

Sociodemographic characteristics of PWIDs in a Syringe Exchange Program from 2019-2023 in Puerto Rico/

Características sociodemográficas de personas que se inyectan sustancias y reciben servicios en centros de intercambio de jeringuillas del 2019-2023 en Puerto Rico

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Introduction

- Problematic substance use is a public health issue around the world and in Puerto Rico (Lo et al., 2020).
- The last study of needs of people who use drugs (PWUD) in Puerto Rico found that 2.5% of the adult population in PR in 2016 (57,301) that met the criteria for a substance dependence experimented a need for services (Canino et al., 2016). 71.6% of PWUD distrusted the treatments available in that moment (n=3,062).
- The United States conducts annual surveys to measure the community needs of mental health, including substance use, and access to services to use for creating public policy that is suited to the population's needs (Reinart et al., 2022). This national survey does not collect data in Puerto Rico contributing to the current research gap of PWID's characteristics, social determinants of health, and service needs.
- One of the Harm Reduction strategies in Puerto Rico is a syringe exchange center called Punto Fijo which provides a safe space for people to obtain new syringes, return used ones and reduces the risk of blood borne pathogen diseases like Hepatitis C and HIV in people who inject drugs (PWID)
- The syringe exchange center exchanges 55,198 syringes in 2019 with a constant increase of 20% up to early 2022.
- On average, the center provides services to 279 PWID's from 2019 to early 2022.
- There is a need to understand the population of PWID's in Puerto Rico to develop accessible, efficient, and reliable programs.
- Understanding the barriers that PWID's in Puerto Rico face is necessary to develop new strategies to reduce the impacts over a lack of programs and services.

Objectives

- Study the characteristics and trends of people who receive services in a syringe exchange center in Puerto Rico during 2019-2023..
- Analyze how many visits per year and over the span of 2019-2023 does the syringe exchange center receive.
- Analyze the ratio in the syringe exchange return of people who receive services in the center to evaluate the impact and behaviors the harm reduction model has on PWID.

Methods

Participants

- PWID's that received services in syringe exchange center, Punto Fijo, from 2019-2023.
- People that didn't have missing data from the main variables that we proposed to study.
- PWID's 21 years and older.

Procedure

- Data was gathered through face-to-face interviews by Punto Fijo employees and volunteers.
- The Master Dataset was then divided to have a dataset that was to be used to analyze the sociodemographic characteristics and a dataset to analyze the syringe exchange ratio.
- 1310 missing data were eliminated.
- N=10,221 different visits from 2019-2023
- Frequencies were run for the sociodemographic variables per year and from 2019-2023.
- The syringe exchange ratio divided the syringes given to visitors by the ones they handed in.

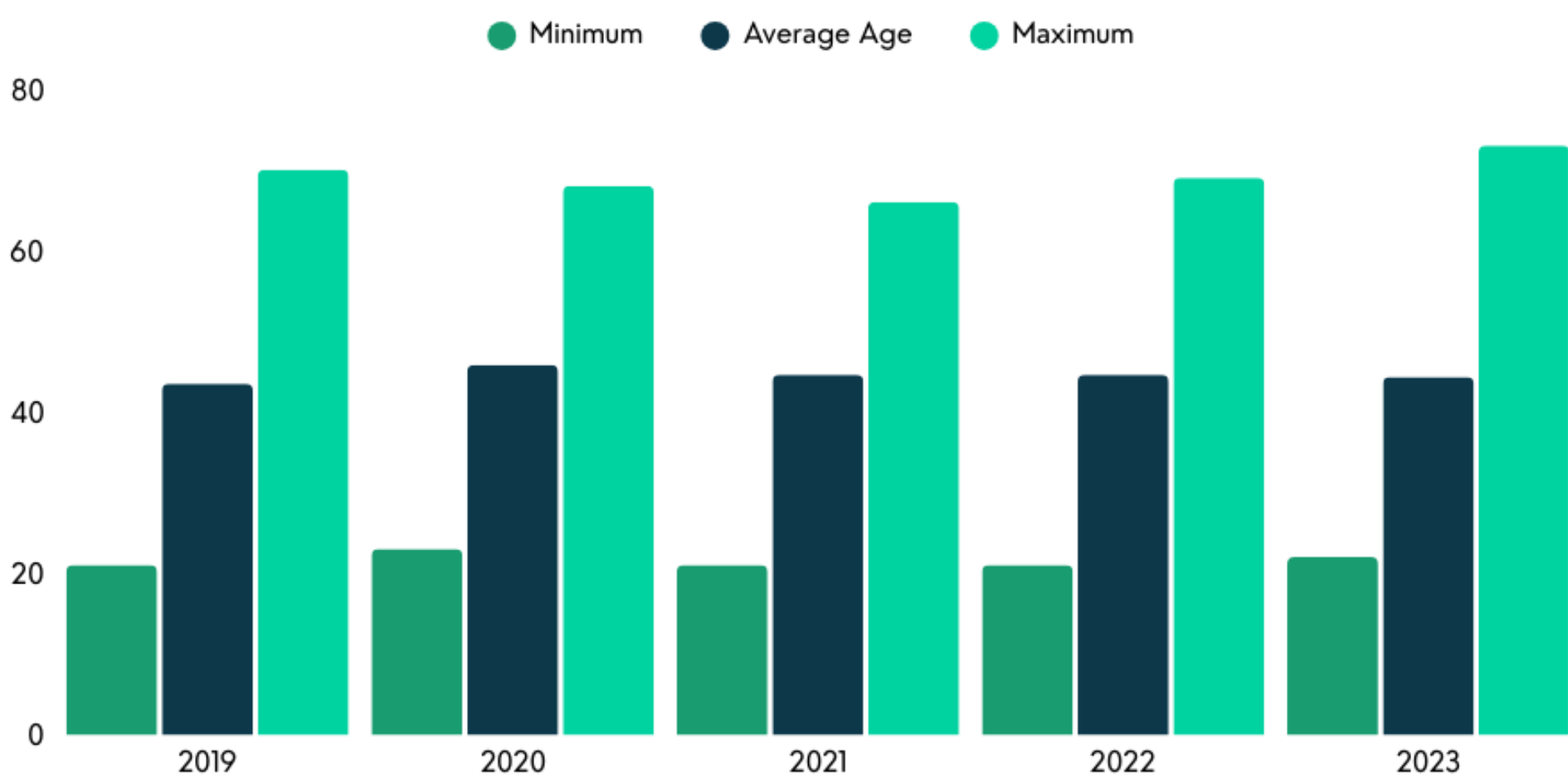
Results

Table 1

Sociodemographic characteristics of PWID's visiting a syringe exchange center from 2019-2023

	2019		2020		2021		2022		2023	
	n	%	n	%	n	%	n	%	n	%
Gender										
Female	262	11.3	72	10.6	323	14.5	230	10.1	274	11.4
Male	2056	88.7	608	89.4	1909	85.5	2047	89.9	2445	88.6
Transgender	0	0	0	0	0	0	0	0	4	0.1
Sexual Orientation										
Heterosexual	2224	95.9	616	90.6	2066	92.6	2123	93.2	2555	94.2
Bisexual	19	0.8	2	0.3	11	0.5	37	1.6	48	1.8
Gay	11	0.5	41	6	101	4.5	109	4.8	110	4.1
Lesbian	45	1.9	21	3.1	54	2.4	8	0.4	0	0
Housing Status										
Housed	478	20.6	167	24.6	773	34.6	632	27.8	518	19.1
Unhoused	1841	79.4	513	75.4	1459	65.4	1645	72.2	2195	80.9
Medical insurance										
Yes	1215	52.4	518	76.2	1680	75.3	1756	77.1	1959	72.2
No	1104	47.6	162	23.8	552	24.7	521	22.9	754	27.8

Graph 1: PWID's Age Distribution



The syringe exchange center gave 280,925 syringes from 2019-2023 and received 215,425 syringes from PWID's



There were 10,221 visits to the syringe exchange center from 2019-2023

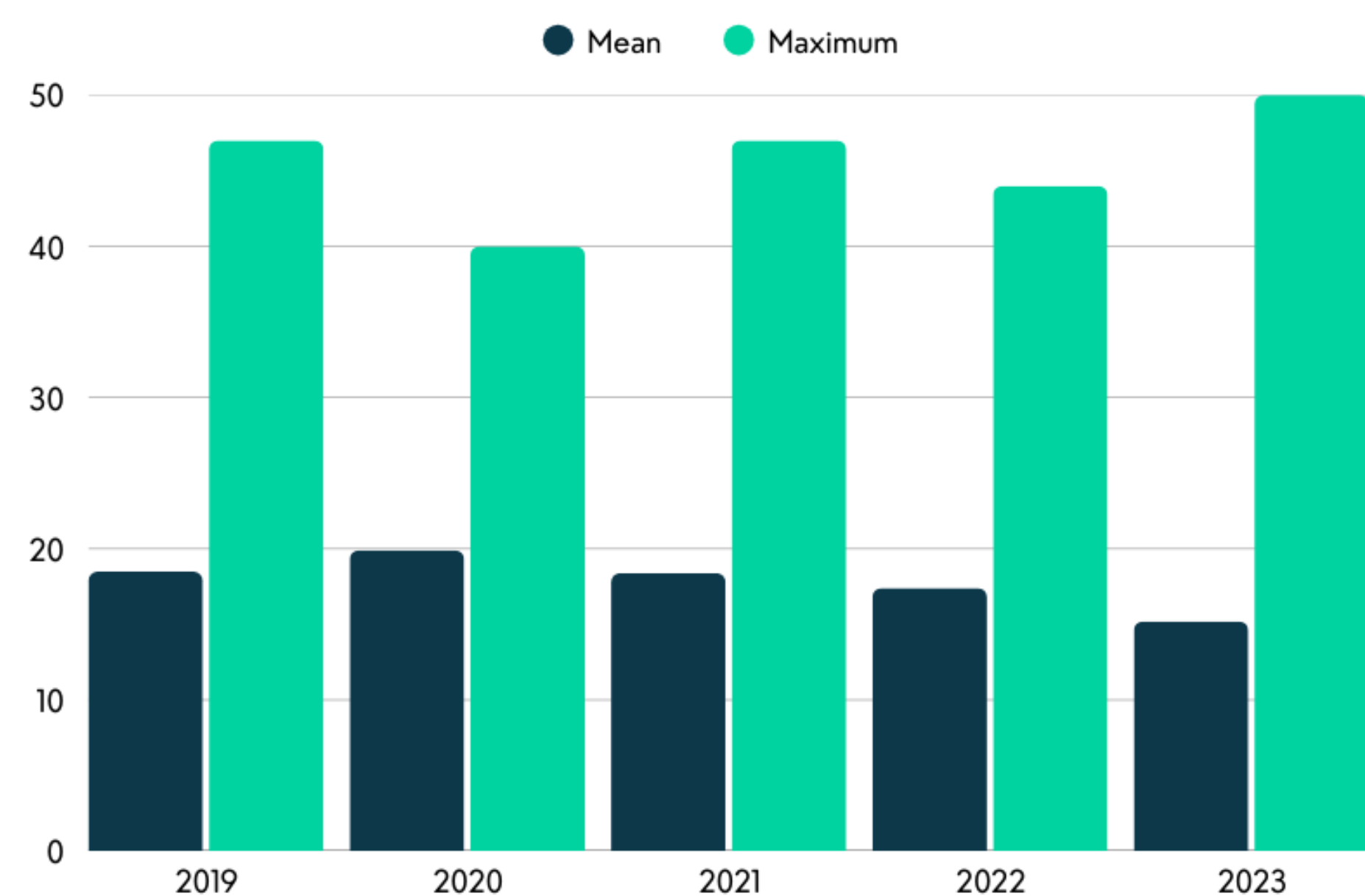


80.9% (n= 2195 visits) of the people who visited the syringe exchange center in 2023 were unhoused.

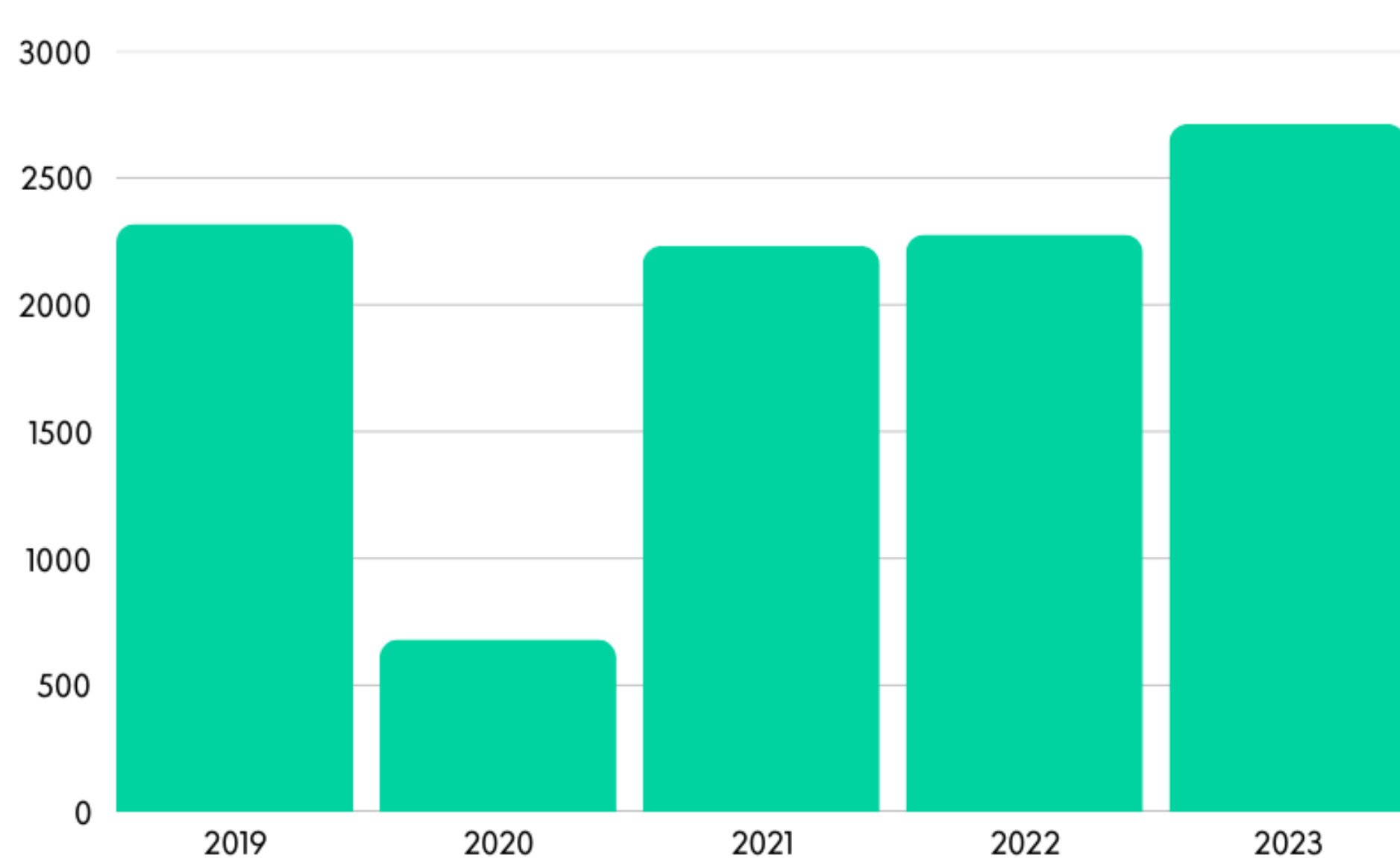


In 2022, 89.9% of visitors (n= 2047) were male. 2023 is the only year were visitors identified as transgender (n=4, 0.1%).

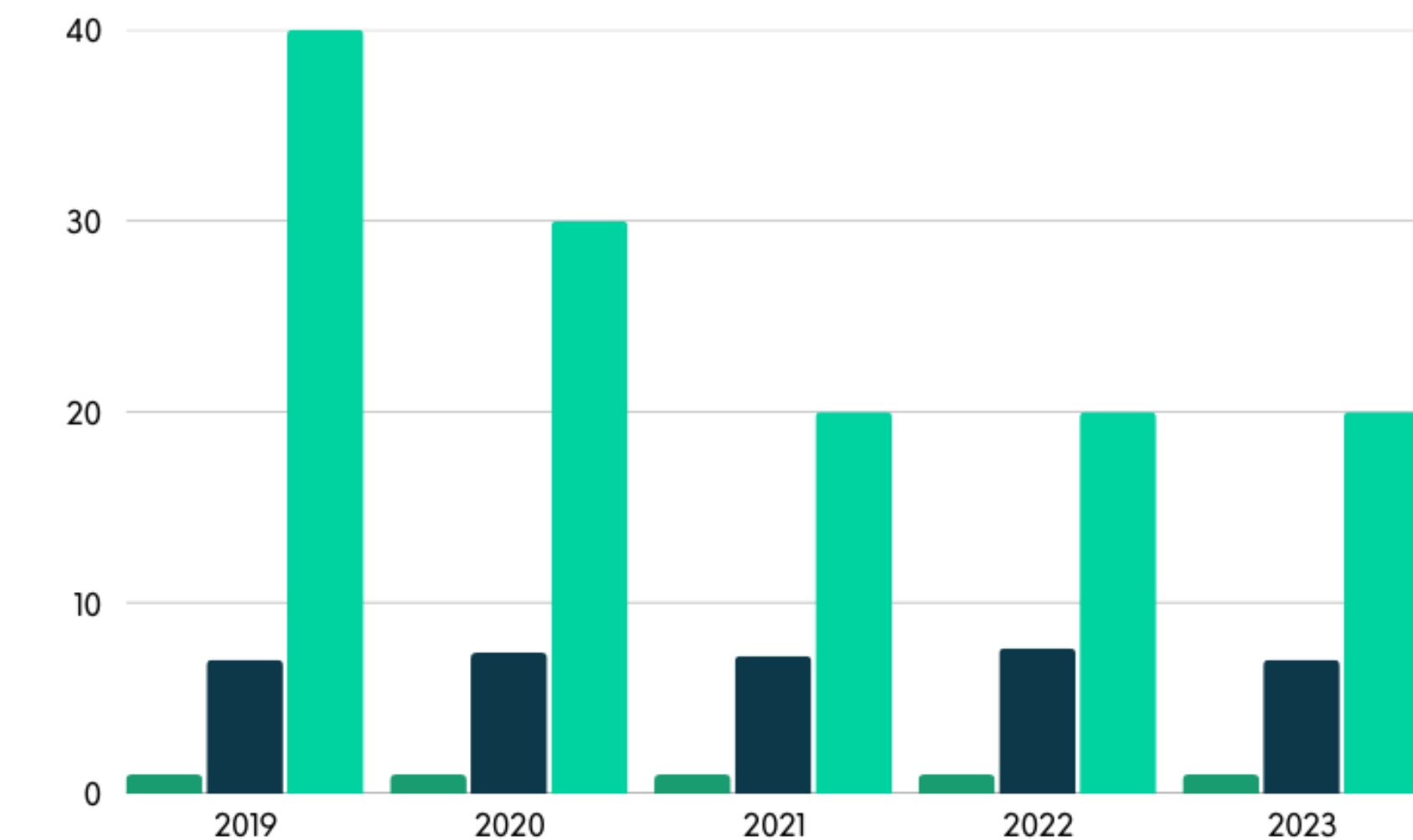
Graph 2: Years using substances



Graph 3: Total visits per year



Graph 4: Frequency of injections per day



- The average age visiting the center across the four years was 44 years old, with ages ranging from 21 years old up to 73.
- The PWID visitors inject themselves on an average of 7 times a day. The number of times they injected themselves ranged from 1 to 40 times a day.
- The most visits in a year by a unique visitor was 155.
- Syringe exchange ratio (average)
 - 2019: 1.26
 - 2020: 0.97
 - 2021: 1.06
 - 2022: 1.55
 - 2023: 1.36

Discussion

- Problematic substance use is a public health crisis in Puerto Rico.
- The most common profile of visitors to the syringe exchange center is a 44-year-old heterosexual, uninsured male experiencing homelessness, who has been using injectable drugs for 17 years, typically exchanges 21 used syringes, and receives 27 clean syringes in return. The year with the least visits was 2020 (n=680). This could be due to numerous factors such as the COVID-19 pandemic. While there were fewer visits during 2020, this doesn't represent less need for harm reduction centers.
- The visits per year have been increasing since 2021.
- 3 out every 4 visits to the center are people experiencing homelessness.
- The amount of visits, syringes provided to visitors, and used syringes received at the center have been increasing since 2021.
- The syringe exchange ratio provides a measure for program effectiveness of reducing risk of blood-borne infections. The syringe exchange rate is approximately 1 or greater than 1 which means that on average, for every used syringe received by visitors, 1.26 syringes are provided.
- Puerto Rico needs more harm reduction centers across the country to reduce the unmet need for treatment in PWUD's. The results of this study offers insight on the essential service that syringe exchange centers provide for PWID's and the amount of visitors who benefit from them.
- The variables of years injecting substances and frequency of injections per day offer valuable information into the behaviors of PWID's. The results show that on average, most of the PWID's who visit the center have been injecting substances for 17 years and an age of 44. This shows that most people start injecting substances during their 20's. This information is important for developing prevention and early intervention treatments.
- Approximately 70% of visitors of the syringe exchange center have medical insurance. Access to health treatments and services in Puerto Rico is increasingly difficult, and even more for people without insurance. This study presents the social determinants of health and conditions that are found in PWID's that visited the center from 2019-2023. More research is needed to understand the impact harm reduction centers have on PWID's life especially in comparison to other treatments that focus on abstinence-only.
- There is a growing need of knowing PWUD's experience accessing treatments and services and the most common barriers to provide health services that are a safe space for the population.
- The sample in this study represents the characteristics of the PWID's who visit a syringe exchange center based on harm reduction principals and does not reflect the whole population of PWUD's in Puerto Rico. Further research is needed to understand PWID's needs and be able to create more specific services for the population.

Conflict of interest statement:

None of the authors have financial conflicts of interests to declare.

