

# DRUG & ALCOHOL FINDINGS *Matrix cell*

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## Drug Matrix cell D1: Organisational functioning; Reducing harm

**S** [How needle exchange is organised is critical](#) (2003). Findings analysis of seminal and more recent studies from six cities demonstrating that how needle exchange is organised is critical to its success. See also other parts of the same [series of reviews](#) (2003 and 2004) on needle exchange and hepatitis C. For discussion [click here](#) and scroll down to highlighted heading.

**S** [Abstinence-oriented ethos undermines methadone's harm reduction potential](#) (1995). Australian study of two clinics, one oriented to abstinence, the other to indefinite maintenance. At the former lower doses and time-limited treatment led to more substance use and poorer [retention](#) (1993), both associated with increased harm. Shorter retention at the abstinence-oriented clinic [seemed to account](#) (1992) for increased criminal convictions among its (former) patients. Across both clinics, the higher the maximum dose a patient received, the [longer](#) (1991) they stayed in treatment. For discussion [click here](#) and scroll down to highlighted heading.

**K** [For needle exchanges, coverage is the key](#) (2007). Research in California confirms that liberal exchange policies providing as much equipment as an injector needs increase the extent to which a fresh set is available for each injection ('coverage'), which in turn reduces exchange users' risks of contracting or spreading blood-borne diseases. For discussion [click here](#) and scroll down to highlighted heading.

**K** [Vancouver's needle exchange: lessons of failure](#) (2012). The city which hosted North America's most prolific exchange nevertheless saw HIV and hepatitis C sweeping through its drugs quarter. Prime among the reasons are believed to have been restrictions imposed and self-imposed on the service, including limited opening hours and one-for-one exchange. Related [study below](#). For discussion [click here](#) and scroll down to highlighted heading.

**K** [Focusing on syringe distribution rather than exchange cut HIV risk in Vancouver](#) (2010). Among the policy changes followed by step-downs in risk behaviour and HIV incidence were removing the limit on how many syringes could be obtained, not requiring returns, and separating syringe distribution from collection of used equipment. For more on the dire situation which prompted policy change, see a [Findings analysis](#) listed [above](#) (turn to p. 3 of the PDF file, p. 26 of document). Related [study above](#). For discussion [click here](#) and scroll down to highlighted heading.

**K** [Policies stem from underlying vision of the purpose of needle exchange](#) (2002). Canadian exchanges whose staff saw syringes/needles primarily as a risk to injectors and the public rather than the means to avoid infection, tended to counterproductively limit distribution and to insist on one-for-one exchange. More on the study in a [Findings analysis](#) (p. 2 of the PDF file, p. 26 of document) [listed below](#). For related discussion [click here](#) and scroll down to highlighted heading.

**K** [Health promotion ethos guides Finnish exchanges](#) (Finnish National Public Health Institute and Department of Infectious Disease Epidemiology and Control, 2008). Finnish exchanges are known as health counselling centres, symbolising that though needle exchange is core, the aim is a comprehensive health-care and disease-prevention service. The evaluation thoughtfully describes the choices and dilemmas in setting up and developing such a service as they have played out in practice.

**K** [Build on access and trust to open doors to other services](#) (2011). Feeling safe and accepted meant users of Canadian needle exchanges were more likely to seek and act on referrals to services such as those providing counselling, nursing, financial support, housing, and HIV, hepatitis C and sexual infection testing and information – important life-savers and life-improvers for a multiply disadvantaged population divorced from mainstream provision.

**R** [Organisational policies on equipment supply and ancillary services determine exchange effectiveness](#) (2004). Last of a four-part Findings [series](#) on needle exchange and hepatitis C identifies the active ingredients needed to maximise impact, including service policies. For related discussion [click here](#) and scroll down to highlighted heading.

**R** [Philosophy should be that abundant needle/syringe supply is good](#) (2013). Extensive UK review updated in 2013 which

underpinned the NICE guidance [below](#). Review found that spread of disease was maximally curbed by exchange policies and philosophies which promote unrestricted and convenient supply of a range of injecting equipment. For related discussion [click here](#) and scroll down to highlighted heading.

**G** [NICE says abundance is the objective for injecting equipment provision](#) ([UK] National Institute for Health and Care Excellence, 2014). UK's official health technology assessor says needle exchanges should supply customers with as much of the right kind of equipment as they need and to allow them to take equipment for others, while at the same time promoting moves away from injecting drug use. Underlying evidence review [above](#). For related discussion [click here](#) and scroll down to highlighted heading.

**G** [Scottish guidance on running and commissioning needle exchanges](#) (Scottish Government, 2010). Includes needs assessment, locations, opening hours, staff training, injecting equipment provision policies, and integration with other services.

**G** [Guide to starting and managing needle and syringe programmes](#) (World Health Organization [etc], 2007). Detailed manual for service planners and managers including where and how services should operate, types of injecting equipment provided, other services, staffing, gaining community support, and monitoring how well you are doing.

**G** [Organising a treatment service which also focuses on reducing drug-related deaths](#) ([UK] Collective Voice and NHS Substance Misuse Provider Alliance, 2017). Recommendations and practice examples developed (with the support of Public Health England) by bodies representing drug and alcohol treatment services in England. Itemises characteristics of treatment organisations likely to hinder or promote reduction of harm.

**G** [Methadone as recovery platform and harm reduction](#) ([UK] National Treatment Agency for Substance Misuse, 2012). UK clinical consensus on methadone maintenance and allied programmes tries to balance harm reduction objectives with a commitment to long-term recovery. For related discussion [click here](#) and scroll down to highlighted heading.

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**What is this cell about?** Described more fully in [cell A1's](#) bite, this entire row is about reducing the harms experienced by the user **as a result of** their drug use, without necessarily reducing use or seeking to overcome dependence. Common interventions include needle exchanges, overdose prevention programmes, and substituting a legally prescribed drug of the same type for the original (and usually illegally obtained) substance, also considered as a treatment for addiction in [row 3](#) of the matrix.

This cell is, however, not about the content of the intervention (for which see [cell A1](#)), but about what kinds of organisations are best placed to deliver these. Organisational ethos and objectives largely determine operational policies such as methadone dosing and how many needles and syringes injectors are given by exchanges and on what terms. In turn these directly affect the service's potential to reduce harm.

**Where should I start?** After reading these [case studies](#) of how needle exchange has worked or not worked in six cities, no one should remain under the illusion that it is enough just to open the doors and offer local injectors free sterile injecting equipment. Planners should be intimately acquainted with the local context and gear the organisation accordingly – not just drug use patterns and disease levels, but the psychological, social and material resources available to injectors to support healthier practices, alternative sources of injecting equipment, and accessibility of other services like addiction treatment. Failure to take these into account

*Needle exchanges are blamed for failures due to restrictions forced on them*

could mean the flow of equipment from the exchange simply feeds unchanged infection risk behaviour, or replaces one source of sterile equipment with another, creating no net benefit.

Another important lesson is to find ways to work round local opposition to abundant equipment supply rather than being forced to make restrictions so undermining that even in the presence of the exchange, HIV and hepatitis infections soar. When that happens, chances are that needle exchange itself will be blamed for the failures, not the restrictions its organisers were or felt forced to place on it – a pernicious kind of self-fulfilling prophecy.

**Highlighted study** With the escape route to pharmacy purchases cut off by the need for a prescription, [California provided the context](#) for proving that exchange policies really do affect whether services meet [NICE's ideal](#) of supplying their users with more than they need to inject with a fresh set each time, and in turn the probability that they will avoid injecting practices which risk infection.

One of the reports on the study linked the ratio of equipment supplied versus the number of times the exchange user injected, to the likelihood they would risk spreading infection by injecting with a syringe used by someone else, or by letting someone else inject with their used syringe. On both measures, the more adequately the individual's needs had been met by the exchange, the less likely they were to have incurred these risks. For example, when less than half their needs had been met, 38% had re-used after someone else. This proportion progressively reduced as coverage improved down to just 9% of injectors who had received at least 50% more than they needed.

In terms of achieving high coverage, way out in front were exchanges which simply provided as many needles and syringes as the injector needed, regardless of how many they brought back. Bottom of the league were those which gave out only the numbers returned (one-for-one exchange) and then only up to a set limit; they left most visitors with less than half their needs met.

Another important finding was that injectors in treatment were twice as likely to be adequately supplied as those who were not, confirming that exchanges can make reaching this ideal easier for themselves by engaging their users in treatment. This probably reflects a synergistic impact, with exchanges facilitating treatment entry which stabilises lives and reduces injection frequency, making it easier for exchanges to meet patients' remaining needs for injecting equipment. That finding takes us into the territory [explored below](#) of what harm reduction services are primarily there to promote – recovery from addiction, or relative safety while addicted?

## Issues to consider and discuss

► **What is a harm reduction service for?** Surely the first thing any organisation should be clear about, is what it is there for. To the question above, the answer seems self-evident: to reduce harm. But what counts as harm, and whose harm? Our [hot topic](#) on this issue reminds us that [according to](#) the UK Harm Reduction Alliance, harms may be health, social, or economic in nature, and affect individuals, communities, or whole societies. That opens the way to taking opposing stances in the name of harm reduction, from prioritising the health of drug users to (if need be) sacrificing this to promote other social objectives and contain costs.

In the UK there are indeed different interpretations of harm reduction, each seemingly 'self-evident' to their adherents. In 2012 the UK government's "[roadmap](#)" to a recovery-oriented treatment system subjugated "All our work on combating blood borne viruses" to the national strategy's "strategic recovery objective", arguing that, "It is self-evident that the best protection against blood borne viruses is full recovery". What 'full recovery' entailed was never spelt out, but what it did *not* entail was clear; out of the mix was continuing drug use of the kind which might prompt needle exchange attendance and remaining in opioid maintenance prescribing programmes.

For the [UK Harm Reduction Alliance](#) and co-signatories including the UK Recovery Federation, the roadmap's interpretation was not at all self-evident. [Their response](#) transformed the government's *Putting Full Recovery First* title to *Putting Public Health First*, challenging what they characterised as an "ideologically-driven hierarchy" which places full recovery at the top, with "any other achievement marked as inferior".

That theme was uncompromisingly taken up by the Australian Injecting & Illicit Drug Users League. Concerned that their nation's harm reduction orientation was under threat from UK-style "new recovery", they [attacked](#)

*Harm reduction is the goal – not a step along the road to recovery*

the UK government's roadmap, insisting that "Harm reduction is the goal – not a step along the 'road to recovery' or the path to 'freedom from dependence' " – a formulation derived from their [core belief](#) that harm reduction is the "principle paradigm upon which drugs policy should be based. All other approaches (eg, demand reduction, supply reduction) can have validity only where there is strong evidence that they are appropriate, practical and

equitable means of reducing drug-related harm." Like the home-grown attacks on the same document, they reversed the primacy order so self-evident to the UK government, subjugating treatment and recovery to harm reduction, not the other way round.

These polarities are endemic in debates about methadone maintenance and allied approaches for heroin addiction, seen as both treatments for addiction and harm reduction while dependence continues. In 2012 [an attempt](#) to reconcile these objectives for the UK complained that "the protective benefits [ie, harm reduction] have too often become an end in themselves rather than providing a safe platform from which users might progress towards further recovery", and was prepared to see this progress pursued even if it "will sometimes lead to people following a potentially more hazardous path, with the risk of relapse". At the same time, "preservation of benefit" was seen as a legitimate reason for continuing treatment; not least among those benefits is the preservation of life and health.

Having explored the arguments, try asking yourself where you stand on these issues: Is harm reduction a primary goal, a second-best outcome when recovery is for the moment unattainable, or ideally an engagement strategy and platform for recovery? When trying for 'full recovery' (entailing planned treatment exit and no illegal drug use or prescribed substitutes) risks reversing harm reduction gains, on what basis can the decision be made about which takes priority? This issue has found its practical expression in a dilemma which from the first has faced needle exchanges: should they assertively pursue treatment entry and recovery objectives for their clients, even if this means some may be deterred from using the exchange, exposing them to a greater risk of infection?

► **Exchange service ethos and priorities determine lifesaving potential** [Cell C1's commentary](#) asked, "Are the days of needle 'exchange' behind us?" The context was [UK guidelines](#) which stress the need to ensure that every injector has more than enough equipment to inject safely every time. Once seen as good harm reduction practice and also good for public relations, insisting on return of used equipment before new equipment is supplied is now more likely to be rejected as a barrier to achieving this objective.

However, good practice guidance is not all that drives needle exchange policies – organisational culture plays a part. A [study from Ontario](#) in Canada afforded a rare glimpse of this in action. Services whose staff who saw syringes and needles not as the means to avoid infection, but primarily as posing a risk to injectors and to the

public, tended to limit the amount they gave out and insist on one-for-one exchange, issuing new syringe/needles only up to the number of used ones returned. Some even gave callers fewer than they returned to nudge them to reduce the frequency of their injecting. In these types of services, the return rate is all-important, pressure is put on service users to see that the statistics tally, and secondary exchange (taking equipment for other people) may be banned – it makes the return statistics look bad and means the exchange loses control over its supplies.

Such attitudes [can be](#) can be a defensive response to the fragility of public support for exchanges. In Ontario they were most common in newer services still establishing their credibility, or services under attack from hostile local opinion. More confident and less besieged services could focus more on distributing sterile needles and syringes rather than collecting used ones. In these services, restrictions are seen as impediments to supplying lifesaving equipment. Returns are encouraged through dialogue rather than by rules, sanctions, or by labelling non-returners as irresponsible, and by mutually agreed solutions such as home pick-ups and return containers. Remaining discarded needles are picked up by local sweeps. An injector's assessment of the amount they need is accepted, and secondary exchange encouraged.

Vancouver offers an instructive case study. In [cell C1](#) we saw that despite hosting what was then North America's most prolific needle exchange, nevertheless HIV and hepatitis C swept through the city's drugs quarter [pictured right](#).

Though the reasons were many, among them was an organisational emphasis on not upsetting the public, one interpreted in ways which undermined the ability to preserve the lives of injectors.

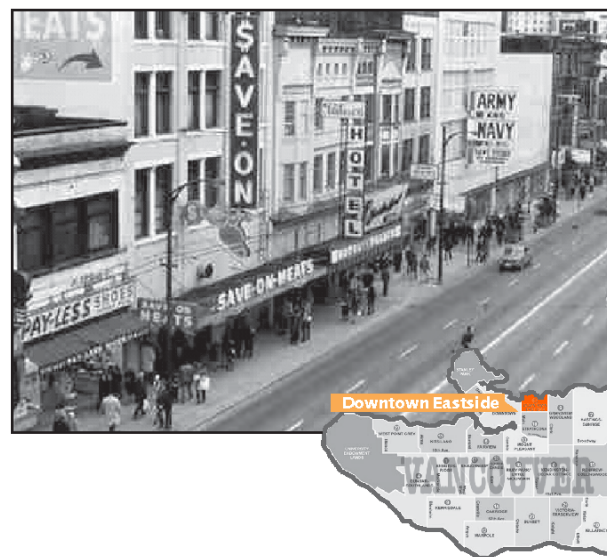
Turn to [our analysis](#) (listed [above](#)); from there you can freely access the original article recounting Vancouver's story. It explains that the

exchange service's focus on public disorder meant it provided only one-for-one syringe exchange from its inception until 2002. Paving the way disastrous epidemics, the intentions were good: to stop syringes from being discarded unsafely in public, to give staff more contact time with injectors during which to refer them to health services, and to stop injectors selling on new syringes. Strict limits on the number of syringes each injector could receive were also imposed – initially two per day or 14 per week. Many injectors were unable to access syringes because the exchange shut at 8pm and did not open until 8am, intended to reduce nearby drug use overnight, [seen by some](#) as sacrificing effectiveness to the sensibilities of the community and politicians.

By the end of the article we learn that the continuing spread of infection in the city prompted a change in policy to focus on distributing sterile needles/syringes rather than exchanging for used ones. Limits on the numbers that could be distributed were abandoned, the collecting of used syringes was separated from the distribution of new syringes, and more varied methods of distribution were added – reforms [found](#) to have led to significant reductions in the rate of syringe sharing and in the spread of HIV.

► **Harm-reducing methadone maintenance is about ... maintenance** Seems obvious, but the proposition that prescribing opiate-type drugs is often best done with no planned end and no attempt to reduce the dose [has been difficult](#) to accept in societies which in other circumstances demonise and criminalise use of the same type of drugs. Yet these are among the features which maximise substitute prescribing's ability to retain patients in treatment which while active suppresses injecting ([1 2 3](#)), and with it, the potential for overdose and infection. One way to sidestep this conflict is to reposition what's 'bad' about drug use from use itself, to harm arising from that use – in the case of opiates, generally avoidable even if use continues at high doses.

Since 1985 this harm reduction ethos [has been](#) the guiding principle of Australian policy on illegal drug use.



"I think that with a stable house, if the person was on some kind of opiate therapy, if we gave them some real things to do that gave them some kind of life, that they would buy into it in a second. We're not animals. This isn't a party down here. It's a very shitty life ... they'd change it if they could. Some innovative programming could really change things down here."

'Sid', a 40-year-old drug user from Downtown Eastside



From that era has come influential studies exploring what maximises the effectiveness of methadone maintenance, some of which are explored in [cell D3](#). Here we focus on a [study](#) of just two clinics which took advantage one of those lucky accidents in evaluation research – the conditions for a near-randomised trial without having to manufacture these in ways which divorce the results from real-world practice. In this case, the luck went further, exposing the impacts of differences between the clinics which no researcher could engineer. This account is constructed from all the reports [listed above](#).

Under the magnifying glass were two methadone clinics near Sydney with similar budgets, facilities, and staff, serving adjacent areas of similar, low socioeconomic status. Critically, they had their patients selected for them by an assessment unit on the basis of which was nearest the patient's home. On the assessed variables, the

*Near equivalence in other ways highlighted the impacts of the major difference – treatment philosophies*

clinic's intakes in 1986 to 1987 were usually very similar. Both clinics required daily on-site consumption of methadone and weekly random urine testing, samples from which were analysed by the same laboratory. At both patients could request dose increases up to a usual ceiling of 80 mg. Apart from methadone, both relied mainly on drug counselling by non-professional staff to support

their patients. Near equivalence of resources, treatment mechanics and patients, made it possible to highlight the impacts of the remaining major difference between the clinic – their treatment philosophies.

One (which we'll call the 'Abstinence Clinic') was strongly abstinence oriented and attempted to limit the duration of maintenance to two years. For a time, methadone dose reductions were imposed in response to urine tests indicative of heroin use, and discharge was a sanction for repeated illegal drug use. Unlike the other clinic, the Abstinence Clinic scheduled mandatory counselling and had restricted dispensing hours. The effect was to create a strong 'we-they' feeling among staff and patients.

In contrast, from the outset the 'Maintenance Clinic' had a policy of indefinite methadone maintenance and frequently offered to increase doses if patients continued to submit heroin-positive urine tests. Sometimes patients were discharged if repeated heroin use indicated failure to benefit, but some continuing illegal drug use was tolerated. Sometimes the clinic prescribed over 80mg a day and (as far as was known) prescribed at least 80mg to a significantly higher proportion of patients than its neighbouring service. The lowest dose was 40mg compared to 20mg at the other clinic.

When it came to outcomes, consistently the contrast between the two indicated that the attempt by the Abstinence Clinic to force the pace of change in its patients had counterproductive effects, largely due to more patients being thrown out or choosing to

*Discipline and control led to less, not more control over substance use and crime*

leave, and partly due to more restrictive dosing. Discipline and control led to less, not more control over substance use and crime, exposing patients to greater risk of harm. No doubt the intentions were good, but at the Abstinence Clinic, [they backfired](#): "[T]he policies employed to deter heroin use were not effective ... The current study confirms the poorer outcomes associated with an orientation towards abstinence, and demonstrates that these were mediated through the use of lower doses of methadone and the imposition of time-limited treatment." To see how this happened, [unfold !\[\]\(d3102649f02e825ddb76dc3de0190154\_img.jpg\) the supplementary text](#).

 [Close supplementary text](#)

An [analysis](#) of all 238 individuals referred to the clinics from February 1986 to August 1987 found that patients at the Abstinence Clinic typically stayed for about 13 months compared to 29 months at the Maintenance Clinic. A further analysis adjusted these raw figures for each patient's maximum dose, [known](#) to be related to retention at the clinics. What was left was an estimate of the clinic's influence when maximum dose and known differences between the patients had statistically been evened out across the two clinics. It confirmed that patients left the Abstinence Clinic far sooner, a differences which emerged well before its intended two-year maintenance period. Within about a year, half the patients had left, a termination rate not reached until about 21 months at the other clinic. If a patient had completed six months of treatment they were nearly twice as likely to leave the Abstinence Clinic in the next six months. Allowing dose back into the equation magnified the difference due to higher maximum doses at the Maintenance Clinic. It was possible that the Abstinence Clinic had achieved its objective and rapidly turned out persistently drug-free patients, but other findings show this was not the main reason for shorter retention. According to the authors, instead it was "uncontrolled, premature loss to treatment".

In fact, the Abstinence Clinic was turning out patients who after leaving were more criminally active than before treatment. Because it was turning them out more rapidly and in greater relative numbers than the Maintenance Clinic, it had a poorer record at controlling crime. The researchers put it nicely: “A highly controlled programme, which did not tolerate ongoing drug use, was not more efficacious in reducing criminal activity than a tolerant programme; rather, as a result of high attrition from treatment, the more regimented programme was less effective, as people expelled from treatment continued to offend.”

The most telling finding was that even while its patients were there, the control exerted at the Abstinence Clinic did not further reduce illegal heroin use. To eliminate the effect of impending or actual withdrawal (when a very high proportion of urine tests were heroin-positive), the analysis was confined to non-withdrawing patients during the first 18 months of their treatments. At the more “laissez faire” Maintenance Clinic there was a tendency for fewer urine tests to indicate heroin use, which seemed due to the higher methadone doses prescribed. Across both clinics, the dose taken at the time of the test was strongly related to the chance it would prove positive. For example, if the dose was 40mg, the test was nearly twice as likely to register illegal heroin use than if the dose was 80mg.

 [Close supplementary text](#)

Dose and retention were the key factors at the two clinics, but these are not the only influences. Check, for example, the [highlighted study](#) in cell B3, which found that while substantially reducing doses of methadone, the most effective counsellor at a US methadone service was able to bring patients to the point where non-prescribed drug use was virtually zero. Other studies from the harm-reduction era in Australia and early US studies listed and discussed in [cell D3](#) revealed the importance of what Australian clinician and researcher James Bell [called](#) a “treatment ethos”, meaning that “all interactions with patients are understood as part of [their] care ... anger, conflict and acting out become part of the material being worked with, rather than an irritation or obstacle to the smooth running of the clinic”. Other factors include prioritising individualised care, rehabilitation, service-delivery and long-term maintenance, and running a well-organised clinic with clear rationale and objectives. Well-run clinics, but with an administrative or business ethos, or poorly run, chaotic environments, have been found to have worse outcomes in terms of the illegal substance use of their patients. Part of the way these and other factors affect patients is through their dose of methadone and how long they stay at the service, but they can have effects even when these variables are taken out of the equation.

Readers will spot the parallel between experiences at these methadone clinics and those of some needle exchanges described [above](#). In both cases what we can assume or know to have been good intentions led to results which placed patients and service users at risk. There may be a general lesson here: harm reduction objectives are best served by going with the grain of recreational or dependent substance use and seeking to smooth out the splinters, not ‘for its own good’ trying to bend the grain in another and, for the time being, unreachable direction.

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