

## Drug Matrix cell E1: Local and national systems; Reducing harm

**S** Seminal studies | **K** Key studies | **R** Reviews | **G** Guidance | **MORE** Search for more studies

**S** [Wake up call to tackle “sleeping giant” of hepatitis C](#) (1993). It was in the early '90s when Roger Holmes and the late Dr Tom Waller alerted Britain to the (until 1989) invisible hepatitis C epidemic: “It may be wise to let sleeping dogs lie, but not sleeping giants,” warned the authors. Since then Britain, if not letting the virus lie, has not yet mounted an offensive which measures up to the dimensions of the epidemic.

**K** [Controlling hepatitis C requires methadone and needle exchange but also more](#) (2012). Simulation model for the UK and other countries highlights the need to increase the proportion of injectors engaged in both adequate methadone and needle exchange services, and then to do more such as extending effective treatment of hepatitis C infection. Similar message [from the Netherlands](#).

**K** [Combined high impact treatment/exchange reduces infection risk in Amsterdam](#) (2007). Only injectors who benefited *both* from a adequate dose methadone maintenance and high coverage needle exchange were less likely to become infected with HIV or hepatitis C. Similar message [from the UK](#).

**K** [Low threshold methadone extends life expectancy in Barcelona](#) (2005). On average 21 years were added to the lives of heroin users entering treatment when across the city methadone maintenance was made easier to access and remain in, raising the issue of whether to use resources to extend access to programmes oriented to harm-reduction, or reach fewer patients but with more comprehensive addiction treatment.

**K** [Outlet diversification helped cut HIV risk in Vancouver](#) (2010). Among the policy changes which seem to have led to a step down in risk behaviour and HIV incidence were decentralising and diversifying needle and syringe provision to more exchange sites and generic and peer-led services, and separating equipment supply from collection of used equipment. For more on the dire situation which prompted these changes, see (p. 3 of the PDF file, p. 26 of document) this [Findings analysis](#).

**K** [Finland’s national programme reverses HIV escalation](#) (Finnish National Public Health Institute and Department of Infectious Disease Epidemiology and Control, 2008). Steeply rising HIV incidence in injectors reversed in Finland shortly after it launched a national health counselling and needle exchange programme. Emerging challenge was how to retain the harm reduction focus and user-friendly ethos while extending access by integrating in to mainstream health services.

**K** [Fears unfounded that exchanges will increase injecting-related litter](#) (2012). Commissioning needle exchange provision can face opposition due to fears that after use injecting equipment will be left unsafely disfiguring public areas, but this US study found that the streets of San Francisco with its needle exchanges were freer of litter than those of Miami, where needle exchange is banned.

**R** [Diversify injecting equipment outlets and combine with treatment and health care](#) (2013). Extensive UK review updated in 2013 which underpinned the [NICE guidance below](#). Supports a combination of injecting equipment provision from outlets including mobile services and vending machines to attract different user groups, methadone maintenance, integrated health care and promotion of treatment entry.

**R** [WHO review finds needle and syringes needed but not enough](#) (WHO, 2004). WHO-commissioned experts conclude needle and syringe provision is *necessary* but not *sufficient* to control HIV. Also needed are education, substitute prescribing and community development. Findings also in freely available journal articles ([1](#) [2](#)). See also associated [policy guidance](#).

**G** [System should deliver more equipment than injectors need](#) (NICE, 2014). The UK’s official health advisory body recommends high coverage needle exchange to combat HIV and hepatitis C including services which attract people who inject image- and performance-enhancing drugs and can cater holistically for injectors aged under 18. Recommends commissioners assess coverage and aim for every injector to have even more sterile injecting equipment than they need for every injection. Based on [review above](#).

**G** [Supply of injecting equipment cornerstone of national anti-HIV strategies](#) (WHO, 2004). Guidance on national strategies based on a [WHO-commissioned review](#).

**G** [Local area systems to curb drug-related deaths](#) (Public Health England, 2014). Checklist for service commissioners and planners offering ideas for improving performance in reducing deaths by (among other things) promoting consistent attention to the issue across local services and ensuring services collaborate to safely see patients through the transitions between service types and phases.

**G** [Seven key components of anti-disease strategy for injectors](#) (European Centre for Disease Prevention and Control and European Monitoring Centre for Drugs and Drug Addiction, 2011). Identifies seven key intervention components which should if possible be combined to achieve maximal synergistic impact including needle exchange geared to the local injectors, addiction and disease treatments, testing for infection, vaccination, and health promotion focused on safer injecting, sexual health, disease prevention, testing and treatment.

**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.

**MORE** [This search](#) retrieves all relevant analyses.

For subtopics go to the [subject search](#) page and this Findings [hot topic](#) entry on controlling the spread of hepatitis C.



**Matrix Bite** a commentary on this cell from the cell-by-cell Matrix Bites course funded by the [Society for the Study of Addiction](#)



Click underlined text to highlight text/link in cell

**What is this cell about?** As described more fully in the [cell A1](#) bite, 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 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. This cell is however not about the content of the intervention (for which see [cell A1](#)), but about how implementation and impact are affected by commissioning, contracting and purchasing decisions across an administrative area – more the domain of commissioners and national planners than individual services.

**Where should I start?** When the European Union’s central agencies concerned respectively with addiction and infectious disease join forces, it’s a fair guess the issue is weighty and their resultant recommendations are not to be taken lightly. Exemplifying that is the [joint report](#) on the prevention and control of infectious diseases among injectors from the Lisbon-based [European Monitoring Centre for Drugs and Drug Addiction](#) and the Stockholm-based [European Centre for Disease Prevention and Control](#). Based on “the most robust evidence available, expert opinion, and best practice within the EU/EEA”, they identified seven key intervention components which “should be applied and, if possible, combined to achieve the maximum prevention effect through synergy”. The result is an evidence-based blueprint for local and national planners and commissioners on what to include in their disease-prevention systems, an antidote to the more common focus on one of the strands in isolation. The authors stuck tightly to addressing the immediate individual and societal harm caused by infections, refusing to be drawn in to territory more to do with reducing drug use than reducing resultant harm, basing their recommendations on client-centred ethical principles for such work developed in the UK.

**Highlighted study** For the UK it has to be [this simulation](#) of what it would take to substantially reduce hepatitis C infection among injectors within say a decade, though the Netherlands might spotlight [similar results](#) not from a simulation study, but from what actually happened to injectors depending on whether they fully participated in both effective methadone and high coverage needle exchange programmes. Take a look at the UK results [encapsulated](#) by Findings, and you will see that though derived from a ‘what if’ exercise, the

assumptions on which this was based came from six 'real world' UK studies. Each related hepatitis C infection among injectors to their participation in opiate substitution therapy and/or needle and syringe programmes. The analysts translated this data into infection estimates dependent on whether patients had spent most of their time in treatment and had been supplied NICE's ideal of at least enough injecting equipment to use a fresh set each time. The results imply that needle exchange on its own will not sufficiently control infection. We need the same injectors to be welcomed in to methadone programmes, even though they still sometimes inject, and to be treated for any infections they already have, plus the other elements identified by the [starting point report](#). But how convincing is this extrapolation from the six studies? Bear in mind it depends on an *association* between infection rates and needle exchange and substitute prescribing which could have been due to other factors. Conceivably, for example, injectors concerned and stable enough to stay in treatment and make regular use of exchanges would have found other ways to avoid infection, even if exchanges and treatment were unavailable. That kind of uncertainty dogs studies which underpin some of the most important policy and practice implications in this sector. Where these are freely and widely available, it is impractical and unethical to deny injectors needle exchange and methadone to see how many later become infected with life-threatening diseases, yet this is the securest way to prove their benefits.

### Issues to think about

► *Is hepatitis C preventable?* In [cell A1](#) we saw that interventions like methadone prescribing and needle exchange sufficient to substantially retard the spread of HIV may have no discernible impact on the much more transmissible hepatitis C virus. Now we ask whether rapid and widespread transmission of the virus can be prevented at all. In principle, the answer is, "Of course! All injectors have to do is avoid injecting with potentially contaminated equipment by always using a sterile set or one previously used only by them; they don't even have to stop injecting." The real issue though is whether given current anti-infection interventions, in practice we can ever do enough to ensure this. In 1993 the UK [was warned](#) to pull out the financial stops to reverse an epidemic which had already infected most injectors: "not to do so will lead to a longer term cost that is considerably greater, both in terms of finance and human suffering." More was done and thousands of lives saved, but it was [nowhere near enough](#), meaning that by end of the first decade of the 2000s hepatitis C was still infecting nearly a quarter of injectors within three years of their starting to inject. But could it really ever have been enough?

To gauge the dimensions of the challenge, take another look at the [highlighted study](#). It warned that further substantial reductions in the prevalence of hepatitis C are unlikely unless both adequate opiate substitute prescribing programmes and high coverage needle exchange can be scaled-up to reach not 50% of injectors, but over 80% for at least 20 years, an expansion difficult to achieve and "unlikely to be sustained or funded by policy makers". Are there any saving graces on the horizon? One clue comes from the study's finding that decreasing the length of injecting careers – which in itself would reduce the number of infections – also augments the impact of the interventions. Maybe recovery-oriented national policies in Britain will indeed curtail drug use and injecting careers. It has also recently become apparent that injecting is falling out of favour. Extending treatment for infections [will help](#) not just avoid liver disease but prevent new infections. Current treatments are onerous, unpleasant and expensive, but the great hope is that technical advances in hepatitis C treatment [will soon mean](#) nearly all infected injectors can rapidly and easily be cleared of the virus with a short course of pills, or even a single depot injection, meaning they can no longer transmit infection. In the longer term, these and other developments may lead to a vaccine to prevent infection.

Meantime multiple strands acting in concert seem the answer, each making their tasks easier for the others. Methadone reduces the number of injections, making it more feasible for needle exchanges to supply enough equipment, while exchanges help promote methadone treatment. Treatment of infection cuts the number of sources of the virus, and exchanges and methadone recruit patients for treatment of their infections and help keep them stable enough to complete the course.

► *Spread methadone programmes thin and wide?* Referred to here is a long-standing tension in understandings of methadone maintenance and allied approaches for heroin addiction, seen as both treatments to help end addiction, and as harm reduction while dependence is maintained by the legally prescribed drug. The Netherlands separates these two objectives in to two treatment systems; other countries like the UK amalgamate them in the same clinics and patients. Current UK government thinking and expert opinion in the recovery era is leaning towards the treatment end. Without abandoning harm reduction, the [latest attempt](#) to reconcile these objectives 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", even if this furthering "will sometimes lead to people following a potentially more hazardous path".

Methadone as a route out of not just illegal drug use, but out of itself – a way to end dependence on *any* opiate-type drug, legal or illegal – is relatively untried. Results from what has been tried have not been encouraging, perhaps because the intensity and width of support needed to safely and stably place someone on their own drug-free legs is rarely provided in what is a [relatively](#) cheap treatment option. If this intensive support cannot widely be provided, it leaves most patients in standard programmes offering some keyworker counselling and other more ad hoc inputs. There seems a real question over whether this degree of support adds much to methadone itself.

Cut-down methadone programmes consisting of little more than prescribing and enough oversight to maintain safety [can cut](#) substance use as effectively as standard programmes. Such programmes [can also treat](#) many more patients than programmes with the counselling and therapy felt desirable to achieve treatment and recovery objectives, extending harm reduction benefits to a whole population of opiate users. Rather than a treatment for individuals ready, willing and able to 'recover' as now conceived, this makes methadone a public health intervention. The concern is that patients who could have built new, fulfilling, opioid-free lives, will instead be consigned to decades of the life-dulling drudgery of daily methadone, never entirely free of their addiction.

We have seen from the [highlighted study](#) discussion that engaging a very high proportion of injectors in methadone treatment is an important strand in an anti-infection strategy. [Barcelona provides](#) strong evidence that it can also dramatically cut overdose deaths. From 1994 the city adopted a low threshold, "palliative" care model which today in Britain might be seen as lacking recovery ambitions. This low-cost model meant the programme could engage a high proportion of local opiate addicts and rescue them from the very early death characteristic of an overdose-prone population. The authors posed the central dilemma: "We cannot deny that [methadone treatment] effectiveness improves when used as part of more complex programmes including other interventions; however, these ... substantially increase the cost of treatment, and their implantation may compete with the idea of a generalization of low-threshold [methadone treatment]. In such cases, policy makers should assign priorities depending on available funding and the epidemiological situation." Where do you stand on this issue? Where do you think today the UK should stand? Spread methadone thin and wide, or deepen it with recovery-oriented interventions for the fewer patients who want and will benefit from these – and who we can afford to treat?

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