What's the point of needle exchange?

Needle exchange programmes (NEPs) have been described as the most visible component of harm reduction. They permit those who inject drugs to exchange potentially contaminated syringes and other works, for sterile ones. Besides syringes, clean water, citric acid, tourniquets, and other works may be offered, and there are often staff on hand to offer literature and advice on wider harm reduction issues relating to substances and sexual health.

First introduced in Amsterdam in 1984, NEPs were a response to the public health threat of HIV/AIDS. This virus was increasingly found in injecting drug users (IDUs), being spread through the sharing of contaminated works and to their partners through sexual transmission. In the USA in the mid 1990s, injecting drug use accounted for nearly half of new HIV infections, clearly demonstrating the need to prevent an epidemic. NEPs are also a response to the threat of other viruses spread through blood borne pathogens such as hepatitis B and C, and human T cell lymphotropic viruses, as well as addressing wider problems caused through sharing and reuse of the same needles, such as increased risk of endocarditis, cellulites and abscesses.

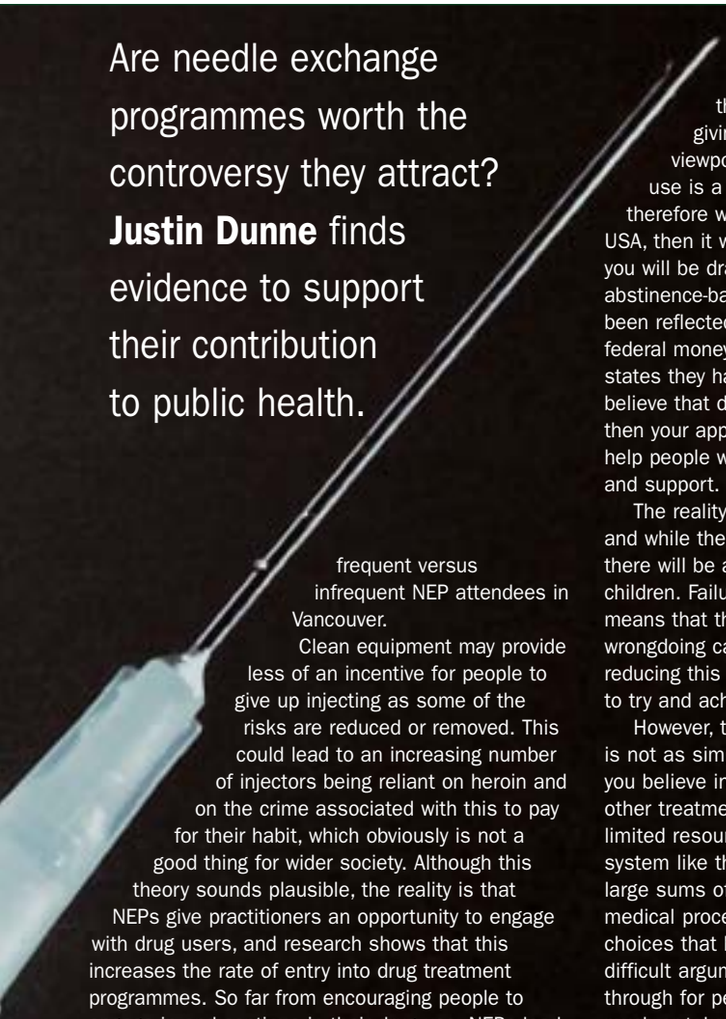
NEPs have caused a great deal of controversy. Those who want to stress their advantages will cite overwhelming research evidence that NEPs work from a harm reduction point of view. Some who stress the disadvantages will refer to a small number of key studies that say NEPs do not work and may even increase the spread of blood borne viruses. However, those against NEPs more often argue that these programmes are wrong from a moral and ethical viewpoint. Evaluating the evidence relating to NEPs indicates that they are necessary for public health reasons, and are in fact ethically sound.

One argument against NEPs suggests that easy availability of sterile equipment could assist the transition to injecting and encourage earlier onset of this practice. This is clearly a risk, although anecdotally, I would have to say from experience of working with IDUs and other drug users, this does not seem to be the case. Injecting drug use is still frowned upon among many drug users. Most who progress to injecting do so because smoking heroin simply does not have the same effect any more because their tolerance has increased, and so injecting is a matter of need not desire. And far from NEPs encouraging the use of injecting, the reverse may be true. An Amsterdam study showed a decline in injecting among those involved in NEP programmes.

Some say that needle exchanges do not achieve their goal of harm reduction and there have been some studies that suggest this is the case. An HIV outbreak among IDUs in Vancouver in 1997 followed the introduction of a high volume NEP area. A study in 1999 showed no benefit of NEP attendance upon incidence rates of HBV and HCV among IDUs in Seattle. In Montreal, a 1977 study showed that there were higher HIV incidence rates among NEP attendees compared to non-attendees. However, these findings seem to contradict the many studies between 1995 and 2003 that have shown that NEPs do achieve their primary goal in reductions of incidence of HIV, HBV and HCV infections. A decade ago, a comparison between 29 cities with established NEPs, showed they decreased HIV prevalence dramatically – by 5.8 per cent a year on average, compared to an increase in HIV of 5.9 per cent in 51 cities without NEPs. A New York City study backed up the fact that NEPs were associated with a dramatic decline in HIV incidence, and further research has shown that NEPs were effective in reducing risky behaviours such as needle sharing.

So, what are we to make of the mixed evidence? Selection bias has been suggested as an explanation: those who obtain syringes from other sources could have accounted for the higher HIV incidence observed among

Are needle exchange programmes worth the controversy they attract? **Justin Dunne** finds evidence to support their contribution to public health.



frequent versus infrequent NEP attendees in Vancouver.

Clean equipment may provide less of an incentive for people to give up injecting as some of the risks are reduced or removed. This could lead to an increasing number of injectors being reliant on heroin and on the crime associated with this to pay for their habit, which obviously is not a good thing for wider society. Although this theory sounds plausible, the reality is that NEPs give practitioners an opportunity to engage with drug users, and research shows that this increases the rate of entry into drug treatment programmes. So far from encouraging people to engage in and continue in their drug use, NEPs lead to a reduction. Because of this, it has been suggested that NEPs should offer incentives such as financial reward to encourage attendance and to be involved in vaccination programmes – an initiative that has been shown to treble attendance rates.

It is argued that NEPs will increase crime in the areas in which they are located, but a study on trends carried out in 2000 showed that they do not. Research the following year demonstrated that there is no association between living close to NEPs and reported violence; nor were people living close by more likely to be robbed. The simple fact remains, whether people recognise it or not, that drug users live among the community already and the presence of an NEP there is not likely to change their current activity – apart from positively, if they choose to engage.

Researchers have pointed out that sharing equipment is associated with socialisation in drug sub-culture, so some users will always continue to share, regardless of the hazards. Although this is true, it is not a reason to deprive those who do want to take note of the risks. Some people will always make risky choices, but others will engage with services if they are available, and studies clearly show that NEPs do not contribute to the formation of high-risk needle sharing networks.

From an ethical point of view, practitioners may not want to feel that they are condoning drug use by giving out needles. If your ethical viewpoint comes from a belief that drug use is a moral and criminal problem and is therefore wrong, as is often the case in the USA, then it will be hard to support NEPs because you will be drawn towards a zero tolerance abstinence-based approach. In the USA this has been reflected in policy, which means that no federal money can be given to NEPs and in some states they have become illegal. However, if you believe that drug use is a health or social problem, then your approach is likely to be one of trying to help people work through these issues with help and support.

The reality is that drug use will always be there, and while there is a health threat to drug users, there will be a health threat to their partners and children. Failure to provide treatment and care means that those innocent of any crime or wrongdoing can become casualties of drug use, so reducing this risk is surely the morally right thing to try and achieve.

However, the argument about protecting health is not as simple as it might first appear. Even if you believe in the health benefits of NEPs and other treatment, there are always going to be limited resources available in a free healthcare system like the NHS. Should the NHS be spending large sums of money on IDUs, at the cost of other medical procedures on people who have not made choices that have put them at harm? This is a difficult argument, as we would need to follow it through for people who drink, smoke, eat too much or take too little exercise. Where do you draw the line?

It has been argued that NEPs may be justified on economical grounds if drug users are predicted to have a reduced chance of contracting, and needing expensive therapy for, hepatitis and AIDS. One study demonstrated that every HIV infection averted saved $20,947, showing clearly that a prevention agenda through harm reduction is a far better option than long-term treatment.

Another anti-NEP argument put forward is that that giving out more needles will lead to more being discarded on our streets and the possibility of needle stick injuries to members of the public, who could contract blood borne viruses. Inevitably there have been isolated accounts of needle stick injuries occurring in cities with NEPs – but you can also find similar incidents where NEPs don't exist. And because NEPs encourage less needle-sharing, any needle stick injury that does occur is less likely to be from a needle contaminated with a blood borne virus.

Far from the picture of IDUs being irresponsible morally corrupt people who simply discard needles anywhere, they have been shown to behave extremely responsibly within these programmes. One study demonstrated a significant decrease in the numbers of needles found discarded in the street following the establishment of a NEP; another study showed that the overall worldwide return rate for needles was 90 per cent.

Clearly abstinence is the best approach to eliminating problems relating to drug use, as many opponents of the harm reduction approach point out. But this is quite simply not a realistic goal. Even with the best public health campaigns there will always be those who choose to use substances. This is especially true of adolescents who are going through a time when they are arriving at their own beliefs and values, where experimentation is perfectly normal, and where telling them to 'just say no' is likely to have the reverse effect. We will never live in an abstinent world and so we must deal with this reality and the dangers it poses. NEPs have been cited as a major reason why the UK has averted an HIV epidemic among IDUs, so are a practical response to a less than ideal situation. Although most of us would like to live in a world devoid of injecting drug use, this is a utopian dream.

We must recognise that any injecting, even with clean equipment, carries inherent risks. Bad technique will cause damage to veins and increase the risk of conditions such as deep vein thrombosis. Quite simply, frequent injecting is not a good health option and a scheme that encourages this has to be ethically questionable. However, good injecting technique can be taught to minimise risk, and engagement with IDUs is far more likely to result in treatment and the end of injecting use. Keeping people as safe as possible in the meantime must be a sensible option even if it does have an element of risk.

Weighing up the evidence, my only conclusion is that the use of NEPs worldwide should be encouraged and expanded. By 2000, there were 134 regions in the world with injecting drug use, 114 of which reported HIV among IDUs. Sadly only 46 of these regions had NEPs. Although this number has grown, there are still not enough to meet the worldwide need. Unfortunately, even where they do exist, uptake is not as good as it could be, with some studies showing that up to 80 per cent of IDUs reuse syringes and share needles, even when NEPs are available.

With such overwhelming evidence for the effectiveness of NEPs, we need to look at the idea of incentives to increase use as well as encouraging IDUs to be involved in vaccination programmes. The high cost of treatment for HIV/AIDS further justifies this approach.

Although there will always be moral objection to anything that is seen to support drug use, NEPs are necessary for public health reasons and are more likely to lead to the reduction of injecting use through effective engagement, rather than by telling people they are wrong and should stop.

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