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# **Injecting drug use, unstable housing and the scope for structural interventions in harm reduction**

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**Running head:**

Injecting drug use, health risk and unstable housing

**Conflicts of interest:**

None

## **Abstract**

Evidence links unstable housing, and especially homelessness, with elevated health harm among drug users, including riskier drug injecting practices. We undertook 45 **in-depth** qualitative interviews with injecting drug users (IDUs) in Bristol and London in 2006. IDUs were recruited through drug user networks and drug agencies. Temporary accommodation and hostels for the homeless may provide a 'safe haven' from street-based drug use and public injecting environments, and are characterised as a retreat from the 'chaos' of the street. But hostels may also constitute 'risk environments' in facilitating drug using and risk networks, transitions to new patterns of use, including increased frequency of injecting. For some, homelessness was positioned as 'safer' than temporary housing with regards to managing drug use. Stable housing emerges as a key structural factor in creating enabling environments for health. We emphasise that temporary accommodation hostels have potential for harm-reduction interventions, but may also be associated with the production of risk related to drug use and injecting.

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### **Key words:**

Temporary housing, homelessness, hostels, injecting drug use, structural intervention, risk environment, harm reduction.

## Introduction

Health harms associated with drug injecting are shaped by the ‘risk environments’ in which injecting takes place <sup>1,2,3,4,5</sup>. The drug injecting risk environment comprises the interplay of physical and social environment <sup>2</sup>. There has been increased interest in particular in how the micro physical settings of drug injection – such as ‘shooting galleries’, ‘public injecting environments’ and prisons – act as environmental determinants of health risk among injecting drug users (IDUs) <sup>6,7,8,9,10,11</sup>. Studies show the micro injecting environment to be a determinant of health risk, including regarding abscesses, vein damage, needle and syringe sharing, HCV infection and overdose <sup>12,13,14,15,16</sup>.

### ***Public injecting and homelessness***

The public injecting environment in particular has been noted as a mediator of elevated health risk as a consequence of a lack of privacy, hygiene and amenity, and a fear of interruption, police attention or public exposure, which may result in hurried injections in which safety routines are sidelined <sup>9,10,17,18,19,20</sup>. A number of cohort studies associate higher levels of health risk behaviour with drug injection in public or street injecting locations <sup>16,20,21,22</sup>. There is close overlap between public injecting, the use of public injecting environments and homelessness <sup>23,24,25,26</sup>. Surveys in the UK show over 50% IDUs report injecting in a public place within the last week <sup>10,27,28</sup>, with public injecting positively associated with homelessness and unstable housing <sup>28</sup>.

The link between homelessness or unstable housing and elevated health harm, including among drug injectors, is well-established <sup>3,29,30,31,32,33</sup> <sup>76</sup>. In the United States, it is estimated that between 26% and 67% of homeless people are drug and/or chronic alcohol users <sup>34</sup>. The prevalence of problem drug use among the homeless in the UK has been estimated at seven times that than for the general population <sup>33</sup>.

Rates of mortality and morbidity among those experiencing unstable housing far exceed general population estimates. In Canada, young homeless women were estimated to have a ten-fold risk of mortality compared to women in the general population <sup>35</sup>. In the United States, age-adjusted death rates were estimated four times higher among homeless men and women than the general population <sup>36</sup>. In the UK, hostel dwellers are four times more likely than the general population to die prematurely (the standardised mortality ratio [SMR] was 2.8 for men and 5.6 for women) <sup>37</sup>. Younger men are at higher risk than older men (the SMR for 18-24 year olds was 8.3, compared to 3.7 in 25-44 year olds and 2.3 for men aged 45-64 years) <sup>38</sup>. The prevalence of psychiatric morbidity among homeless males aged 16-

21 in London has been estimated to be 55%<sup>39</sup>. Another study estimated that a third of homeless women suffered from severe mental illness with a further quarter from other mental illness<sup>40</sup>.

Unstable housing intersects with elevated risk of blood-borne infections associated with drug injection<sup>10,27,41,42,43,44</sup>. For example, in a multi-site study among over 1,000 injectors in England, those with recent experience of homelessness or temporary accommodation had almost twice the odds of HCV positivity<sup>42,45</sup>. In a longitudinal study in South Wales, the incidence of HCV infection was almost four times greater among injectors who had been homeless or living in temporary accommodation compared to those who had not in the previous year<sup>43</sup>. Drug injectors with recent experience of homelessness or unstable housing are more likely to share needles and syringes and other injecting paraphernalia<sup>29,41,46,47,48,49,76</sup>, as well as use crack and exchange sex<sup>3,41,45</sup>. Individuals who are homeless for extended periods in combination with a diagnosis of substance misuse or dependence may be especially vulnerable to engaging in risky sexual behaviours and HIV transmission<sup>50,51</sup>.

### ***Housing interventions***

Studies also show the potential positive impact of stable housing upon drug-related health. One study shows that at baseline clients who were homeless or housed in unstable accommodation were two to four times more likely to engage in recent drug use, needle and syringe sharing and/or exchange sex than those housed in stable housing<sup>52</sup>. However, after the six to nine month follow up period, the risk of drug use, needle and syringe sharing, and unprotected sex fell by half in those whose housing status improved, compared to those whose status remained the same. Those, whose housing status deteriorated, were five times more likely to exchange sex.

This highlights a potential for health gain associated with structural interventions with a focus on the creation of stable housing or 'safer housing environments' for vulnerable populations<sup>4,41,52,76</sup>. There is increasing recognition in the UK that the provision of temporary accommodation hostels (hereafter referred to as 'hostels') for the homeless may offer a 'safe haven' from a hostile street environment<sup>53,54</sup>. These hostels create opportunities to intervene to reduce drug-related health harm and to prevent transition to more harmful forms of drug use, such as injecting. Hostel residence may contribute to lower levels of drug consumption compared to **sleeping rough**. One study reports that 87% of rough sleepers had injected drugs in the past month compared to 13% of those accommodated in shelters and that all 15 of the rough sleepers were regularly using heroin

or crack compared to 32% of hostel dwellers<sup>55</sup>. At the same time, however, it has been noted that some hostels are inappropriate for the housing and recovery of drug users<sup>50,56,57</sup>, and may be conducive to creating or sustaining cultures of drug injecting and risk behaviour<sup>49,58,59</sup>.

There is increased recognition in the UK of the challenges posed by the management of drug use within the hostel environment<sup>60</sup>, alongside interest in the potential role of structural and environmental interventions in harm reduction<sup>4,61,62</sup>, including specifically in relation to public injecting<sup>25,26,45,63,64,65</sup>. Yet there remains an absence of evidence on how hostel environments may shape injecting drug use and related harm<sup>59</sup>. We therefore undertook qualitative analyses to explore drug injectors' perspectives on drug injecting in the context of their housing environments.

## **Methods**

In 2006, we undertook 45 qualitative interviews with injecting drug users (IDUs) of heroin and crack in London and Bristol. The study aimed to describe speedball injection and its association with health risks from the perspectives of current injectors of crack and heroin<sup>66</sup>. We focus here specifically on findings related to the experience of public injecting, homelessness and hostels. The study adhered to ethical standards as set out by the British Sociological Association (BSA).

### ***Sampling and eligibility***

Current injectors of heroin and crack were eligible to participate. We defined 'current injecting drug use' as injection in the four weeks prior to interview. In addition, the study was purposively weighted towards recruited injectors with recent or current experience of unstable housing (including 'no fixed abode' and living in temporary accommodation such as hostels, supported housing and 'bed and breakfast' accommodation). Contact was made through established drug user networks in London and Bristol, and in Bristol recruitment was also facilitated via a community-based drug service.

### ***Data collection and analysis***

**In-depth** interviews were the primary means of data collection. These focused on: current injecting practices; experience of speedball injection; perceived associated health risks of speedball and crack injection (including vein damage and site infections); and drug injecting environments. Interviews were undertaken during the summer of 2006 in a variety

of locations, including parks, cafes, streets, lent office space, and at a community-based drug service in Bristol. Interviews were undertaken with only interviewer and interviewee present. Interviews lasted between 40 and 90 minutes, and subject to informed consent, were tape recorded for verbatim transcription. Participants were also asked to complete brief questions on core quantitative indicators. All participants were guaranteed confidentiality and anonymity, and were paid £20 for their participation, and there were no refusals to participate in the study. Interviews were supplemented by field observations of 'naturally occurring' crack and speedball injection in a range of injecting environments, leading to approximately 25 hours of unedited video-recorded observations<sup>67</sup>.

Once transcribed, interview data was categorised thematically, with the key areas of investigation providing the overall framework for coding<sup>68</sup>. Analyses were inductive and thematic, with all interviews coded initially for emerging core descriptive content with coding further refined in an iterative process of data coding, charting and interpretation.

### ***Sample characteristics***

We conducted **in-depth** qualitative interviews with 45 IDUs, of which 25 (56%) were recruited in Bristol and 20 (44%) in London. The median age was 33 years (range 23-53 years), and the median age at first injection 19 years (range 13-39 years). Three quarters of the sample were male (n=34) and two out of three reported homelessness in the past 12 months (n=31). In the past four weeks, two thirds reported daily or more frequent injecting (n=30) and four out of five (n=36) had injected 'speedball' or 'snowball' (heroin and crack injected together), with the remainder (n=8) injectors of heroin only. Three out of five had injected in their groin (n=28). Half were currently being prescribed a substitute drug regime (n=23).

## **Results**

Accounts identified two main injecting environments said to influence injecting hygiene and risk management associated with drug injecting: hostels; and the street or public injecting environment.

### ***The public injecting risk environment***

Although injecting in public or semi-public settings was often the norm among homeless injectors, it was common among all injectors we interviewed. Most would inject in a public place if in need of urgent injection to stave off withdrawal, if so "sick they couldn't think straight", while for others injecting in public settings was more normative:

I do inject outside most of the time to be honest...Hedges, public toilets, you know, it's the anxiety of it all as well you know. Once you've got a hit [scored], you want it straight away. [#8, male, 31 years]

Withdrawal was associated with increased risk in general and not only in relation to injecting environment:

When you've scored and you don't have no pins, you just don't give a crap, of whose needle, if it's blunting up, how big it is, how dirty it is, you just don't care, you get desperate. [#16, male, 32 years]

Our findings support those of qualitative studies elsewhere which associate injecting in street and public settings with a risk or fear of interruption during injecting – including that associated with intervention from other drug users, passers by or the police – resulting in hastier injection, in turn leading to 'missed hits' and reduced regulation of safety and hygiene routines <sup>18,69,70,71</sup>. For these reasons, injecting in "bad environments" was often associated with having a "bad hit", characterised by "anxiety" and "paranoia":

There's always the fear of when you go and find the place and you've been going to it for a while, it don't matter how many times you've been there and it's been safe, every time you go there you get your kit out, it's paranoia. If you're like that before you've had the snowball, when you've had the snowball it's even worse, you know. [#6, male, 46 years]

I've been in there [abandoned building] before and done snowballs, and there's been people in there that I didn't know or people that I know that are dodgy and might try and rip you off or pull a knife on you and rob you and that. And as soon as you do your hit you don't get that nice feeling that you get off the crack, you just start feeling paranoid. [#8, male, 31 years]

If you are outside or homeless you are more manic. It is more dangerous. You miss [the vein] and you are paranoid, you are vulnerable, you are open. You don't want any shit. Whereas, like us at the moment, if you have a place, then you can have a good gouch [sedation associated with opiate use], react accordingly to the drugs, chill out. It's madness. When you are in a good



environment, you can relax because you know nothing is going to happen to you. [#29, male, 32 years]

In addition to a generalised atmosphere of pervasive risk – usually articulated as “paranoia” – a primary concern of injectors was the increased chances of ‘missed hits’ as a result of hurried injection. The physical aspects of the environment – lack of privacy, lack of light – may exacerbate the chances of missing the vein, which in the case of injecting into the femoral vein (which is common among UK speedball injectors; <sup>10,66</sup>) can have serious health consequences:

If I am somewhere where I think I’m gonna get caught or somewhere that ain’t light enough, you know when it’s dark, if there’s a street light, and bushes, and I can’t get anywhere else I get the groin. And if I’m in a hurry, cos it’s so easy... That’s why my legs are sore, cos of it, keep hitting there. Only if I’m in a rush though. [#15, female, 28 years]

When I’ve been really ill and desperate to get it in, like the lighting is poor [...] and I’ve fired it in, oh and its, its started, pain, so intense, tears coming out my eyes you know. I’ve hit me nerve as well, stabbed it, oh, I nearly jumped through the ceiling when I did that. The damage it’s frightening. You’ve got to be so careful. [#15, female, 28 years]

Street and public injecting environments were also associated with compromised hygiene:

I have been to some shitty places, some mad places, like in the back of garages, in squats by candlelight, really dodgy, dirty old buildings, flats scattered with like dirty pins, like everywhere you stand or sit, they are around [syringes and needles]. I have been quite lucky. But people do this all the time, in and out of dirty squats, picking up infections. I used to think how could I do it in these places? Like here I am trying to inject standing up, I put my hand down and it is dirty, then I am injecting like wiping the site when it is bleeding after, because my hand is dirty and I don’t have the swabs or anything. [#29, male, 32 years]

### ***The hostel as a ‘safe haven’***

It was common for participants to associate homelessness with increased frequency of use and health problems: “When you’re homeless, you try and get yourself to sleep but you

can't. You want the last thing at night to be drugs, when you are on the streets. I was taking more, twice as much [when I was homeless] [#31, male, 39 years]. Life on the street was often described as "chaotic", comprising a cyclical pattern of "earning, scoring for the next deal" and injecting [#16, male, 32 years]. In contrast, many described temporary accommodation as providing a more 'stable' environment. Such stability was associated with health improvement and advice, increased access to needle and syringe exchange, as well as referral to substitution treatment.

Additionally, some perceived the hostel environment to reduce the pervasive confrontation and hassle, including from other drug users, associated with living and using on the street, including that associated with a risk of "strangers" and getting "ripped off" or "robbed" [#8, male, 31 years]. Crucially, the hostel environment provided the "time and space" [#27, male, 43 years] to inject away from "chaotic" street life [#31, male, 39 years]: "In your place or in your hostel or your room you can do it and you can relax" [#6, male, 46 years]; "When you are in a good environment, you can relax because you know nothing is going to happen to you" [#29, male, 32 years]. Unlike the street, the hostel provided privacy and protection from public and police attention. There was less chance of being "invaded", and consequently "a moment to have space" [#27, male, 43 years]. This created a sense of control over how drugs were used, enabling for example the opportunity to "relax in the evening and have enough for the next morning... without being greedy" [#31, male, 39 years] and where it was possible to "chill out, take your mind off it [the street]" and "prepare it and cook it up" without having to "find somewhere secluded" [JK03]. Hostels were "safe" because they would not "get caught" [#9, male, 30 years]. The hostel is integrated into daily drug-using routine:

Yeah, for a while, my routine was like attend my appointments with my drug worker then go out to shoplift, make my money, sell stuff and score and go back to the hostel. Get some food, and just stay in my room, injecting all evening. [#27, male, 43 years]

### ***The hostel as a risk environment***

There was a strong consensus, however, that hostels were "full" of drugs. One suggested that it was commonplace to find "dirty needles in the bathrooms" [#3, male, 34 years]. Another estimated that from "100 people" in his hostel, only "five didn't use drugs" [#6, male 46 years]. A few elaborated on the diverse client population ranging from young people to abused women; from minority ethnic groups to refugees; from "brownheads to snowballers"

[#21, male, 34 years]. References were made to “everyone injecting” [#29, male, 32 years] and “people flying around speedballing in each other’s rooms” [#16, male, 32 years].

Alongside the hostel as a ‘safe haven’ is the presentation of the hostel as a ‘risk environment’. Hostels had reputations among participants as places of ‘risk’. Some described hostels as places of relentless pressure from other injectors to inject as well as places in which bullying and intimidation for drugs and money were commonplace:

Just get robbed. Doors get broke down. You can’t have anything safe. People wait outside your door knowing that you might have money, or they hang around for you knowing that you’ve got to come out the building one day, or, it’s just, everyone knows about your business, about when you get paid, what post office you get paid at, and rumours, bullying, its horrible. [#15, female, 28 years]

People are at you “wanna go half and half on this or on that”. I don’t allow myself to get sick [withdrawal] but I don’t like to see people sick. I guarantee you everyone around here owes me money because I help people out. [#31, male, 39 years]

When living in hostels it was common to make “agreements and associations” with others to “sort each other out”, especially in “desperate times”, and as a consequence the hostel can be an environment in which new drug-injecting relationships and networks are formed and sustained. Accounts frequently made reference to the persistent “hassle” from other injectors to share drugs, money or injecting paraphernalia:

People knocking on your doors, have you got 50 pence, or have you got two quid [pounds] so they can score. You know, have you got, have you got a pound for the phone, you know, just, you know, even if you are trying to stay away from it you will get constant harassment from other drug users whether you refuse or not. [#25, female, 27 years]

You can walk out the door, you can just have gone to the shop, as soon as you get back it’s, there’s about five or six people jumping on you because apparently you’ve gone out and scored. And even if it’s a ten [pound] bag you’ve got to sort that between like six people. [#9, male, 30 years]

Some of these dependencies were organised around social security payments to avoid having to “graft” for money which led to collaborating on funds for drugs and sharing the proceeds. One participant, for example, entered into ‘agreements’ with four others in the same hostel. They subsidised each other on the days when each had access to their “giro cheque” [#6, male, 46 years]. Another commented on how “drug users and drug dealers stood outside hostels” because “they knew what day it was [payment day]” [#25, female, 27 years]. Other dependencies were less planned and more situation dependent, for example, when injectors were short of money or of injecting paraphernalia. One recalled how “there used to be a lot of people turn up and shout at people from the windows [of the hostel]” asking “have you got some citric, you got a spoon, you got some needles?” [#9, male, 30 years].

Accounts pointed to two adverse consequences associated with the formation of new networks in hostels. First, there was a tendency to use more frequently, in part a consequence of multiple collaborations with others in funding, scoring and sharing drugs (and also borne out of a fear of “missing out”), and in part a consequence of drugs being weaker since they were shared with others:

It seems that I am doing more snowballs when I am teamed up with someone, more water and it is weaker, and you have to sort it out and it is difficult because you have to beg for money. And then you do that all day until you go back to the hostel, and you go out again with someone else. [...] You always get people call you over to see if they can borrow money or go in on what you got. Or they might bring someone along, and they are clucking [in withdrawal], so I don't like to see anyone clucking so I take them, there are three of us and we have to add more water, which makes it weaker. So the sooner I am having to do it all again. [#28, male, 28 years]

Second, the formation of networks within hostels was associated by some with transitions toward more problematic drug use. One man estimated that “of the people who go into hostels that probably weren't drug users” more than “50 percent” came out as “drug users because of being in there” [#24, male, 37 years]. One injector, for example, recalled how someone her age had moved into the hostel who “didn't take drugs” but was now involved in “fucking banging [injecting]” because he got “tempted to do it” [#4, female, 26 years]. Another described that when he was put into temporary accommodation he was “trying to get away from drugs” but was “put straight into the middle of it” because his “next door neighbour was banging up” [#25, female, 27 years].

While framed within a context of relative risk in which the hostel is commonly presented as a 'safe haven' from a hostile street environment characterised by pervasive risk, our findings nonetheless point to hostels as places of risk in relation to patterns of drug use and injecting. There were said to be "so many people in there that use the same stuff as well share equipment" that hostels were described as more "concentrated" in terms of social and peer pressures regulating drug use [#9, male, 30 years]. Some described hostels as '*more risky*' than public injecting environments:

I would not choose to stay in a hostel. I'd actually rather sleep on the streets than stay in a hostel, or get a squat, if I knew a few other people to squat with. That's scary isn't it? The one way out and you'd rather not choose it! The one way to move up in the world and you'd rather not go for it because it's worse than the options you've got already! [#24, male, 37 years]

With the hostels, the outreach team have tried putting me in, they're more dangerous than what is outside [streets]. [#15, female, 28 years]

## Discussion

Unstable housing, including the temporary accommodation or hostel environment, emerges as an important determinant of injectors' health <sup>1,3,41</sup>. Yet the mechanisms of risk and how these interplay with other environmental factors remain largely unexplored. In relation to viral risks associated with drug injecting, unstable housing interplays with other indicators of risk and vulnerability, including crack use and injection, groin injection, engagement in street-based cultures of injecting and income-generation, income inequality, service provision inequity, and social exclusion. There is a clear need to explore the relative contribution of unstable housing to elevated health harm among injectors, though it would appear evident enough that housing, and housing policies, are core features of the wider 'risk environment' related to drug injecting <sup>1,3,41,49,71</sup>.

Our study is one of the first examples of qualitative research in the UK which has attempted to explore how the micro hostel environment shapes the 'lived experience' of drug injecting and risk perception. We acknowledge the inherent limits to generalisability associated with qualitative research, and emphasise that the study sought to generate hypotheses through thematic analyses based on participant accounts, the generalisability of which extends to the samples and settings included in the study. In keeping with UK policy directives

supporting the provision of temporary accommodation <sup>53</sup>, the hostel was characterised by injectors as a ‘safe haven’ from a hostile and risk pervasive street environment. However, injectors’ accounts also point to a counter narrative which characterises the hostel as a ‘risk environment’. Here, the hostel was presented as an environment conducive to the formation of risk networks and relationships between injectors as well as not-yet injectors, and an environment of heightened risk in relation to pervasive harassment, if not bullying, relating to the purchase, accessing or use of drugs. The potential role that hostels might play in facilitating transitions towards riskier drug use (such as injecting) and in creating high-risk networks involving high levels of mixing among street-based injectors are priorities for research examining the mechanisms of elevated viral risk among injectors who have experience of unstable housing. Our study thus generates hypotheses for future epidemiological study.

The ambivalent nature of how temporary accommodation, and the hostel specifically, is experienced – as providing a ‘safe haven’ and path towards stability on the one hand yet ‘risk environment’ and disruption to risk regulation on the other – is to some extent reflected in ambiguity and uncertainty in the macro environment. Reducing homelessness and tackling its causes are high profile features of UK government strategy which places high emphasis on addressing social exclusion <sup>72</sup>. Hostels function to provide respite from the street, offering major potential as a structural intervention to reduce drug-related viral risk and transitions towards injecting through the provision of on-site harm reduction, counselling and advice services, referral access to drug treatment, potentially supervised spaces for safer drug use, and most importantly, housing, if only temporarily. Yet hostel providers in major English cities – including anecdotally, our study sites of London and Bristol – are under pressure to cope with increasing numbers of residents and their complex of health, drug use and mental health problems often in a context of crumbling infrastructure and hostel disrepair <sup>57,73</sup>.

Hostel environments may provide inappropriate environments for facilitating long-term drug-related behaviour change <sup>57</sup>. The capacity of hostel environments to respond proactively in creating an enabling environment for harm reduction has also been limited by a lack of official recognition that drug use occurs on-site, exacerbated to some extent by a culture of secrecy surrounding drug use wherein users attempt to avoid other users as well as staff and hostel policies officially prohibit drug use. The potential for hostel-based harm reduction is also inevitably limited by the local political and social environment, in which near-by residents play a critical part. In the UK, however, there is a major national programme of improvement targeting hostels to ensure that they act as pathways to

welfare and health improvement <sup>72</sup>. This has fed developments in hostel refurbishment, the creation of improved referral links between health and housing services, the creation of outcomes-oriented hostel pathways through which clients can be assessed towards independent living, and in some cases, measures to prevent the formation of drug-using networks within particular hostels in a locality. Such initiatives accentuate a climate of opportunity for realising the potential of hostels to act as components of wider structural interventions in harm reduction <sup>4,61,62</sup>.

### ***Conclusion***

The provision of stable housing emerges as a pivotal feature in the creation of 'enabling environments' for health. Our findings identify ambiguity in injectors' lived experiences of the temporary accommodation hostel as at once 'safe haven' and 'risk environment'. This accentuates the need to build into future epidemiological study the potential role of the hostel as a determinant of risk and a need to minimise the role hostels may have in creating injecting risk environments. At the same time, the hostel has unrealised harm reduction potential. Alongside the development of drug consumption rooms as an environmental intervention reducing risks associated with public injecting <sup>74,75</sup>, with appropriate investment the hostel may provide a structural intervention opportunity to interrupt potential links between homelessness and elevated injecting risk.

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## References

1. Bourgois, P. (1998) The moral economies of homeless heroin addicts: Confronting ethnography and HIV risk and everyday violence in San Francisco shooting encampments, *Substance Use and Misuse*, 33: 2323–2351.
2. Rhodes, T. (2002) 'The 'risk environment': A framework for understanding and reducing drug-related harm', *The International Journal of Drug Policy*, 13: 85-94.
3. Galea, S., and Vlahov, D. (2002) Social determinants and the health of drug users: socioeconomic status, homelessness and incarceration, *Public Health Reports*, 117: S115-S145.
4. Rhodes, T., Singer, M., Bourgois, P., Friedman, S. R. and Strathdee, S. A. (2005) The social structural production of HIV risk among injecting drug users, *Social Science and Medicine*, 61: 1026-1044.
5. Moore, D., and Dietze, P. (2005) Enabling environments and the reduction of drug-related harm: Re-framing Australian policy and practice, *Drug and Alcohol Review*, 24(3), 275–284.
6. Celentano, D. D., Vlahov, D., Cohn, S., Anthony, J. C., Solomon, L., and Nelson, K. E. (1991) Risk factors for shooting gallery use and cessation among intravenous drug users, *American Journal of Public Health*, 81: 1291-1295.
7. Ouellet, L. J., Jimenez, A. D., Johnson, W. A., and Wiebel, W. W. (1991) Shooting galleries and HIV disease: Variations in places for injecting illicit drugs, *Crime and Delinquency*, 37: 64-85.
8. Carlson, R. (2000) Shooting galleries, dope houses and injection doctors, *Human Organization*, 59: 325-333.
9. Small, W., Kerr, T., Charette, J., Wood, E., Schechter, M. T. and Spittal, P. (2006) Impacts of intensified police activity on injection drug users: Evidence from an ethnographic investigation, *International Journal of Drug Policy*, 17: 85-89.
10. Rhodes, T., Kimber, J., et al. (2006) Public injecting and the need for 'safer environment interventions' in the reduction of drug-related harm, *Addiction*, 101(10), 1384–1393.
11. Kerr, T., Small, W., Moore, D., and Wood, E. (2007) A Micro-Environmental Intervention to Reduce the Harms Associated with Drug-related Overdose, *International Journal of Drug Policy*, 18(1): 37-45.
12. Latkin, C., Mandell, W., Vlahov, D., Oziemkowska, M, Knowlton, A and Celentano, D. (1994) My place, your place and no place: behaviour settings as a risk factor for HIV-related injection practices of drug users in Baltimore, Maryland, *American Journal of Community Psychology*, 22: 415-430.
13. Klee, H., and Morris, J. (1995) Factors that characterize street injectors, *Addiction*, 90(6), 837–841.
14. Suh, T., Mandell, W., et al. (1997) Social network characteristics and injecting HIV-risk behaviours among street injection drug users, *Drug and Alcohol Dependence*, 47(2), 137–143.
15. Darke, S., Kaye, S., et al. (2001) Geographical injecting locations among injecting drug users in Sydney, Australia, *Addiction*, 96(2), 241–246.
16. Koester, S., Glanz, J. and Baron, A. (2005) Drug sharing among heroin networks, *AIDS and Behavior*, 9: 27-39.
17. Rhodes, T., Watts, L., Smith, J., Martin, A. et al. (2007) Risk, shame and the public injector, *Social Science and Medicine*, 65: 572-585.
18. Fitzgerald, J., Dovey, P., and Dietze, G. (2004) Health outcomes and quasi-supervised settings for street injecting drug use, *International Journal of Drug Policy*, 15: 247-257.
19. Dovey, K., Fitzgerald, J. and Choi, Y. (2001) Safety becomes danger: Dilemmas of drug use in public space, *Health and Place*, 7: 319-331.



20. Thorpe, L. E., Ouellet, L. J., Levy, J. R., Williams, I. T. and Monterroso, E. R. (2000) Hepatitis C virus infection: Prevalence, risk factors and prevention of opportunities among young injection drug users in Chicago, 1997-1999, *Journal of Infectious Diseases*, 182: 1588-1594.
21. Deren, S., Kang, S., Colon, H. M., Andia, J. F. and Robles, R. R. (2004) HIV incidence among high-risk Puerto Rican drug users, *Journal of Acquired Immune Deficiency Syndromes*, 36: 1067-1074.
22. Fuller, C. M., Vlahov, D., Latkin, C. A., Ompad, D. C., Celentano, D. D. and Strathdee, S. A. (2003) Social circumstances of initiation of injection drug use and early shooting gallery attendance, *Journal of Acquired Immune Deficiency Syndromes*, 32: 86-93.
23. Bourgois, P., Lettiere, M., and Quesada, J. (1997) Social misery and the sanctions of substance abuse: Confronting HIV risk among homeless heroin addicts in San Francisco, *Social Problems*, 44: 155-173.
24. Klein, H. and Levy, J. (2003) Shooting gallery users and HIV risk, *Journal of Drug Issues*, 33: 751-767.
25. Navarro, C. and Leonard, L. (2004) Prevalence and factors related to public injecting in Ottawa, Canada: implications for the development of a trial safer injecting facility, *International Journal of Drug Policy*, 15: 275-284.
26. Green, T. C., Hankins, C. A., Palmer, D., Boivin, J. F., and Platt, R. (2004) My place, your place, or a safer place: the intention among Montreal injecting drug users to use supervised injecting facilities, *Canadian Journal of Public Health*, 95: 110-114.
27. Judd, A., Hickman, M., Rhodes, T., Jones, S., Holloway, G., McDonald, T. and Parry, V. J. (2005a) Blood borne virus prevalence and injecting risk behaviour among homeless injecting drug users in London, *Sixteenth International Conference on the Reduction of Drug-Related Harm*, Belfast.
28. Hunt, N., Lloyd, C., Kimber, J., and Tompkins, C. N. (2007) Public injecting and willingness to use a drug consumption room among needle exchange programme attendees in the UK, *International Journal of Drug Policy*, 18(1), 62-65.
29. Song, J. Y., Safaeian, M., Strathdee, S. A., Vlahov, D., and Celentano, D. (2000). The prevalence of homelessness among injection drug users with and without HIV infection, *Journal of Urban Health*, 77: 678-687.
30. Magura, S., Nwakeze, P. C., Rosenblum, A. and Joseph, H. (2000) Substance misuse and related infectious diseases in a soup kitchen population, *Substance Use and Misuse*, 35: 551-583.
31. Fountain, J., and Howes, S. (2002) *Home and Dry: Homelessness and substance abuse in London*, London: Crisis.
32. Wincup, E, Buckland, G. and Bayliss, R. (2003) *Youth homelessness and substance use: Report to the drugs and alcohol research unit. Home Office Research Series 258*. London: Home Office.
33. Kemp, P., J. Neale, et al. (2006) Homelessness among problem drug users: prevalence, risk factors and trigger events, *Health & Social Care in the Community* 14(4): 319-328.
34. Shinn, M., Weitzman, B. C., and Hopper. K. (1998). *Homelessness. Encyclopedia of mental health*, 2, pp. 393-402. San Diego: Academic Press.
35. Cheung, A.M., Hwang, S.W. (2004). Risk of death among homeless women: a cohort study and review of the literature. *CMAJ* 170 (8), 1243-1247.
36. Barrow, S. M., Herman, D. B., Cordova, P. and Struening, E. L. (1999) Mortality among homeless shelter residents in New York City, *American Journal of Public Health*, 89: 529-534.
37. Nordentoft, M. and N. Wandall-Holm (2003) 10 year follow up study of mortality among users of hostels for homeless people in Copenhagen, *British Medical Journal*, 327(7406): 81.

38. Hwang, S. (2000) Mortality among men using homeless shelters in Toronto, Ontario, *Journal of the American Medical Association*, 283: 2152-7.
39. Craig, T. and Hodson, S. (2000) Homeless youth in London: II. Accommodation, employment and health outcomes at 1 year, *Psychological Medicine*, 30(1): 187-194.
40. Marriot, S., Harvey, R., et al. (1997) Health in hostels: a survey of hostel dwelling women, *Psychiatric Bulletin* 21(10): 618-21.
41. Corneil, T., Kuyper, L., et al. (2006) Unstable housing, associated risk behaviour, and increased risk for HIV infection among injection drug users, *Health and Place* 12: 79-85.
42. Hickman, M., Hope, V., McDonald, T., Madden, P., Brady, T., Honor, S., Jones, S. et al (2007) HCV prevalence and injecting risk behaviour in multiple sites in England in 2004, *Journal of Viral Hepatitis* (in press).
43. Craine, N., Hickman, M., Parry, J.V., Smith, J., Walker, M., Nix, B., and Lyons, M. (2007) HCV incidence amongst drug injectors: the effect of opiate substitution treatment and homelessness, forthcoming.
44. Nyamathi, A.M., Dixon, E., Robbins, W., Smith, C., Wiley, D., Leake, B., Longshore, D., and Gelber, L. (2002) Risk factors for Hepatitis C virus infection among homeless adults, *Journal of General Internal Medicine*, 17, 134-143.
45. Rhodes, T., Stoneman, A., Hope, V., Hunt, N, Judd, A. (2006) Groin injecting in the context of crack cocaine and homelessness: From 'risk boundary' to 'acceptable risk'? *International Journal of Drug Policy*, 17: 164-170.
46. Schechter, M. T., Strathdee, S. A. et al (1999) Do needle exchange programmes increase the spread of HIV among injection drug users? An investigation of the Vancouver outbreak, *AIDS*, 13: F45-F51.
47. Jeal, N. and Salisbury, C. (2004) A health needs assessment of street-based prostitutes: cross-sectional survey, *Journal of Public Health* 26(2): 147-51.
48. Wright, N., Oldham, N., and Jones, L. (2005) Exploring the relationship between homelessness and risk factors for heroin-related death--a qualitative study, *Drug and Alcohol Review*, 24(3): 245-51.
49. Wadd, S., Hutchinson, S., et al. (2006) High-risk injecting behaviour in hostel accommodation for the homeless in Glasgow 2001-02: A study combining quantitative and qualitative methodology, *Journal of Substance Use*, 11(5): 333-341.
50. Attenborough, J., and Watson, J. (1997) Staff perception of sexual behaviour in a London hostel for homeless men, *Sexual and Marital Therapy* 12(2): 139-146.
51. Forney, J., Lombardo, S., et al. (2007) Diagnostic and Other Correlates of HIV Risk Behaviors in a Probability Sample of Homeless Adults, *Psychiatric Services*, 58: 92-99.
52. Aidala, A., Cross J. E., et al. (2005) Housing Status and HIV Risk Behaviors: Implications for Prevention and Policy, *AIDS and Behavior*, 9(3): 251-65.
53. Home Office (2002) *Tackling Drug Use in Rented Housing: A good practice guide*. Produced with DTLR. London: Home Office.
54. Payne, J. (2001) An action research project in a night shelter for rough sleepers, *Journal of Psychiatric and Mental Health Nursing*, 9: 95-101.
55. Pluck, G., Lee, K., et al. (2007) Homeless shelters and substance misuse, *CMAJ*, 176(4): 489-496.
56. Spencer S., and Corkhill, R (2004) *The Housing Needs of People with Drug, Substance Misuse and Alcohol problems in Cambridgeshire and Peterborough*, Cambridge: Peter Fletcher Associates.
57. May, J., Cloke, P., et al. (2006) Shelter at the Margins: New Labour and the changing state of emergency accommodation for single homeless people in Britain, *Policy and Politics*, 34(4): 711-29.

58. Wright, N., Oldham, N., et al. (2005) Exploring the relationship between homelessness and risk factors for heroin-related death - a qualitative study, *Drug and Alcohol Review*, 24(3): 245-51.
59. Seymour, A., M. Black, et al. (2000) Drug-related deaths amongst Glasgow city hostel dwellers, *Journal of Clinical Forensic Medicine* 7(4): 183-7.
60. Neale, J. and C. Kennedy (2002) Good practice towards homeless drug users: research evidence from Scotland, *Health and Social Care in the Community* 10(3): 196-205.
61. Blankenship KM, Bray S, Merson MH. (2000) Structural interventions in public health, *AIDS*, 14 (Supplement A): S11-S21.
62. Des Jarlais, D. (2000) Structural interventions to reduce HIV transmission among injecting drug users, *AIDS*, 14(Suppl.1), S41-S46.
63. Wood, E., Tyndall, M. W., Li, K., Lloyd-Smith, E., Small, W., Montaner, J. S. and Kerr T. (2005) Do supervised injecting facilities attract higher-risk injection drug users? *American Journal of Preventive Medicine*, 29:126-30.
64. Kerr et al., 2006 Kerr, T., Stoltz, J., Tyndall, M., Zhang, R., Montaner, J. and Wood E. (2006b) The impacts of a medically supervised safer injection facility on community drug use patterns, *British Medical Journal*, in press.
65. Lloyd, C. and Hunt, N. (2007) Drug consumption rooms: An overdue extension to harm reduction policy in the UK? *International Journal of Drug Policy*, 18: 5-9.
66. Rhodes, T., Briggs, D., Kimber, J., Jones, S. and Holloway, G. (2007) Injecting 'speedball' and crack and its implications for vein use and care: Qualitative study, *Addiction*, 102: 1782-1790.
67. Rhodes, T., Briggs, D., Holloway, G., Jones, S., and Kimber, J. (2006) *Visual Assessments of Injecting Drug Use*, London: NTA Research Briefing 13.
68. Ritchie, J. and Spencer, L. (2004) Qualitative data analysis for applied policy research, in Bryman, A. and Burgess, R. (eds) *Analysing Qualitative Data*, London: Routledge (pp. 173-194).
69. Blumenthal, R. N., Kral, A., Lorvick, J. and Watters, J. K. (1997) Impact of law enforcement on syringe exchange programs, *Medical Anthrpology*, 18: 61-83.
70. Maher and Dixon (1999) Maher, L. and Dixon, D. (1999) Policing and public health: law enforcement and harm minimisation in a street-level drug market, *British Journal of Criminology*, 39: 488-511.
71. Small, W., Rhodes, T., Wood, E., and Kerr, T. (2007) Public injection settings in Vancouver: Physical environment, social context and risk. *International Journal of Drug Policy*, 18(1): 27-37.
72. Office of the Deputy Prime Minister (2005) *Hostels Capital Improvement Programme (HCIP)*, Policy Briefing 12. London: Homelessness and Housing Support Directorate, ODPM.
73. Randall, G., & Brown, S. (2002) *Helping rough sleepers off the streets: a report to the Homelessness Directorate*. London: ODPM.
74. Hedrich, D. (2004) *European report on drug consumption rooms*, European Monitoring Centre for Drugs and Drug Addiction: Lisbon.
75. Kimber, J., Dolan, K., van Beek, I., Hedrich, D., and Zurhold, H. (2003) Drug Consumption Facilities: An update since 2000, *Drug and Alcohol Review*, 22: 227-233.
76. Shannon K., Ishida T., Lai C., and Tyndall, M. (2006) The impact of unregulated single room occupancy hotels on the health status of illicit drug users in Vancouver. *International Journal of Drug Policy*, 17: p 107-114.