

# Xylazine Usage and Awareness among People who use Drugs in Denver, Colorado

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## INTRODUCTION

- Xylazine (aka "tranq") is an alpha-2 agonist with various effects including nervous system depression, respiratory depression, analgesia, and vasoconstriction that can lead to necrotic skin wounds.<sup>1,2</sup>
- Use of xylazine has been involved in a variety of crimes, including drug facilitated sexual assault in children.<sup>3,4</sup>
- Many healthcare providers are unaware of its potential contributions to patients' symptoms and health care facilities often do not have the proper equipment to test for its presence.<sup>5</sup>
- Drug traffickers have been lacing fentanyl and other drugs with xylazine to decrease production costs and increase profits.<sup>6</sup>
- Xylazine has become increasingly present in the drug supply in the United States, notably on the East Coast.<sup>7,8</sup> In 2023, xylazine presence was reported in 48 states.<sup>5</sup> However, most data has been collected from the East Coast.<sup>5,7,8</sup> Data about xylazine prevalence is limited in Colorado and the Denver Metro Area.

## OBJECTIVE

The objective of this study was to understand xylazine awareness and usage among people who use drugs (PWUD) in the Denver Metro Area. We hypothesized that awareness of xylazine was limited, that xylazine usage was unintentional, and that usage of xylazine was associated with fentanyl use.

## METHODS

- This project was done in collaboration with the Harm Reduction Action Center (HRAC) in Denver, a public health agency that works specifically with PWUD.
- An IRB-exempt anonymous 16-question survey was conducted among HRAC participants (n=148) from July to August 2023. The survey was administered on paper and took 5-10 minutes to complete.
- Questions asked about drug of choice, awareness of xylazine, usage of xylazine, if usage was intentional, and usage of xylazine testing strips.
- Responses that were contradictory or blank were excluded from analysis.
- A chi-square test was performed to determine the level of significance between the four most selected drugs of choice (fentanyl, heroin, meth, and THC) and xylazine usage.

## RESULTS

- Out of 148 participants, 53% had heard of xylazine, 42% had not and 5% were unsure if they had. (Figure 1)
- Xylazine was used with knowledge by 16.3% of participants, while 66% and 17.7% of participants said they had not used xylazine or were unsure if they had used xylazine respectively (Figure 2).
- Out of the participants that said that they had used or were unsure if they had used xylazine (n= 37), 75.7% said that it was unintentional use (Figure 3).
- Eighty-three percent of participants reported that they had never used xylazine testing strips while only 14% said they had (Figure 4).
- No participants selected xylazine as their primary drug of choice.
- The four most selected primary drugs of choice were fentanyl (28%), heroin (11%), meth (36%), and THC (14%). Figure 5 shows the complete distribution of primary drug of choice.
- Those who selected fentanyl or heroin as their primary drug of choice were significantly more likely to have used xylazine (p=0.0002 and p= 0.0125 respectively) while those that selected meth or THC as their primary drug of choice were significantly less likely to have used xylazine (p=0.9906 and p=0.9997 respectively) (Figure 6).

## CONCLUSION

- Awareness of xylazine is still limited despite its presence in the community.
- Participants who selected heroin or fentanyl as their primary drug of choice were more likely to have used xylazine.
- This finding is consistent with several other studies, including Holt et al 2023.<sup>9</sup>
- Most xylazine usage is unintentional.

### Limitations of this study included:

- Self-reported nature of the survey.
- Intoxication of participants. (HRAC works specifically with PWUD)
- Minimal usage of xylazine testing strips. This made quantifying the presence of xylazine difficult.

### Future Research

- More accurate and assessable way to test for xylazine.
- Pharmacokinetic data.
- Clinician knowledge about xylazine.

Future research is warranted to determine whether raising awareness about xylazine helps PWUD make informed medical choices in addition to reducing the rates of overdose, sexual assault and other drug related tragedies in the community.

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## DISCLOSURES

None of the authors have any financial conflicts of interest to disclose.

## REFERENCES:



## FIGURES

