA State vary widely in terms of operating hours, budget and staffing capacity, syringe volume, and auxiliary services provided.⁴

As each SEP operates independently and has its own capacity, methods, and schedule for data collection, there has been no comparable data about PWID across the state. Since 2004, Public Health – Seattle & King County (PHSKC) has been surveying its syringe exchange clients every two to three years. In 2015 the Center for Opioid Safety Education (COSE) at the University of Washington's Alcohol & Drug Abuse Institute (ADAI) coordinated with PHSKC to extend its semi-annual client survey to other SEPs around the state to establish a uniform profile of PWID and their health-related needs and behaviors.

METHODS

The client survey was adapted from existing PHSKC surveys, with input from SEPs, to assess:

- Demographics and drug use patterns.
- Utilization of syringe exchange and other health care services.

¹ This estimate is based upon injection patterns and syringe usage reported by clients in the 2015 survey, which indicated an average of 559 syringes used per year per person and an estimate of 14,330,534 syringes distributed in WA State. The estimate is conservative because 1) more syringes were distributed at SEPs than estimated here, and 2) many PWID also get some or all of their syringes at pharmacies or other locations not tallied here.

² *WA State HIV Surveillance Semiannual Report, December 2015*. WA State Department of Health.

³ *Highlights from the 2012 Seattle Area National Behavioral Surveillance Survey of Injection Drug Users*. HIV/AIDS Epidemiology Report, First Half 2013. Public Health – Seattle & King County.

⁴ The report *Overview of Syringe Exchange Operations in Washington State 2015* is available at <http://adai.uw.edu/pubs/infobriefs/SEPOverview2015.pdf>

- Prevalence of opioid overdose, risk behaviors for overdose, and availability of naloxone.
- Prevalence of high-risk injection practices.
- Health care concerns of PWID, including interest in help to reduce drug use.

No direct, personal identifiers were collected, and the University of Washington Human Subjects Division determined that the project was not human subjects research.

Trained SEP staff and volunteers administered the voluntary, face-to-face questionnaire to clients during normal syringe exchange operations. At PHSKC, most data collection was done electronically, while the other SEPs collected data using a paper survey that was then entered by COSE staff. COSE staff also provided training and onsite technical assistance to support surveying.

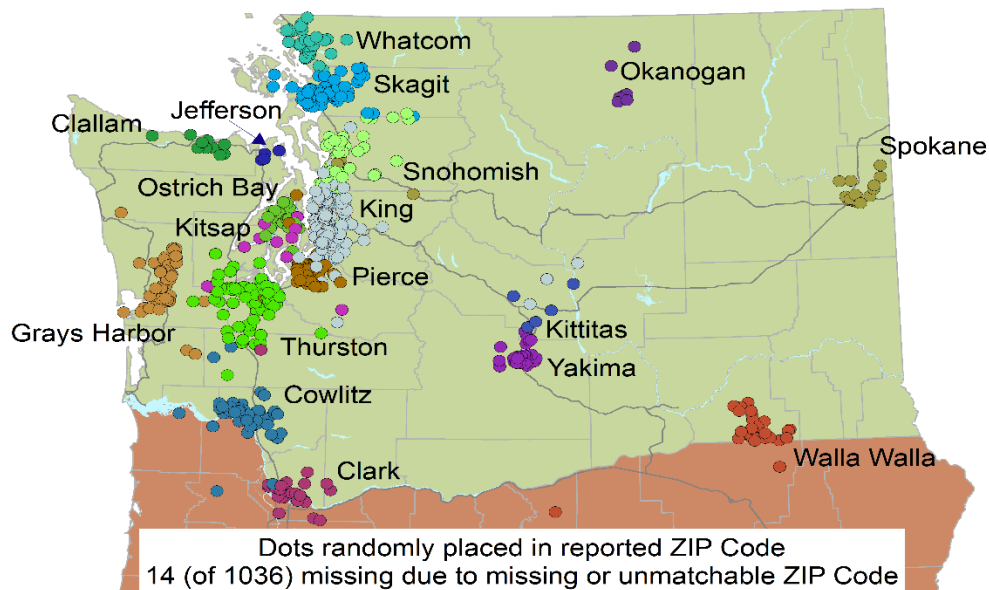
RESULTS

Eighteen SEPs in 17 counties agreed to participate and together collected 1,036 valid client surveys (Table 1). The map in Figure 1 indicates the zip codes where clients reported they had slept the night before, color coded by the SEP at which they were surveyed. (See Appendix 1 for a more detailed map that shows zip code distribution by survey location and also type of syringe exchange.)

Table 1. Number of surveys collected by syringe exchange site.

Clallam	10	Kitsap	20	Snohomish	86
Clark	27	Kittitas	5	Spokane	22
Cowlitz	49	Okanogan	10	Thurston	88
Grays Harbor	59	Ostrich Bay	32	Walla Walla	27
Jefferson	4	Pierce	77	Whatcom	36
King	391	Skagit	60	Yakima	33

Figure 1. Survey respondents by zip code and survey site



Demographics

Among the 1,036 respondents, 57% were male and 43% were female (Table 2). Four respondents identified as transgender. About one-third (32%) were under the age of 30, with another third (33%) between ages 30-39 and 35% age 40 or over. Respondents most often identified as white (82%); however, multiple categories could be selected. The proportion of other racial/ethnic categories was fairly similar across survey sites, although a higher percentage of individuals identified as Black in King County (9%) and as Latino in Eastern WA sites⁵ (24%). Among male respondents, 10% reported having had sex with another male in the last twelve months.

The majority of respondents did not have secure housing. One-third (34%) were homeless and another 28% described their housing as unstable or temporary. Over one-third (39%) of respondents reported they had been in jail or prison in the last 12 months; among participants in Snohomish County, the proportion was 50%.

Mean monthly income was \$577, ranging from \$265 among participants in Skagit County to \$714 in King County. At least 80% reported income levels that met eligibility criteria for Medicaid ($\leq 138\%$ of the Federal Poverty Line).

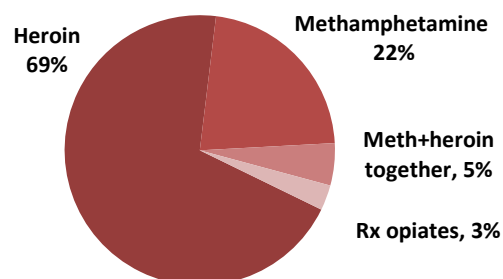
Drug Use

Participants were asked about any use of a drug over the past 3 months and to identify their main drug. Heroin was the most commonly used drug, followed by methamphetamine. Eighty-two percent reported using heroin in the last 3 months and nearly all (99%) had injected it. Two-thirds (69%) identified heroin as their main drug (Figure 2). Across all sites, heroin outranked methamphetamine as the main drug used by respondents. Two-thirds (69%) reported using methamphetamine in the last 3 months, primarily by injection (83%) and 40% reported using it in combination with heroin. Twenty-two percent identified methamphetamine as their main drug.

Table 2. Demographic characteristics of respondents

	n= 1036	%
Gender		
Male	587	57%
Female	442	43%
Transgender	4	<1%
Age		
<30	332	32%
30-39	337	33%
40-49	207	20%
50-59	122	12%
60+	35	3%
Race (multiple responses allowed)		
White	854	82%
American Indian/Alaska Native	115	11%
Black	56	5%
Latino/Hispanic	55	5%
Asian/South Asian	18	2%
Native Hawaiian/Pacific Islander	15	1%
Other	18	2%
Housing status		
Permanent	389	38%
Homeless	350	34%
Temporary/Unstable	294	28%
In jail or prison, last 12 months	395	39%
Monthly income	Mean \$577	

Figure 2. Main drug used by participants



⁵ Includes participating SEPs in Kittitas, Okanogan, Spokane, Walla Walla and Yakima Counties.

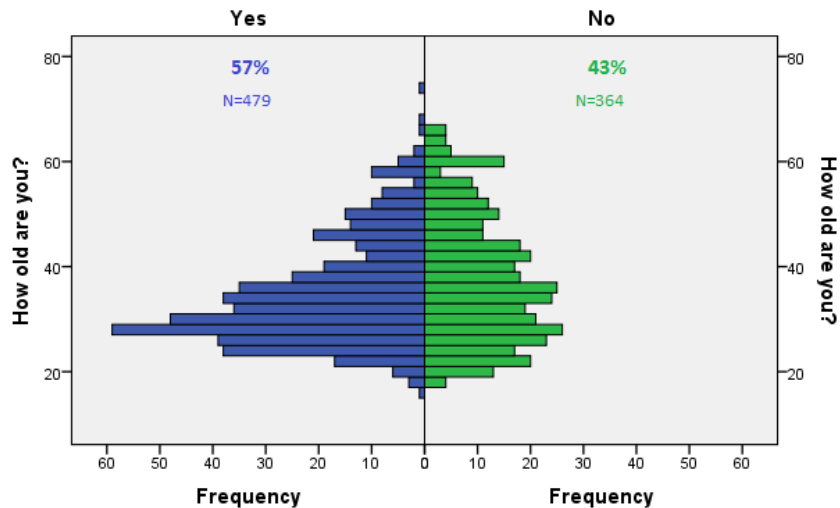
There was some regional variability in drugs used in the last 3 months (Table 3). Heroin use was most prevalent in King County (91%) and lower among the combined Eastern WA sites (63%). Conversely, methamphetamine use was more prevalent across the Eastern WA sites than in King County (75% and 59% respectively). Prevalence of powder and crack cocaine use in the last 3 months was higher in King County.

Table 3: Regional variance in drugs used in the last 3 months

	All sites n=1,036	King County n=391	Eastern WA n=97
Heroin	82%	91%	63%
Methamphetamine	69%	59%	75%
Methamphetamine and heroin together	40%	38%	29%
Opiate medications (e.g., OxyContin, Vicodin, methadone, buprenorphine)	35%	41%	33%
Benzodiazepines/"downers"	29%	36%	24%
Powder cocaine	12%	17%	8%
Crack cocaine	16%	33%	6%
Cocaine and heroin together	12%	22%	7%

Among those who had used heroin in the last three months, 57% reported they were “hooked on” prescription type opiates before they began using heroin. Figure 3 indicates the large number and proportion of young adults reporting this trajectory of opioid use.

Figure 3. “Before you began using heroin were you hooked on prescription-type opiates?”

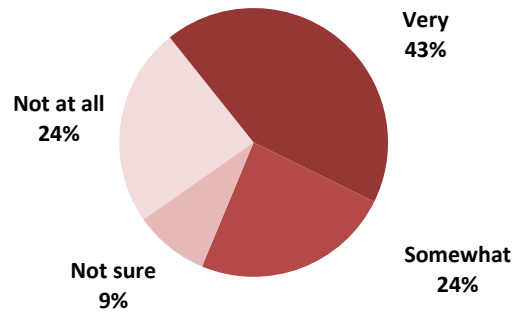


There were 135 respondents (13%) currently enrolled in a drug treatment program, most of whom (n=90) were in a methadone program. Of those not currently in treatment, about half (49%) had used at least one treatment/recovery program in the last 12 months. The types of programs used included (multiple responses allowed):

- 12-step support groups (25%)

- Detox (23%)
- Inpatient treatment (17%)
- Outpatient treatment (16%)
- Buprenorphine (16%)
- Methadone (14%)
- Naltrexone (<1%)

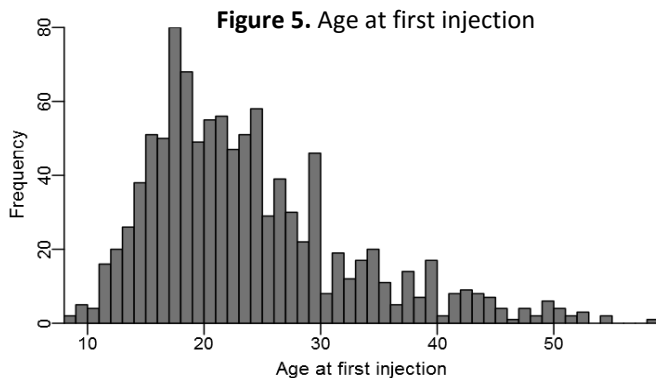
Figure 4. Interest in getting help to reduce or quit drug use among those not in drug treatment



Those who were not currently in treatment were also asked, “How interested are you in getting help to cut down or quit your drug use?”. Forty-three percent answered “very interested” and 24% said they were “somewhat interested.” Nine percent were “not sure.” Approximately a quarter (24%) of respondents said they were “not at all interested” (Figure 4).

Injection Practices

The average age at first injection was 24 (age range 8-59), with at least 75% of respondents injecting by the age of 29. The most common age reported at first injection was 17 (Figure 5).



On average, respondents injected 5.8 days per week (with most injecting daily) and an average of 3-4 times per day. Statewide the average number of injections per week was 22.

Sharing syringes (a risk for HIV and hepatitis C transmission) was uncommon, with the vast majority (82%) reporting no syringe sharing in the last 3 months. Of those who did

share a syringe, most (61%) said they shared with only 1 person. Only about a third of respondents (39%) said they had shared injection equipment (e.g., cookers, cottons) in the last 3 months, about half of whom (51%) said they had shared equipment with only 1 person. Sharing injection equipment also carries risk of infectious disease transmission, particularly hepatitis C.

When injecting, a minority of respondents reported injecting into sites other than a vein, which increases risk of bacterial infection, abscesses, and cardiovascular problems. In the last 3 months, 30% had injected into a muscle (“muscling”), 12% had injected into a femoral artery, and 11% had injected under the skin (“skin popping”).

Syringe Exchange Utilization

Most respondents reported using a syringe exchange between 2 and 3 times in the last 30 days (mean = 2.6 visits). The average frequency of visits did not vary notably based on the number of hours and/or

days an exchange was open. Average reported travel time to reach a syringe exchange was 19 minutes, similar across syringe exchanges.

Secondary exchange (exchanging syringes on behalf of other injectors) was common; almost half (49%) of respondents reported exchanging syringes for others (average number = 3 other people). Secondary exchange was much more common among participants in Thurston and Grays Harbor Counties (71% and 81% respectively).

Overdose

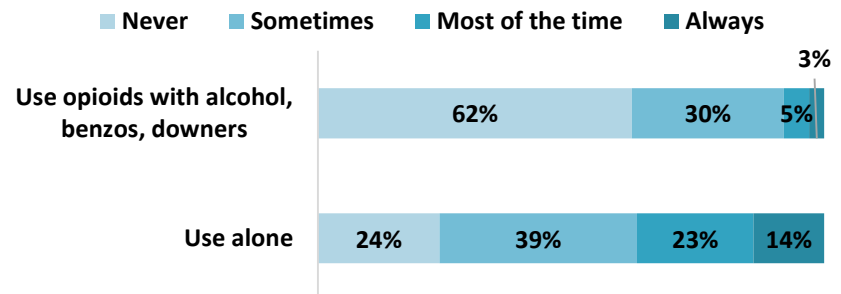
Among those who reported using any heroin or prescription opioids in the last 3 months, about one in four (23%) had overdosed from opioids at least once in the last 12 months. Over half (57%) of opioid users had witnessed an opioid overdose in the last 12 months. Among those who had witnessed an opioid overdose, about half (54%) reported that they or someone else called 911 at the overdose.

Two major risk factors for fatal opioid overdose are using opioids with alcohol or benzodiazepines and injecting alone. Among recent opioid users,

- 38% reported that they sometimes, most times, or always used alcohol, benzodiazepines or downers around the same time they use opioids.
- Just over a third (37%) reported they are always or most times alone when they inject (Figure 5).

In King County, 47% of respondents who had used opioids had take-home naloxone (the medicine to reverse an opioid overdose) in the last 3 months. Outside King County, however, that proportion was much lower (24%) and particularly low among Eastern WA respondents (14%).⁶ Of those who had naloxone, just over half (54%) had obtained it from a syringe exchange and about one-third (31%) had obtained it from a friend or family member.

Figure 6. Overdose risks among opioid users



Health Care

The majority of respondents (86%) had health insurance. Insurance coverage ranged from 59% of respondents from Walla Walla County to 96% of respondents from Spokane County. Most insured individuals had Medicaid (83%), while other insured respondents had coverage from Medicare, private health plans, Veteran’s Affairs, tribal health, or other sources. Forty-four percent said they usually got their medical care at a clinic or doctor’s office. While 37% of respondents usually got their medical care

⁶ Only the King, Clark, Snohomish, Kittitas, Walla Walla, and Ostrich Bay SEPs had naloxone distribution programs at the time of the survey.

at an emergency room, that proportion ranged from 23% of respondents in Spokane County to 55% of respondents from Pierce County.

Most other health care measures were similar across all survey sites. Most respondents had been tested at least once for HIV (89%) and for hepatitis C (86%). About one-third (39%) said they had an abscess in the last 12 months and 26% reported a soft tissue infection (e.g., MRSA, cellulitis) in the same time period, both common health consequences of drug injection. Only 6% (n=27) of female respondents had been pregnant in the last 12 months.

Respondents reported a significant number and variety of primary health concerns that could be grouped into three broad categories:

1. **No health concerns.** A minority (15%) reported they had no current concerns about their health.
2. **Drug use concerns.** Over one-third (39%) reported a main health concern related to drug use. Issues ranged from drug use in general to more specific issues such as abscesses, vein damage, soft tissue infections, desire to quit, need for hepatitis C treatment or advanced complications from hepatitis C. Only two percent said overdose was their primary health concern.
3. **Other health issues.** About half (54%) reported a main health concern not necessarily related to drug use. Table 4 shows the most common health concerns reported in this category.

Table 4: Main health concern, not related to drug use

Concern	Examples mentioned by participants	n=	%
Other chronic conditions	neuropathy, psoriasis, colitis, lupus, irritable bowel syndrome, thyroid, brain damage/memory loss, endometriosis	69	7%
Weight/nutrition	lack of healthy food, diabetes, weight loss/gain	62	6%
Dental	losing teeth, tooth pain	60	6%
Pain	headaches, back pain, arthritis, injury	55	5%
Mental health	depression, anxiety, stress	42	4%
Cardiac concern	high blood pressure, blood clots, poor circulation	39	4%
Respiratory concern	asthma, smoking, breathing problems	28	3%
HIV	need to test, getting treatment, complications from HIV	16	2%
Miscellaneous	can't get sleep while homeless, aging, vision, lethargy	110	11%

DISCUSSION

Across all SEPs, respondents shared a significant level of socioeconomic disadvantage and instability, with high rates of homelessness and incarceration, illustrating the complexity of needs many clients bring into syringe exchange programs. Incarceration rates are concerning, given that interruptions in tolerance caused by incarceration are also a prime risk factor for overdose⁷. Another concern is the sizable proportion of young adults under the age of 30 involved in injection drug use, primarily heroin, who have been increasingly impacted by opioids in recent years⁸.

⁷ Jenkins, L.M., Banta-Green, C.J., Maynard, C., Kingston, S., Hanrahan, M., Merrill, J.O., Coffin, P.O. (2011). Risk Factors for Nonfatal Overdose at Seattle-area Syringe Exchanges. *J Urban Health*. 88: 118-128.

⁸ Cedarbaum, E. and Banta-Green, C.J. (2016). Health Behaviors of Young Adult Heroin Injectors in the Seattle Area. *Drug Alc Depend*. 158:102-9.

Heroin is by far the most commonly injected drug by participants at SEPs (82%). However, the prevalence of methamphetamine use in combination with heroin (40%) was higher than expected, and notably higher among respondents from the Skagit and Snohomish SEPs (58% and 61% respectively). Methamphetamine and heroin each have substantial risks associated with them, and increases in fatal overdoses involving both drugs have been recently reported in King County.⁹

Injection practices, however, are surprisingly similar among respondents across all of the SEP locations. Rates of syringe sharing and high risk injection methods such as muscling and femoral injection are fairly low.

The PHSKC syringe exchange program has a higher proportion of participants in drug treatment (24% versus 7% of respondents outside of King County), although this may simply reflect higher treatment capacity in King County compared to other areas in WA State. The majority of those not in treatment are interested in getting help to reduce or stop their use.

Many factors could explain this discrepancy: individuals may not know what treatment is available or how to access it or other life challenges such as homelessness or mental illness may eclipse drug treatment as higher priorities or impede treatment engagement. People may also want a particular type of treatment that is not available locally. Often, interest in quitting is contingent upon other factors, as seen in the comments below from three participants:

"I'm not at all interested in quitting drugs until I can get proper pain management. I'd quit heroin tomorrow if someone would be willing to treat my pain." - Clallam participant

"I don't need help quitting drugs per se, but I do need help with housing and health care to stay off the drugs." - Yakima participant

"I wanted a drug assessment but got discouraged by the wait time to schedule it out. I'd try again if I had any hope of actually getting some response." - Tacoma participant

More insight into these motivations and preferences could help improve treatment engagement pathways and create a fuller range of treatment options to address this high level of unmet need.

Respondents who used opioids were twice as likely to witness an opioid overdose as to have one. Even though these individuals could assist in an overdose, the majority of them still do not have take-home naloxone, despite the fact that naloxone is legally available for layperson use in WA State.

Respondents reported that 911 was called in about half (54%) of the overdoses witnessed in the last 12 months. These self-reported 911 call rates varied widely by county, ranging from 19% of overdoses in Clark County to 87% in Grays Harbor County. Interestingly, 911 call rates did not seem correlated with urban or non-urban SEPs or with SEPs that do or do not distribute naloxone. WA State's 911 Good Samaritan Drug Overdose law provides immunity from misdemeanor drug possession charges for anyone having an overdose or anyone acting in good faith to aid an overdose victim. Although it is not clear what role fear of law enforcement plays in willingness to call 911, SEPs should continue to educate

⁹ Drug Abuse Trends in Seattle-King County: 2014. Alcohol & Drug Abuse Institute, University of Washington. Available at: http://adai.uw.edu/pubs/cewg/Drug%20Trends2014_final.pdf

clients and local law enforcement about the Good Samaritan law. Online and printable materials are available at www.stopoverdose.org.

A significant proportion of PWID (57%) reported that their main health concern, if they even had one, was not related to drug use. Participants at SEPs have a wide and often complex range of health concerns and service needs beyond substance use, as illustrated by one participant's comment below:

"I'm refused treatment for my hep C because I can't stay clean. I can't stay clean because I'm homeless. I'm homeless because I have so many other health issues going on that I can't hold a steady job. You want to know my biggest health concern? Where do I even start in this?" - Spokane participant

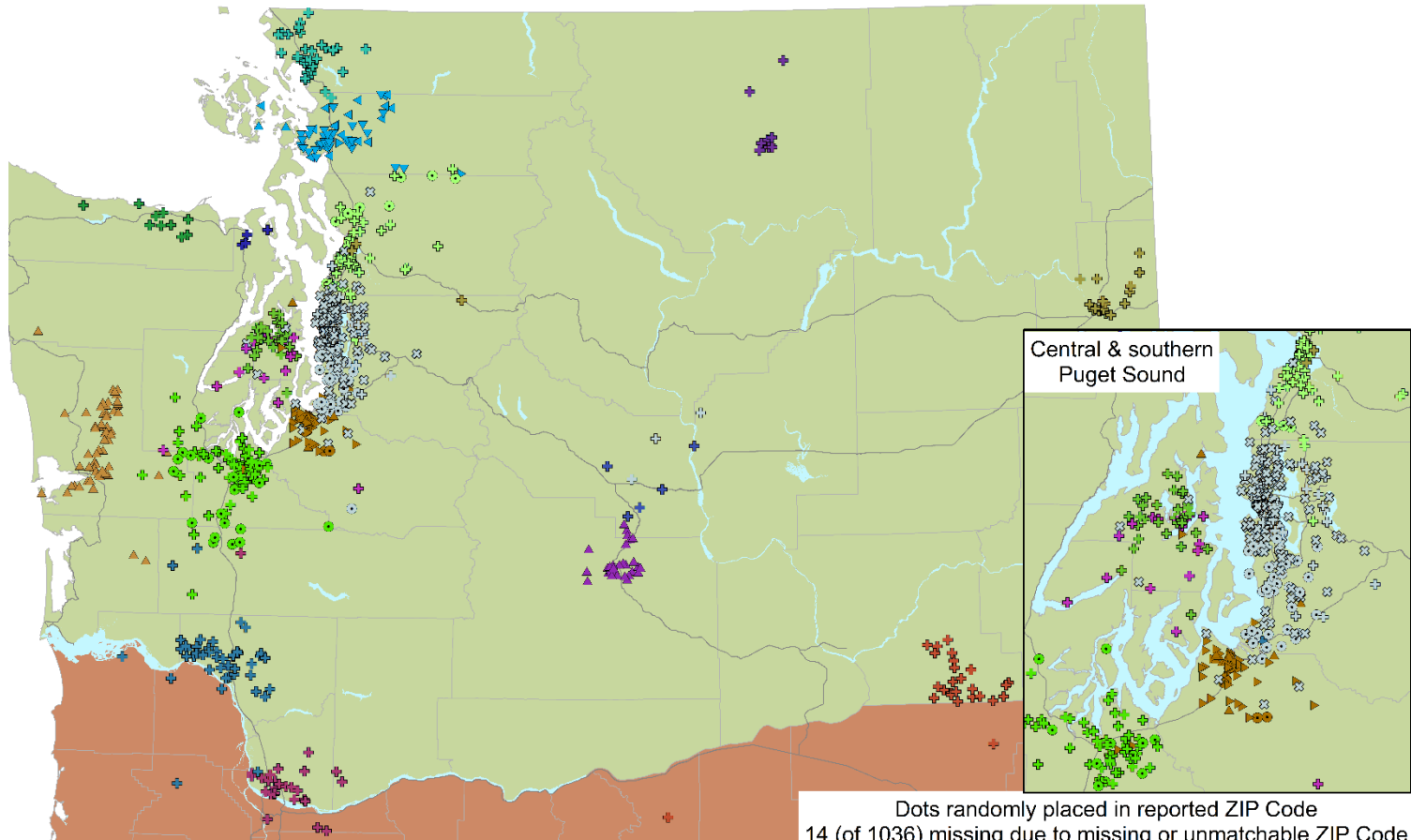
These individuals may be more willing and able to address their substance use if given opportunities to address these health concerns first, or concurrently, with substance use. Given the regularity and frequency with which participants utilize exchange services, staff at SEPs are uniquely poised to establish trusting relationships; provide onsite linkage for HIV, hepatitis C and substance use treatment; help clients navigate social service entry points; and facilitate the use of primary health care over more costly emergency department care. WA State's new managed care model of integrated behavioral health services and greater access to primary care and opioid treatment medications through Medicaid expansion present important opportunities to address these complex health issues. Within this new health care environment, SEPs may be able to play an important role as initial health care entry points and service and care coordination providers.

ACKNOWLEDGEMENTS

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Appendix 1. Survey respondents by zip code, survey location and type of syringe exchange.



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|--------------------------------|---|--|--------------------------|
| ◆ Clallam, building | ⊕ King, delivery | ● Pierce, delivery | ⊕ Spokane, building |
| ◆ Clark, building | ◆ Kitsap, building | ▲ Skagit, parked vehicle Anacortes | ● Thurston, delivery |
| ◆ Cowlitz, building | ◆ Kittitas, building | ▶ Skagit, parked vehicle Concrete | ◆ Thurston, building |
| ▲ Grays Harbor, parked vehicle | ◆ Okanogan, building | ▼ Skagit, parked vehicle Mt Vernon | ◆ Walla Walla, building |
| ◆ Jefferson, building | ◆ Ostrich Bay, building | ◀ Skagit, parked vehicle Sedro Woolley | ◆ Whatcom, building |
| ⊕ King, Capitol Hill building | ▲ Pierce, parked vehicle 14th & G | ● Snohomish, delivery | ▲ Yakima, parked vehicle |
| ⊗ King, Downtown building | ▶ Pierce, parked vehicle 38th & Pacific | ◆ Snohomish, building | |