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Illicit Use of Buprenorphine/Naloxone Among Injecting and Noninjecting Opioid Users

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Abstract

Objectives—We examined the use, procurement, and motivations for the use of diverted buprenorphine/naloxone among injecting and noninjecting opioid users in an urban area.

Methods—A survey was self-administered among 51 injecting opioid users and 49 noninjecting opioid users in Providence, RI. Participants were recruited from a fixed-site syringe exchange program and a community outreach site between August and November 2009.

Results—A majority (76%) of participants reported having obtained buprenorphine/naloxone illicitly, with 41% having done so in the previous month. More injection drug users (IDUs) than non-IDUs reported the use of diverted buprenorphine/naloxone (86% vs 65%, $P = 0.01$). The majority of participants who had used buprenorphine/naloxone reported doing so to treat opioid withdrawal symptoms (74%) or to stop using other opioids (66%) or because they could not afford drug treatment (64%). More IDUs than non-IDUs reported using diverted buprenorphine/naloxone for these reasons. Significantly more non-IDUs than IDUs reported ever using buprenorphine/naloxone to “get high” (69% vs 32%, $P < 0.01$). The majority of respondents, both IDUs and non-IDUs, were interested in receiving treatment for opioid dependence, with greater reported interest in buprenorphine/naloxone than in methadone. Common reasons given for not being currently enrolled in a buprenorphine/naloxone program included cost and unavailability of prescribing physicians.

Conclusions—The use of diverted buprenorphine/naloxone was common in our sample. However, many opioid users, particularly IDUs, were using diverted buprenorphine/naloxone for reasons consistent with its therapeutic purpose, such as alleviating opioid withdrawal symptoms and reducing the use of other opioids. These findings highlight the need to explore the full impact of buprenorphine/naloxone diversion and improve the accessibility of buprenorphine/naloxone through licensed treatment providers.

Keywords

buprenorphine; buprenorphine/naloxone; diversion; injection drug use; opiate dependence

Opioid dependence and injection drug use contribute to both negative health and social outcomes. Maintenance therapy with buprenorphine, a long-acting partial opiate agonist, has been shown to reduce illicit opioid use, mortality, and other harms associated with drug use

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among opioid-dependent individuals (Johnson et al., 1992; Kakko et al., 2003; Connock et al., 2007; Mattick et al., 2008; Degenhardt et al., 2009b). In 2002, the US Food and Drug Administration approved Suboxone (buprenorphine/naloxone) and Subutex (buprenorphine) for the treatment of opioid dependence (Reckitt Benckiser, Richmond, Va). Buprenorphine treatment has shown promise with regard to acceptability among opioid users. Attitudes toward buprenorphine among opioid users have been found to be generally favorable or neutral, whereas ambivalence toward methadone, the most widely available treatment of opioid dependence, has been well documented (Stancliff et al., 2002; Schwartz et al., 2008; Zaller et al., 2009; Peterson et al., 2010). Some opioid users also perceive buprenorphine to be easier to withdraw from and to have less adverse effects than methadone (Schwartz et al., 2008). Furthermore, methadone usually requires daily visits to a methadone clinic, whereas buprenorphine can be dispensed at pharmacies by physician prescription.

In many countries, the introduction of buprenorphine for the treatment of opioid dependence has been followed by its diversion and misuse, particularly where it has been available for a longer period of time and in formulations without naloxone, a competitive opiate antagonist intended to precipitate withdrawal symptoms if injected (Robinson et al., 1993; Obadia et al., 2001; Alho et al., 2007; Hakansson et al., 2007; Aitken et al., 2008; Bruce et al., 2009; Degenhardt et al., 2009a). In the United States, buprenorphine is predominantly available in coformulated tablets with naloxone. Multiple studies confirm that buprenorphine diversion is occurring in the United States, although rates of diversion of buprenorphine have been reported to be similar to or lower than those of methadone and other opioid analgesics (Cicero and Inciardi, 2005; JBS International and Maxwell, 2006; Cicero et al., 2007; Smith et al., 2007).

Motivations for using diverted buprenorphine in the United States are not well understood. In a sample of more than 1000 individuals seeking treatment for prescription opioid dependence in 2005–2007, approximately 20% reported using buprenorphine to “get high” in the previous 30 days, a far lower percentage than was reported for major prescription opioid analgesics (Cicero et al., 2007). Several studies including recent quantitative findings from Schuman-Oliver et al. (2010) have suggested that illicit use of buprenorphine among opioid-dependent individuals in the United States is primarily motivated by the desire to self-treat opioid dependence and opioid withdrawal symptoms (Mitchell et al., 2009; Monte et al., 2009; Schuman-Oliver et al., 2010). Importantly, differences in motivation and the use of illicit buprenorphine between injecting and noninjecting opioid users have not been explored. Although many noninjection drug users (non-IDUs) transition to injection drug use, there are important differences between these populations. Injection drug users are at an increased risk of medical complications, are more stigmatized, and may have more severe addiction. To better understand buprenorphine diversion and use, we examined the prevalence of buprenorphine diversion, the factors driving the use of diverted buprenorphine and methods of procurement and use in a racially and ethnically diverse sample of active, injecting and noninjecting opioid users in Providence, RI. We hypothesized that motivations for using diverted buprenorphine differed between injecting and noninjecting opioid users because of differences in addiction severity and interest in treatment.

METHODS

Eligibility and Recruitment

Eligible participants were adults who self-reported opioid use in the previous 30 days. Participants were recruited in Providence between August and November 2009 from a fixed-site syringe exchange program operated by The Miriam Hospital and by outreach workers recruiting from areas they identified to have high concentrations of active opioid users. Individuals were screened for eligibility and guided through the informed consent process

before taking the survey, which took approximately 10 minutes to complete. A total of 112 eligible individuals were asked to participate in the survey portion of the study. Twelve individuals declined to participate; all of the remaining 100 participants completed the survey. Participants recruited at the fixed site were remunerated with \$5 cash, and individuals recruited during community outreach received \$5 gift cards. Because a small group of researchers administered the surveys, respondent duplication was likely avoided.

Survey Administration

We initially conducted a focus group with 6 male and 6 female adults reporting opioid use in the previous 30 days. Findings from the focus group informed the survey instrument and recruitment strategies. Based on focus group findings, the survey instrument referred to buprenorphine/naloxone as Suboxone and did not inquire about other formulations of buprenorphine. Surveys were administered anonymously in both English and Spanish. Participants completed the survey by themselves. For individuals with limited literacy, research staff assisted in administering the survey. A total of 100 eligible individuals were enrolled and surveyed, with 53 from the fixed-site syringe exchange program and 47 from community outreach. Data from 51 injecting and 49 noninjecting recruited opioid users were analyzed. Seventy-seven surveys were administered in English and 23 in Spanish. The Miriam Hospital institutional review board approved all aspects of this study.

Sample Size and Analysis

This was a convenience sample of different groups of active opioid users and was not powered to detect specific differences between IDUs and non-IDUs. Summary and descriptive statistics of demographics and survey responses were generated. Participants were stratified by IDU status and analyses examined differences between IDU and non-IDU participants with respect to demographic variables and responses to survey questions. Data analyses were conducted using STATA 10.0 (Stata Corporation, College Station, Tex). Chi-square and *t* test statistics were calculated and corresponding *P* values are reported.

RESULTS

Participant Characteristics

Results are stratified by IDU status, with participants classified on the basis of self-reported injection drug use in the previous 30 days. Table 1 presents participant characteristics. Forty percent of participants reported Hispanic ethnicity and 17% reported nonwhite race. No statistically significant differences were observed between IDUs and non-IDUs with respect to gender, ethnicity, race, age, education, homelessness, employment, or frequency of opioid use. Only 7% of participants reported current employment, whereas 52% reported current homelessness and 76% prior incarceration. In the previous year, 24% had experienced an overdose. Among IDUs, 53% reported sharing syringes in the previous 30 days.

Use and Procurement of Diverted Buprenorphine/Naloxone

The use of diverted buprenorphine/naloxone was widespread in our sample. Data on the use and procurement of buprenorphine/naloxone are presented in Table 2. A majority of participants (76%) reported having obtained buprenorphine/naloxone illicitly (“on the street”), with 41% having done so in the previous month. More IDUs than non-IDUs reported having obtained diverted buprenorphine/naloxone (86.3% vs 65.3%, $P = 0.01$), although no statistically significant differences were observed between the groups in having obtained diverted buprenorphine/naloxone in the previous 30 days. Among those who had obtained diverted buprenorphine/naloxone ($n = 76$), for the most recent period of buprenorphine/naloxone use, 60% (45) reported having used it for less than 1 week. The

most common sources for obtaining buprenorphine/naloxone in our sample were someone with a prescription who did not sell other drugs (36%), friends (32%), and dealers who also sold illicit drugs (24%). In comparison with non-IDUs, IDUs paid more, on average, for diverted buprenorphine/naloxone (median of \$6 for IDUs and \$5 for non-IDUs, $P = 0.08$), with prices paid ranging from \$3 to \$20 per 8-mg tablet. Among those who reported obtaining diverted buprenorphine/naloxone, 12% (9) also reported trading sex for buprenorphine/naloxone and 38% (29) reported knowing someone who had traded sex for buprenorphine/naloxone. Nine IDUs (12%) reported ever attempting to inject buprenorphine/naloxone.

Motivations for Using Diverted Buprenorphine/Naloxone

Table 3 presents data on participants' reported motivations for using diverted buprenorphine/naloxone. Most participants reported using diverted buprenorphine/naloxone to treat or prevent withdrawal symptoms, although results varied significantly between IDUs and non-IDUs. Among those who had used diverted buprenorphine/naloxone ($n = 76$), significantly more non-IDUs reported ever having done so to "get high" as compared with IDUs (69% vs 32%, $P < 0.01$). A greater proportion of IDUs reported using buprenorphine/naloxone to reduce opioid withdrawal symptoms (84% vs 59%, $P < 0.05$) and to stop using other opioids (84% vs 59%, $P < 0.05$). Furthermore, 77% of IDUs and 47% of non-IDUs who had used diverted buprenorphine/naloxone reported doing so because they could not afford to enter treatment, with the same percentages reporting that buprenorphine/naloxone had helped them abstain from other illicit drug use ("stay clean") ($P < 0.01$). Among individuals who had used diverted buprenorphine, self-reporting an interest in receiving treatment for opiate dependence was associated with using diverted buprenorphine to try to stop using other opioids ($P < 0.05$), to treat withdrawal symptoms ($P < 0.05$) and because they could not afford a treatment program ($P < 0.05$). And proportionately more individuals who had attempted to access buprenorphine/naloxone treatment in the previous year reported using diverted buprenorphine/naloxone because they could not afford treatment ($P < 0.05$) than those who had not attempted to access buprenorphine/naloxone treatment.

Potential motivations for using diverted buprenorphine/naloxone related to access and cost were also examined. The majority of participants (73%) reported that obtaining buprenorphine/naloxone on the street was easy or very easy. When asked whether heroin, buprenorphine/naloxone, or prescription opioids was easier to obtain, most individuals (55%) reported that heroin was the easiest, followed by prescription opioids (20%) and buprenorphine/naloxone (16%). Although the majority of participants reported that heroin was easier to obtain than buprenorphine/naloxone, 43 individuals (57%) reported having used buprenorphine/naloxone when they could not obtain heroin. The majority of participants also reported that buprenorphine/naloxone was less expensive to use for 1 full day than heroin or prescription opioids. Of those reporting the use of diverted buprenorphine/naloxone, significantly more IDUs than non-IDUs reported high-frequency illicit opioid use, defined as more than 5 days per week ($P = 0.05$). Also, more high-frequency opioid users than low-frequency opioid users reported the use of buprenorphine/naloxone in the last 30 days ($P = 0.01$).

History of and Attitudes Toward Drug Treatment

In the previous year, 18% of participants reported enrollment in a buprenorphine/naloxone program and 42% in a methadone program (Table 4); 21% reported lifetime enrollment in a buprenorphine/naloxone program and 67% in a methadone program. There were no statistically significant differences between IDUs and non-IDUs with respect to a history of buprenorphine/naloxone treatment (18% IDUs and 18% non-IDUs), but significantly more

IDUs reported past-year (57% IDUs vs 27% non-IDUs, $P < 0.01$) and lifetime methadone treatment (86% IDUs vs 47% non-IDUs, $P < 0.01$).

Individuals from both groups reported interest in treatment, with 71% of IDUs and 51% of non-IDUs reporting an interest in receiving treatment for opioid dependence. Among all participants, there was more interest in receiving buprenorphine/naloxone treatment (56%) than methadone (39%) ($P < 0.01$). Of the 56 individuals expressing interest in buprenorphine/naloxone, 31 (55%) were also interested in methadone whereas 25 (45%) were interested in buprenorphine/naloxone treatment only ($P < 0.01$). Proportionally more IDUs than non-IDUs attempted to get into either buprenorphine/naloxone treatment or methadone treatment in the previous 12 months (Table 4). Common reasons for not being currently enrolled in a buprenorphine/naloxone program included cost and unavailability of prescribing physicians. Of note, 77% of IDUs and 47% of non-IDUs who had used diverted buprenorphine/naloxone reported doing so because they could not afford a treatment program ($P < 0.01$).

Ten individuals (10%) indicated concern about buprenorphine/naloxone negatively affecting their health as a reason for why they were not currently enrolled in buprenorphine/naloxone treatment, whereas 23 individuals (23%) indicated health concerns as a reason for not engaging in methadone treatment ($P < 0.01$). Furthermore, 30 individuals (30%) cited concerns about methadone being difficult to “detox” from, whereas only 7 individuals (7%) indicated this concern with buprenorphine/naloxone ($P = 0.01$). Data on self-reported interest in and history of treatment of opioid dependence appear in Table 4.

DISCUSSION

This is the first study to compare the use of diverted buprenorphine/naloxone between injecting and noninjecting opioid users in the United States. The use of diverted buprenorphine/naloxone was widespread in our sample of urban opioid users. These results are consistent with previous studies of diverted buprenorphine/naloxone use, although our sample differed from those of previous studies in that participants were more racially and ethnically diverse and were not presenting for opioid dependence treatment. Our finding that the majority of participants reported using diverted buprenorphine/naloxone to reduce withdrawal symptoms and to stop using other opioids is consistent with the conclusions from previously published studies (Mitchell et al., 2009; Monte et al., 2009; Schuman-Olivier et al., 2010). Overall, proportionately more IDUs reported using buprenorphine/naloxone for reasons consistent with its therapeutic purpose, such as alleviating opioid withdrawal symptoms and reducing the consumption of other opioids.

One reason that may account for the differences in use and motivations for use between IDUs and non-IDUs, despite their demographic similarity, may be the increased severity or duration of opioid dependence among IDUs. Of those reporting the use of diverted buprenorphine/naloxone, statistically significantly more IDUs than non-IDUs reported high-frequency (>5 times per week) opioid use ($P = 0.05$), and more high-frequency opioid users than low-frequency opioid users reported using diverted buprenorphine/naloxone in the last 30 days ($P = 0.01$). Furthermore, a greater proportion of IDUs reported a history of enrollment in methadone maintenance therapy and utilization of detoxification services, which could be indicative of more severe or long-term opioid dependence. A greater severity of addiction among IDUs may help to explain why fewer IDUs in our sample used buprenorphine/naloxone to “get high” and may reflect the increased urgency among IDUs to access treatment for opioid dependence. Not surprisingly, a higher percentage of individuals who reported an interest in receiving drug treatment, compared with those who did not report an interest in drug treatment, reported using diverted buprenorphine/naloxone to treat

their addiction ($P < 0.05$) and using diverted buprenorphine/naloxone because they could not afford a treatment program ($P < 0.05$).

The number of opioid users in our sample who reported having ever used buprenorphine/naloxone to “get high” is surprising, given that buprenorphine/naloxone is a partial opioid agonist that is not expected to produce euphoria in regular users with a tolerance to opioids. It is possible that some participants, particularly noninjecting opioid users, did not use opioids regularly enough to develop significant tolerance. Furthermore, because our survey only asked whether participants had *ever* used buprenorphine/naloxone to “get high,” it is possible that respondents who answered affirmatively did not regularly use buprenorphine/naloxone to this effect or that they had attempted to “get high” from buprenorphine/naloxone but did not achieve this effect.

Participants not only expressed significant interest in accessing buprenorphine/naloxone treatment but also identified significant barriers to doing so. The majority of participants reported an interest in receiving buprenorphine/naloxone treatment; however, few reported ever having obtained a prescription. Compared with methadone, participants generally expressed more interest in and less negative attitudes toward buprenorphine/naloxone, underscoring the potential appeal of buprenorphine/naloxone as a treatment modality to opioid-dependent individuals who may not consider methadone. However, participants also reported limited access to buprenorphine/naloxone, which, as previous research suggests, may be a primary reason underlying the use of diverted buprenorphine/naloxone among opioid users (Monte et al., 2009). Cost and difficulty of finding a prescribing physician were commonly reported reasons for why interested participants were unable to access buprenorphine/naloxone treatment. Although 44% of our sample reported having health insurance, most of the insured individuals reported having Medicaid, Medicare, or a state-funded health insurance program, which few buprenorphine/naloxone providers in Rhode Island currently accept. The future availability of generic, more affordable buprenorphine/naloxone will present important opportunities to engage individuals in drug treatment who may not otherwise be able to afford therapy.

Given the history of buprenorphine use in some countries where it is frequently injected, the diversion and misuse of buprenorphine/naloxone in the United States must be closely monitored. Only 9 IDUs (9%) in our sample reported ever having injected buprenorphine/naloxone; however, we did not collect data on the frequency of buprenorphine/naloxone injection. The prevalence of buprenorphine/naloxone injection is similar to that found by Cicero et al. (2007) in a nationwide survey of individuals dependent on prescription opioids. We also found that many people were acquiring buprenorphine/naloxone from friends (32%) or individuals with a prescription who did not sell other drugs (36%), a pattern that is likely to continue where access to buprenorphine/naloxone through legitimate sources remains limited.

Buprenorphine, a partial opiate agonist with a ceiling effect on respiratory depression, has a lower potential for overdose mortality than full opiate agonists such as heroin, methadone, or other opioid analgesics. However, there is still an overdose potential associated with buprenorphine, particularly among individuals who also use benzodiazepines (Reynaud et al., 1998; Megarbane et al., 2010). Thirty-three percent of our sample reported benzodiazepine use in the previous 30 days, placing them at elevated risk of overdose whether they were using buprenorphine or other opioids. In our sample, 24% of participants reported experiencing an overdose in the previous year. In addition to being at risk for fatal overdose, more than half of the IDUs in our sample reported sharing syringes in the previous 30 days, placing them at risk for contracting or transmitting blood-borne pathogens including human immunodeficiency virus and hepatitis C virus. Approximately three-

quarters of these IDUs also reported that using buprenorphine/naloxone had helped them stay “clean” for a period of time. We do not condone the illicit use or diversion of buprenorphine/naloxone. However, in our sample, the sublingual use of diverted buprenorphine/naloxone by active opioid injectors not enrolled in a formal buprenorphine/naloxone treatment program may have decreased the use of other illicit opioids and the associated risks. Prescribing buprenorphine/naloxone intermittently to opioid-dependent IDUs who cannot afford or are not interested in maintenance therapy may offer greater public health benefits than not prescribing to these individuals at all. Such a harm-reduction approach to treatment with buprenorphine/naloxone merits further investigation.

LIMITATIONS

Broader application of these findings is limited by the fact that this study used a convenience sample of opioid users from one area of Providence. Local patterns of drug use and motivations for use may change depending on availability of illicit opioids and access to treatment. Our sample may represent many individuals from the same or connected social groups and may not be representative of urban opioid users generally or even those in Providence. Also, our sampling method and location led to preferential recruitment of visible, street-based opioid users in a particularly impoverished area. A limitation of the survey was that while participants were asked whether they had *ever* used buprenorphine/naloxone for various purposes, they were not asked about motivations for use during a discrete time period, making it difficult to determine what motivations were most important in affecting buprenorphine/naloxone use. We did not measure the frequency of buprenorphine use to “get high.” Furthermore, we did not assess whether participants were also using other opioids to self-treat their addiction. These motivations should be monitored in future studies.

CONCLUSIONS

Buprenorphine/naloxone has the potential to effectively treat opioid dependence, and many opioid users may be interested in accessing this medication. However, access to buprenorphine/naloxone through providers remains limited and diversion is an emerging issue. Access may improve over time as more providers become trained in administering buprenorphine/naloxone, the price of medication decreases with the end of the Food and Drug Administration orphan status, and health insurance coverage increases with addiction and mental health parity. Our findings suggest that many illicit opioid users, particularly IDUs who are interested in receiving treatment, may be using diverted buprenorphine/naloxone intermittently to self-treat opioid dependence.

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TABLE 1

Participant Characteristics

	IDUs (N = 51)		Non-IDUs (N = 49)	
	n	%	n	%
Sex				
Male	34	67	36	74
Female	16	31	13	27
Transgender	1	2	0	–
Hispanic	22	43	18	37
Race				
White	41	80	41	84
Other	9	18	8	16
No response	1	2	0	0
Age, y				
Mean	37.6	–	44.6	–
Range	22–61	–	18–70	–
Homeless	29	57	23	47
Have health insurance	18	35	26	53
Medicare	2	4	5	10
Medicaid, Rhode Island	14	28	20	41
Private	1	2	2	4
Employed	4	8	3	6
Education				
8th grade or less	28	55	25	51
Some high school/high school	14	28	15	31
Vocational/some college	6	12	5	10
College graduate	3	6	4	8
Frequency of opioid use				
High frequency (5+ d/wk)	32	63	25	51
Low frequency (<5 d/wk)	19	37	24	49
Powder or crack cocaine use, previous 30 d	23	45	14	29
Benzodiazepine use, previous 30 d	13	26	20	41
Syringe sharing, previous 30 d	27	53	0	0
Overdose, previous 12 mo	16	31	8	16
No response	0	0	2	4

IDUs, injection drug users.

TABLE 2

Use and Procurement of Buprenorphine/Naloxone and Other Prescription Opioids (N = 100)

	n
Ever obtained buprenorphine/naloxone on the street*	76
In the previous 30 days	41
Frequency of buprenorphine/naloxone use in previous 30 d	
0	44
1	11
2–4	24
5 or more	21
Length of most recent period of buprenorphine/naloxone use	
One day	24
A few consecutive days	21
A week	10
More than a week	21
NA	24
Ease of obtaining buprenorphine/naloxone on the street	
Very easy	43
Easy	30
Difficult	16
Very difficult	8
No response	3
Easiest opioid to obtain on the street	
Heroin	55
Buprenorphine/naloxone	16
Prescription opioids	20
No response	9
Usual source of buprenorphine/naloxone	
Friend	24
Partner	2
Dealer who also sells illegal drugs	18
Someone with a prescription who does not sell other drugs	27
Other	3
No response	2
NA	24
Ever traded sex for buprenorphine/naloxone	9
Ever attempted to inject buprenorphine/naloxone [†]	9

Significant difference between injection drug users and noninjection drug users:

* $P < 0.05$;[†] $P < 0.01$.

NA, not applicable.

TABLE 3**Motivations for Using Diverted Buprenorphine/Naloxone**

	IDUs (N = 44)		Non-IDUs (N = 32)	
	n	%	n	%
Reduce withdrawal symptoms [*]	37	84	19	59
Self-treat opioid addiction [*]	37	84	19	59
Could not obtain heroin [*]	30	68	13	41
No response	0	0	1	3
Could not afford treatment [†]	34	77	15	47
To “get high” [†]	14	32	22	69
To stay “clean” for some time [†]	35	80	15	47

Percentages are based on the subset of participants who reported ever using diverted buprenorphine/naloxone.

^{*} $P < 0.05$;

[†] $P < 0.01$.

IDUs, injection drug users.

TABLE 4

History of and Attitudes Toward Drug Treatment

	IDUs (N = 51)		Non-IDUs (N = 49)	
	n	%	n	%
Interested in receiving treatment for opioid dependence *	36	71	25	51
Interested in receiving methadone treatment *	26	51	13	27
Tried to enter a methadone program in the previous year [†]	32	63	13	27
Enrolled in methadone treatment program in the previous year [†]	29	57	13	27
Interested in buprenorphine/naloxone treatment	33	65	23	47
Tried to enter buprenorphine/naloxone program in the previous year [†]	28	55	13	27
Enrolled in buprenorphine/naloxone treatment program in the previous year	9	18	9	18
Reasons for not currently being enrolled in a buprenorphine/naloxone treatment program [‡]				
Costs too much [†]	31	61	17	35
Buprenorphine/naloxone is bad for your health	6	12	4	8
Can't find a doctor to prescribe it	28	55	20	41
Difficult to detox from buprenorphine/naloxone	3	6	4	8
Not interested in treatment right now [†]	5	10	19	39
Other	12	24	9	18
Enrolled in detoxification program in the previous year *	36	71	21	43
Enrolled in outpatient treatment in the previous year	18	35	19	39
Enrolled in residential treatment in the previous year	13	25	10	20

* $P < 0.05$;

[†] $P < 0.01$.

[‡] Multiple selections are permitted.

IDUs, injection drug users.