

Results from the 2021 WA State Syringe Service Program Health Survey



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Key Findings

- In September-October 2021, 955 participants of Washington State syringe service programs completed a survey on their substance use patterns, health behaviors, and health care needs.
- More respondents had used methamphetamine by itself than heroin by itself (86% versus 69%), yet almost half (48%) had used both mixed together (as a “goofball”). Goofball was the third most common “main” drug (21%), after heroin (41%) and methamphetamine (29%).
- Over three quarters (79%) of respondents reported using more than one substance in the past week. Polysubstance use was particularly high among those whose main drug was goofball or fentanyl.
- Almost half (42%) reported using fentanyl in the past three months. Two thirds of these respondents said they had last used fentanyl “on purpose.” Most often that fentanyl was in pill form. The remaining third reported the fentanyl they used, unintentionally, was most often mixed in with another drug.
- Those who had used fentanyl in the past three months were more likely to have had an opioid overdose in the past 12 months than those who had not used fentanyl (27% vs 20%, $p < 0.05$).
- Rates of drug smoking were high. About three in four respondents who had injected any drug in the past three months also reported smoking a drug in the same period. Rates of drug injecting and smoking varied widely by drug type.
- The majority (72%) of respondents who had injected a drug in the past three months said they would like to get safer drug smoking supplies. Of those, about two thirds (64%) thought they would inject less often if they could get safer smoking supplies.
- COVID-19 vaccination rates were generally low (37% statewide) but varied by county. A quarter expressed interest or ambivalence in getting vaccinated.

Survey Overview

The biennial *WA State Syringe Service Program Health Survey* is the state’s primary source of data on the substance use patterns, health behaviors, and health care needs of people who use drugs and utilize syringe service programs (SSPs). The University of Washington’s Addictions, Drug & Alcohol Institute (ADA I) conducts the survey in collaboration with Public Health-Seattle & King County (PHSKC)¹ and the statewide SSP network.

Table 1. Number of surveys collected by county of SSP location

Asotin	1	Jefferson	6	Snohomish	61
Benton	18	King	266	Spokane	83
Clallam	15	Lewis	27	Thurston	95
Clark	42	Mason	29	Walla Walla	40
Cowlitz	17	Pend Oreille	3	Whatcom	6
Grant	11	Pierce	67	Yakima	58
Island	39	Skaqit	71	Total	955

¹ PHSKC uses a slightly modified version of the survey at its SSP sites to accommodate data needs particular to King County.

Twenty-one organizations working in 20 counties chose to participate in the 2021 survey (Table 1).² Staff and volunteers administered the voluntary, face-to-face questionnaire with their SSP participants in September and October 2021 and collected 955 valid responses. This total was lower than previous surveys, largely due to the staffing and operational limits of COVID-19 safety protocols. The appendix shows a map of participant zip codes, color coded by county of the SSP.

Survey Results

Demographics of Respondents

As in previous surveys, the majority of respondents (58%) were men, 40% were women, and just under 2% identified as non-binary or transgender (Table 2). A minority of men (14%) reported having had sex with a man in the past 12 months, and 11% of women reported past year sex with another woman. Respondents ranged in age from 18 to 72, with a mean age of 40 and a median age of 38. Most respondents self-identified as White with the proportion of other race/ethnicity categories varying by county. Two thirds of respondents (67%) reported having unstable or no housing at all.

The majority (92%) had health care coverage, most commonly Medicaid (83%). In the past 12 months, just over half of respondents (53%) had used an emergency room, and one quarter (25%) had been incarcerated.

Gender	n	%	Race/ethnicity <i>(multiple responses allowed)</i>	n	%
Man	555	58%	White	789	83%
Woman	383	40%	American Indian/Alaska Native	95	10%
Non-binary	12	1%	Latino/Hispanic	65	7%
Trans man or trans woman	4	<1%	Black/African American	48	5%
Same-sex partners in past 12 months			Native Hawaiian/Pacific Islander	20	2%
Men who had sex with men	79	14%	Asian/South Asian	10	1%
Women who had sex with women	42	11%	Other	17	2%
Age			Housing status		
18-21	12	1%	Homeless	374	39%
22-25	50	5%	Unstable/temporary	264	28%
26-29	100	11%	Permanent	316	33%
30-39	361	38%	Health care coverage		
40-49	220	23%	Medicaid	789	83%
50-59	155	16%	Private	29	2%
60+	55	6%	Tribal Health/IHS	22	2%
In jail/prison in past 12 months			Other (e.g., Medicare, Veteran's)	49	5%
Used emergency room in past 12 months			None	74	8%

² All SSPs are invited to participate although not all elect to do so.

Use of Syringe Service Programs

On the day they were surveyed, almost two thirds (63%) reported they were exchanging syringes for other people as well as themselves (called “secondary exchange”) and for an average of two additional people (Table 3). The majority also reported using an SSP more than once in the past month, with an average of three times per month.³

How many other people are you getting syringes for today, not including yourself?	No one else	37%
	1 person	26%
	2 people	14%
	3+ people	23%
		Mean=2 people
Including today, how many times did you get syringes from an exchange in the last 30 days?	1 time	43%
	2 times	23%
	3+ times	34%

Substance Use Patterns

Drug Use in Past 3 Months and “Main” Drug

Respondents were asked to specify from a list which substances they had used in the past three months and which they considered to be their “main” drug as they defined it. All respondents had used at least one substance. Any use of methamphetamine and/or heroin was reported by most respondents (Table 4), with almost half (42%) reporting use of fentanyl (by itself or mixed in another drug), in the past three months. A smaller proportion reported using alcohol, benzodiazepines, and/or cocaine in its different forms or in combination with heroin.

Sixteen percent (16%) reported using an opiate medication (other than methadone or buprenorphine) in the past three months. This percentage, however, may reflect perception more than actual use of legitimate opiate pills due to the widespread availability of illicitly manufactured fentanyl pills (i.e., “blues”) that are made to resemble and sold as prescription opiate pills.

While respondents reported a range of substances used in the past three months, most considered their main drug to be either heroin (41%), methamphetamine (29%), or both drugs mixed together into a “goofball” (21%).

	Used in past 3 months		Identified as “main” drug	
	n	%	n	%
Methamphetamine by itself	822	86%	273	29%
Heroin by itself	656	69%	388	41%
Methamphetamine/heroin mixed (goofball)	463	48%	205	21%
Fentanyl, by itself or mixed in something	401	42%	32	3%
Alcohol	327	34%	7	1%
Benzodiazepines	178	19%	4	<1%
Opiate medication (not methadone or buprenorphine)	155	16%	4	<1%
Powder cocaine	157	16%	4	<1%
Crack cocaine	132	14%	5	<1%
Cocaine/heroin mixed (speedball)	115	12%	9	1%

³ Frequency of SSP utilization is closely tied to the number of hours and days each SSP can operate.

Frequency of Drug Use

Figure 1 compares the use of different substances across time periods. Methamphetamine (by itself) was the drug used by the most respondents in the past three months (86%), and the vast majority (82%) also used methamphetamine at least once in the past week. Somewhat lower proportions of respondents used heroin by itself in these same time periods. Just over half used methamphetamine (52%) or heroin (54%) nearly every day (5-7 days) of the past week. A substantial minority of respondents also reported past week use of goofball (43%) or fentanyl (36%).

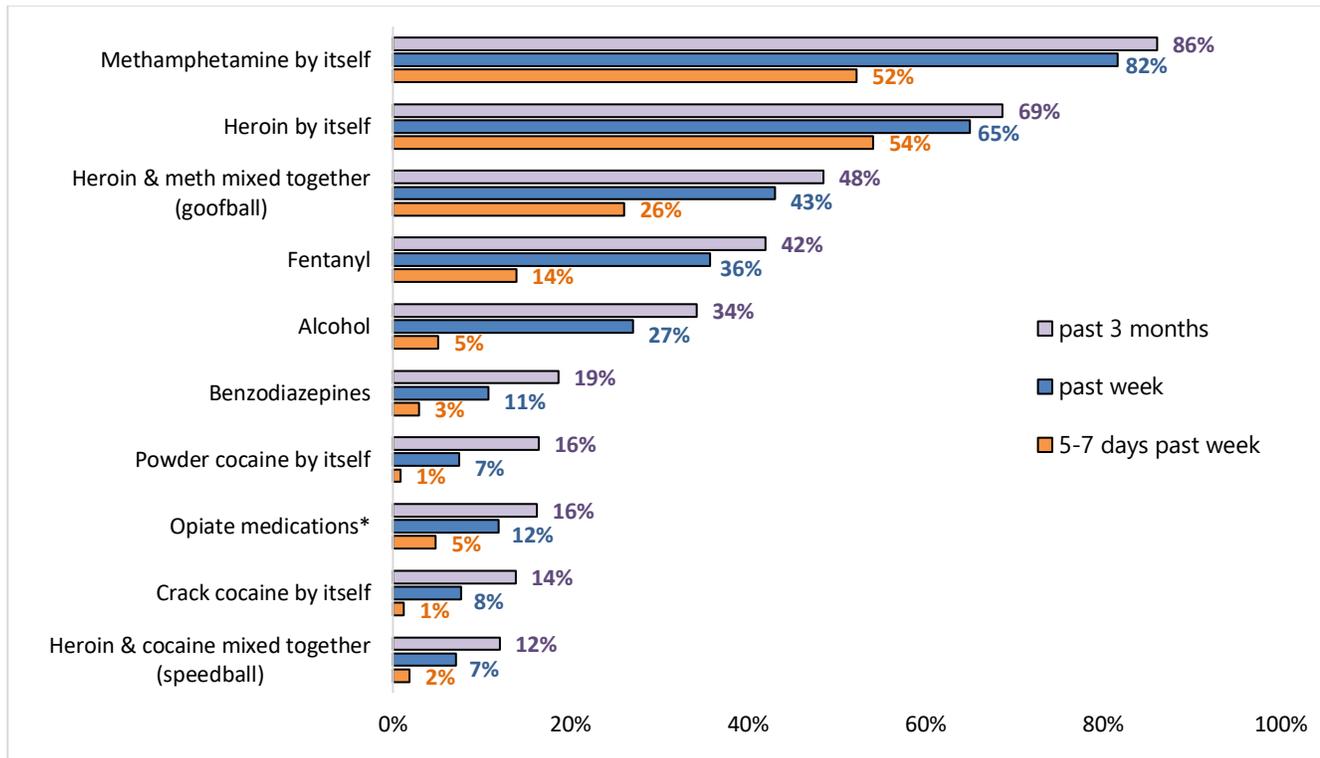


Figure 1. Substances used within different time frames

n=955

*not methadone or buprenorphine

Polysubstance Use

Over three quarters (79%) of respondents reported using more than one substance in the past week (range 0-11 substances, excluding tobacco and cannabis), with an average of three substances within the past week (Figure 2). Alcohol was included in this analysis due to its potential role in drug overdose (concurrent alcohol use increases the risk of fatal drug overdose). While these SSP data do not indicate how many substances may have been used at any one time within the past week, they can suggest elevated risk for both overdose due to overlapping drug effects and/or escalating substance use disorder.

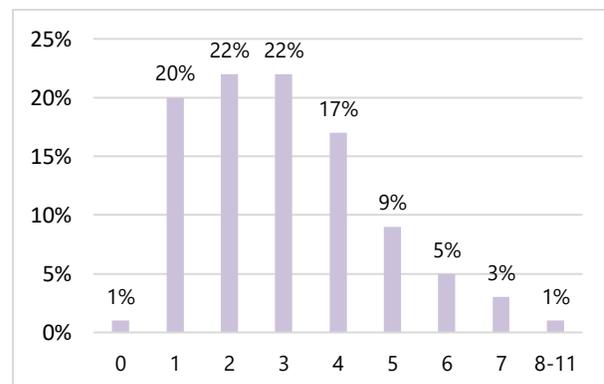


Figure 2. Number of substances used in the past week

n=955

Table 5 shows the variety of substances used in the past week by individuals with different “main” drugs. Past week use of a drug other than the “main” drug was significantly higher among those whose main drug included an opioid than those whose main drug was methamphetamine. In nearly every drug category, prevalence of polysubstance use was highest among those whose main drug was goofballs or fentanyl (although the size of the fentanyl group is comparatively smaller).

Table 5. Polysubstance use in past week by main drug				
	Main HEROIN <i>n</i> =388	Main METH <i>n</i> =273	Main GOOFBALL <i>n</i> =205	Main FENTANYL <i>n</i> =32
Used main drug in past week	96%	96%	97%	100%
Used another substance in the past week	88%	53%	97%	97%
Average number of substances used in past week	3	2	4	4
Other substances used:				
Heroin by itself	--	15%	79%	56%
Methamphetamine by itself	70%	--	86%	91%
Fentanyl	44%	12%	47%	--
Heroin/meth mixed (goofball)	41%	7%	--	50%
Alcohol	22%	35%	23%	22%
Opiate medication (not methadone or buprenorphine)	13%	5%	17%	16%
Benzodiazepines	12%	5%	12%	13%
Heroin/cocaine mixed (speedball)	9%	2%	10%	3%
Powder cocaine	6%	6%	10%	3%
Crack cocaine	6%	3%	10%	13%

Figure 3 shows that past week stimulant use was common among those whose main drug was heroin (82%); whereas, past week use of opioids among those whose main drug was methamphetamine was far lower (27%).

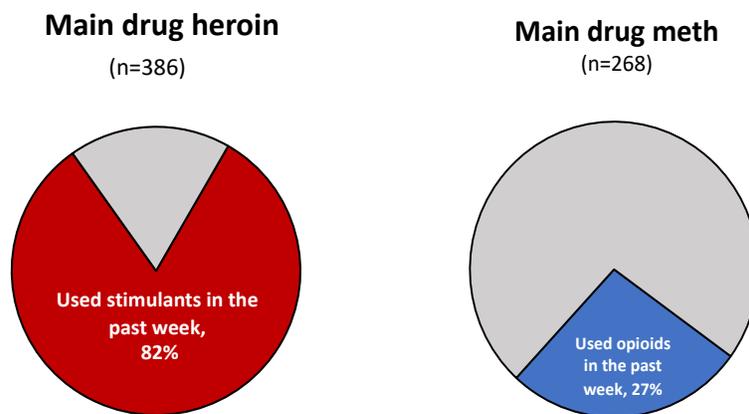


Figure 3. Past week use of opioids or stimulants

Fentanyl Use

Forty-two percent (42%, n=401) reported any use of fentanyl in the past three months, more than double the percentage reporting fentanyl use in the 2019 survey (18%).⁴ Fourteen percent (14%) reported using fentanyl on five or more days in the past week, and 3% (n=32) considered fentanyl to be their main drug. Eighteen respondents reported that fentanyl was the only opioid they had used in that period, and most of those (n=13) considered methamphetamine to be their main drug.

Among those who had used fentanyl in the past three months, two thirds said they had last used that fentanyl “on purpose” (Figure 4). Most often that fentanyl was in pill form (67%) or a powder (23%). Compared to crime lab data and clinical reports in early 2021, this appears to be an increase in the proportion reporting use of powdered fentanyl.⁵ Among the remaining third who said their last use of fentanyl was unintentional, most reported the fentanyl was mixed with another drug (e.g., heroin or methamphetamine).

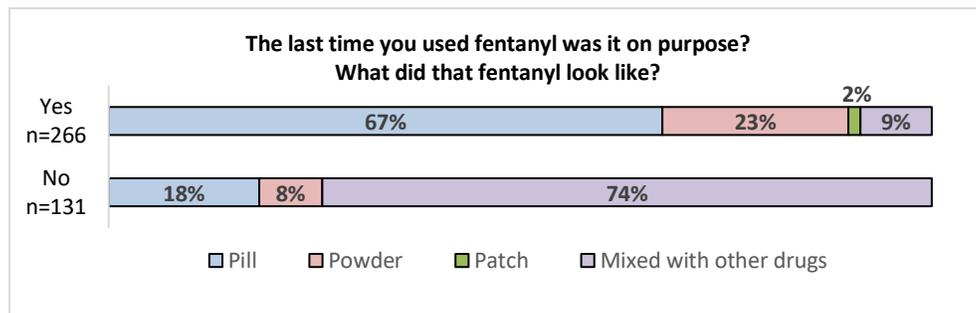


Figure 4. Form of last fentanyl used

Routes of Drug Administration

Prevalence of Injecting and Smoking

Ninety-three percent (93%) of respondents said they had injected a drug in the past three months (Figure 5). Although surveying at SSPs specifically targets people who inject drugs, smoking was prevalent among these respondents. The majority of all respondents (81%) had smoked any drug (excluding tobacco or cannabis) in the past three months and about three quarters (77%) had both injected and smoked drugs in the past three months. Only a minority used drugs exclusively by injection (16%) or by smoking (7%).

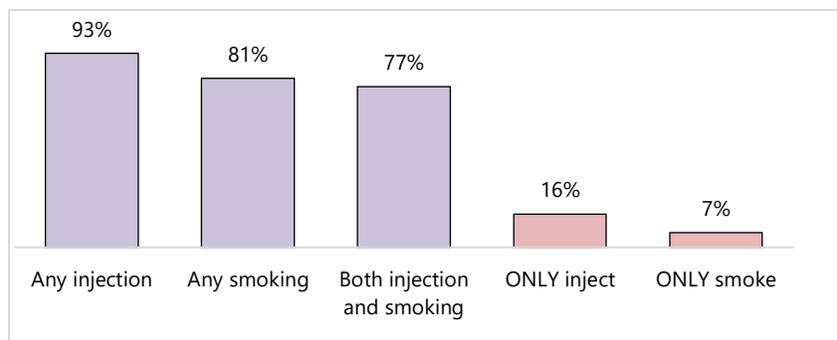


Figure 5. Routes of illicit drug administration in past 3 months

⁴ The 2019 survey question about fentanyl use had a slightly different wording.

⁵ View data presentation here: <https://www.youtube.com/watch?v=ryFTBhIB088>.

Table 6 compares the proportion who had injected or smoked each drug used in the past three months, showing wide variation across drugs. If respondents used heroin, either by itself or mixed with a stimulant, they were more likely to inject it; about a third also smoked these substances. For methamphetamine, however, smoking was more prevalent than injecting (80% and 70% respectively). Fentanyl was significantly more often smoked than injected.

	Used in past 3 months	Percent who injected it	Percent who smoked it
Heroin/methamphetamine mixed (goofball)	463	96%	39%
Heroin by itself	656	93%	37%
Heroin/cocaine mixed (speedball)	115	93%	28%
Methamphetamine by itself	822	70%	80%
Fentanyl, by itself or mixed in other drug	401	47%	72%
Powder cocaine	157	42%	39%
Opiate medication (not methadone or buprenorphine)	155	18%	55%
Crack cocaine	132	13%	92%
Benzodiazepines	178	10%	14%

Smoking was common even beyond illicit drugs. **In the past three months, 83% (n=790) said they had smoked tobacco and 54% (n=518) had smoked, vaped, or dabbled cannabis.**

Looking further at the prevalence of injecting and smoking among drugs most associated with overdose (heroin, meth, and fentanyl), data show wide variation between the proportions who smoked or injected the drug in the past three months, with a substantial proportion reporting both routes of administration (Figure 6).

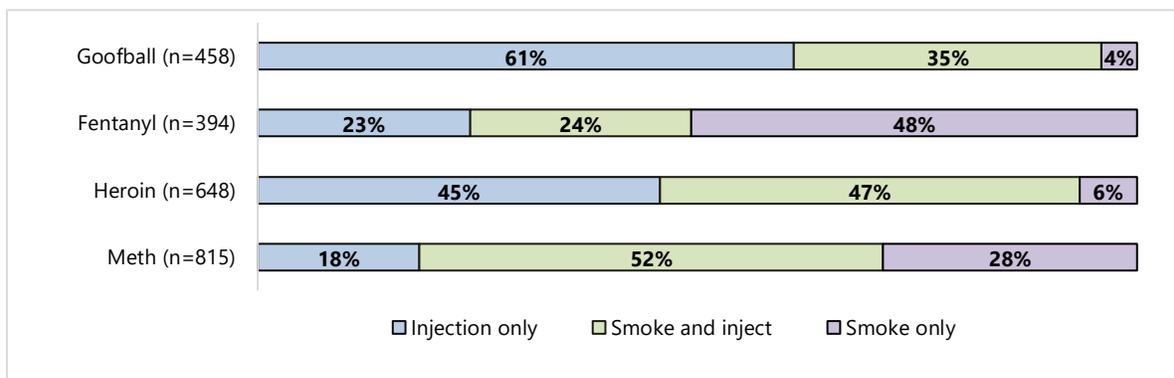


Figure 6. Route of ingestion of drug used in past 3 months

Drug Injection

Of those who had injected a drug in the past three months, the majority (79%) injected 5-7 days in the last week. Most (73%) injected every day (Table 7). The average number of injections per day was 3.6.

Seventy-three percent (73%) of respondents who injected reported that they typically use a syringe only once before disposing of it. One-time use of syringes is promoted at SSPs to minimize vein damage and skin infections.

A minority (38%) reported having had an abscess or skin infection (e.g., cellulitis) in the past three months. Far fewer reported blood clots/infections or endocarditis.

In the last 7 days, on how many days did you inject any drug?	0 days	4%
	1-4 days	17%
	5-7 days	79%
	Mean=6 days	
On an average injecting day, how many times do you inject?	1 time	12%
	2 times	23%
	3-5 times	52%
	6+ times	13%
	Mean=3.6 times	
On average, about how many times do you use a syringe before you get rid of it?	1 time	73%
	2 times	14%
	3+ times	13%
	Mean=1.6 times	
Injection-related infections	Abscess/skin infection	38%
	Blood clot/infection	6%
	Endocarditis	2%

Rates of sharing drug injection equipment, a risk behavior for HIV and hepatitis C (HCV), was low. Eighty-seven percent (87%) reported they had not shared a syringe with another person in the past three months, and 66% reported they had not shared other injection materials (e.g., cottons, cookers, water) in the same period.

Reasons for Drug Smoking

Evidence suggests more people are smoking drugs in WA State and that smoking carries less risk for infectious disease transmission than injecting.⁶ Smoking heroin likely reduces the risk of overdose compared to injecting it, however it is not known if smoking reduces overdose risk for stimulants or fentanyl. This year's survey explored people's motivations to smoke drugs in order to target public health interventions and messages more effectively. Respondents who said they had both injected and smoked an opioid in the past three months (n=460) were asked the main reason they chose to smoke rather than inject opioids. Similarly, respondents who both injected and smoked a stimulant in the past three months (n=633) were asked the main reason they chose to smoke rather than inject stimulants.⁷

Respondents gave a range of reasons for smoking either opioids and/or stimulants, and those reasons often varied by drug (Table 8). The most common reason for smoking opioids was "can't hit veins anymore" (i.e., can't find a usable vein) while for stimulants it was "smoking is more social." Reducing overdose risk was a more common reason to smoke opioids than stimulants. Conversely, a higher proportion smoked stimulants than opioids as a social activity.

	Smoking opioids <i>n=460</i>	Smoking stimulants <i>n=633</i>
Can't hit veins anymore	23%	19%
Smoking is more social	15%	27%
Smoking is more available	12%	7%
Reduce risk of overdose	11%	3%
Easier/faster than injecting	10%	12%
Prefer the high from smoking	7%	15%
Negative view of injection	5%	5%
No clean syringe available	4%	2%
Protect or save veins	2%	1%
Miscellaneous	11%	9%

⁶ In January 2022 ADAI released an info brief describing the potential public health benefits of distributing safer smoking equipment, the evidence supporting this intervention, preliminary local data, related legal issues, and areas for further research: <https://adai.uw.edu/safer-smoking/>.

⁷ This analysis excluded people who had only smoked (and not injected) either drug type.

With the high rates of polysubstance use noted earlier, there was notable overlap between these groups. Many individuals had smoked both types of drugs, and some had the same main reason for choosing to smoke each type. Yet many others gave different main reasons for smoking each type. This suggests that the choice to smoke a drug may be fluid and influenced by one or multiple considerations such as:

- External factors: the people or type of drug nearby and what type of drug-using equipment is available.
- Personal/health factors: preference for a particular “high” or desire to mitigate overdose risks and/or health harms from injecting.

Interest in Safer Smoking Supplies

Safer drug smoking supplies typically include pieces of foil and glass stems/pipes used to inhale smoke or vapors, plastic mouth pieces to prevent lip burns, and items to insert or hold the drug in place (e.g., screens, wire, wooden push sticks). Because the legality of distributing these supplies remains unclear in Washington State (as of March 2022), many SSPs do not yet distribute these supplies, despite the growing prevalence of drug smoking among their participants.

The majority (72%) of respondents who had injected a drug in the past three months said they would like to get safer drug smoking supplies (Figure 7). Of those, about two thirds (64%) reported they would inject less often if they could get safer smoking supplies.

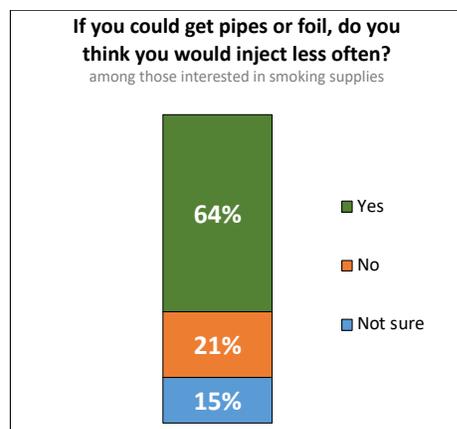
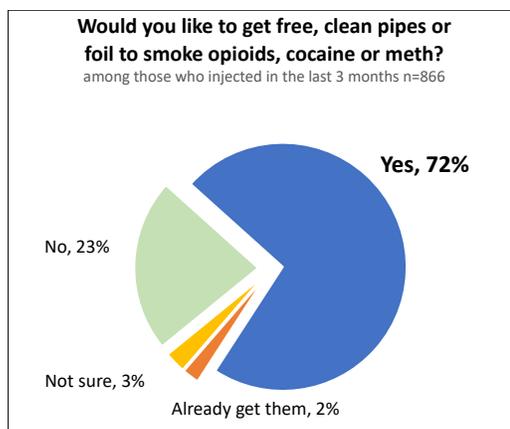


Figure 7. Interest in smoking supplies and effect on injection frequency n=866

Smoking was also common within social and drug-using networks. Respondents who injected drugs knew an average of 11 people (range 0-75) who used drugs *only* by smoking and did not inject at all (Figure 8). The size of these non-injecting networks, along with the prevalence of secondary exchange, demonstrate how current SSP participants serve as an active channel through which SSPs both engage and bring in new participants and send out materials and health information more widely in the community.

Distributing safer smoking equipment at SSPs could help attract people who smoke drugs and who might not otherwise think a syringe exchange would be relevant to their needs. SSPs could then connect these individuals to a wider array of harm reduction education, materials, and linkage with health care and substance use treatment.⁸

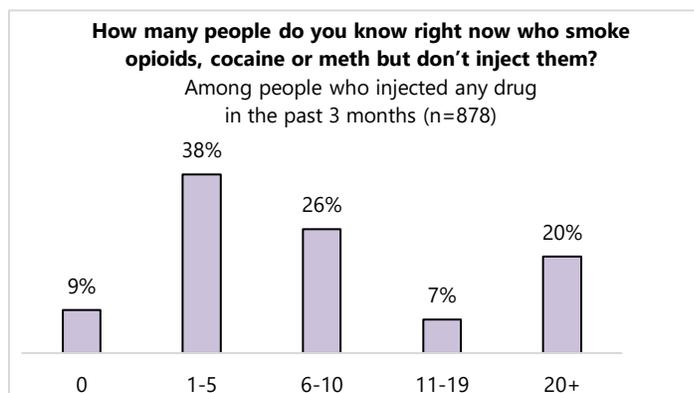


Figure 8. Network size of peers who smoke but do not inject

⁸ More information is available in ADAI’s 2022 [Info Brief on Distribution of Safer Smoking Supplies](#).

Opioid Overdose

Among people who had used opioids (n=764), 24% had experienced at least one opioid overdose (defined in the survey as “when breathing slows down or stops and a person can’t be woken up”) in the past 12 months (Figure 9a). Those who had used fentanyl in the past three months were more likely to have had an opioid overdose in the past 12 months (27%) than those who had not used fentanyl (20%) (p<0.05). This difference corresponds with recent increases in fatal overdoses involving fentanyl across WA State ([ADAI Interactive Drug Data](#)).

Almost two thirds (61%) of all respondents had witnessed at least one opioid overdose (Figure 9b). Many survey respondents had experienced or had witnessed multiple opioid overdoses.

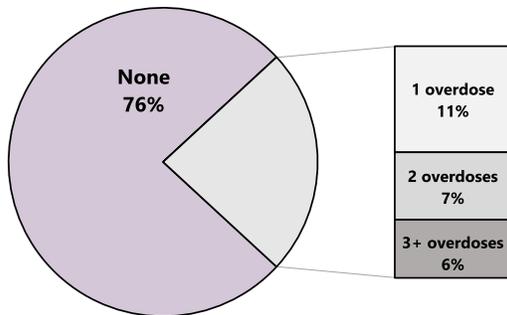


Figure 9a. Number of opioid overdoses had in past 12 months, among people who used opioids n=764

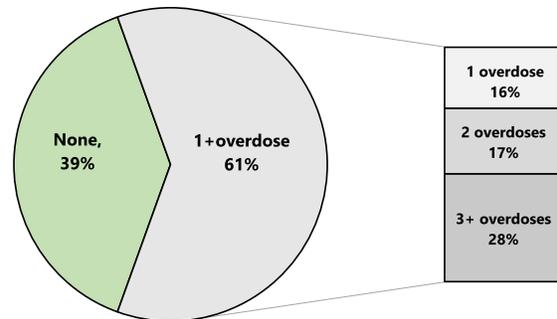


Figure 9b. Number of opioid overdoses witnessed in past 12 months, among all respondents n=955

Acute Consequences of Methamphetamine Use

Among people who had used methamphetamine by itself or mixed with heroin in the past three months, almost a third (30%) reported acute psychiatric conditions related to methamphetamine use in that period; 19% reported acute physical conditions (Figure 10). A smaller percentage (12%) reported they had been to an emergency room in the past three months for a psychiatric or medical problem related to methamphetamine.

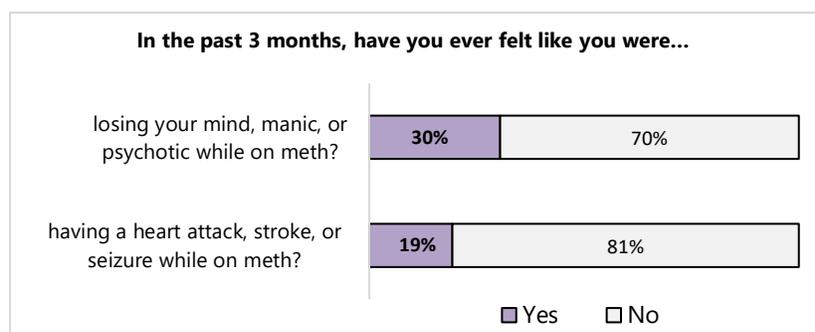


Figure 10. Acute psychiatric and physical consequences of meth use n=863

Health Care Needs and Utilization

COVID-19 Diagnosis and Vaccination

A minority (11%) reported they had been diagnosed with COVID-19. Nearly two thirds (63%) had not yet been vaccinated for COVID-19 (at the time of the survey). The proportion of those not vaccinated ranged from 46% - 84% across counties, with rates of vaccination generally lower in more rural counties (Figure 11).

Among the 63% who had not yet been vaccinated, 10% said they were interested in getting vaccinated and 17% said they were unsure. These rates varied by county (shown in Figure 11 by the orange bars indicating the data range) and represent an opportunity to increase vaccination uptake in this population.

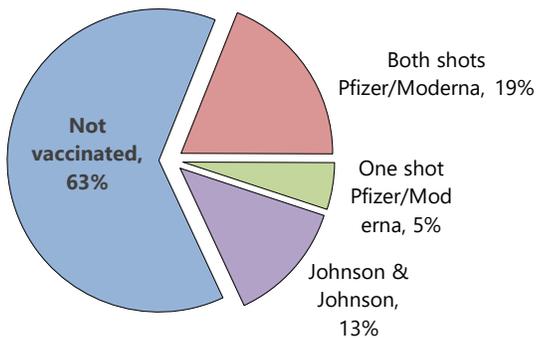
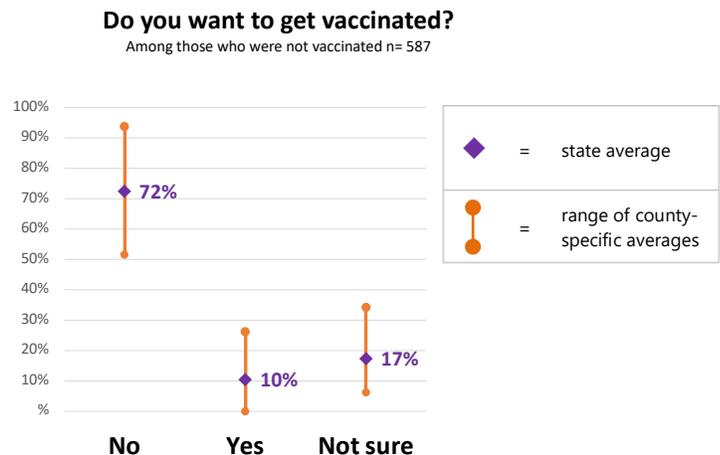


Figure 11. COVID-19 vaccination rates and interest n=934



HIV and Hepatitis C

The majority of respondents had been tested at least once for HIV, 44% within the last year and an additional 45% over a year ago. HIV status was not collected statewide.

A similar proportion (46%) had been tested for hepatitis C (HCV) in the last year. A substantial minority (41%) of those diagnosed with HCV had started HCV treatment, with most completing that treatment (Figure 12). Among people who had been diagnosed with, but *not* treated, for HCV, the majority (69%) were interested in receiving hepatitis C treatment.

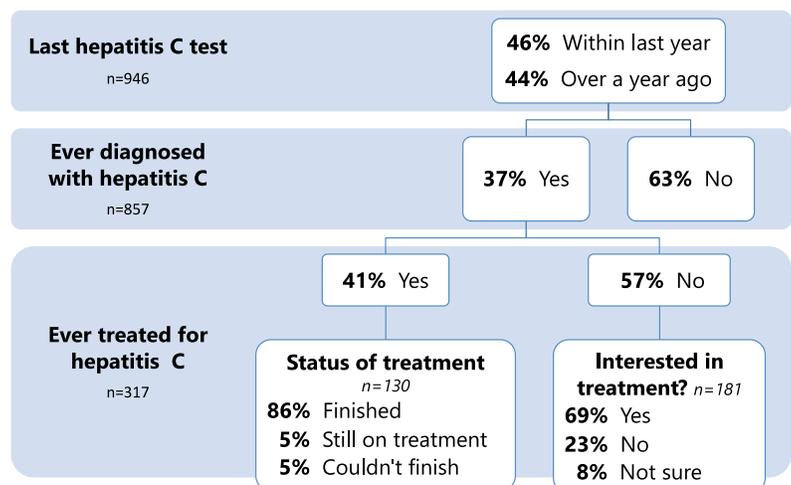


Figure 12. Hepatitis C diagnosis and treatment

Mental Health Care

A minority had seen a provider in the past 12 months for mental health counseling (23%) or mental health medications (17%) (Figure 13). In the 2019 survey, 74% said they were “somewhat” or “very” concerned about anxiety, while 66% were “somewhat” or “very” concerned about depression.



Figure 13. Mental health care sought in past 12 months

Substance Use Treatment

About a third (35%) of respondents had utilized at least one type of substance use treatment or support group in the past 12 months (Figure 14). While a minority had been engaged in treatment in the past 12 months, previous SSP surveys and qualitative interviews showed high to moderate interest among SSP participants in receiving these services.⁹

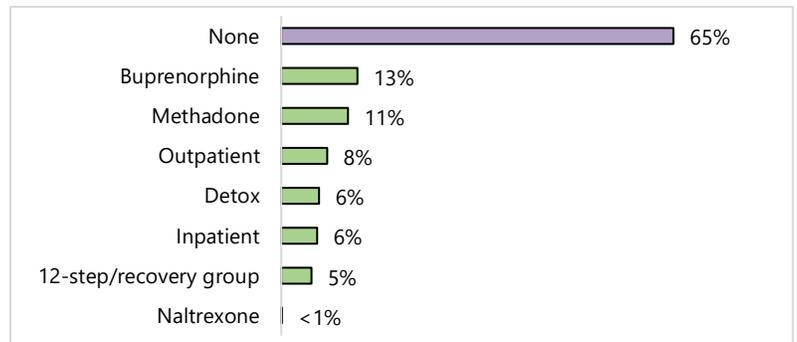


Figure 14. Drug treatment/supports used in past 12 months n=955

The proportions and type of service, however, varied by main drug (Figure 15). Rates of treatment utilization were highest among those whose main drug was goofball. Methadone and buprenorphine were the most common types of treatment people reported.

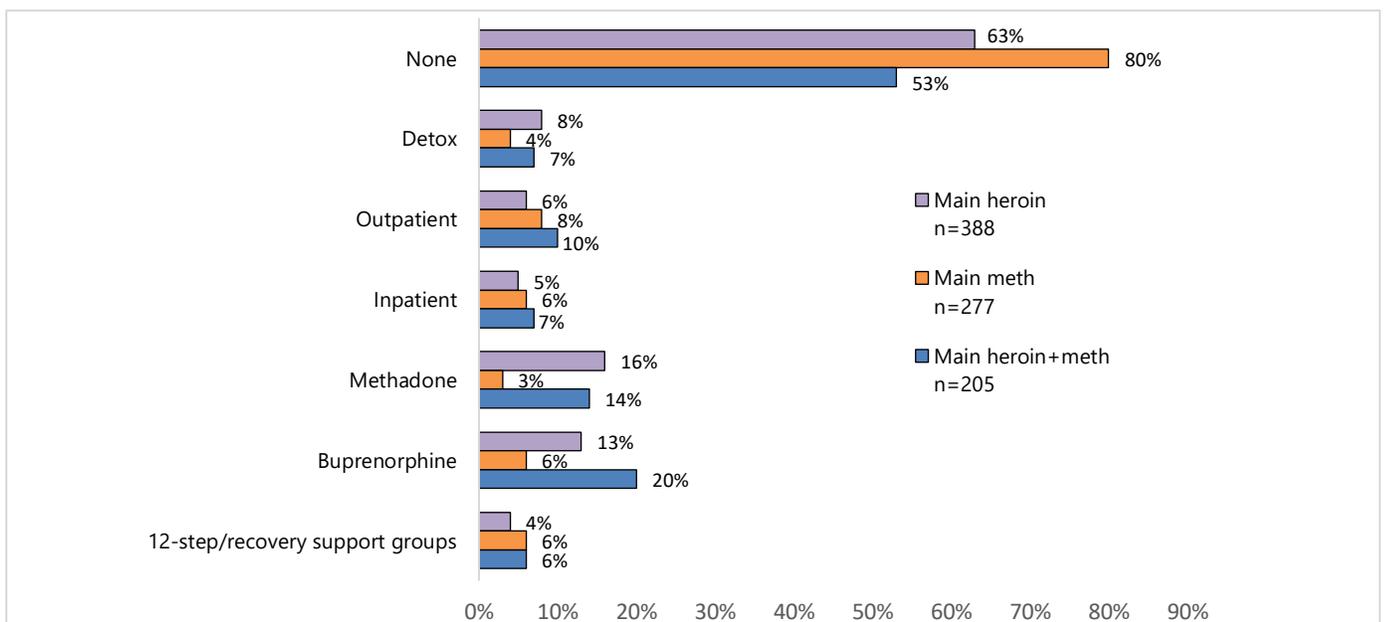


Figure 15. Drug treatment/support used in past 12 months, by main drug

⁹ <https://adai.uw.edu/wa-state-syringe-exchange-health-survey-2019-results>.

How to Use These Data

Services to Address Substance Use

The findings of this survey provide essential and current information for SSP staff, policy makers and service providers to better understand the complex needs of people who use drugs and to design and adapt services that PWUD will find relevant, welcoming, and easier to access.

Syringe service programs are often the first door through which PWUD will enter to access health services or to explore drug treatment options. Given the regularity and frequency with which participants utilize SSP services, **SSPs have demonstrated their essential role along the continuum of substance use services and that they have the expertise to:**

- Form trusting relationships with people who use drugs, many of whom bring multiple, complex needs that may not be adequately addressed by traditional health care models.
- Provide onsite HIV/hepatitis C testing and treatment, drug testing/checking, emotional support, wound care, and other health services.
- Help participants navigate social service entry points and engage in primary health care over more costly emergency department care.
- Distribute naloxone and train people to prevent, identify and respond to overdose.
- Provide same day access to buprenorphine to treat opioid use disorder and direct linkage to other types of substance use treatment.

Substance use patterns among SSP participants have changed dramatically over the past few years, most notably in the use of fentanyl, concurrent use of opioids and stimulants, and the prevalence of drug smoking.

This mirrors other trends seen in WA State including the rise in drug overdose deaths involving fentanyl and/or methamphetamine. There is **need for immediate and substantial scale up of evidence-based public health interventions, community education, and substance use treatment** to mitigate the impact of escalating fentanyl use and reverse the trend of fatal overdoses involving fentanyl.

SSPs are poised to play an even greater role in addressing these issues. Leveraging funding and community partnerships, **SSPs across the state are building their capacity as “health hubs” for PWUD where health services, substance use treatment, mental health, and social services are centralized** to provide easy, trusted access. Greater investment of public health funding for care navigation, peer education, harm reduction supplies, naloxone, fentanyl test strips, and other resources would help SSPs engage even more individuals in potentially life-saving services.

Finally, this survey highlights the **importance of involving PWUD in meaningful ways to design and deliver the services offered to them.** People who use drugs have clear preferences, insights, and innovative ideas for service models and are eager to share their perspectives when given genuine opportunities for input and involvement.

Limitations

This survey is administered at syringe service programs that serve primarily people who inject drugs, who are a unique subset of the broader, more diverse population of people who use drugs (PWUD) in WA State. As data are cross-sectional (a snapshot), they are meant to describe a situation at the time of the survey. Individuals surveyed are not linked over time, so the **data cannot be interpreted as changes in individuals over time.** Also, because a sampling frame is not utilized, **population-level trends over time cannot be formally compared.** These **data may not represent all people who use SSPs, or inject drugs, in WA State.**

This survey was also administered a year and a half into COVID-19 response, after a phase of significant disruption in health and social services during widespread “lock down” protocols and across counties with varying degrees of ongoing restrictions. Therefore, it is **uncertain how COVID-19 may have impacted the availability of health care services** such as emergency room care, HIV/HCV testing, mental health care, and substance use treatment during the period referenced in this survey. Nor is it clear how COVID-19 may have influenced **the readiness and/or ability of respondents to access these services**. A February 2021 WA Supreme Court case and subsequent legislation also changed the legal status of drug possession and appears to have resulted in substantial declines in arrest and incarceration.

Acknowledgements

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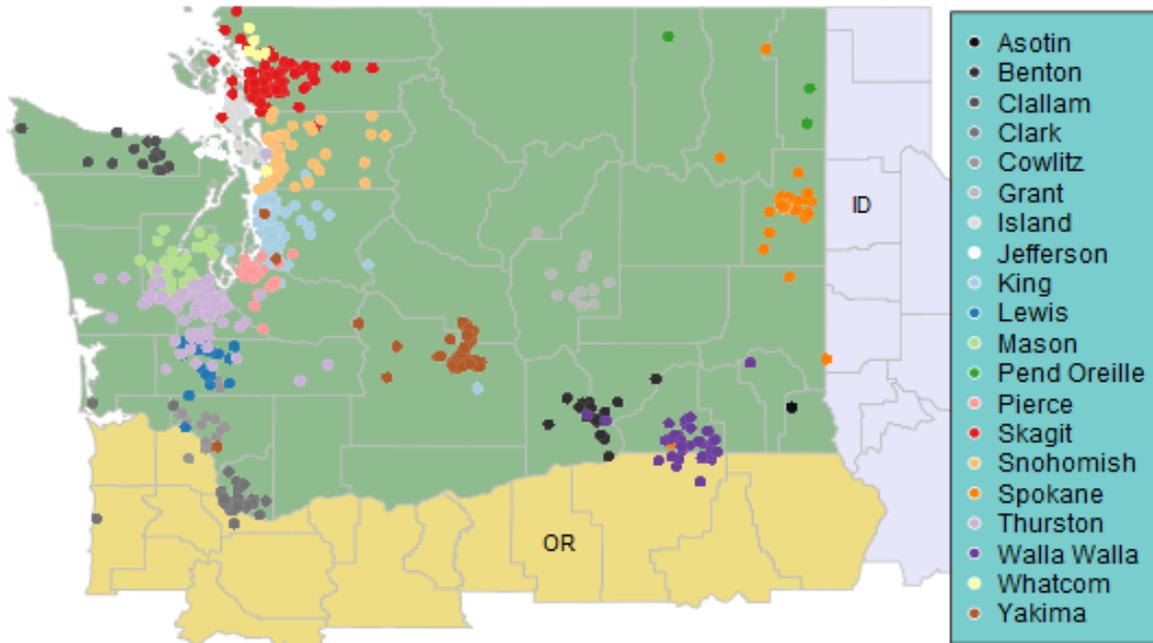
Citation: Kingston S, Newman A, Banta-Green C, Glick S. Results from the 2021 WA State Syringe Service Program Health Survey. Seattle, WA: Addictions, Drug & Alcohol Institute, Department of Psychiatry & Behavioral Sciences, University of Washington, March 2022. <https://adai.uw.edu/syringe-survey-2021>.

This report was produced under contract for the Washington State Division of Behavioral Health and Recovery; the findings and opinions are those of the authors and not WA DBHR.

Appendix

Survey Respondents by Zip Code

This figure shows the zip codes where participants lived (or had slept the previous night), color coded by the county of the SSP location.



Dots randomly placed in reported ZIP.
16 (of 955) missing due to missing or unmatchable ZIP.