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BACKGROUND

- In Philadelphia, PA, fentanyl is omnipresent. Fentanyl and adulterants like xylazine (“tranq”), a veterinary sedative, have altered substance use practices and increased risks.
- Regular assessment of practices and impacts is essential to adapt harm reduction efforts to community needs and reduce morbidity and mortality.
- This project examined experiences and beliefs of 99 participants at Prevention Point Philadelphia (PPP), a large, multi-service harm reduction organization based in the Kensington neighborhood of Philadelphia, PA between October 2021 and September 2022.

RESULTS

- Fentanyl:** All participants knew or suspected they used fentanyl in the past year. Almost all knew fentanyl’s properties, but some education may prove helpful.
- Participants with higher education levels, males, and of non-White race were less likely to believe they will die from fentanyl use ($p=.008$, $p=.029$, $p=.025$, respectively) than those of other groups.
- No other significant differences by demographic groups was noted.

Table 2. Fentanyl question responses (N=99)

FENTANYL questions	Responded True
<i>I know or suspect I used fentanyl in past year</i>	100%
<i>Fentanyl is very addictive</i>	99%
<i>Fentanyl is 50X stronger than heroin</i>	89%
<i>Fentanyl is found in other drugs</i>	98%
<i>Fentanyl can be injected, smoked, or snorted</i>	100%
<i>Touching fentanyl will cause overdose</i>	57%
<i>Naloxone is not as good at reversing fentanyl overdoses</i>	51%

Table 3. Fentanyl question responses (N=99)

Beliefs about fentanyl	n (%)				
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
<i>I don't like the way fentanyl makes me feel</i>	45%	14%	5%	18%	17%
<i>I know fentanyl is dangerous, but my body needs it</i>	8%	4%	6%	22%	59%
<i>I know enough about fentanyl</i>	21%	16%	6%	31%	25%
<i>I know what the risks are of taking fentanyl</i>	5%	8%	2%	32%	53%
<i>I use fentanyl to keep from getting sick</i>	12%	4%	0%	19%	64%
<i>Its hard to avoid fentanyl because its in my other drugs</i>	11%	3%	6%	25%	55%
<i>No one explained how hard it is to get off of</i>	19%	10%	1%	20%	49%
<i>I'm scared I'm going to die from fentanyl</i>	22%	13%	6%	58%	33%

- Overdose:** Overdose was common with 66% of participants experienced an overdose and most all witnessing at least one. While 78% are quite a bit or very worried that a friend will overdose, just 41% are worried at the same level about themselves. Items about tranq requested response on 5-point scale. Tables 4 & 5 present overdose related responses. Younger respondents were more likely to have witnessed an overdose than older respondents ($p=.014$). No other significant differences were noted by demographic groups.

Table 4. Overdose history (N=99).

OVERDOSE questions	Responded True
<i>Have you ever overdosed?</i>	66%
<i>Have you witnessed some else overdose?</i>	89%
<i>Have you administered Narcan to someone?</i>	98%
<i>Number of overdoses witnessed</i>	
0	8%
1-5	22%
6-15	21%
16-99	37%
>100	18%

Table 5. Frequency of overdose prevention actions (N=99).

Actions to prevent overdose	n (%)				
	Never	Rarely	Sometimes	Usually	Always
<i>I take a small hit before using all</i>	44%	6%	14%	10%	23%
<i>I use same dealer to get my drugs</i>	28%	9%	26%	17%	19%
<i>I use fentanyl test strips to test my drugs</i>	62%	13%	12%	4%	9%
<i>I reduce my drug use when alone</i>	42%	8%	22%	13%	14%
<i>I carry naloxone with me</i>	12%	6%	13%	13%	56%
<i>I make sure others around me have naloxone</i>	35%	9%	21%	15%	19%
<i>I make sure others are around when I use</i>	27%	15%	18%	18%	21%

- Xylazine (Tranq):** Table 6 presents xylazine-related responses.
- Most participants (78%) somewhat or totally agree they have used tranq in the past year (although this likely changed in the year since the surveys).
- Most (82%) somewhat or totally agree that tranq enhances the effects of fentanyl.
- Participants generally recognize the overall risks associated tranq use.
- No significant differences were noted by demographic groups.

Table 6. Fentanyl question responses (N=99)

XYLAZINE questions	n (%)				
	Totally disagree	Disagree some	Not sure	Agree some	Totally agree
<i>I know I have taken drugs containing tranq</i>	12%	6%	4%	23%	55%
<i>Tranq enhances potency and duration of fentanyl</i>	35%	2%	11%	27%	55%
<i>Mixing tranq and fentanyl increases overdose risk</i>	4%	0%	3%	24%	69%
<i>Tranq has high risk of overdose and fatality</i>	2%	2%	4%	20%	71%
<i>I buy fentanyl mixed with tranq</i>	15%	9%	10%	21%	44%

CONCLUSIONS

- 100% of participants know or believe they used fentanyl in the past year. This is likely due to the increasing proportion of fentanyl in the Philadelphia area’s drug supply.
- In general, participants recognize the risks associated with fentanyl use, but feel they need to use it despite the risks.
- There is some confusion about risks associated with touching fentanyl and the effectiveness of naloxone to address fentanyl-related overdoses. Community-level education could improve beliefs about naloxone’s utility.
- White men with at least a high school education expressed the least concern of dying from fentanyl use. Overdose prevention efforts geared to this population may be useful.
- Two-thirds of participants experienced overdose and nearly all have used naloxone to address an overdose. Participants need, carry, and use naloxone, highlighting the need for its continued distribution.
- In our setting, fentanyl test strips are likely of limited use, as fentanyl is expected.
- Participants reported limited uptake of most overdose prevention actions (other than carrying naloxone). Investigation of reasons for adoption of one but not other actions could help inform prevention initiative and policies.
- Half of our participants live on the street. Basic survival needs likely impact prioritization of harm reduction actions.
- Half noted that xylazine enhances fentanyl potency and duration of effect. This belief may lead to more purposeful rather than unintentional use. Responders need to recognize how tranq may impact presentation of overdose and impact of naloxone and other overdose prevention efforts.
- Limitations include recruitment from a single harm reduction organization and no verification of participant histories.