

# FACTORS ASSOCIATED WITH OVERDOSE AMONG PEOPLE WHO INJECT DRUGS IN UKRAINE

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## BACKGROUND

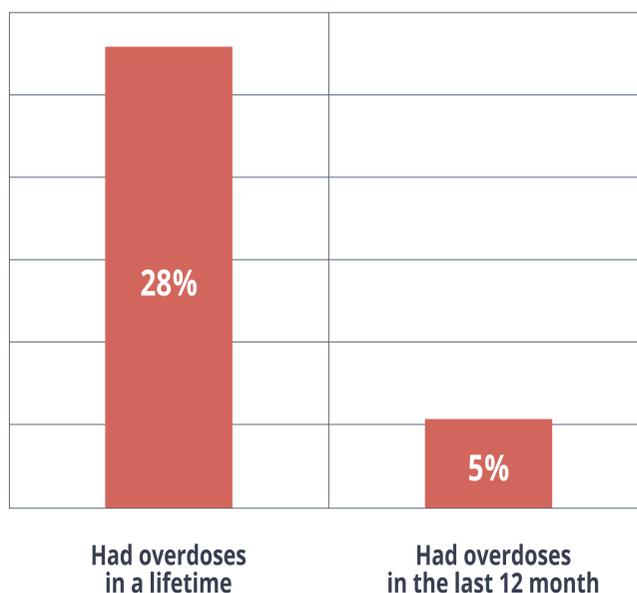
Drug overdose is one of the major causes of morbidity and mortality among people who inject drugs (PWID). According to the national statistics 26,260 events of drug overdose were registered in Ukraine in 2017 with 1% of the lethal outcome. We assessed factors associated with the drug overdose among PWID to understand what prevention intervention need to be added into the existing harm reduction program to decrease the overdose frequency.

## METHODS:

We used a respondent-driven sampling method to recruit 10,076 PWID throughout the country (all 25 Ukrainian regions) in 2017. Participants completed behavioral questionnaires that included questions about overdose history and we used multivariable logistical regression model to assess factors associated with self-reported overdose.

## RESULTS:

28% of PWID reported to have an overdose at least once during their lifetime, 5% had an overdose in last 12 month.



## AMONG THOSE WHO REPORTED BEING OVERDOSED:

- 24,5 years old – medium age of the first episode of the overdose;
- 2,7 – medium frequency of the overdose event in lifetime;
- 1,5 – medium frequency of the overdose event in the last 12 month
- 2,7% – used one type of drug when they overdosed;
- 0,7% – used several different drugs when overdosed;
- 2% – mixed drugs and alcohol when overdosed;
- 1.8% – injected while being on methadone substitution therapy;

## CHARACTERISTICS OF PWID WHO HAD EXPERIENCED AN OVERDOSES

	HAD OVERDOSE IN LIFETIME (YEARS, % OR P VALUE)	HAD OVERDOSE IN THE LAST 12 MONTH (YEARS, % OR P VALUE)
Medium age	36.5 years old, <0.001	34.1 years old, <0.001
Gender	0.045	0.049
Male	28.5%	5.3%
Female	25.8%	5.8%
Length of injection	17.7 years, <0.001	14.3 years, <0.001
Median frequency of injection (month)	25 times, 0.008	20 times, <0.001
Types of drugs	<0.001	<0.001
Only opioids	26.8%	4.6%
Only stimulants	21.9%	4.6%
Other drugs	21.6%	0.0%
Mixed injecting	34.3%	8.1%
Clients of harm reduction services	<0.001	<0.001
Yes	31.0%	5.8%
No	25.2%	5.1%

## THE FOLLOWING FACTORS WERE ASSOCIATED WITH HAVING AN OVERDOSE IN THE LAST 12 MONTH:

	CRUDE OR, 95% CI	AOR, 95% CI
Age: 14-24 y.o.	2,8 (1.8-4.4)	2.5 (1.6-4.0)
Age: 25-34 y.o.	2,5 (1.7-3.6)	2.3 (1.6-3.3)
Age: 35-44 y.o.	2.0 (1.4-2.9)	1.9 (1.3-2.8)
Age: 45 y.o. and older	Ref.	Ref.
Gender: Male	0.9 (0.7-1.1)	-
Gender: Female	Ref.	-
Length of injecting: <2 years	1.4 (1.0-1.8)	-
Length of injecting: 3-5 years	0.9 (0.6-1.2)	-
Length of injecting: 6-10 years	1.0 (0.8-1.3)	-
Length of injecting: 11+ years	Ref.	-
Monthly frequency of injection : 1-4	1.0 (0.7-1.5)	1.4 (0.8-1.7)
Monthly frequency of injection : 5-10	1.4 (1.1-1.7)	1.4 (1.1-1.8)
Monthly frequency of injection : 11-20	1.4 (1.1-1.7)	1.4 (1.1-1.7)
Monthly frequency of injection : 21-31	Ref.	Ref.
Type of drugs: only opioids	0.9 (0.6 – 1.1)	1.1 (0.8 – 1.4)
Type of drugs: mixed injecting	1.8 (1.3 – 2.4)	2.7 (1.5 – 2.8)
Type of drugs: only stimulants	Ref	-
Client of harm reduction program: Yes	1.0 (0.8-1.2)	-
Client of harm reduction program: No	Ref.	-

## CONCLUSIONS

An overdose is a frequent harm associated with the injecting drug use. In our survey the overdose was associated with the younger age, more frequent monthly injecting and mixed use of stimulants and opioids. The harm reduction programs should pay more attention on overdose prevention counseling and include naloxone in their prevention package.



## DISCLOSURE OF INTEREST STATEMENT:

The authors do not have any conflicts of interest in relationships with this publication and presentation.