

Increased risk of HIV infection and other drug-related harms associated with injecting in public places

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Background and Aims

- The distribution of harms associated with injecting drug use are influenced by an individual's injecting environment. Public injecting creates a micro-environment which increases the risk of harm by discouraging hygienic injecting routines and facilitating high risk injecting behaviours (1).
- The largest outbreak of HIV among PWID in the last 30 years in the UK has been identified in Glasgow, Scotland, which has been associated with an increase in cocaine injecting and homelessness (2). Public injecting has also been described as a prominent feature of the outbreak (3), but further research is required to confirm this.
- The aims of this study were to:
 - Estimate the prevalence of public injecting in Scotland and associated individual and environmental risk factors.
 - Estimate the association between public injecting and related harms in Scotland (HIV, active Hepatitis C (HCV), overdose and skin and soft tissue infections (SSTI)).



Public injecting site in Glasgow; evidence has suggested that public injecting is an important feature of the HIV outbreak.

Methods

- National bio-behavioural cross-sectional survey known as the **Needle Exchange Surveillance Initiative (NESI)** conducted in 2017-18, including a questionnaire and dried blood spot test (DBS) to test for BBVs. PWID who had reported injecting in the last 6 months were included in the study.
- The primary outcomes were: public injecting (yes/no), HIV infection, active HCV infection, overdose (yes/no) and SSTI (yes/no).
- Logistic regression was used to determine factors associated with public injecting and to estimate the association between public injecting and harms.

Results

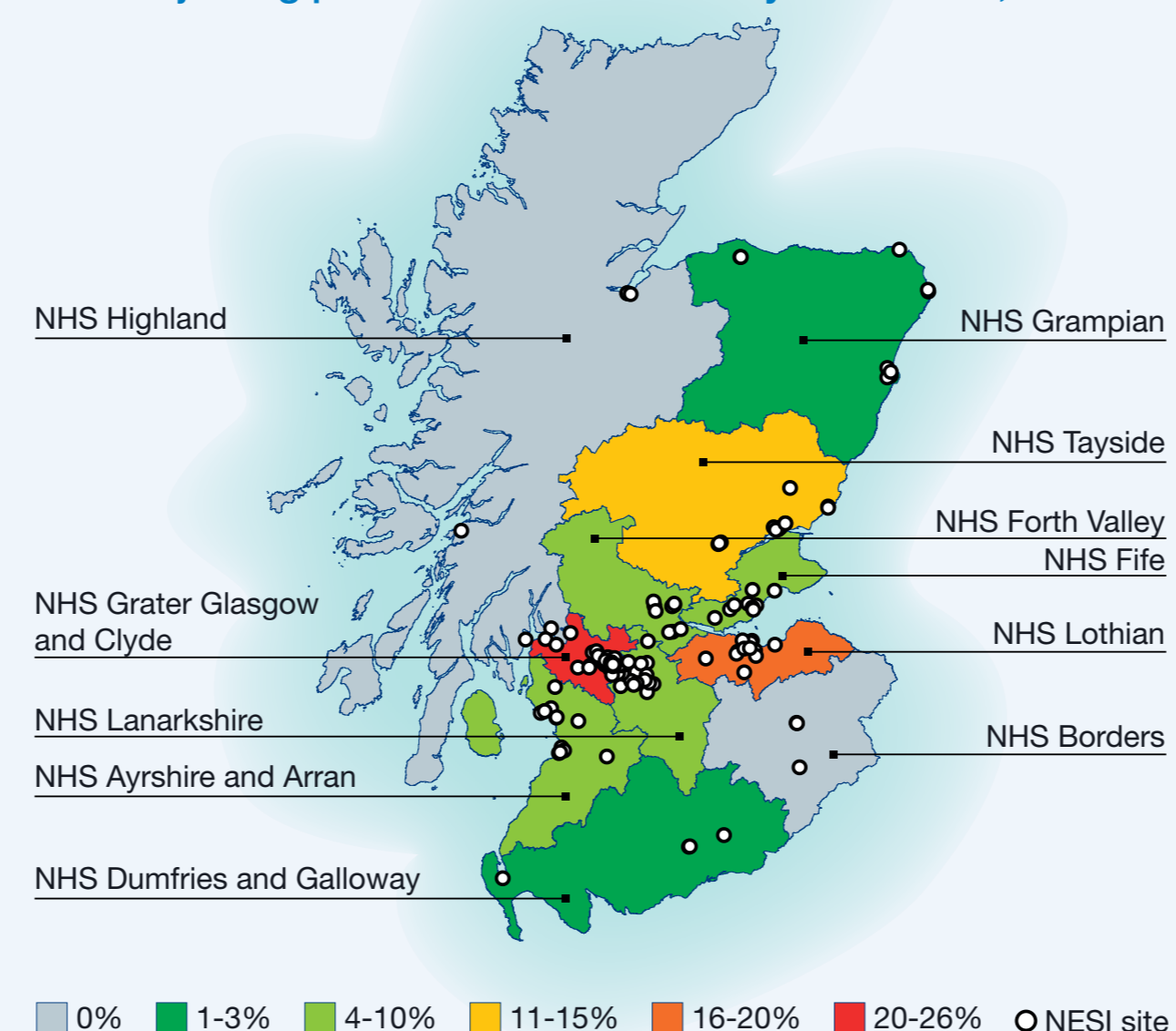
Participant characteristics

Characteristics	N (%) [^]	Reported public injecting (%) [^]
Total	1469 (100)	240 (16)
Age (mean)	39.6	38.6
Sex		
Male	1095 (75)	196 (82)
Female	366 (25)	43 (18)
Health board region		
Glasgow city centre	219 (15)	102 (43)
NHS Greater Glasgow and Clyde [†]	365 (25)	51 (21)
Rest of Scotland [†]	880 (60)	87 (36)
Experienced homelessness		
Yes	401 (27)	148 (62)
No	1061 (73)	91 (38)
Injected heroin		
Yes	1345 (92)	221 (92)
No	118 (8)	19 (8)
Injected cocaine		
Yes	452 (31)	129 (54)
No	1010 (69)	111 (46)
HIV infection		
Yes	42 (3)	17 (7)
No	1332 (97)	210 (93)
Active HCV infection [*]		
Yes	402 (32)	99 (47)
No	840 (68)	111 (53)
Overdosed in the last year		
Yes	264 (18)	78 (33)
No	1170 (82)	155 (67)
SSTI in the last year		
Yes	401 (28)	87 (36)
No	1052 (72)	150 (63)

Excluding Glasgow city centre.
[†] Excluding NHS Greater Glasgow and Clyde.
^{*} Antibody + PCR +
[^] May not add up due to missing data.

Prevalence of public injecting

Public injecting prevalence in Scotland by NHS board, 2017-18.

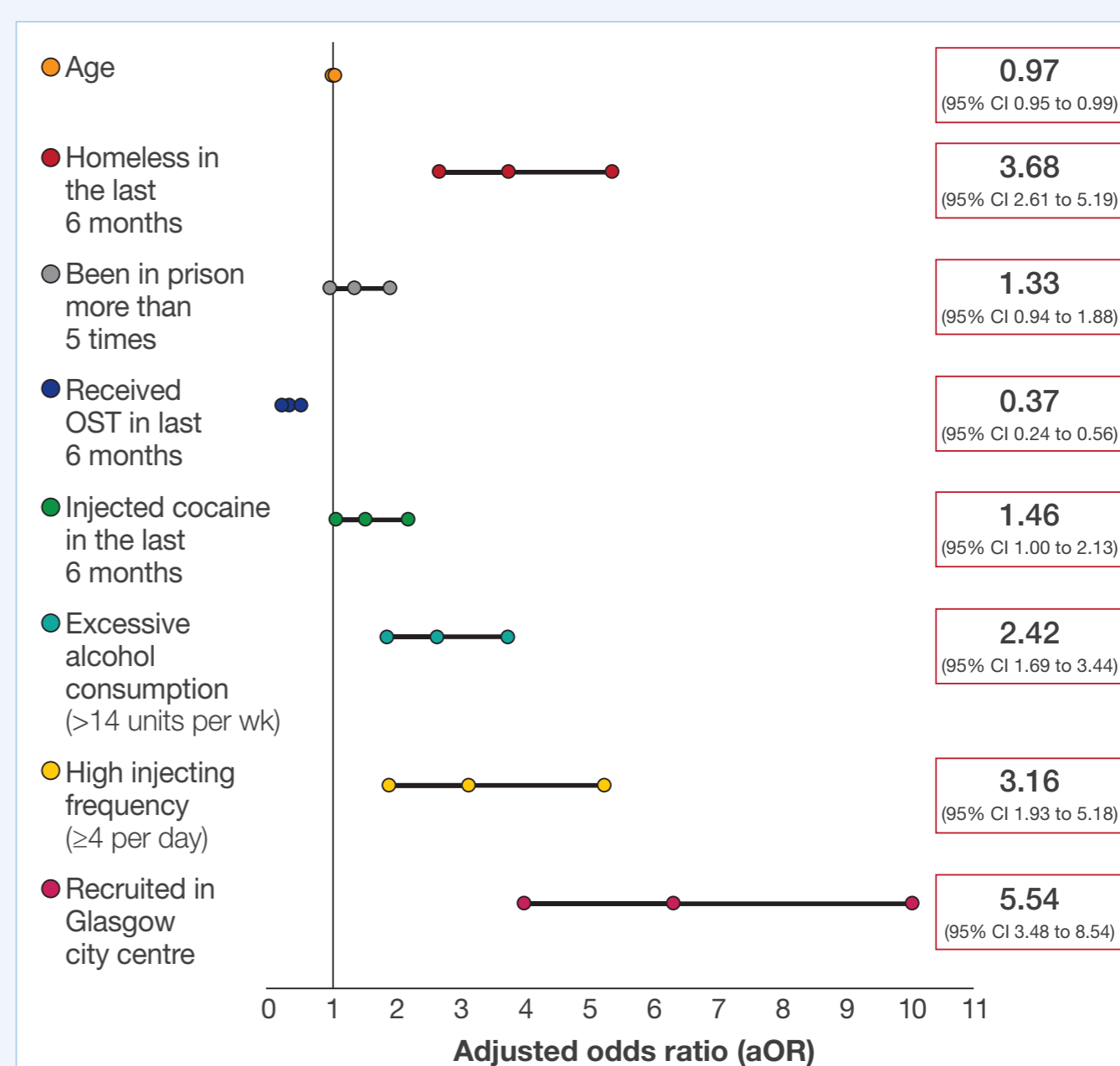


Public injecting and harms

Reported public injecting	HIV infection ^a		Active HCV infection ^b		Overdosed in the last year ^c		SSTI in the last year ^d	
	aOR (95% CI)	p-value	aOR (95% CI)	p-value	aOR* (95% CI)	p-value	aOR* (95% CI)	p-value
No	1	0.019	1	0.043	1	<0.001	1	<0.001
Yes	2.11 (1.13 to 3.92)		1.49 (1.01 to 2.19)		1.59 (1.27 to 2.01)		1.42 (1.17 to 1.73)	

A multi-level framework was applied to each model to adjust for recruitment region. All models were adjusted for age and sex. Models were adjusted according to known associations from the literature and co-variables had to be associated with both exposure and outcome: (HIV^a: cocaine injecting, homelessness), (HCV^b: cocaine injecting, injection frequency, alcohol consumption, homelessness), (overdose^c: cocaine injecting, injection frequency, alcohol consumption, homelessness), (SSTI^d: injecting heroin and cocaine together, homelessness).

Factors associated with public injecting



Conclusions/implications for practice

- We have established that public injecting is a risk factor for a multitude of drug-related harms, including HIV, active HCV, overdose and SSTI. Our results support the hypothesis that public injecting played a role in the HIV outbreak in Glasgow.
- In response to the HIV outbreak in Glasgow and evidence of other accumulating harms in this population, proposals to establish the UK's first drug consumption room in Glasgow city centre were proposed in 2016 (3) but subsequently rejected by the UK Government. Our results provide evidence in support of this proposal, and reinforce the need for new harm reduction policies in the UK.



Drug consumption rooms (DCRs) can prevent harms associated with public injecting by providing a safe and hygienic environment for people to inject drugs.

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Conflicts of interest

There are no conflicts of interest to declare.

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