Improving Access to Drug Treatment and Social Services for Injection Drug Users (IDUs) through a Pharmacy Syringe Access Program in New York City, 2005-2006

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Background

- Substance abuse treatment is recommended; however some IDUs are faced with:
  - Ineffective treatment modalities
  - Inability to abstain from drug use
  - Barriers to treatment and/or services
- Federal public health agencies recommend use of sterile syringes to prepare and inject drugs for those unable to stop injecting.
- ~200,000 active injection drug users (IDUs) in New York City

Background: Syringe Exchange Programs

- Provide access to sterile syringes and a means for disposal
- Provide referrals to drug treatment/medical/social services
- Still Unable to meet the needs of all IDUs
  - Limited hours of operation
  - Travel distance
  - Law enforcement practices

Background: Pharmacies

- Pharmacies are advantageous for syringe access because:
  - Have access to sterile syringes
  - In urban centers
  - Multiple locations
  - Convenient hours of operation

Expanded Syringe Access Demonstration Program (ESAP)

- NYS public health legislation [enacted in August 2000] and implemented in January 2001
- Deregulates non prescription syringe sales in pharmacies and allows distribution via healthcare providers in order to:
  - Prevent reusing or sharing of needles
  - Reduce disease transmission among IDUs

Expanded Syringe Access Demonstration Program (ESAP)

- ESAP Registered Pharmacies:
  - May sell up to 10 syringes per transaction
  - May sell to persons 18 years or older
  - Must provide ESAP safety insert with each transaction
- 2003 ESAP Evaluation (NYAM)

Study Objective

The purpose of this analysis is:

- To determine if a relationship already exists (without intervention) between the frequency of pharmacy syringe purchase visits and access to drug treatment and/or medical care among IDUs in New York City.

Methods: Study Design

- Cross-sectional analysis
- Participants recruited through random street intercept sampling
- Interviewer-administered questionnaires
- Analysis restricted to self-reported IDUs (N=288)

Study Sample and Key Variables

- **Study sample:**
  - Restricted to self-reported IDUs
- **Outcome:**
  - Frequency of pharmacy syringe purchase visits
    - High frequency pharmacy use: purchase syringes at pharmacies ≥ once a week
    - Low frequency pharmacy use: purchase syringes at pharmacies ≤ 2-3 times per month
    - No pharmacy use
- **Exposures:**
  - Injection practices
  - Access to health services
  - Recent drug cessation attempts

Graph 1. Sociodemographic characteristics by frequency of pharmacy syringe purchase visits in New York City 2005-2006 (N=288)

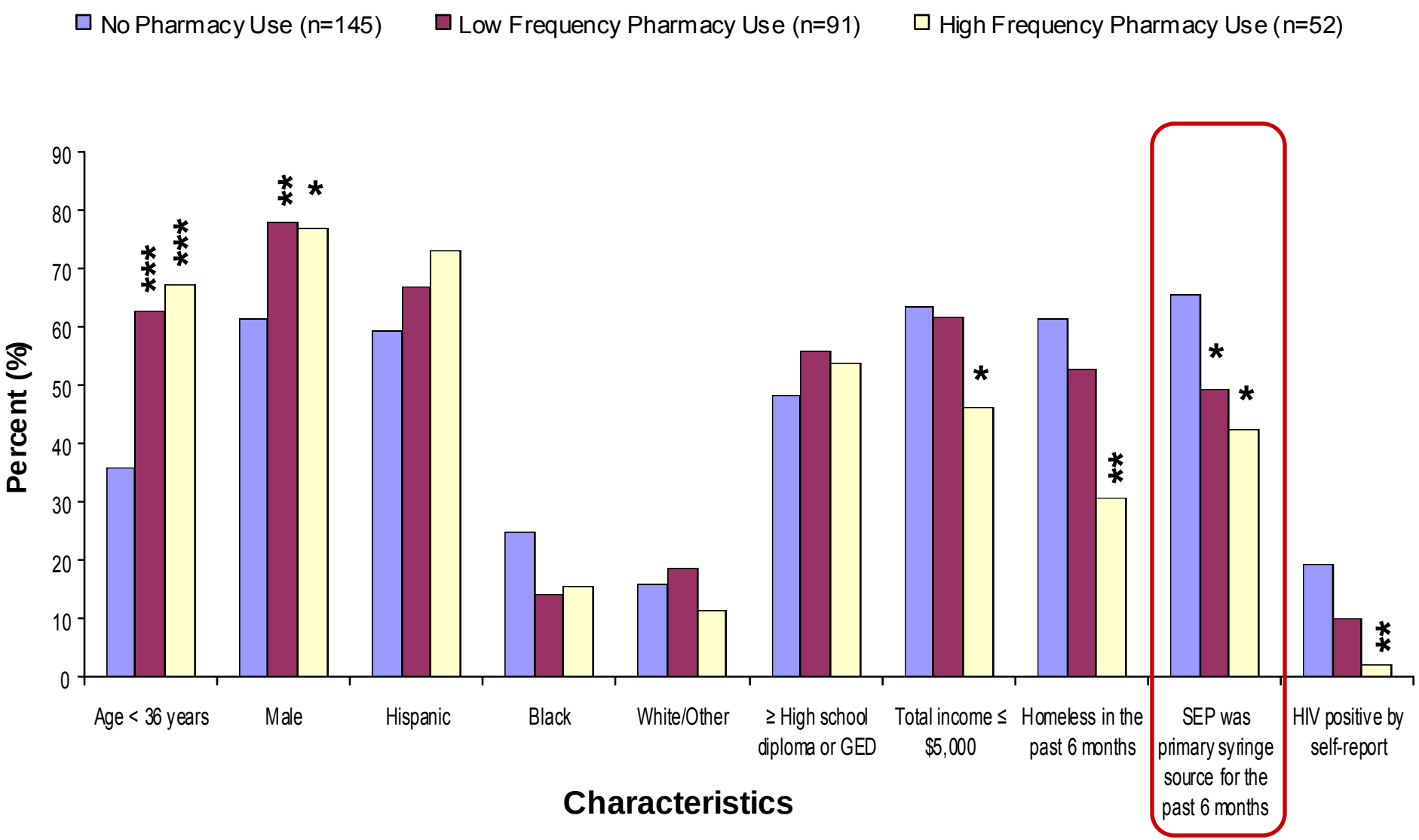

Table 1. Associations between injection behaviors and frequency of pharmacy syringe purchase visits after adjusting for SEP-participation in New York City, 2005 - 2006 (N=288)

	Low Frequency Pharmacy Use vs. No Pharmacy Use		High Frequency Pharmacy Use vs. No Pharmacy Use	
Injection Practices	**AOR**	**95% CI**	**AOR**	**95% CI**
Used cotton together with or after someone else in past 6m	0.45**	0.26 – 0.79	0.45*	0.23 – 0.90
Used cooker together with or after someone else in past 6m	1.95*	1.11 – 3.42	2.04*	1.04 – 3.98
Used same rinsewater that another person used in past 6m	2.25**	1.22 – 4.13	2.28*	1.11 – 4.68
Shot up in a shooting gallery in past 6m	1.67	0.88 – 3.19	3.43***	1.69 – 6.99
Used a NEW needle ≥ half the time in past 6m	3.82***	2.08 – 7.03	9.49***	3.90 – 23.13

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Table 2. Associations between recent drug cessation attempts and frequency of pharmacy syringe purchase visits after adjusting for SEP-participation in New York City, 2005 - 2006 (N=288)

	Low Frequency Pharmacy Use vs. No Pharmacy Use		High Frequency Pharmacy Use vs. No Pharmacy Use	
Recent Drug Cessation Attempts	**AOR**	**95% CI**	**AOR**	**95% CI**
Alcohol or drug treatment in past 6m	3.10***	1.76 – 5.47	1.98*	1.01 – 3.86
Inpatient treatment in past 6m	2.63**	1.33 – 5.18	3.50**	1.63 – 7.55
Outpatient treatment in past 6m	2.85***	1.64 – 4.92	1.94*	1.00 – 3.76
Detox program in past 6m	2.98**	1.42 – 6.25	6.32**	2.83 – 14.12
Methadone maintenance program in past 6m	3.33***	1.91 – 5.83	1.95	1.00 – 3.80
Stopped injecting for ≥ 2 months	1.24	0.64 – 2.41	0.60	0.29 – 1.23
Tried to quit drugs in past 6 mo	1.60	0.78 – 3.29	0.81	0.37 – 1.77
Successfully quit drugs in past 6 mo	1.10	0.63 – 1.91	1.06	0.54 – 2.09
Crack Dependence	0.73	0.41 – 1.30	1.72	0.89 – 3.33
Cocaine Dependence	1.81*	1.04 – 3.15	1.73	0.89 – 3.39
Heroin Dependence	2.19*	1.18 – 4.08	4.68***	1.96 – 11.16
Dependence on at least one drug (heroin, crack or cocaine)	2.36**	1.23 – 4.51	4.84**	1.86 – 12.62

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Table 3. Associations between access to health services and frequency of pharmacy syringe purchase visits after adjusting for SEP-participation in New York City, 2005-2006 (N=288)

	Low Frequency Pharmacy Use vs. No Pharmacy Use		High Frequency Pharmacy Use vs. No Pharmacy Use	
Access to Health Services	**AOR**	**95% CI**	**AOR**	**95% CI**
Who do you see for medical care?				
Doctor's office/clinic, Medicaid/HMO, drug treatment clinic, other	1.35	0.72 – 2.55	0.44*	0.23 – 0.87
ER, nowhere	Ref	-	Ref	-
Saw the same doctor, nurse, or PA > 90% of the time	0.92	0.52 – 1.60	0.43*	0.22 – 0.83
Saw a doctor, nurse or physician's assistant in past 6m	0.98	0.57 – 1.68	0.47*	0.24 – 0.91
Used ER for care in the past 6 mo	1.27	0.74 – 2.18	1.56	0.81 – 3.01
Tested positive for HIV (self-report)	0.46	0.21 – 1.04	0.09*	0.01 – 0.56

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Table 4. Final multiple logistic regression model for the association between frequency of pharmacy syringe purchase visits and injection practices, recent drug cessation attempts and access to health services in New York City, 2005-2006

	Adjusted for SEP use		Multivariate		
Low Frequency Pharmacy Use	**AOR**	**95% CI**	**AOR**	**95% CI**	**p-value**
Age > 36	0.35***	0.20 – 0.61	0.36**	0.19 – 0.66	0.1764
Alcohol or drug treatment in past 6 mo	3.10***	1.76 – 5.47	4.22***	2.21 – 8.05	
Used a NEW needle ≥ half the time in past 6 mo	3.82***	2.08 – 7.03	3.88***	1.99 – 7.56	
Sex (female:male)	0.43**	0.24 – 0.79	0.50*	0.25 – 0.99	
SEP as primary syringe source in past 6 mo	N/A		1.04	0.54 – 1.99	
High Frequency Pharmacy Use	**AOR**	**95% CI**	**AOR**	**95% CI**	**p-value**
Used a NEW needle ≥ half the time in past 6 mo	9.49***	3.90 – 23.13	8.99	3.38 – 23.92***	0.3901
Shot up in a shooting gallery in past 6 mo	3.43***	1.69 – 6.99	4.21	1.80 – 9.89**	
SEP as primary syringe source in past 6 mo	N/A	N/A	0.87	0.37 – 2.03	
Interaction term					
Age > 36 x Alcohol/Drug treatment	-	-	0.84	0.27 – 2.63	
Age > 36 x No Alcohol/Drug treatment	-	-	1.01	0.32 – 3.20	
Age ≤ 36 x Alcohol/Drug treatment	-	-	6.28	2.20 – 17.90***	
Age ≤ 36 x No Alcohol/Drug treatment	-	-	Ref	-	

Discussion

- Compared with individuals who had not purchased syringes at pharmacies, those who had were more likely to use a new syringe

- Those purchasing syringes from pharmacies most frequently demonstrate
  - high risk behaviors (i.e. shooting gallery use and sharing of injection equipment)
  - a history of drug abuse treatment
  - infrequent use of medical services

Conclusion & Public Health Impact

- Pharmacies may be an important setting for providing risk reduction interventions and arranging for medical care and social system referrals

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