

# HIV TESTING AND COUNSELING: OPPORTUNITY FOR OVERDOSE PREVENTION AMONG YOUNG INJECTION DRUG USERS

KRISTEN C. OCHOA <sup>1</sup>, KIMBERLY PAGE SHAFER <sup>2</sup>, JENNIFER L. EVANS <sup>1</sup>, JUDITH A. HAHN <sup>1</sup>, PAULA J. LUM <sup>1</sup>, ANDREW R. MOSS <sup>1</sup>

<sup>1</sup> Department of Epidemiology and Biostatistics, <sup>2</sup> Center for AIDS Prevention Studies, UCSF, USA

## ABSTRACT

**Background** Overdose is common among young injection drug users (YIDU). This group is known to participate in higher HIV risk behaviors than older injectors. We examine the prevalence of overdose, and HIV risk factors associated with overdose in YIDU (<30 years of age) in San Francisco

**Methods** Using street-based peer outreach, participants were recruited, screened and interviewed about demographic characteristics, drug use, sexual behavior, healthcare utilization and overdose experience.

**Results** Among 312 YIDU, the median age was 22 (IQR:20-25) and median years injecting was 5 (IQR 2-8). Over half (55%) had ever overdosed, and 72% of those had overdosed more than once. The median number of overdoses was 3 (IQR:1-5). Participants who exchanged syringes in the last 30 days were more likely to have ever overdosed. In a bivariate model, HIV testing was associated with ever overdosing, such that for each HIV test received, the risk of overdose increased in a linear fashion. Condom use, sexual orientation, STD history and HIV status were not associated with overdosing in the bivariate model. In multivariate logistic regression analysis, duration of injection (OR 2.8, 95% CI 1.5-5.2), hepatitis C virus seropositivity (OR 2.2, 95% CI 1.27-3.84), sharing syringes (OR 1.9, 95% CI 1.03-3.44), and age per year increase (OR 1.1, 95% CI 1.01-1.18) were independently associated ( $p < .05$ ) with ever overdosing. Having been in jail in the last year was also associated with ever overdosing (OR 1.6, 95% CI 0.97-2.73), but was of borderline significance ( $p = .07$ ).

**Conclusions** Findings suggest that overdose is prevalent among young injection drug users. HIV risk indicators may prove useful in determining overdose risk, illuminating the need to include overdose prevention alongside HIV risk reduction efforts. HIV test counseling and needle exchange should be considered as possible venues for overdose prevention and education.

## INTRODUCTION

- In the 1990s, the street price of heroin in the United States decreased while the purity increased.

(NNICC 1997; Office of National Drug Control Policy 1997)

- The accessibility of heroin and the number of young injection drug users are thought to have increased correspondingly.

(Office of National Drug Control Policy 1998)

- A 241% increase in heroin/morphine ER episodes occurred in youth from 1995-1997.

(Office of Applied Studies/DAWN 1999)

- San Francisco has the highest heroin-related hospitalization rate in the U.S.

(Public Statistics Institute, 1997)

- In San Francisco, overdose was the second leading cause of death for men and women ages 25-44.

(Burden of Injury and Disease Mortality Analysis 1990-95, SFDPH)

- In California as a whole, heroin overdose deaths have risen 52% since 1992.

(Public Statistics Institute, 1997)

## METHODS

- Cross-sectional study of current injection drug users under thirty years of age.
- Recruiting via street outreach and word-of-mouth in four San Francisco neighborhoods.
- Thirty minute structured questionnaire administered by peer interviewers and harm reduction workers.
- Blood was drawn for HIV, hepatitis B (HBV) and hepatitis C (HCV).

- Participants were questioned about injection and sexual behavior, sources of clean needles, knowledge and use of sterile injection techniques, interface with local outreach services, history of STD and hepatitis, hepatitis vaccination status and drug overdose experiences.

- Overdose counseling incorporated into HIV and Hepatitis test counseling.
- Referrals to local service providers and hepatitis A and B vaccinations were offered to eligible returning participants.
- All participants received \$10.00 remuneration at each visit.

## RESULTS

### Demographics (N=312)

Median age	22 (IQR: 20-25)
Male	215/312 (69%)
Non-white	72/312 (23%)
Median years injecting	5 (IQR: 2-8)
Injected daily (past 30 days)	115/312 (37%)

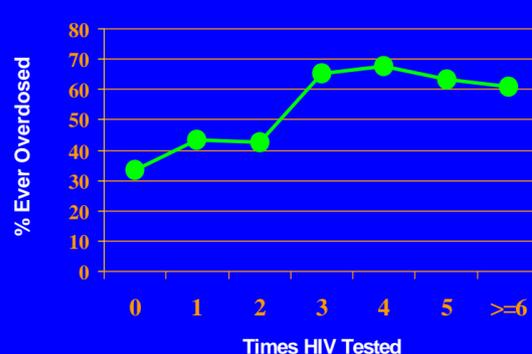
### Overdose Risk

Percent who have ever overdosed (N=312)	55%
<b>Among those who have overdosed (n=170):</b>	
Percent who had overdose more than once	72%
Median number of overdoses	3 (IQR: 1-5)
Overdosed within the last year	63%

### Ever Overdosed by Services Accessed

	% Ever Overdosed		
	Yes	OR	p-value
Did not exchange syringes in last 30 days	39		
Exchanged syringes in last 30 days	49	2.1	0.023
Never tested for HIV	33		
Ever tested for HIV	57	2.7	0.015

### Ever Overdosed by Times HIV Tested



### Multivariate logistic regression analysis

	OR	95% CI	p-value
Duration of injection	2.8	1.50-5.20	.0012
HCV positive	2.2	1.27-3.84	.005
Ever borrowed syringe	1.9	1.03-3.44	.038
Jail in last year	1.6	0.97-2.73	.065
Age	1.1	1.01-1.18	.035

## CONCLUSIONS

- Overdose is common, frequent and chronic among young IDU.
- It is associated with injection risk behavior (length of injection career and sharing).
- HIV testing and needle exchange are venues where overdose prevention and education would be effective.
- Overdose education must be included alongside HIV and hepatitis prevention efforts in high risk young IDU.



University of California  
San Francisco



AIDS Research Institute