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One of the most difficult subjects to understand and assess in the drug policy and practice field is harm reduction because of disputes about its intent and meaning. Issue 3 continues to address the subject in depth with special attention to the history of the concept in the second of a three part series.

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The Effectiveness of Needle Exchange Programmes for HIV Prevention - A Critical Review

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Keywords: HIV, needle exchange, incidence, prevalence, injecting drug users

Abstract:

HIV transmission by contaminated needles and syringes among injecting drug users (IDUs) is one of the three main modes of transmission that fuel the HIV pandemic. Needle exchange programmes (NEPs) were adopted to reduce HIV transmission in this risk group. The aim of this review was to investigate evidence for the effectiveness of NEPs.

Literature searches were conducted covering articles published until December 2005. In the final selection only studies using HIV incidence or prevalence data as outcome variables were included. Nine studies presented data addressing the effect of NEPs on HIV incidence. Seven of these studies showed no significant effect, one showed a positive and one an unfavourable effect. Three looked at HIV prevalence at baseline, all showing an unfavourable effect. The method used in three ecological studies that investigated changes in HIV prevalence in cities with and without NEPs have drawbacks, and the results should not be used as evidence for the effectiveness of NEPs.

The effectiveness of NEPs to prevent HIV transmission among IDUs is overrated in previous reviews. The conclusion that NEPs are the superior method for preventing HIV transmission among IDUs may have delayed the implementation of more effective and integrated methods.

Introduction

It is estimated that approximately 10% of all persons living with HIV world-wide have been infected through drug injection (1). In some regions, especially in Southeast Asia and Eastern Europe, this is at present the primary transmission route (1). Therefore, it is important that the HIV prevention strategies for injecting drug users (IDUs) are well-founded and effective. In chapter 4 of the World Health Organization (WHO)'s *Policy and programming guide for HIV/AIDS prevention and care among injecting drug users*, Needle Exchange Programmes (NEPs) are emphasized as one of the most effective interventions to date in preventing HIV transmission (1). Needle exchange is indeed the measure that has come to be very widely promoted and used all over the world (2,3).

A number of reviews of the NEP literature have been conducted. Some of these have looked specifically at the effects of needle exchange while others have investigated HIV prevention measures in general (4,5,6,7,2,8,9,3,10,11). These reviews have all concluded that NEPs are useful for preventing the spread of HIV because they reduce risk behaviour among IDUs.

Only the two most recent reviews (2,11) had the explicit aim of systematically scrutinising all available studies. Both of these reviews, to some extent, lack a thorough discussion of the relevance of methods, the authors' conclusions and the conflicting results. These shortcomings are greater in the review published by the WHO (11), later published in *Substance Use and Misuse* (12), more so than Gibson et al. (2) Gibson et al. (2) accepts the results in studies where authors report positive findings but also makes note of design problems and lack of inclusion of possible confounders in these studies. On the other hand, it is sceptical towards the results of studies in which null or negative findings are reported and tries to find plausible explanations for the lack of positive findings. This is a biased approach. Wodak and Cooney (11,12) do not discuss the positive findings in studies where HIV incidence/prevalence is the outcome variable. A critical evaluation of this review is warranted.

The focus of this review is on studies addressing the effectiveness of NEPs to prevent HIV using either HIV incidence or prevalence as outcome variables, variables that are more reliable outcomes than self-reported risk behaviour. These articles are scrutinized in a way that was lacking in two previous reviews (2,11,12). The present review provides a supplementary basis necessary for discussing the evidence of NEPs as the best way of reducing HIV transmission among IDUs.

Method

A literature search was carried out during February 2004 to December 2005, covering articles published until December 2005. A MEDLINE and PsycINFO search for both keywords and MESH headings identified 103 articles. The keywords were "needle exchange and injection drug use" and "syringe exchange and injection drug use".

An additional 71 articles were found in the reference lists of the initial 103 papers, yielding a total of 174 articles that addressed NEPs. These articles were tested against the following two criteria: (1) the study attempted to measure the effects of needle exchange and (2) the study contained control and/or comparison groups to test the effects of needle exchange. A total of 69 articles met these two inclusion criteria. All studies that did not include measurement of HIV incidence or prevalence as outcome were excluded. Thirteen studies remained and were the basis for the present review (13,14,15,16,17,18,19,20,21,22,23,24,25). Three additional studies were also included (26,27,28) in order to be able to discuss the HIV incidence/prevalence outcome as presented in the review by Wodak and Cooney (11,12). The Australian report, Health Outcome International (27), appears to be based on (almost) the same data as the article by MacDonald et al. (17)

Results

Fourteen studies attempted to measure the effect of needle exchange on the incidence or prevalence of HIV. [See Table 1.](#)

Studies in single cities

Amsterdam

The first study is from Amsterdam and was published in 1992 (25). HIV-incidence in a cohort was studied as a case-control study. The NEP started in 1984, and the study covers the years 1986-1991. Factors significantly associated with HIV seroconversion in the multivariate analysis were: having lived for more than 10 years in Amsterdam, having injected for the first time less than two years before inclusion in study and injecting mainly at home (protective factor). Attending the NEP did not predict or protect from seroconversion. In a follow up study (9) HIV incidence was not used as an outcome variable, but the authors concluded that in spite of a wide variety of harm reduction measures in Amsterdam, including several NEPs, HIV incidence did not continue to fall below 3-4% after 1991. The main suggestion for alternative intervention was injection prevention and promotion of cessation of injection, but also a shift from passive availability of HIV testing and counselling service to a more active policy, since HIV-positive IDUs reduce risk behaviour to a larger extent than HIV-negative IDUs in this study.

New York City

Perhaps one of the most quoted studies (15), a meta-analytic study pooling data from three different studies in New York City, demonstrated a significantly lower HIV-incidence among NEP-users than for the control group. While HIV seroprevalence at all sites was approximately 50%, the peak of the epidemic had passed. All NEP-users were from two smaller studies conducted in 1992-94 and 1995, whereas the majority of non-users were from a larger study performed during 1988-91. The non-users from this older study had the highest incidence, 6.23 per 100 person years (PY) (CI 4.38-8.60). Non-users in the later study also had a high incidence, 5.26 per 100 PY (CI 2.41-11.49) compared to 1.58 (CI 0.54-4.65) and 1.38 (CI 0.23-4.57) among NEP-users in the two later studies. In the multivariate analysis the authors controlled for sex, age and frequency of injection and concluded that not using NEPs had an adjusted hazard ratio of 3.3 (CI 1.3-8.7).

The Bronx, New York City

Schoenbaum et al. (22) conducted a prospective study from 1985-93 on patients using methadone with access to NEPs from 1989 in the Bronx, New York City. HIV infection was detected in 52.2%, and the prevalence was higher among NEP-users (58.1%) than non-users (50.5%) ($p=0.06$). Among those who were HIV-negative at entry, the seroconversion rate did not differ significantly between NEP-users and nonusers (1.77 vs. 1.69 per 100 PY) during follow-up. NEP attendance was independently associated with HIV seropositivity in a multivariate analysis of participants from 1989-1993 (Adjusted OR 1.39, 95% CI 1.00-1.94).

Vancouver

Three studies addressed the rapid increase of HIV among IDUs in Vancouver, Canada, that started in September 1994 (20,21,23). NEPs were established in Vancouver in 1988 and were considered the largest in North America, handing out millions of needles and syringes. At the time of NEP introduction the HIV seroprevalence was 1-2% among IDUs in Vancouver. Strathdee et al. (23) studied 1006 IDUs in 1996-97. Baseline HIV seroprevalence was 23.2%, and 58% of persons with HIV infection were aware of their serostatus. Twenty-four seroconversions during follow-up yielded an incidence of 18.6 (95%CI 11.1-26.0) per 100 PY. Multivariate logistic regression of predictors of HIV-positive serostatus at baseline produced the following significant predictors: unstable housing, low education, commercial sex, borrowing used needles, injecting with others, established injector (injected >2 years) and frequent NEP attendance (more than once per week). It is also noteworthy that 23 of the 24 seroconverters reported NEPs as their most frequent source of sterile syringes, and only five reported having any difficulty obtaining sterile syringes. Patrick et al. (20) performed a case-control study including 89 IDUs with an initial HIV positive test after January 1, 1994, and a negative test within the prior 18 months as cases, and 192 controls with two negative tests during the same period. Behaviour in the inter-test interval was compared and analysed. All but 4 subjects had used one of the two local NEPs at least once. A majority, 66% of cases and 74% of controls, reported no current difficulties in obtaining sterile needles. Cases and controls reported re-using syringes a mean of 4.4 and 4.5 times, respectively. In the univariate analysis cases used NEPs significantly more often than controls (65% of cases vs. 52% of controls used NEPs daily to weekly), but in

the multivariate analysis the difference was no longer significant. The significant factors were: borrowing syringes, unstable housing and injecting four or more times daily as risk factors, and sex with opposite gender and cannabis use as protective factors. Finally, Schechter et al. (23) conducted a prospective cohort study of 694 HIV- negative IDUs in the same city starting in 1996-97. Frequent NEP users were defined as visiting NEPs at least once a week at baseline. Of the 505 frequent NEP users, 47 (11.8%) seroconverted compared to 17 (6.2%) of the infrequent users, a difference that was significant (log-rank test in Kaplan Meier plot, $p=0.012$). As in the previous study by Patrick et al. (20), frequent NEP use was no longer significant when other stronger risk factors were entered in the multivariate analysis. These factors were: unstable housing, hotel living, injecting four or more times a day, cocaine injecting at least once a day, Downtown Eastside as main injecting site and needing assistance when injecting.

Montreal

Bruneau et al. (14) reported results of a study conducted in Montreal. From September 1988 to January 1995, 1599 IDUs were enrolled with a baseline HIV seroprevalence of 10.7%. NEP use was defined as having obtained clean equipment at least once in the last six months from a NEP. Seroprevalence among NEP users was 16% compared to 5.8% among non-users. NEP use was a significant predictor of HIV seropositivity also when all relevant confounders were controlled for (adjusted Odds Ratio 2.2, 95% CI 1.5-3.2). A total of 974 HIV seronegative IDUs who could be reached for follow up were included in an incidence study. The overall incidence was 5.1 per 100 PY (7.9 for NEP users, 95% CI 4.1-6.2 and 3.1 for non-users, 95% CI 2.1-4.4). NEP use remained significantly predictive for seroconversion when confounders were controlled for. Finally, a case-control study was performed using the 88 seroconverters as cases with 320 matched controls. NEP use was divided into exclusive or nonexclusive use in which the exclusive participants received all their needles from a NEP. There was elevated risk for seroconversion among both exclusive and non-exclusive NEP users also after adjusting for confounders.

Baltimore

Valente et al. (24) in 1994-97 studied 2574 NEP users in Baltimore and, in particular, investigated HIV seroconversion in a subsample of 262 IDUs. While NEP use was not significantly predictive (OR=1.18, CI 0.65-2.15 in bivariate analysis), a certain behaviour called syringe relay (defined as only returning syringes originally issued to someone else) was highly predictive for seroconversion among women but not among men. It was a small sample with only 12 seroconversions, but the authors suggest that the personal contact with NEP staff may be an important protective factor.

Studies including several cities/countries

Worldwide inclusion

Two articles compared changes in HIV seroprevalence in a number of cities with and without NEPs (16,17). In addition, a report (27) using the same design and almost the same data was included in a study by Wodak and Cooney (11,12). These studies estimated the change in HIV seroprevalence by using various regression techniques based on measurements of seroprevalence from at least two calendar years. Hurley et al. (16) studied 81 cities (29 with and 52 without NEPs); MacDonald et al. (17) 99 cities (36 with and 63 without NEPs); and in HOI (27) 103 cities were included (36 with and 67 without NEPs). It is possible that the two last studies include the cities in the first study. Hurley et al. (16) found an average increase per year of 5.9 % in cities without NEPs and an average 5.8 % decrease per year in cities with NEPs, yielding an annual change in seroprevalence that was 11 % lower (95 % CI 3.9 -17.6) in cities with NEPs. The corresponding figure in MacDonald et al. (17) and in HOI (27) was 24.7% (95 % CI - 0.5 - 43.8) and must cover much of the same material. This result was significant at the 10 % level ($p=.06$). All three studies also investigated a subgroup of cities with an initial HIV prevalence of 10 % or less and with serosurveys over a period of at least three years. For this subgroup they reported different results: Hurley et al. (16) a non-significant result, MacDonald et al. (17) a significant (95 %) weighted mean difference of 18.4 % ($p=0.03$) and HOI (27) a non significant un-weighted mean difference of 25.3 % ($p=0.20$).

Six US cities

Monterosso et al. (17) included 3773 participants from 6 US cities and a women's correctional facility in 1994-1996 and interviewed and tested at baseline and follow-up after a mean time of 7.8 months. Among HIV seropositive at baseline (13%) the factors with highest relative risks were: knowingly having had a HIV-positive sex partner, being a homo- or bisexual man, having injected with HIV-positive IDUs, having injected for 10 or more years, having traded sex for money or drugs and having started injecting before age 25. At follow up a total of 19 new cases were found in 5 cities. Two protective factors were identified, namely reduction of injection frequency and not using previously used needles at the time of any visit. NEP use was not significantly protective at the 5% level.

Nine Ontario cities

Millson et al. (18) conducted a study with 551 participants in 9 cities in Ontario in 1997-98. The HIV prevalence varied from 1.4% to 14.7% in the different cities. In logistic regression, HIV seropositivity was significantly associated with city of residence, injecting for more than 5 years, cocaine or crack use, injecting more than 10 times a day and being a long term NEP user (OR 4.16, CI 1.45-11.97). An interesting finding in this study was that HIV-positive participants who reported knowing that they were HIV-positive were significantly more likely to report always using condoms (10/12) when compared to HIV-positive persons who did not know their true HIV status (1/9).

Three Scandinavian countries

Finally, Amundsen et al. (13) compared official estimates of IDU populations and estimates of HIV incidence based on registered data of new HIV infections among IDUs in Denmark, Norway and Sweden using a method of back calculation for the years 1991-96. The three countries had a similar outbreak of HIV among IDUs in the capital cities in the mid 1980s but adopted different strategies to combat the epidemic. In Norway and Denmark needles and syringes were legally easy to access, whereas in Sweden all sale and distribution of needles and syringes was illegal except at two experimental sites in the south of the country. In Norway and Sweden HIV testing and counselling was promoted, whereas in Denmark after 1987 there was a decline in the promotion of HIV testing among IDUs, and IDUs were less willing to accept testing. Incidence rates were lower and decreasing in Sweden (0.77-0.58/1000 IDUs) and Norway (0.92-0.58/1000 IDUs), whereas in Denmark the rate was stable at a higher level (1.49/1000 IDUs) in 1991-96. Even though the authors emphasize that the study is not conclusive, these results would indicate that testing and counselling may be more effective in preventing HIV among IDUs than NEPs.

Additional studies from the WHO review

The two following studies were included in Table 3a in the WHO review (11). Their design did not include a proper control group.

New Haven, Connecticut

Heimer et al. (26) reported from a legal NEP in New Haven, Connecticut, that was started in November 1990. By measuring HIV-DNA in returned syringes it was demonstrated that the prevalence of HIV-DNA in these samples dropped from an initial 63.9% to a steady rate of 42.8% in 5 months. The authors concluded that the main reason for this reduction was that the mean circulation time for each needle decreased. No data on seroprevalence in the IDU population was reported.

Lund, Sweden

Ljungberg et al. (28) reported on the first three years of a trial NEP in the small city Lund in the south of Sweden that started in November 1986. Despite very high HIV testing uptake, only four cases of HIV among IDUs were known in the area by 1987 (two infected in Stockholm, two abroad). No new cases were found by 1990, indicating that there was no epidemic among IDUs in the Lund area at this time. This situation was compared with Stockholm (the capital) where a rapid spread of HIV occurred among heroin injectors 1983-1985, resulting in a seroprevalence of 45-60% in 1987-1988. However, the annual incidence in Stockholm at that time was only about 1% without NEPs. The authors point out that their study cannot show any causal effect of NEPs based on the fortunate epidemiological situation. They also mention that one possible factor for the good situation may have been the influence of NEPs on the sharp increase in HIV testing.

Discussion

Results

Outcomes and effects

Generally, HIV seroincidence is regarded as the most relevant effect measure of NEPs on HIV prevention. In this review most studies on seroincidence concluded that the effect of NEPs was not significant (13,17,20,21,22,24,25). One showed a protective effect (15), and one showed NEP users to be at higher risk for HIV seroconversion than non-users (14). Four studies (14,18,22,23) investigated seroprevalence at baseline, all four showing a unfavourable situation for NEP users. In Schoenbaum et al. (22) NEP attendance was also independently associated with HIV seropositivity, but most of the HIV-positive participants were infected before NEPs were established. Three studies (27,16,17) looked at changes in seroprevalence, and all found a protective effect in the whole sample, the two last studies (17,27) at the 10 % level ($p=0.06$). Looking at a subsample, the two last studies disagreed on method (weighted vs. un-weighted analysis), and one found a protective effect (17) while the other found no protective effect (27).

Control for confounders

The study by Des Jarlais et al. (15) provides a strong case for the role of NEPs in the prevention of HIV. However, the factor of homelessness, which in other studies seems to have high impact on seroconversion, was not included in the multivariate analysis. Neither were any other services than needle exchange mentioned as offered at NEPs, nor to what extent IDUs in populations were HIV tested. In addition, it is not an optimal design to study users of NEPs in another calendar period than most of the non-users. Changes over time in HIV seroincidence and prevalence due to other factors than NEPs may have distorted the results.

The studies of Hurley et al. (16), MacDonald et al. (17) and HOI (27) using an ecological design at first glance present a strong argument for NEP effectiveness. But there are some serious problems with these studies (29). The studies did not control for a highly probable important confounder: the stage of the epidemic among IDUs. A careful reading suggests that weaknesses of the design and the measurements regarding the strength in the conclusions in favour of NEPs were not properly addressed. In most cities with a major HIV epidemic and NEPs, NEPs were introduced after the rapid increase phase and were thus typically associated with a stable or decreasing seroprevalence. There are some exceptions such as Vancouver and Amsterdam where NEPs were introduced before the peak. In these cities the prevalence increased despite NEPs (20,21,23,25). Some of the measurements from cities with epidemics but without

NEPs were conducted during the phase of rapid increase, since such an increase would tend to cause alarm in the community and an awareness of the importance of surveillance. The studies did not include information on other prevention measures present.

Antibody testing is a normal strategy in combating epidemics of viral and bacterial infections. The stigma attached to HIV has hampered the surveillance of epidemics and the possibilities for health services and infected persons to take proper action. Knowledge of one's positive HIV status may reduce risk behaviour (13,30,31,32,33,9) but among IDUs the results are fairly mixed (34,2,35) perhaps because drug injection is also stigmatising. HIV testing may, however, be part of NEPs and possibly interfere with effects of needle exchange. Amundsen et al. (13,29) actively discuss this, and Millson et al. (18) mentioned it briefly.

Review weaknesses

Since the report by Wodak and Cooney (11) was published by the WHO, it is taken especially seriously in governmental decision making. It is surprising that although all of the above studies, particularly those from Vancouver and Montreal (14,20,21,23), are mentioned in the review, they conclude with a strong recommendation for NEPs in the fight against HIV among IDUs. A further look at chapter three of their report in which the authors discuss studies with HIV incidence or prevalence as outcome variables reveals that the basis for their conclusion is even weaker. Compiling the information presented in Tables 3a, 3b and 3c, they find six studies in favour of NEPs as an effective means to prevent HIV, three negative and two that are inconclusive. A closer look at the six in favour reveals that the Monterosso et al. (19) study was misclassified as positive and should be moved to the group of inconclusive studies. The same holds for the study by Ljungberg et al. (28), based on the authors' own judgement of the epidemic situation in the region and later evaluations of the experimental NEPs in the south of Sweden. Two of the studies rated in favour should be reanalysed (27,16), taking into account the stage of the epidemic and possibly the level of known seropositive status. The data in Hurley et al. (16) are most likely included in the studies by MacDonald et al. (17) and HOI (27) and should possibly be addressed as a single study. A fifth study mentioned in favour, Heimer et al. (26), does not measure HIV prevalence in a population of IDUs, but in returned syringes and does not have a control group design. It is questionable whether the decrease in prevalence in the returned needles can be transferred to the IDU population. Thus, the original six studies rated in favour of NEPs appear to be much weaker.

Difficulties evaluating NEPs

There is really only one study (15) which has a strong case in favour of NEPs being an effective protection against HIV seroconversion among IDUs. However, the design of this study is not optimal. The ecological studies of cities with and without NEPs that are often cited as ultimately positive are questionable and should be reanalysed. The other studies indicate that NEPs usually make no difference. When NEPs appear to have an unfavourable effect, this may be due to the fact that frequent and high risk injectors tend to visit NEPs more often. Other possibilities for unfavourable outcomes may be that NEPs have not been designed well or that local factors have counteracted possible favourable effects. The situation in Vancouver, Canada, where three studies showed unfavourable outcomes (20,21,23) is summarized and discussed in a recent editorial (36). When the Vancouver HIV outbreak occurred, the NEP operated on a strict one-for-one syringe exchange policy, and hours of operation were restricted to daytime in an effort to reduce drug use in the vicinity of the exchange at night. Other factors are also referenced and described - including the large extent of high-intensity cocaine injectors and police crackdowns driving IDUs off the streets - that may have contributed to frequent sharing of needles and syringes even for persons who visited the NEP at daytime. While such factors are important for understanding unfavourable results of NEP use, they do not change, for example, the results of the three Vancouver studies into favourable outcomes. On the other hand, the lack of evidence of effectiveness of NEPs to prevent HIV does not mean that an opposite conclusion can be drawn: that NEPs enhance transmission of HIV. The partly contradictory results of studies addressing the effect of NEPs on the HIV epidemic may in part be due to the fact that NEP efforts can be very different despite the common task of handing out needles and syringes. The possible selection of high risk IDUs attending NEPs over time should be addressed in the design and analysis of studies.

Supplies of sterile equipment

It is better for a person using illicit drugs to inject with sterile equipment. However, it does not automatically follow that society has to provide sterile equipment. IDUs operate on an illegal market and tend to be quite skillful in providing what is needed for their habit in one way or another. The local situation for access to equipment should be understood before NEPs are established, and such action should be seen in context with other necessary measures. The offer of free needles and syringes will be appreciated if it is reasonably convenient. This establishes an opportunity to offer in an integrated way other preventive measures such as HIV testing and counselling, hepatitis A and B vaccination, birth control, dental care and other health and social care measures badly needed by IDUs (30,32).

Other outcomes

The initial approach for this review was to evaluate what is known about the effects of NEPs by means of a systematic scrutiny of all articles on the topic published in indexed academic journals. However, the studies looking at the effect of NEPs on self-reported risk behaviour without any biological marker used several different definitions. In our opinion these studies presented a very confused and contradictory picture. New, well-designed studies are warranted.

Shortcomings of our study

Our aim was to compile all the articles published in indexed, scientific journals. One shortcoming is that interesting findings published elsewhere are not included in our survey. It is also possible that articles fulfilling the criteria of being published in a scientific journal have been missed or accidentally excluded in the screening process even though our aim was to include all studies we found in reference lists, previously published reviews of the literature and in other published articles.

Conclusion

The effectiveness of NEPs to reduce HIV among IDUs is overrated. Errors in categorising studies in favour of NEPs have been made (11,12), and studies claiming positive results have not been adequately scrutinized. Based on the present review, recommending NEPs (along with substitution treatment) as the major strategic method for combating the highly alarming spread of HIV among IDUs in Eastern Europe and Southeast Asia as is done in official documents (37,1) is not correct. In the WHO guide for prevention and care for HIV/AIDS among IDUs (38), the conclusion that NEPs are superior to other measures is not based on solid evidence. This may have delayed the implementation of more effective and integrated tools.

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A Critical Evaluation of the Effects of Safe Injection Facilities

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Abstract:

Research has overwhelmingly supported the proposition that safe injection facilities (SIFs) are successful in meeting their stated objectives. However, the methodological and analytic approaches used in these studies have not been scrutinized to any significant degree. Previous studies are compromised by an array of deficiencies, including a lack of baseline data, insufficient conceptual and operational clarity, inadequate evaluation criteria, absent statistical controls, dearth of longitudinal designs, and inattention to intrasite variation. This review suggests that much of the commonly-cited evidence regarding the effects of SIFs cannot be substantiated. Disentangling complicated casual mechanisms first requires that the identified shortcomings be addressed.

Keywords: safe injection facilities; research methodology; evaluation; policy implications; supervised injection sites; drug consumption rooms

Introduction

The first injection room appeared in Bern, Switzerland, in 1986. It was established as a means of reducing the nuisance associated with public injecting as well as public health problems such as HIV transmission and drug overdose (1). It is an interesting historical footnote that the Bern room was initially designed as simply a café for drug users: its original plan did not include an injecting room. The injecting room arose only after injecting drug users (IDUs) began to inject openly in the café (2). In the decade that followed, injection and consumption rooms spread to other cities in Switzerland as well as cities in Germany and the Netherlands. Since 2000, injecting rooms have been introduced in Spain (Madrid and Barcelona), Australia (Sydney), and Canada (Vancouver). In various countries, these rooms are referred to as drug consumption rooms (DCRs), safe injection rooms, or supervised injection sites/facilities/centres. To reduce terminological confusion, this review uses the Supervised Injection Facility (SIF) designation to represent all of these variants.

In most cases, SIFs arose during times of converging epidemics when problems related to both public disorder and public health were perceived to be "out of control." With regard to public disorder, open drug scenes and street drug markets were characterized by threatening congregations of addicts, rampant criminal activity, public injecting of drugs, and improperly discarded syringes and other detritus. SIFs held the promise of lessening some of these symptoms. In terms of public health, many countries were experiencing or anticipating frightening escalations in the rates of infectious diseases, including HIV, AIDS and Hepatitis C (HCV). Curbing risk behaviors associated with injection drug use, such as syringe sharing, reusing syringes, and using unsanitary equipment was seen as an important step toward reigning in this epidemic. Advocates argued that the low-threshold environments fostered by SIFs were ideally and uniquely suited to this task. These dual trajectories of public disorder and public health continue to inform the debate surrounding these facilities.

Only 10 years ago, there were virtually no English publications on SIFs (1). Six years later, it was still possible to contend that no well-designed, scientific studies or systematic evaluations empirically documenting the extent to which SIFs had achieved any of their goals had yet been published (3). At that time, the evidence that was available consisted largely of descriptive reports and process/implementation studies of SIFs operating in Europe. Since then, the situation has begun to change quite rapidly. Proposals to establish SIFs, first in Sydney and then in Vancouver, sparked widespread interest in evaluation research. As well, because the initiatives were so controversial, explicit evaluation protocols were required before the proposals could be adopted. Still, one researcher recently noted that "there is a dearth of quantitative evaluations of these facilities in the public health literature" (4).

What is most noteworthy about the paucity of empirical data is that SIFs are nonetheless widely touted as being almost unequivocally successful. The lack of reliable information upon which to base evaluations has in no way inhibited SIF evaluations. On the contrary, popular accounts and "conventional wisdom" are uniformly glowing. It is this apparent disjuncture that animates this review. Several countries are said to be contemplating establishing their first SIFs, including Norway (in Oslo), Italy (Rome), Denmark, Portugal, Luxembourg, and France, while Spain and Australia are considering expanding their programs into other cities (Bilbao and Canberra) (5). These considerations are, in no small part, premised on SIF evaluations that have never been critically scrutinized.

Unfortunately, studies on the effects of SIFs have never been subjected to any critical evaluation. As a result, any decisions on whether to establish, continue, or expand existing facilities are being made in a near vacuum, on the basis of potentially incomplete and one-sided data. The intent of the review is to present a more systematic and critical evaluation of previous SIF research, paying particular attention to methodological and analytical issues. At the same time, this review eschews the rhetorical debates that bog down and compromise too many discussions. Rather, it poses two much more direct queries:

- ▶ What does the research say about the impacts of SIFs?
- ▶ How confident are we about the conclusions drawn from the research?

Critical Evaluation of Research on SIF Impacts

SIFs are principally founded on the belief that they can effectively address the problems of public disorder and public health associated with IDUs, especially public injecting. To evaluate the effectiveness of SIFs is essentially to assess how well they meet their various objectives. Although different countries and cities emphasize different objectives, a fair degree of agreement persists concerning the goals of an SIF. This review examines the degree to which SIFs have been successful in achieving the following goals:

- ▶ reaching the target population
- ▶ encouraging service uptake
- ▶ improving health and reducing risk behaviors
- ▶ reducing the incidence of infectious disease
- ▶ reducing drug overdoses and overdose deaths
- ▶ reducing public nuisance and disorder
- ▶ avoiding an increase in neighborhood crime

Reaching the Target Population

The addictions literature has long recognized that IDUs constitute a particularly elusive population, a difficult group to access and connect to social, counseling, and therapeutic programs. Efforts that preceded SIFs, including outreach and needle exchange programs (NEPs), were in part premised on the supposition that they could provide increased opportunities to interact with these difficult-to-reach individuals. SIFs are similarly expected to act as means of contacting IDUs, in hopes that this contact will improve access to a variety of other services (6). It has been suggested that, in contrast to the brief and often hurried contact that typically characterizes NEP transactions, the relaxed environment promoted by SIFs is better able to facilitate meaningful interaction with IDUs.

With few exceptions, SIFs have been found to be effective in reaching their target populations. Support for this proposition takes several forms. In some cases, evidence of accessing the target population is offered prospectively. A survey of 178 NEP attendees conducted in advance of the opening of the Medically Supervised Injection Centre (MSIC) in Sydney found that 71% of respondents would have preferred to use an MSIC. That number rose to 83% for those respondents who had injected in public (7). Two studies carried out just prior to the opening of Vancouver's SIF (called "INSITE") are similarly positive in their assessments. In the first study, 37% of IDUs and 52% of public injectors expressed their willingness to attend an SIF (8). The second survey, performed with a different sample, reported a 92% rate of willingness (9).

All three of these studies essentially draw an implicit link between the *potential* to reach the target population and actual usage. However, the contrasts between these findings raise some hard questions. With regard to the first Vancouver (INSITE) study, it is not clear that a 37% rate of willingness to attend an SIF constitutes affirmative support. Even among the most relevant group, public injectors, support barely rises above 50%. Translated into practice, it is possible to posit that INSITE might reach only half of its intended clientele. This conclusion is even more likely given that the sample used in the first Vancouver study is the most scientifically valid of the three. The Sydney survey was based on a sample of 178 clients who attended the needle syringe service of the Kirketon Road Centre over a two-day period, while the second Vancouver survey utilized street-based recruitment and snowball techniques that produced a sample of 458 respondents. In short, both methods yielded convenience samples, the representativeness of which is unknown. On the other hand, the 587 respondents in the first Vancouver study were drawn from a large prospective cohort study that the authors have consistently maintained is representative (10). So while there is clearly some level of prospective support for SIFs on the part of potential clients, the breadth of that support remains unclear.

In addition, it appears that the depth of client interest in SIFs is also tenuous. It is most telling that the 92% willingness to use SIFs noted in the second Vancouver study was contingent on the complete absence of Health Canada restrictions (8). That is, the vast majority favored SIFs where there were no rules limiting behavior. This positive outlook was reduced dramatically as various conditions were introduced. The willingness to use an SIF was 64% if drug sharing were prohibited; 62% if assisted injection were prohibited; and 54% if registration were required. Under all three Health Canada guideline prohibitions, willingness dropped to 31%. Though not as dramatic, the negative effects of rules against "deal splitting" and injection assistance were also observed in Melbourne (11). In sum, prospective examinations of the ability of SIFs to reach target populations are not conclusive. At least some IDUs express a willingness to

use SIFs, but the best research places that level lower than one might hope. Rates of potential uptake are lower still when using an SIF is made conditional on the acceptance of "house rules."

A second method for assessing whether SIFs are reaching their goal of accessing IDUs involves the use of utilization statistics. By these measures, the record is mixed. Support for SIFs is presented in research that finds high frequency and consistency of visits. Studies in cities such as Frankfurt and Zurich have found that, on average, clients used facilities five times per week (12). In Rotterdam (13), clients reported visiting an SIF on six days in the week prior to the interview, and twice in the preceding 24 hours. A non-random survey of 18 SIFs in Germany found that 51% of respondents used the rooms at least once a day (12).

Conversely, evidence from Sydney and Madrid undermines the assertion that SIFs are frequented by highly active and consistent users. Tracked over trial periods of 18 and 26 months, clients at Sydney's MSIC and Madrid's SIF (DAVE) averaged fewer than two (1.20 and 1.65 respectively) visits per month (12, 14). During the first 12 months of the MSIC trial period, only 26% of clients had, on average, attended once a month or more (15). In Vancouver, only 45% of a sample of active IDUs reported ever using INSITE. Of those, a majority (57%) used the facility for fewer than a quarter of their injections (16).

While the difference in contexts is clear, an accompanying explanation is less obvious. Several possible reasons for the lower rates of regular use of the MSIC and DAVE have been advanced, including specific aspects of the facilities (i.e. house rules), larger transient populations, and higher rates of user turnover in the local drug scene (12). Whatever the reason, utilization statistics from several cities do not support the claim that SIFs reach their target populations. To the extent that a particular drug scene is characterized by transience and high turnover and transient populations, the ability of an SIF to establish a consistent roster of injectors is that much more suspect. Data from such areas conveys a picture of almost random and sporadic usage among a highly fluid clientele.

And what of the assertion that the regular, frequent use of SIFs seems to be more common in Germany and the Netherlands? Reports of clients using the facilities five or six times a week do seem to confirm a pattern of consistency. With regard to frequency, however, the data that would allow for conclusions is most often unavailable: information on the proportions of usage events is lacking. For example, surveys of SIF users suggest multiple daily episodes of drug consumption. In Hamburg, clients averaged 6.3 "consumption units" over the 24 hours preceding their interviews (6). What the report does not reveal is how many of those 6.3 units were "consumed" at the SIF. It is entirely possible that clients consistently use the facilities but for only a small proportion of their overall drug usage. The results from Vancouver cited above indicates that this may be the case. The problem is that very few studies present their findings in terms of proportionality of usage, so it is impossible to say with any certainty how deeply the SIFs are reaching into their neighborhood populations. This problem is compounded by the fact that there is tremendous variation in the frequency of use. Over a 12 month period, the attendance at the MSIC ranged from one to 583 visits (15). In this light, even the impressive finding from Rotterdam, where clients reported having visited an SIF twice in the past 24 hours on average, may be called into question. What if those clients are using upwards of 10 times per day? Without a more detailed picture of overall drug use, basic utilization statistics cannot adequately answer questions pertaining to the goal of reaching the target population.

Service Uptake

Of course, attracting clientele is merely a first step. In addition to needing a safe place to inject, SIF attendees tend to suffer from a host of related difficulties, including physical and mental illness, homelessness, and joblessness. As well, they generally lack social networks capable of connecting them to assistance and services. Advocates argue that the low-threshold atmosphere of SIFs allows them to provide a range of alternative services as well as act as bridges to wider services. One measure of success, then, is the degree to which clients are judged to take advantage of SIF services other than the injecting rooms and use SIFs to gain access to alternative services. Collectively, these processes are referred to as service uptake.

The evidence available thus far appears overwhelmingly to support the service uptake supposition. In terms of services provided at the facility, studies have consistently held that utilization rates are high. Studies of SIFs in Rotterdam (13) and Hamburg (6) found that a vast majority of respondents (88% and 89%) made use of at least one of the facilities services. But the nature of these services is dubious. In the Rotterdam study, the services clients most frequently mentioned were "coffee and a chat" (73%) and "eat a meal" (57%). More conventional "services" such as "medical care" (37%), "information on therapy" (19%), and "information on safe use of drugs" (15%) were used much less often. Similarly, respondents in Hamburg most commonly cited "meeting people" (53%). Requests for "counseling offers" (36%), "medical services" (28%), and "information on safer drug use" (5%) lagged far behind.

Two points deserve mention. First, the inclusion of primarily social activities as "services" is dubious. This overly broad conception serves only to inflate uptake statistics. More generally, conceptual imprecision in SIF evaluations makes it very hard to distinguish exactly what is meant by "services." About a facility in Frankfurt, one researcher commented that "the SIF provides 'counseling,' but this primarily means orienting injectors on how to behave in the SIF, responding to clients' questions, and referring clients who request help to on- or off-site services" (3, p. 335). Monitoring house rules and answering questions are distinct from client referrals and, once again, conflating them only improves assessments of uptake. Such

definitional expansiveness leaves a distinct impression of evaluators rushing to demonstrate that few clients use SIFs solely for the purpose of injecting. The deconstruction of the conceptual expanse reveals a more sober picture of SIFs, one in which services are available and are used sporadically, but where injection nevertheless remains the most important reason for client visits. The words of a professional social worker in Hamburg are revealing: "We'd like to think of ourselves as a counseling and referral agency that also offers a consumption room. But frequently we feel like we offer a consumption room and offer counseling on the side" (3, p. 334).

The other point that stands out from the survey findings above is how few clients utilize SIFs for the purpose of accessing information on safe injection practices. This must be viewed with disappointment, given that SIFs are routinely lauded for their unique ability to provide an ideal atmosphere to dispense advice. The emphasis on safe-injection information is made clear by the frequency with which staff members take advantage of injection events to talk about safe-use rules and offer advice on the minimization of risk. Still, despite the prominent role afforded dissemination, most visitors do not seek out safer-use information. It has been suggested that "respondents may not report a great need to obtain this information because they are already well versed in safer-consumption facts and recommendations" (6, p. 672).

In light of the population targeted by SIFs, the low levels of uptake for information highlighted above are not at all surprising. While initiates and novice users may not be well educated about safe injecting practices, they are most often dissuaded or barred from using SIFs. Conversely, the type of long-term, problematic injectors that SIFs hope to reach would be expected already to have a firmer grasp of safe-use practices. Furthermore, it is possible that the very decision to attend an SIF distinguishes SIF and non-SIF users, in that the former may be more attuned to the risks of injecting. If these groups of users are distinct with regard to their appreciations of risk, then it is the latter that are in greater need of education.

Ultimately, the link between safe-use information and safe-use practices upon which the dissemination hypothesis is based rests on an apparently tenuous presumption; that is, that knowledge alone animates behavior. This may be incorrect, and if it is, the more pressing problem is not an absence of information, but a disconnect between knowledge and behavior. Situational contingencies such as the need for help or the unavailability of proper equipment may overwhelm any awareness of safe-use practice. If it is true that SIF clients tend to be cognizant of safe-injecting procedures, this fact would raise uncomfortable questions about why "information dissemination" is advanced as a potential SIF benefit in the first place. Given that SIF clients may not require safe-use education and that education may not necessarily translate into consistent behavior, the rationale for information dissemination is somewhat hollow. At the very least, the supposition regarding this particular service uptake is not supported by the bulk of evidence.

In addition to utilization, the other common parameter for service uptake is referrals. There are numerous studies documenting the large number of referrals initiated by SIFs. In Vancouver, over 2100 referrals were made over a one year period (17). In its first two years of operation, the MSIC made in excess of 1800 referrals (18). Over a six month period, 276 referrals were noted for 736 registered service users in Geneva (12). Referrals statistics look equally as impressive when expressed as a percentage of SIF clients. In Germany, it was estimated that 54% of participants had at least once been referred to further drug and social services (12); the same study found an average of 1.5 referrals per client.

All of these presentations seem to be operating under, and take for granted, the assumption that the number of clients is the appropriate denominator when considering referrals. It is not. For several reasons, the number of clients is a poor indicator of the role that referrals play in the day-to-day functioning of an SIF. First, there is considerable disparity in the rate of usage for clients: while some visit daily, others appear much less frequently. Simply put, clients vary with regard to their individual probabilities of receiving a referral, all else being equal. Second, it is highly unlikely that the distribution of referrals across clients is equal (the data to verify this hypothesis is not yet available in the literature). It is more likely that the distribution of referrals varies such that some clients receive a great many referrals, while others receive few or none. This distributional variation may reflect differences in probabilities (e.g. clients that use the facilities more often are, on average, more likely to be aware of referral services), or differences in individuals (e.g. some clients may be more apt to ask for a referral, may be sicker and in greater need of a referral, etc.). The important consideration is that the number of clients is a poor measure for contextualizing SIF referrals.

The more realistic way to frame referrals is to examine them in relation to the total number of injection events during the time period in question. This produces a far more accurate picture of how referrals fit into SIF operations. In the Vancouver study, the correct denominator is the total of visits to INSITE: 243,701. Thus, the rate of referrals from INSITE is less than 1% (.89). Expressed as a ratio, INSITE produces 1 referral for every 112 visits. For the MSIC in Sydney, the rate of referrals is 2%, a referral-to-visits ratio of 1:49. Other ratios vary considerably, from 1 per 152 visits in Hanover to 1 per 68 in the North Rhine-Westphalia area of Germany (12). By this measure, referral statistics do not support the service uptake hypothesis. Very few injection episodes result in referrals. Viewed against the totality of SIF activities, referrals are a distal consideration.

More generally, there is the question of whether referrals are effective measures of service uptake. Referrals represent only the starting point of a process. As such, it is erroneous to treat them as an endpoint, as most SIF research does. Referrals may provide information regarding *potential* service uptake, but reveal nothing about *actual* uptake, which can only be examined through follow-up studies that

examine the conclusion of the referral process. In assessing uptake, the key consideration is not the provision of a referral, but whether the client actually followed through and used the referral. The vast majority of studies do not follow up on referrals. The handful that have examined referral uptake have found worryingly low levels of completion. In Sydney, only 20% of referral cards were returned (14). A study in Frankfurt found that roughly one-third of referred clients were actually admitted to detoxification services (33%) or treatment programs (37%) (19). In sum, given that relatively few referrals are generated by SIFs and that the rates of utilization for those few referrals are quite low, one is forced to conclude that the impact of SIF referrals on service uptake has been negligible.

Leaving aside these analytic limitations, the causal logic underlying the entire service uptake assertion is highly suspect. To substantiate the effectiveness of SIFs as a link between IDUs and external services, it would be necessary to demonstrate that the IDUs would not otherwise have found these services. This is an exceptionally daunting hurdle. Many addicts have been in treatment programs at least once, and based on what is known about cycles of relapse, often more than once. In those previous circumstances, the addicts found some way to access these programs. There is no reason to believe that they could not do so again. In addition, it would be a disservice to discount the efforts of other service providers and agencies in this regard. Street drug markets often attract a veritable army of support workers and others offering assistance. There is no empirical support for the idea that SIFs are superior to other providers in this regard. Ultimately, the case for SIFs as a means for linking IDUs to other services has yet to be made.

Improving Health and Reducing Risk Behaviors

Drug abuse, particularly abuse involving intravenous drugs, has been linked to a number of severely deleterious consequences for the user's health. In general, IDUs suffer from poor health and hygiene. Some specific behaviors associated with injecting, such as reusing or sharing syringes, put users at greatly elevated risk for contracting blood-borne diseases, including HIV, AIDS, and HCV. The use of unsanitary equipment and other non-hygenic practices can lead to infectious diseases such as endocarditis and cellulitis (20). When done in public settings, injecting drugs presents further risks. Because of the clandestine nature of drug use, IDUs must simultaneously attempt to avoid detection by both the police and predators that might assault or rob them. As a result, public injections are often hurried and produce health complications. Finally, all drug abuse, and especially that occurring in public spaces, carries with it the attendant risk of overdose. Not surprisingly, then, one of the primary factors motivating the implementation of SIFs in the 90s was the need to staunch the rampant health problems associated with injection drug use.

To date, evaluations about the effects of SIFs on health and risk behaviors have been somewhat mixed. To be sure, numerous studies have found evidence of attenuations in risk behavior, including being more careful with hygiene and cleanliness (e.g. using sterile equipment and not sharing needles) and taking more time and rest (see for example 6, 12, 21). But other findings have been decidedly less sanguine. While syringe sharing may have become quite rare in Biel, other injecting-related high-risk behaviors, such as sharing spoons, filters, and water were still high (33%, 24%, and 15%, respectively). In Hanover, only 22% of interviewees reported positive changes in injecting hygiene. The SIF in Geneva has actually witnessed an increase in levels of risk-taking injecting behaviors (12). An evaluation in Sydney determined that rates of sharing syringes and other equipment were still high and remained unchanged from 2000 to 2002 (14). As well, there was no statistical difference between MSIC and non-MSIC users in terms of syringe sharing. Perhaps most tellingly, in the month prior to their interviews, fully one-half of MSIC users reported health problems related to injecting, including soft tissue injury, scarring or bruising of veins, swelling of hands or feet, and abscesses or skin infections.

Research on the impact of SIFs on risk behavior suffers from some familiar deficiencies. Blanket statements regarding hygiene and cleanliness, or taking "fewer risks" are difficult to quantify, and as such serve as poor bases for evaluation. Also conspicuous by their absence are baselines that would allow for an estimation of change. It would be very helpful to know what proportion of injections are being done with previously unused equipment, in comparison with what that proportion had been before using the SIF. As designed, these studies are incapable of assessing empirically longitudinal change in patterns of risk behavior, much less whether such changes could be attributable to SIFs.

Reductions in Incidence of Infectious Disease

As it relates to health outcomes, the impact of SIFs has primarily been assessed through their effects on levels of infectious diseases and drug overdoses. In theory, the implementation of SIFs has been linked to reductions in infectious diseases such as HIV, AIDS, and HCV by improving risk behaviors. This assumption is questionable and has thus far not been substantiated. However, even if this provisional link were demonstrable, there are two related factors that would render it very difficult to make the case for a connection between SIFs and reductions in infectious diseases.

First, many of the countries that have SIFs also have low population prevalence rates of HIV (12). These low prevalence rates make it difficult to detect changes in rates; for the most part, it is unlikely that changes in the number of cases would be sufficient to detect statistically significant trends (22). This helps to explain, for example, why where there is no evidence that the incidence of HIV or HCV notifications in the area surrounding the MSIC increased or decreased.

Second, in the total population of individuals afflicted with HIV or AIDS, only a small proportion can trace their illness back solely to intravenous drug use. In the Netherlands and Germany, only 8% and 12% of

AIDS cases are attributable to injection drug use. There is also a problem of attribution. In Australia, for example, 4% of HIV diagnoses since 2000 have been attributed to injecting drug use. But another 4% have been attributed to the joint category of "Male homosexual contact and injecting drug use." That IDUs represent only a small slice of the epidemiological pie is an issue given the manner in which the proposition that SIFs limit the spread of disease is normally evaluated. Specifically, this assertion is commonly tested through recourse to aggregate data, a practice which obscures the specific role played by IDUs.

At present, there are no longitudinal studies that track changes in rates of infectious disease for IDUs. The logistics of the research that would be required to assess changes subsequent to the implementation of a SIF would be exceedingly complicated. At present, there is no evidence that SIFs have either a positive or negative impact on rates of infectious disease. Barring research far more ambitious than anything seen thus far in this area, the effects of SIFs will remain unknown.

Reductions in Drug Overdoses and Overdose Deaths

The other major health outcome credited to SIFs is a reduction in drug overdoses, and especially overdose deaths. Perhaps the most universally quoted statistic is that no one has ever died of a drug overdose at an SIF. Another commonly cited statistic is that the risk for a severe overdose is 10 times higher for street overdoses than overdoses occurring in SIFs (23). Because these facilities usually have available medical personnel or trained staff, emergencies are dealt with quickly. Clearly, SIFs prevent overdose deaths **at the facilities**. But if the question is whether they are making significant inroads into the target population of IDUs, the more relevant test is whether SIFs are reducing overdose deaths more generally. The MSIC evaluation found no evidence that the facility affected the number of overdose deaths in the King's Cross area (14).

Assessing the relationship between SIFs and drug overdoses is complicated by the fact that, at the time of implementation, overdose deaths were already showing a consistently declining trend in many countries. To demonstrate an effect in these circumstances, one has to show that the SIFs produced decreases **above and beyond** those that would have been expected, based on the trajectory of the data. This has yet to be done. Also lacking has been a consideration of how other important factors, such as the expansion of substitution treatment, establishment of low-threshold services, and intensification of outreach health education, are to be incorporated into analytic models. It will always be difficult to know how much of any decrease (or increase for that matter) in overdose deaths is attributable to the operation of SIFs, "given concurrent significant changes in drug policy, the increased availability of substitution treatments, and targeted policing operations" (24).

Unfortunately, evidence of effect is almost always inferred from trend lines, with no consideration of rival plausible hypotheses or controls for same. In this regard, [Figure 1 illustrates this point](#). This chart is cited often as proof that SIFs reduce overdose deaths (see 19), but this interpretation is unwarranted. Even a simplistic inference would suggest that the closure of the open drug scene and expansion of harm reduction services caused by far the greatest drop in overdose deaths. There is no way to estimate the effect of the opening of SIFs. It is possible that the continuing decline was produced by the residual effect of the earlier initiatives. Certainly, there is no evidence that the establishment of the SIFs caused a decrease in deaths above and beyond what would already have been expected from the prevailing trend. Bereft of context (not to mention statistical controls), these trends are incapable of producing defensible inferences.

Because longitudinal data on non-fatal overdoses are unreliable, evidence supporting the efficacy of SIFs is not presented through trend lines but takes the form of statistics showing that the rates of non-fatal overdose per 10,000 visits are quite low. A survey of facilities in the Netherlands, Germany, and Switzerland found that the estimated rate of non-fatal overdoses ranged from a low of one to a high of 36 per 10,000 visits (25). For Vancouver (17) and Sydney (18), the comparable figures were 11 and 63. What is absent, though, is a comparative framework. Is a rate of, say, 11 overdoses per 10,000 "good?" Once again, the research is plagued by a glaring lack of baseline data. To put these figures in their proper context, it would be necessary to know the rate of overdose in the total population of IDUs. As this number is unknown, we can draw no conclusions about the relationship between SIFs and the prevention of overdoses.

Public Nuisance and Disorder

In addition to client-centered issues, there are wider community-level considerations, predominantly involving concerns over public nuisance and disorder. In the 1990s, areas plagued by extensive drug market activity and open drug scenes came to be viewed as intolerable nuisances. The concentrated drug scenes produce large amounts of litter, which is both unsightly and costly to collect. Improperly discarded syringes also pose a severe health risk. Calls for the restoration of order in public spaces were a driving force and help to explain the expansion of SIFs in the 1990s, which coincided with efforts by authorities to curb the deleterious consequences of open drug scenes (26).

Because public disorder entails a broad range of possible behaviors, evaluations of reductions in public disorder have adopted several perspectives. One common method is to assess changes in public drug use. Here, the "success" of SIFs is questionable. A number of studies have reported decreases in public drug use. Unfortunately, these reports often raise as many questions as they purport to answer. In Rotterdam, 83% of access card-holders reported that they used drugs less often in public after becoming

registered users (13). But 69% of respondents admitted to having used drugs outdoors in the month prior to the survey. These results would seem to highlight a significant problem of continued public drug use. Contradictory results of this sort are featured in numerous other studies. Among Hamburg clients, half stated that SIFs had been their most frequent location for drug use during the past 24 hours. But 37% reported having used drugs in public in the past 24 hours, and respondents overall had used in public an average of 4 times over the 24-hour period (12). A study of 18 facilities across Germany found that, while 64% of respondents claimed to inject most frequently at SIFs, 38% of interviewees admitted having used drugs in public in the previous 24 hours (12).

All of these studies suffer from a lack of precision that clouds the interpretation of results. For example, how often is less often? If a client used drugs 100% of the time prior to the opening of an SIF, and 80% following the opening, the client could truthfully claim to have used drugs less often. At the same time, the level of public use would still be very high. Even the implications of claims to "inject most frequently as SIFs" are unclear. For high volume drug users, this could still result in many public injections. Finally, as mentioned at several points, the lack of baseline data makes it impossible to estimate the effect of SIFs on the overall rate of public injecting in a neighborhood. For these reasons, there is no reason to conclude that SIFs have made a significant dent in overall rates of public injecting.

A second measure of public disorder is the number of syringes and the amount of injection-related litter (wrappers and other debris) found in an area. The most comprehensive review of drug consumption rooms to date found no evidence that these facilities increased or decreased the number of improperly discarded syringes. The number in the area surrounding the MSIC in Sydney decreased during the 18-month trial period, but the MSIC Evaluation Committee specifically acknowledged that there was no way to determine if the drop was the result of the establishment of the Centre or was related to the reduced availability of heroin (14). Conversely, Beil, Switzerland, realized a small increase in the number of syringes (27). The researchers argued that the SIF was not the cause of the increase, attributing it instead to increases in cocaine use. What the researchers did not do was explain why they didn't try to control for this assumed effect. By choosing a less stringent analytic design, the researchers really have no way to determine what was responsible for the increase in syringes. Under those conditions, selecting one "cause" over another is merely post hoc rationalization.

Some of the strongest evidence supporting the "reduction of syringes and litter" hypothesis comes from Vancouver, where a drop in both measures was recorded in the three months following the opening of INSITE (28). For purposes of illustration, two graphs from this study have been reproduced and relabeled as [Figures 2 and 3](#). Upon closer inspection, both reveal patterns that complicate and potentially compromise the conclusions drawn by the authors. In both figures, the counts of publicly discarded syringes and items of litter seem to be lower following the opening of the facility. But, owing to the truncated time frame presented, there is no way to properly contextualize the results. Notice that the average counts for Week 1 and Week 6, both occurring before the SIF, are actually quite comparable to many of the weeks following. Were Weeks 2 through 5 anomalous in some way? Without a much longer time frame for the lead-up period, there is no way to answer this question.

The truncated time frame also affects the interpretation of the results for the follow-up period. The evaluation literature is rife with examples of what may be referred to as the "policy bump," when the implementation of significant policies or programs produces immediately impressive changes. Over time, however, behavior tends to return to "normal." It is possible that, in light of the opening of this new SIF, clients made special efforts to keep discarded syringes and trash to a minimum. There are numerous credible accounts of staff picking up garbage near INSITE in attempts to minimize any adverse appearances. These behaviors complicate the longitudinal assessment of SIF effects, which can only be validated if they can be sustained over the long run. The three-month follow-up provided by the Vancouver research is not long enough to demonstrate such effects.

No Elevations in Levels of Crime

In response to concerns that SIFs might increase crime in their areas, a few studies have concluded this worry is unfounded. In the publicly available English language literature, studies from Sydney (29) and Vancouver (30) both found that there was no increase in crime following the opening of the MSIC and INSITE. The Sydney evaluation found that there was no significant upward or downward change in the level of acquisitive crimes such as robbery and theft. There was a significant upward trend in both crime types in the months leading up to the opening of the MSIC, but a shortage of heroin had caused the trends to begin moving down before the MSIC. Similarly, the Vancouver study found no pre/post change in drug trafficking or assaults and robberies. There was decline in vehicle break-ins and vehicle thefts, but this was not attributed to the SIF.

The analysis of the Sydney data was conducted using a sophisticated, interrupted time-series design, while the Vancouver assessment was based on a pooled pre/post-test. What neither of the studies did adequately enough was to control for contextual factors, in particular the effects of variations in enforcement. To reiterate a point made earlier, trend lines are, in and of themselves, not useful for making causal inferences. There are numerous other factors that must be taken into account before any outcome can be properly assessed. For example, for one year from the inception of the INSITE program the Vancouver Police Department stationed four officers immediately outside of INSITE to provide staff with any assistance that they might require. A further 60 officers were assigned to the neighborhood immediately surrounding INSITE as part of VPD's Citywide Enforcement Team (31). It is entirely possible,

and indeed probable, that this concentrated allocation of resources had an appreciable effect on crime in this area. At a minimum, the effects of enforcement cannot be ignored; rather, they, and any other relevant factors, have to be built into the analysis.

The Methodological and Analytical Shortcomings of SIF Research

Baseline Estimates

Evaluations of SIFs are, from the outset, hampered by the fact that very little is known about IDUs and other problem drug users. Few jurisdictions even have reliable estimates regarding the total number of users, much less accurate counts. As detailed information about drug consumption events is non-existent, comparisons and assessments of change are necessarily of questionable validity. We cannot say with any degree of certainty whether SIFs are even reaching their target populations because we know very little about that population. We cannot draw conclusions about the effects of SIFs on reducing overdoses without knowing the rate of overdose in the general population of users. Until these lacunae are addressed, reasonable answers to a host of questions will continue to be elusive.

Conceptual and Operational Fuzziness

In certain instances, SIF studies have suffered from a degree of vagueness, such that their results obfuscate more than they enlighten. Multiple operationalizations of “public injector” have been advanced, all of them unsatisfactory. The fact that a respondent affirms that he/she has taken drugs in public in the last month, or even in the last day, is insufficient to justify the characterization of “public injector.” In this regard, a simple sense of proportionality is sorely missing. With regard to service uptake, the definition of “service” is also overly broad and in need of conceptual clarification. It is misleading to make strong statements about service uptake when the “services” in question are primarily social, such as “meeting people” (6) or “coffee and a chat” (13). Presumably, the purpose of attempting to connect with otherwise difficult-to-reach populations is to help them access resources they would otherwise have gone without. Surely SIFs are not required to provide a venue for people to meet and chat.

Evaluation Criteria

In too many cases, the criteria upon which an evaluation is to be judged a “success” are not specified *a priori*. How much of a reduction in public injecting is substantively important? How much of a decrease in risk behaviors such as multiple syringe uses or syringe sharing is needed before the claim can be substantiated? Where change over time is at issue, neat statistical comparisons are often not helpful. Clearly, there is an element of subjectivity involved in setting targets, but a logically defensible criterion for success is preferable to *post hoc* pronouncements with unknowable validity.

There is also a problem with measures of “success” that set the bar far too low. For example, number of referrals is not an effective indicator of service uptake. It leaves unexamined too many contingencies, not the least of which are “Did the client actually use the referral?” and “What was the outcome of the referral?” Without the requisite follow-up, referrals don’t have any real weight as a substantive measure.

Self-Reports

Self-report methods have traditionally played the role of the Boogeyman in drug research. There is no benefit to be gained from rehashing this debate here. In fact, to dichotomize the issue of validity is almost surely to ask the wrong question. More pertinent to the current endeavor are efforts to identify those respondent characteristics that may negatively influence the validity of self-reporting (32). While researchers are increasingly finding that self-reports are fairly accurate in circumstances where there are no contingencies or other mediating factors, the presence of contingencies and other complications does seem to impact the validity of such measures (33). The notion of contingencies is especially germane with regard to the populations of IDUs expressly targeted by SIFs, given that their contingencies are extreme. Not-in-treatment, nonincarcerated IV drug users have specifically been associated with high levels of false negative self-report classifications (34).

Although their discussion is virtually absent in the SIF literature, any number of reasons could account for self-report inaccuracies. For example, these are not recreational drug users, but rather, are long-term addicts. In light of the well-known side effects of, for example, cocaine use, which include anxiety and paranoia (35), some research has speculated that the rate of misrepresentation among IDUs may be attributable to the psychopharmacological effects of the drugs. It is at least plausible that the memory problems and cognitive deficits attendant with sustained abuse would have implications for the validity of self-reports. The idea of socially desirable reporting (SDR) has also been advanced as an explanation for misreporting (36). SDR suggests that people may be less than fully truthful about using illegal drugs due to their perceived “social unacceptability”. The social desirability thesis is underdeveloped in the precise context of intravenous drug use, but there is evidence indicating that validity should be assessed in relation to specific drugs (37, 38). There also appears to be a hierarchy of unacceptability with regard to drug use: cocaine use, for example, is misreported with much greater frequency than is marijuana use (39). On the assumption that IV drug use would rank very high on such a hierarchy, elevated rates of inaccuracy for this population are at least a possibility. None of this expressly refutes the findings of SIF research *per se*. It is troubling, however, that so little attention is paid to a seemingly critical issue in the SIF literature. The accuracy and utility of these studies will remain suspect until the validity of self-report techniques is, if not established, at least addressed.

Absence of Statistical Controls

The majority of SIF analyses demonstrates a lack of statistical control. In many of these cases, purely descriptive methods are inappropriately used to support more causally-oriented inferences. The “outcomes” used in SIF research are contingent upon numerous factors, and not just the existence of the SIF itself. For example, the effects of enforcement and policing are routinely overlooked. This is especially problematic in those cities, such as Vancouver, where police practices were altered in attempts to assist INSITE with its mandate. The effects of situation exigencies, while sometimes noted, also are usually not controlled for in the actual analysis. This is most evident in Sydney, where the heroin shortage is consistently identified as a confounding factor but is never incorporated into the analysis in a meaningful way. Less obvious, but not less important, is the example of discarded syringes in Vancouver, where the practice of volunteers picking up litter around INSITE greatly complicates the assessment of whether SIFs are associated with increases in improperly discarded syringes.

Absent proper controls, it is unclear how the effects of the SIF can be separated from other contextual factors. This further extends to the effects of other programs. As mentioned earlier, the establishment of low-threshold services in Germany coincided with other significant changes, including the expansion of substitution treatment and the intensification of outreach health education. Without appropriate (and sophisticated) controls, it is impossible to adequately disentangle the effects of these various initiatives. The analytic frameworks currently being used to examine the effects of SIFs are simply not up to the task, and it is hubristic even to hint at, much less assert, causality.

Longitudinal Data

Most SIF studies conducted thus far have been cross-sectional “snapshots.” The dearth of longitudinal data is problematic for several reasons. First, the basic premise of the research, the assessment of the effects, begs for longitudinal context. Even simple pre/post designs have largely been ignored. Second, cross-section designs are incapable of capturing the dynamic component of change. What is the trajectory of SIF effects? Are they immediately noticeable after implementation? If not, is there perhaps a lag period? Quite apart from onset is the question of sustainability. At present, there is no way of knowing the extent to which any SIF effects can be maintained, or over what duration they may persist. Some of the largest initiatives, such as those in Sydney and Vancouver, are relatively new. Only data collected over time can yield helpful answers to questions such as these. Unfortunately, political and professional considerations increasingly marginalize the need for longitudinal designs (2). Moreover, the expense of a true longitudinal study of behavioral change is frequently beyond the budget of projects. It is also worth noting that the few longitudinal studies attempted thus far are marked by serious limitations. First, they have insufficient follow-up periods. Second, the interpretation of trend results, such as they are, has been questionable to the point of being self-serving.

The SIF as Black Box

By all accounts, SIFs offer distinct environments. They may be distinguished on the basis of size, available amenities, drug specialization, and models of service delivery. Despite these differences, there are currently no comparative studies on these facilities. Where research has involved multiple sites, it has merely aggregated across those sites. No attempts have been made to account for variation between these facilities. Rather, SIFs have been treated as Black Boxes. Outputs are produced, but the causal mechanisms responsible for said outputs remain hidden, unspecified. This oversight has clear implications both for policy-makers and practitioners. The demonstration of SIF effects must be accompanied by more careful consideration of which aspect of the SIF (or combination thereof) actually produced the effect.

Conclusion: Taking Causality Seriously

On the subject of the effects of SIFs, the available research is overwhelmingly positive. Evidence can be found in support of SIFs achieving each of the goals listed at the beginning of the evaluation. In terms of our level of confidence in these studies, the assessment offered here is far less sanguine. In truth, none of the impacts attributed to SIFs can be unambiguously verified. As a result of the methodological and analytical problems identified above, all claims remain open to question.

Even to reasonably approximate causality with regard to SIFs would in practice constitute a Herculean undertaking. Many of the existing shortcomings, such as sample size, longitudinal data, and comparative analyses could be addressed with more rigorous research designs. Conceptual and operational definitions could be refined, and evaluation criteria could be more precisely specified. But other limitations would prove very difficult to surmount. The question of baseline data is likely to continue to be held hostage to the complexity of logistics and the scarcity of resources. Disentangling causal mechanisms will similarly remain tricky. The distribution of SIFs is not random. Instead, they are normally parachuted into pre-existing cauldrons of social ills, the dynamics of which are exceedingly complex. Although SIFs are but one part of a much larger systemic response to the problem of substance abuse and intravenous drug use, they are too often credited with generating positive effects that are not borne out by solid empirical evidence. As a policy issue, the potential impacts of SIFs are simply too important, and too divisive, to be left to conjecture and inferences that cannot be supported.

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I declare that I have no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled "A Critical Evaluation of the Effects of Safe Injection Facilities" except for the following:

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Garth Davies, July 3, 2007

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The Public Health Dangers of Drug Abuse in Prisons

Ian Oliver

Abstract:

Globally, many prisons are failing to ensure adequate policies to deal with health, sexual behaviour and the use of illicit drugs by prisoners with the result that they are little more than incubators for serious diseases such as AIDS/HIV and Hepatitis C. It seems that the individual human rights of prisoners are outweighing the public health interests of the wider communities, and the misuse of harm reduction policies in some prisons gives rise to profound concern and raises the question of State approved drug abuse. This in turn begs the question of whether a policy of zero tolerance of drugs in prisons is possible or desirable and what are the long-term consequences of failing to deal with this problem.

The widespread availability of dangerous drugs within the prison systems globally has been common knowledge for many years as has the fact that serious diseases are present at a much higher rate within many gaols than is common in communities. A report issued by The Prison Reform Trust in collaboration with The National AIDS Trust in the UK has drawn attention to some disquieting figures (1). The report has indicated that many UK prisons are failing effectively to provide adequate healthcare for prisoners with hepatitis C and HIV. Over half the prisons in England and Wales were reported to have no sexual health policy despite the fact that hepatitis C levels were 20 times higher than the rate in the general public, and 9% of male inmates and 11% of females were infected. HIV rates in male prisoners were 15 times higher than those of men not in jail. The study found "inconsistent and often sub-standard healthcare" in our prisons, combined with overcrowding and frequent movement of prisoners which contributes to the potential for the spread of the diseases both within and outside the prison system. In other words, UK policy has allowed our prisons to become incubators for infection and the spread of diseases at great risk to the health of the general public, staff and individual prisoners (2). According to figures provided by the Scottish Prison Service for the Chief Inspector of Prison's Report 2006, 80% of inmates had drug related problems.

This pattern is reported to be replicated in many prisons globally to a greater or lesser degree, and the World Health Organisation (WHO) has classified AIDS/HIV and Hepatitis C as global pandemics which, in the case of AIDS/HIV, are outpacing our ability to address the problem (3). In a joint paper issued by WHO, the UN Office on Drugs and Crime (UNODC) and UNAIDS, the problem was described:

The rates of HIV infection among inmates of prisons and other detention centres in many countries are significantly higher than those in the general population. Examples include countries in Western and Eastern Europe, Africa, Latin America and Asia. The available data on HIV infection rates in prisons cover inmates who were infected outside the institutions before imprisonment and persons who were infected inside the institutions through the sharing of contaminated injection equipment or through unprotected sex. Certain populations, that are highly vulnerable to HIV infection, have a heightened probability of incarceration because of their involvement in behaviours such as drug use and sex work (4).

Professional Concern about Prison Health Problems

Recently, the British Medical Association (BMA) has drawn attention to the problems in UK prisons. At a conference the BMA asserted that these problems are caused by "incoherent government policy and inadequate funding," resulting in a crisis that threatens to overwhelm the prison health care system. The Association called for "...an investigation into the health of the prison population and the implementation of well funded, coherent strategies to combat the most serious medical conditions identified. Mental health disorders, drug dependence and the after affects of alcoholism remain endemic problems in the UK's prisons while the threat posed by sexually transmitted diseases continues to be unquantifiable owing to a lack of research. Urgent action is required to provide prison doctors with the knowledge and tools to arrest the drastic state of prison health" (5). It was also been asserted by some BMA members that cuts in National Health Service budgets will lead inevitably to a diminution in health care services in UK prisons.

This problem has been apparent for a number of years; but surprisingly, while officials concede that there is a major difficulty about this particularly dangerous issue, it does not appear to have resulted in significant concern either with politicians or the general public who ultimately are at great risk from the increased likelihood of the spread of such potentially life-threatening diseases when those incarcerated are released.

The UK has the highest rate of drug use in Western Europe, combined with a significant and increasing

rate of the spread of both blood borne and sexually transmitted diseases, but there is no widespread concern about this. There is also a paucity of high profile public health education information to combat this proliferation. Hepatitis C is already the highest cause of demand for liver transplants in the UK. In fact, there is a great deal of public ignorance about the nature of these diseases and the ways in which they may be transmitted to others.

Pandemic Diseases

During the mid years of the 1980s, Edinburgh was dubbed the AIDS capital of Europe, but it was widely believed that AIDS/HIV was essentially a sub-Saharan African problem that had little bearing on the UK. That thinking is still prevalent despite indications that within three years the problem in Russia and many of the former Soviet Republics (now within greater Europe), Central Asia and the Indian Sub-Continent will outpace the problem which is out of control in Africa. There is too a major problem arising in China and the Far East (6). The Annual Report of the International Narcotics Control Board (INCB) for 2006 has drawn attention to the fact that countries such as Latvia, Estonia and Lithuania are doing little to control the spread of blood borne and sexually transmitted diseases. These countries have problems in their prisons, and once infected prisoners are released, the diseases are likely to spread very quickly into the heterosexual community, with women being particularly vulnerable. With freedom and frequency of travel at relatively low prices throughout Europe and internationally, the dangers of the rapid spread of infections are obvious.

Unsafe Practices

Much has been written about drugs in prisons and the ways in which infections are spread through unsafe sexual practices, the sharing of drug taking equipment (particularly dirty needles), razors and the practice of amateur tattooing that is common amongst prisoners. There is also a strong culture amongst some drug dependent people, particularly in prisons, around sharing drugs and the paraphernalia associated with abuse. These all pose risks for prisoners, staff and the wider community once prisoners are released. However, despite guidelines of good practice having been issued by UNODC, the most recent of which was published in 2006 (7), there does not appear to have been much progress in addressing and reducing the problem, certainly not in the UK. Many other countries have yet to implement comprehensive HIV prevention programmes in prisons or to achieve a standard of prison health care equivalent to the standard outside of prison, thereby jeopardizing the health of prisoners, prison staff and the wider community.

UNODC Framework Document

The UNODC document was issued in recognition of a global problem and as a framework to assist nations to meet their international obligations with regard to human rights, prison conditions and public health. It contains eleven General Principles for HIV/AIDS prevention and care in prisons. These principles provide clear recommendations for developing and implementing an effective response to HIV/AIDS in prisons. These principles are embodied in the following paragraph:

Like all persons, prisoners are entitled to enjoy the highest attainable standard of health. This right is guaranteed under international law in Article 25 of the United Nations Universal Declaration of Human Rights and Article 12 of the International Covenant on Economic, Social, and Cultural Rights. Furthermore, the international community has generally accepted that prisoners retain all rights that are not taken away as a fact of incarceration, including the right to the highest attainable standard of physical and mental health. Loss of liberty alone is the punishment, not the deprivation of fundamental human rights. States therefore have an obligation to implement legislation, policies, and programmes consistent with international human rights norms, and to ensure that prisoners are provided a standard of health care equivalent to that available in the outside community.

In addition to the Guiding Principles, the Framework details 100 specific actions in nine separate areas including political initiatives, legislation, adequate funding, health standards and continuity of care and education, staff training, evidence based practice and international, national and regional co-operation.

Ideally, this means that all prisoners would receive the same standard of care that they would expect to receive as members of the general public from properly trained and competent staff who have the necessary resources and experience to address their health problems. Unfortunately, the reality is frequently much different from the ideal, and many prisons come nowhere near achieving these standards. Too often the situation is one of 23 hour lock-ups, severe overcrowding resulting in shared cells, inadequacy of appropriately trained staff and all too frequently, some staff who are prepared to supply prisoners with illicit substances (8). There is too the problem that the availability of adequate and appropriate treatment for those suffering from drug dependence in the outside communities falls well short of that which is desirable. This is sometimes compounded by the fact that a lack of awareness means that many who are infected with diseases such as Hepatitis C and HIV are unaware that they have a problem until they have blood tests.

Harm Reduction

A major concern arises from the ways in which some regimes have addressed the problem. So called harm reduction methods, including the supply of syringes and needles, have been introduced or are being considered in some prisons; in 2001 there were 20 prisons in Europe reported to have introduced some or all of the measures mentioned below:

Reducing harm associated with transmission of infections

The principle of equivalence suggests that a range of harm reduction measures might be put in place in prisons, similar to those provided in the community. Measures in the community include confidential testing with pre- and post-test counselling, effective treatment, public information campaigns, personal information and counselling, group education on safer drug use and safer sex, peer education and peer led initiatives, vaccination against those viruses where such vaccines are available and approved (e.g. Hepatitis B), advice on using bleach or other disinfecting methods to clean needles and syringes, the provision of sterile needles and syringes, and the provision of condoms (9).

The rationale associated with the recommendation of harm reduction measures in the report is:

- ▶ The prevention of the transmission of infections, such as HIV and hepatitis;
- ▶ the effects on health of violence, coercion and sexual abuse which are associated with the way in which drugs are supplied and paid for in prisons; a particular risk in this regard is the transmission of sexually transmitted infections;
- ▶ the risk of overdose;
- ▶ the risk of using contaminated drugs;
- ▶ the risk of side effects from misused substances.

State Approved Drug Consumption

Many current practices in prisons give rise to concern about regimes that tolerate what is, in effect, state approved drug taking. Some see this as perpetuating the associated problems without in any way diminishing the ultimate risks. Many have argued that to tolerate drug abuse in prisons is ultimately posing the great risk of the extensive spread of diseases once prisoners are released, when the responsibility of both the State and the prison authorities should be the control and reduction of drug use in the interests of the prisoners and society. It could be argued that in an ideal world, prisons should be places where detoxification and rehabilitation are achieved, and those prisoners who have dependency problems should be subjected to indeterminate sentences without release until abstinence has been achieved. The reality in the majority of prisons seems to be hugely different with human rights considerations apparently outweighing public health concerns.

If pragmatism and reality make it necessary to follow policies which are less than ideal, then it is argued that the least that should be demanded is that those policies and procedures be carried out under the strictest good practice with adequately qualified staff exercising supervision and treatment in ways that are best calculated to reduce the harm associated with drug abuse. At the same time the prison authorities should be striving to achieve abstinence and the eradication of illicit drugs from prisons.

Prisoners need counselling, education and support and a guarantee that this will be available on a continuing basis after they have been released. This situation does not prevail in the UK, and the reality, according to research published by The Prison Reform Trust (*HIV and hepatitis in UK prisons: 2005 A report by the Prison Reform Trust and the National AIDS Trust*), is that prisons are failing to provide adequate healthcare for drug using prisoners, with overcrowded conditions, frequent transfers between prison establishments without similar policies and a failure to ensure post release supervision and treatment. A trawl of the UNODC literature has indicated that similar conditions prevail in too many prison establishments globally.

Is Zero Tolerance Practicable?

In Scotland, one of the political parties has called for a policy of zero tolerance of drugs within prisons and has demanded that prison conditions be changed to diminish the possibility that drugs may be transferred during prison visits (10). There has also been criticism of harm reduction policies that accept drug abusing behaviour without in any way attempting to change this such as methadone maintenance rather than treatment aimed at ultimate abstinence; the distribution of bleach tablets (of doubtful efficacy) and the proposed handout of needles without any attempt to measure the result of this practice.

Discussions with the persons responsible for drug policy in Scottish prisons left the distinct impression that problems related to drug abuse in these institutions are more to do with a lack of finance, resources and trained personnel than a determination to achieve absence of drugs within prison. There was acknowledgment that for many years prisons have been incubators for disease, and the proposed introduction of harm reduction policies allowing needle distribution, etc., seems to be an attempt to "keep the lid" on prisons rather than a professional and meaningful compliance with best practice. When asked about adopting serious measures to prevent drugs being brought into prisons either by the prisoners themselves, staff or prison visitors, there was an absolute refusal to change existing procedures that might achieve this.

20 Year Prognosis of Addiction

Research by [Professor Neil McKeganey at Glasgow University](#) has indicated that if present anti-drug policies are continued, then it is likely that within 20 years the UK will be confronted with the problem of at least one million addicts. It can also be assumed that if there is no change in the approach to the problem

of drug abuse within UK prisons, the pandemic presence of blood borne disease will increase significantly at great risk to public health.

In order to combat this problem, it is apparent that:

- ▶ much greater political awareness and attention to the problem must occur, combined with a determination to eradicate drug abuse within prisons and eliminate the increasing risk to public health;
- ▶ there should be continuous high profile public health awareness education;
- ▶ prison conditions and policies must be improved by adequate funding, appropriate sentencing policies to deal with problems of overcrowding and the recruitment and training of sufficiently well trained and motivated staff;
- ▶ Any health policy within prisons must only be endorsed once it has been validated by empirical research;
- ▶ All future prisons must be designed to take account of these needs and existing problems.

A major consideration in the UNODC document is the necessity to comply with legislation protecting the human rights of prisoners:

Respect for human rights and international law

Respecting the rights of those at risk of or living with HIV/AIDS is good public health policy and good human rights practice. Therefore States have an obligation to develop and implement prison legislation, policies, and programmes consistent with international human rights norms.

However, critics raise the question of the human rights of the greater community to be protected, as far as possible, from the spread of potentially fatal diseases exacerbated by government prison policies. This raises the question: Should the protection of the wider community be more important than the human rights of prisoners which, under present interpretation, tolerate illegal practices in prisons that ultimately will have a seriously detrimental impact on public health?

The proposals for issuing needles in prisons in Scotland were described as making syringes and needles available to prisoners as "it is not an offence to inject yourself". There was no proposal that prisoners addicted to drugs would be provided with officially issued substances and would then inject under medical supervision as a form of treatment, merely an assumption that they would be injecting substances that are both illegal and which have been brought into prisons illegally. At best this is harm reduction of the most questionable type, and at worst it is allowing prisons to be used for the ingestion of Class A drugs which is not medical treatment so much as the toleration of illegal conduct. Such behaviour could result in prosecutions if this were done in premises outside prisons. This in turn begs the question that if prisons are tolerating illegal behaviour by failing to eliminate drugs, why should the State provide prisoners with the paraphernalia to enable dangerous practices which could result in harm to the prisoner and ultimately the spread of blood borne diseases in the community after prisoner release?

The Aims and Objectives of Drug Policy

The primary object of any drug policy should be the elimination of drugs from prisons by attempting to prevent drugs entering prisons by any means. In a properly administered regime this should be achieved by:

- ▶ Preventing prisoners from bringing drugs into prison after conviction by swallowing condoms full of illicit substances - for example, heroin or cocaine. This would necessitate those prisoners suspected of being 'swallowers' being isolated immediately after confinement until the drug filled condoms pass through their system.
- ▶ Preventing visitors from bringing drugs into prisons either by making visits take place between screens without human contact or by selective searching and the use of drug sniffer dogs as the visitors enter prison premises. Where a transfer is suspected, then the prisoner could be searched immediately after visits.
- ▶ Preventing the possibility of staff bringing drugs into prisons by the requirement of staff contractually agreeing to submit to searches and other appropriate anti-drug measures.
- ▶ Preventing outsiders from throwing drugs into prisons by constant patrolling and searching of unusual objects in the internal perimeters. There have been reports of many different ways of throwing drugs into prisons in such things as tennis balls or even inside dead birds. A 'cordon sanitaire' could be introduced around prisons to prevent prisoners having access to thrown objects.

- ▶ Where it is judged a medical necessity that prisoners be prescribed drugs that must be injected, then this should be done by a suitably qualified member of staff and at no time should prisoners be allowed to be in possession of syringes and needles. The reasons for this include the risk of the culture of sharing needles and that the needles may be used as weapons or threats against other prisoners or prison staff. Needless to say, this activity is labour intensive, but appropriate numbers of qualified staff should be recruited to overcome existing problems in prisons.

It should also be possible to provide drug-free wings for those prisoners who do not wish to be involved with drugs and to provide isolation of known drug users until such time as they become committed to a drug-free prison life and a desire to become 'clean'.

Conclusion

Prisons are the last places where authorities should tolerate drug abuse, and most certainly any pseudo harm reduction initiatives should be taboo for the reasons stated above.

Without such commitment to preventing both drug use in prisons and the major public health risks associated with this, then the Prison Authorities should be held liable for the damage caused to anyone afflicted by diseases spread by released prisoners. Clearly, the debate must occur that considers whose human rights take preference and the conflict between inappropriate (or pseudo) harm reduction policies and human rights.

It is recommended that the UNODC and policy makers should step back from the notion that it may be acceptable for prisoners to have syringes, bleach tablets or any other equipment that may facilitate or encourage drug abuse by prisoners and should recommend to all governments that legislation be introduced designed to achieve abstinence and rehabilitation for all persons in custody and prohibiting any distribution of drug abusing equipment.

Dr. Ian Oliver was a police officer in the UK in 4 different forces, including the London Metropolitan Police, for 37 years. During the last 8 years he has been an independent consultant for UNODC and has worked in over 20 countries. He is a member of expert groups and the author of *Drug Affliction: What you need to know*, published in 2006 by The Robert Gordon University, Aberdeen, Scotland, and available at www.amazon.co.uk.

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History of Harm Reduction - Provenance and Politics, Part 2

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Abstract:

The history of 'so-called harm reduction' - starting with its conception in and dissemination from the Liverpool area of Britain in the 1980s - is described in comparison with American liberalisers' 'Responsible Use' stratagem in the 1970s and with subsequent so-called Harm Reduction initiatives in various countries. The text takes extracts from or synopses of papers presented by various writers on both sides of the argument. As the scope of a historical review of Harm Reduction - over several decades and across several countries - is necessarily large, this paper is presented in 3 parts. [Part 1](#) examines the developments in the USA; whilst Part 2 looks at Britain, Canada, and Australia. Part 3 considers mainland Europe, and then goes on to explore reasons why the package called 'Harm Reduction' has fared better than 'Responsible Use' as well as some possible reasons why the present, Harm-Reduction-biased situation has come about. The paper concludes by suggesting possible ways forward for those advocating a prevention-focused approach – learning from history.

Keywords: harm reduction, drug prevention, strategy, policy, politics

4. Britain in the Eighties and Since (Brittania waives the rules)

When this writer and his wife first became workers in the UK drugs field in the 1980s, for the first seven or eight years work was in 'Street Agencies' - face-to-face with addicts, alcoholics and others at various points along the continuum of substance abuse from experimentation onwards. There was also work to assist the families and significant others around the user, and work as specialist advisers to the teachers in more than 100 primary and secondary schools. Like most drug workers at the time (not counting the activists), we had blissful ignorance of the fomenting of unrest and radical activism from the Liverpool area, and this writer's agency duties were pursued on exactly the same strategic basis as the American parent movement had eventually developed, that is:

- ▶ Stop it starting.
- ▶ If it's started, stop it.
- ▶ If it's still not stopped, then help it to stop. Full stop!

The first signs of trouble came when our agency, in concert with other Drug Education Advisers across England and Wales, started attending National Drug Education conferences. One might have expected a few radical statements in an arena populated by teachers, but one was unprepared for the virulence of what was heard. It quickly became apparent (but sadly not to enough of our contemporaries) that the Drug Education Advisers were being hijacked by a small but well-organised bunch of mainly Liverpoolian libertarians.

One of the exponents of 'Scouse radicalism' was former teacher and Sociology/Criminology graduate Pat O'Hare, now better known as the Director of the International Harm Reduction Association. O'Hare and colleagues were well enough resourced to be able to run a glossy magazine named *The Mersey Drugs Journal* which in due course became the even glossier *International Journal of Drug Policy (IJDP)*. The list of contributing editors to the *IJDP* read like an international "Who's Who" of drug libertarianism.

Liverpool in the Eighties was a swirling pool of powerful undercurrents. Anger at its social and economic situation compared to the affluent south-east had flared up into serious riots in the Toxteth area of the city in 1981. Although these eventually subsided, a sharp antagonism remained. Dislike for the Establishment as a species translated into identification with subculture – including drugs. Whether jealous comparison of economies was at the root of the next factor or not, the fact is that there was also antipathy towards all things American amongst the so-called 'caring professions' – not reflected in the general population – and out of this came a striving for new directions. The upswelling of libertarian philosophies at this same time seemed to fuse naturally into the process. One specific outcome was a vigorous seeding of the idea of harm reduction; a seeding which took root not just in Liverpool but also, through energetic propagation, across the rest of Britain and internationally.

Whilst other British cities with a high incidence of drug use were obvious places for the harm reduction gospel to be spread, it was by no means limited to these centres. Obviously the onset of AIDS at the start of the Eighties was a catalyst in the development of Harm Reduction. Drug agency workers at that time

can vividly remember that all were deeply concerned at this new major health hazard and were invited to regard AIDS as a greater threat to society than drug abuse, a notion which helped to undermine the significance of drug abuse as something to be arrested or prevented. With hindsight it is clear that though AIDS is a terrible disease, it is also preventable - as is drug use, and that of the two, widespread drug use is in fact a much bigger threat to society at large. Prevent drug use, and you are well on the way to preventing AIDS.

Liverpool was one of the areas where AIDS was a particular threat, largely due to the already high prevalence of drug abuse. But what is not widely known is that this drug use, and in particular heroin use, did not generally involve injecting; 'chasing the dragon' (smoking) was the preferred method. It was then that the Liverpool harm reduction activists entered the arena. What happened next was related to this writer by the mother of two heroin addicts who later became one of UK's leading parent campaigners. Injecting your heroin makes it go further – literally gives you 'more bang for your buck'. With a free and limitless supply of needles and 'works', Liverpool changed from an area with only minority injecting use into one with the majority injecting. The activists behind this knew exactly what they were doing. In the words of one of the harm reduction crusaders, *IJDP* editor Peter McDermott (17):

As a member of the Liverpool cabal who hijacked the term Harm Reduction and used it aggressively to advocate change during the late 1980s, I am able to say what we meant when we used the term. Its real value lay in its ability to signify a break with the style and substance of existing policies and practice. Harm Reduction implied a break with the old unworkable dogmas – the philosophy that placed a premium on seeking to achieve abstinence...

McDermott goes on to talk about the importance of the "availability of a legal supply of clean drugs and good supplies of sterile injecting equipment". Note that he incorporates legalisation and needles as part of the harm reduction package; note too that he talks about 'supply' - not 'exchange' - of injecting equipment.

What McDermott and his colleagues meant by good supplies was more than just a rejection of the idea of needle exchange, a process which was supposed to be associated with dialogue between the drug worker and the user, with the aim of encouraging transition to a healthier lifestyle. McDermott & Co. had much more in mind than handing out a pack of needles without dialogue. The reality was, as the Liverpool mother told me, giving out needles by the bag full, and even giving out needles to known drug dealers (whom the police had agreed they would overlook if they found them carrying bagfuls of injecting equipment) to be distributed with the drugs they sold.

What the Liverpool 'cabal' had as their driving force may be judged from McDermott's editorial of the time that said:

...we must continue to guard Harm Reduction's original radical kernel, without which it loses almost all of its political power.

This movement, piously promoted in the name of treating drug users with respect, was in fact an exercise in radical politics. Radical politics sail under many flags, but here is one passage first encountered in an American leaflet and then published in this writer's 1992 book *Drug Prevention – Just say NOW*. (18) The passage vividly illustrates a radical approach to drug policy:

By making readily available drugs of various kinds; by giving a teenager alcohol; by praising his wildness; by strangling him with sex literature and advertising to him or her ... the psychopolitical preparation can create the necessary attitude of chaos, idleness and worthlessness into which can then be cast the solution that will give the teenager complete freedom everywhere. If we can effectively kill the national pride and patriotism of just one generation, we will have won that country. Therefore, there must be continued propaganda to undermine the loyalty of citizens in general and teenagers in particular.

The author of this uplifting little piece was a Mr. Josef Stalin. At least one of the Liverpool 'cabal' was reputed locally to be a Stalinist. To imagine that one can disregard what Stalin said just because Russian communism has faded away is to miss the point. Radicals want to change the world to suit themselves – just like the rest of us. They will approach this by first inducing confusion, fatalism and dismay – much as Britons now regard their nation's drug situation. They will then introduce their own solution. This is the 'Gramscite Endgame' described in Michael Ard's paper (12) earlier herein.

The 'radical kernel' was generally masked by rhetoric around the prevention of disease (and in particular AIDS) and the dignity of the user, but their preaching across Britain was both energetic and rapid. The message was promoted to drug workers, teachers, health workers and, not least, to police forces. In 1988 this writer sat in on a presentation to a regional health authority given by Alan Parry, another leading light in the Liverpool cabal. Parry outlined their policy: money would be moved from abstinence and detoxification into harm reduction. Prevention was dismissed as ineffective, and they would therefore block any drug education scheme unless it could be proved to be innovative and **with evaluation built in**. When a questioner from the floor asked Parry what evaluation they were building into their own harm reduction work, he answered that there was very little funding available, so they would **not** be evaluating what they were doing - but they did feel it was 'working well'.

In this context, it is enlightening to hear the comment made a decade later (in the late 1990s) to one of NDPA's member groups by Anna Bradley, at that time Director of Britain's Institute for the Study of Drug Dependence (ISDD). Pushed back from her opening gambit, which was to allege a lack of evidence for prevention, Bradley was forced to concede that '... there is no research base for harm reduction'. She has now left ISDD – and ISDD has left its own home to join the DrugScope family.

Harm reduction or use reduction?

Two weighty academics applied themselves to this question.⁽¹⁹⁾ Caulkins has been known in the past to resort to complex mathematical expressions to illustrate his thinking, but not always successfully. Peter Reuter is a well-known academic in the libertarian camp. Reuter is a seasoned 'pressure group politician' – he forgoes aggressive outbursts in favour of a silken rhetoric – ever ready to smooth the opposition with a few compliments. His style is to wrap everything in seemingly scientific statements and implant his arguments under verbal anaesthetic.

The authors used the USA as their datum; a country where use reduction has driven policies. Opening their remarks, they frankly concede that "Measures associated with use reduction goals are poor; those associated with harm reduction are even worse," and go on to say "... the overall objective being to minimize the total harm associated with drug production, distribution, consumption and control. Reducing use should be seen as a principal means of attaining that end". Presumably this would screen out the 'amateur' or novice users, leaving the arena free for the in-crowd who 'know what they're doing'.

They next commented on drug policy goals in the US saying, "America's commonly articulated goal has been a 'Drug Free America'. Few dispute that this would be a desirable end-state. Unfortunately it is no more feasible than 'Schizophrenia Free America'". More predictably, they then fell back on the old liberalisation chestnut; i.e., "Use of psychoactive substances by some fraction of the population is nearly universal, spanning centuries and cultures". That 'some fraction' have been users for a long time is not in dispute; the problem now derives from a 'large fraction' – particularly in young people. Whilst in the 1950s (and before) the fraction was around 1%, by 1980 it had risen to 10%.

Defining use and harm reduction, the authors suggested three ways of measuring 'use' – numbers of users, quantity of use and expenditure on use. They then suggested responses to each; e.g.:

- ▶ to reduce use, focus on light users, prevention and "soft drugs";
- ▶ to reduce quantity, treat heavy users and increase enforcement that raises prices;
- ▶ and to reduce expenditure, treat heavy users of expensive drugs and (perhaps) cut high-level enforcement so prices on the street fall.

Addressing the choice between use and harm reduction, the authors say:

Since use reduction and harm reduction are clearly different goals, it is natural to ask which is better? Keeney (1992) advises that goals are selected based on one's ultimate values. Following that argument, harm reduction makes more sense for people who do not care about drug use per se, but care about use because it contributes to health problems, poverty, spread of infectious diseases, property crime, violence, reduced productivity, etc.

Others view drug use itself as "bad". They view as bad even a hypothetical situation in which an adult user could freely choose to use a psychoactive that has absolutely zero risk of damaging self or others, directly or indirectly, in the short- or long-term. For such people, reduction may be the ultimate goal.

Caulkins and Reuter closed by offering a few opinions of their own, including:

It is our belief (see Reuter & Caulkins, 1995) that augmenting use reduction with explicit harm reduction goals and admitting the possibility that one might at times be willing to accept higher use if it yields substantially less harmful use, would encourage wiser policies.

This remark has to be a very speculative flyer, and the various other statements by these two authors, especially Reuter, strongly suggest that this whole article is a cynical construction to induce sympathy for the authors before giving the punch line – soften drug laws.

The evidence-base for harm reduction approaches to drug use

Britain can fairly claim to be the birthplace of modern harm reduction – though whether this is a matter of pride is open to debate. One of the longest reference papers encountered on this subject was published in 2003 and is "A Review of the Evidence-base for Harm Reduction Approaches to Drug Use" (20). No less than 52 pages (with some 250 references) rolled out of the computer printer, under the authorship of Neil Hunt at Kent University.

The familiar links between 'the usual suspects' in drug liberalisation are in evidence. Forward Thinking on Drugs, who commissioned the review, are (as already described) a Soros-financed liberalisation pressure

group, with the UK's disgraced former Deputy 'Drug Tsar' Mike Trace on the bridge. Principal author Neil Hunt is also a committee member with the IHRA – International Harm Reduction Alliance. Colleagues in Hunt's review include Mike Ashton (formerly with Drugscope), Bill Nelles (organiser of the Methadone Alliance) and Gerry Stimson (another IHRA Senior: in fact, the current Executive Director). Observers of the Harm Reduction/Legalisation debate will recognise all these names.

Their listing of what comprises harm reduction is revealing in itself. The listing includes needle and syringe programmes, methadone and other replacement therapies, heroin prescribing, depenalisation and the harms associated with criminal penalties for drug use, information, education and communication, safer injecting and other 'Drug Consumption Rooms', pill testing and allied warning systems, and motivational interviewing.

But where are the interventions to reduce harm for people around the user, up to and including society as a whole? They refer to Newcombe (1992) whom they credit as giving:

... a widely-cited conception of harm reduction (which) distinguishes harm at different levels - individual, community and societal - and of different types - health, social and economic. These distinctions give a good indication of the breadth of focus and concern within harm reduction.

That may be so, but if it is, why are so many options solely fixated on the user and his personal harm?

Their overview considers the strength and nature of the evidence of the effectiveness of various forms of 'harm reduction' intervention and says:

In doing so, **some** consideration is also given to criticisms of harm reduction that are **occasionally** encountered'. (This writer's emphasis)

In other words, they imply that very few people criticise harm reduction, and then do so only rarely – which is clearly not so, however much the authors might wish it.

What is harm reduction? (the authors ask)

In essence, they conclude, harm reduction refers to policies and programmes that aim to reduce the harms associated with the use of drugs. A defining feature is their focus on the prevention of drug-related harm rather than the prevention of drug use *per se*.

They concede that:

Rather unhelpfully, no definitive definition of 'harm reduction' exists. A number of definitions have nevertheless been offered (for example Newcombe 1992; CCSA 1996; Lenton and Single 1998; Hamilton, Kellehear & Rumbold, 1998).

Interestingly, they comment on the relative extent of prevention and harm reduction.

In practice there is more convergence between countries that are associated with harm reduction and those that are more associated with a 'war on drugs' than is often acknowledged. Globally, drug prohibition is universal, but with differences in the way that it is implemented. Similarly, primary prevention efforts to discourage the use of drugs by young people have remained a feature of the drug policy of countries that have been most strongly associated with the harm reduction approach such as The Netherlands, Australia, Canada, Germany, Switzerland and the United Kingdom.

Hunt, et al then go on to review harm reduction principles. They say:

Harm reduction is partly defined by a range of principles in which policies and programmes are grounded. The Canadian Centre on Substance Abuse (CCSA 1996) offers the following:

- ▶ Pragmatism: Harm reduction with some substance use is a common feature of human experience.
- ▶ Humanistic Values: The drug user's decision to use drugs is accepted as fact. No moralising.
- ▶ Focus on Harms: rather than use – this is accepted as it stands.
- ▶ Balancing Costs and Benefits: A pragmatic process of identifying, measuring, and assessing.
- ▶ Priority of Immediate Goals: first steps toward risk-free use, or, if appropriate, abstinence.

As Hunt, et al put it:

Where it seems the most feasible way to reduce harm, harm reductionists view abstinence as a valid and legitimate goal **and interventions to promote abstinence are generally thought of as 'a special subset of harm reduction'** (IHRA 2002)

The audacity of this is breathtaking. They have reversed the whole structure of drug policy, which is that drug use is firstly to be proactively prevented, and only if this fails do the reactive measures – enforcement, intervention, treatment (of which harm reduction is a part) come into play – as a ‘subset’ of prevention.

They concede that harm reduction is not without its critics, saying that:

Despite the fact that it is an approach grounded within public health, for which a considerable evidence base now exists, there remain people with reservations about a) its effectiveness, b) its effects and c) its intentions. The reservations they cite are: ‘Harm reduction does not work’; ‘It keeps addicts stuck’; ‘It encourages drug use’; and ‘It is a Trojan horse for drug law reform’.

This writer has given workshops including the ‘Trojan Horse’ concept, also offering another metaphor for the liberalising movement as the ‘Beast with Seven Eyes’ – with the ‘eyes’ being ‘Trivialise’, ‘Sympathise’, ‘Glamorise’, ‘Normalise’, ‘De-penalise’, ‘Decriminalise’ and ‘Legalise’.

In reviewing the impact of legal status of drugs, they concluded that “depenalisation did not result in increased rates of cannabis use but did substantially reduce the adverse social costs on apprehended individuals”. Quite why this should be so was not clear. The authors made passing reference to their case being supported by “the overwhelming weight of criminological research”. The degree of ‘overwhelm’ would of course be a function of the ease with which one party can get their arguments published – in this the libertarians have a distinct advantage; any review of publications makes this clear.

The final conclusions of the 52 page study (with some 250 references) by Hunt, et al are:

Despite the fact that the bulk of its development has occurred in just 20 years or so, there is an extensive and rapidly developing literature on interventions that can be situated within a harm reduction perspective. This evidence base reveals that there are interventions that:

- ▶ Definitely work
- ▶ Show promise and require cautious expansion
- ▶ Are widely used yet under-researched

IHRA – its background and key members

The IHRA (International Harm Reduction Alliance) capitalised on the new-found enthusiasm for harm reduction in the 1990s and expanded vigorously after its formation – one benefactor being the ubiquitous George Soros. The following sections are taken from the IHRA website:

In 1990, Liverpool, England hosted the 1st International Conference on the Reduction of Drug Related Harm. The city was one of the first to open needle exchanges and had attracted hundreds of visitors each year who wanted to learn about the Mersey Harm Reduction Model. The conference was a way of dealing with this interest and the volume of visitors and it was a huge success. Accordingly, the following year, the 2nd International Conference on the Reduction of Drug Related Harm took place in Barcelona and a movement soon developed around this conference – spreading the principles behind the harm reduction approach, sharing knowledge and experiences from around the world and promoting the growing scientific evidence that supported this approach.

In 1995, Ernie Drucker outlined an idea he had for an International Harm Reduction Association, the birth of IHRA was announced the following year, at the 7th International Conference on the Reduction of Drug Related Harm in Hobart, Tasmania.

Patrick O’Hare started working in the drug field in the mid-1980s when he became Director of the Mersey Drug Training and Information Centre in Liverpool. As well as being a founder of IHRA, Pat also served as the Executive Director from 1996 until he stepped down in 2004. He is currently the Honorary President of IHRA.

Professor Gerry Stimson was appointed as the Executive Director of IHRA in 2004, taking over from Pat O’Hare. Professor Stimson is a public health sociologist. He has nearly 40 years’ experience of research in this field and has advised the UK government, World Health Organization, UNAIDS and UNODC on issues relating to drugs.

Extra to these two luminaries, there are many more names that will be familiar to anyone on the drug policy circuit. Founders (who mostly remain active) included Ernst Buning and Ernie Drucker as well as Diane Riley (Toronto), Marsha Rosenbaum (San Francisco, formerly with NIDA), Bill Stronach (Melbourne) and Alex Wodak (Sydney). The current Executive Council also includes delegates from India, Brasil, Malaysia, Uruguay, Lithuania, Canada, and from Britain – the head of Transform, a legalising pressure group, Mr Danny Kushlik.

Conferencing is a constant feature; e.g.:

18th ICRDRH- Warsaw 2007 'Harm Reduction- Coming of Age'. IHRA and the Conference Consortium are pleased to announce this must- attend event, which takes place in Warsaw, Poland, from 13th to 17th May 2007.

DrugScope – big ideas, big money

DrugScope as an entity was apparently the brainchild of health consultant Roger Howard during the time of the previous Conservative government (the early 1990s). Roger Howard Associates published a report titled *Across the Divide* in 1993; the topic was how to better interrelate the various government and non-government agencies in the drugs field. This was a timely publication as the Conservatives worked towards a national drugs strategy; the strategy was published in 1995 under the title "Tackling Drugs Together" (21) – and at that time it received all-party support.

The NDPA (National Drug Prevention Alliance) was one of several invited participants in working meetings with the government authors as the new drugs strategy was drafted. NDPA made the point that whilst the treatment field had a forum called SCODA (Standing Conference on Drug Abuse) for debating and voicing its views, and there was also a forum for research bodies called ISDD (Institute for the Study of Drug Dependency), no similar forum existed for prevention and education.

The outcome, as revealed in the final draft of "Tackling Drugs Together" was surprising and – as far as NDPA and other prevention bodies were concerned - depressing. SCODA and ISDD would be merged into a new charity called DrugScope – with a new director, none other than Roger Howard. Moreover, the new charity would expand its scope to also cover prevention and education, areas in which it had little experience. The government staffers (who were civil servants) told NDPA that this was only a proposal; NDPA asked why then the adverts for relevant personnel (to be funded by the Department of Health) were already published in appropriate health oriented journals. Clearly, the die had already been cast, and with it government money – anything up to £3 million per year has been seen in DrugScope's published accounts over the years since 1995.

The implications for the future of prevention and education engendered serious concerns in those advocating prevention as the primary strategy. SCODA had already expressed its liking for harm reduction and its scorn for primary prevention, whilst ISDD (Dorn and Murshi) had produced a major report for government alleging that prevention was impossible – another example of adroit cherry picking. Subsequent developments did nothing to allay these concerns. DrugScope has been active in advancing harm reduction, but its prevention and education unit has for the most part been under the management of personnel well known in the field for their anti-prevention standpoint - Adrian King, Vivienne Evans, Ruth Joyce - whilst other relevant bodies such as the DEF (Drug Education Forum) and DEPF (Drug Education Practitioners Forum) have been heavily influenced by the same people. There has consequently been a stranglehold on drug education and an unjustified emphasis on harm reduction over prevention.

DrugScope has also been active in the international scene, as well as prominent in Wilton Park international drugs conferences and in Europe, where it has pro-actively cooperated with such as:

- ▶ ENCOD (European Coalition for Just and Effective Drug Policies) - 140 NGO members, born 1993;
- ▶ SENLIS (international policy think tank) - offices in Brussels, London, Paris, Ottawa and Kabul; the Kabul office was recently shut down by government – present situation uncertain. The UK member of parliament Chris Mullen, who earlier had chaired a UK government Select Committee which in 2002 suggested liberalising Britain's drug laws, now works with SENLIS – although his role is unknown;
- ▶ TNI (Trans National Institute) - key contact is Martin Jelsma;
- ▶ IAL (International Anti-prohibition League);
- ▶ CEDRO (Centre for Drug Research, Amsterdam University) - key contact is Peter Cohen;
- ▶ Beckley Foundation (UK-based) - key contact is Mike Trace.

DrugScope activist Axel Klein, who is now based at Kent University but maintains his contact with DrugScope, was particularly enthusiastic in his involvement with the above (and other) groups in the European arena. He showed his ability to think structurally rather than emotionally or opportunistically and is quite clearly an adversary to be respected.

DrugScope likes to describe itself as "the leading British drug agency ... internationally recognised" - and is not above positioning itself as a judge of others in the field. In his blog on Monday, November 27, 2006, entitled 'Smoke, mirrors and the death of objectivity' (22) DrugScope veteran Harry Shapiro published his thoughts on the integrity of information we each have to deal with in this field. Quoting from his blog, here are his main points:

Back in 1968, the Institute for the Study of Drug Dependence (now DrugScope) was set up in the UK to try and gather what little information was 'out there' about illegal drugs. Now enter 'illegal drugs' into Google and you'll net nearly seven million hits in half a second. So is that job done - is drug information now 'sorted'? Absolutely not. We have

simply moved into a post-modern world where there are no longer any wrong answers, simply alternative truths - often mired in scientific and statistical obfuscation:

- ▶ Studies are cherry-picked to suit an argument.
- ▶ Over-reliance is placed on studies where samples are small or unrepresentative, or fail to take into account other factors which might account for the result
- ▶ There are researchers who have the veneer of objective scientific respectability, but come to the work with their own moral agenda with the inevitable outcome for the results.
- ▶ Findings are refracted through the prism of spin. Medical journals announce new 'shock' research about drugs and by the time they hit the tabloids, what might have started out as considered work has been reduced to scary headlines.
- ▶ And of course, there are straightforward lies, exaggeration, the promotion of potential risk to a small group of users as the actual risk to most users and so on.

As an organisation DrugScope will not sit on the fence in highlighting the dangers of drugs, but neither will we condone or support drug information which lacks credibility and is detached from evidence.

All good salutary stuff, but it is only reasonable to suggest to DrugScope that they consider the time-honoured rubric: "Let him who is without sin cast the first stone". (John 8:7)

ACMD (Advisory Council on the Misuse of Drugs)

There is a natural human tendency to assume that any committee formed in the government field is competent, objective and unbiased in that it has no agenda of its own. Sadly, this has been shown to be far from the case with the ACMD. With very few exceptions (such as former school headmaster Peter Walker, who served on the ACMD for many years and is now advising the government on drug testing in schools), there is a heavy bias in the membership of the council. Of the thirty or so members in the 2002/2003 period when the government was reviewing UK drug policy, not far short of half of them were found to be linked in various ways to liberalising bodies (as reported in Hansard), and yet there were no members linked to any prevention bodies. To become a member of the ACMD it seems that in effect one has to be approved by the people who are already in – clearly, this is open to a self-serving approach.

How has harm reduction influenced education?

At the time that this writer took on additional work as an education advisor, assisting local schools with their drug education work (if any), the whole of England and Wales, a population of some 50 million people, had its drug education coordinated by just over 100 people. Most of these were teachers who had moved sideways into becoming Drug Education Coordinators. They had little or no knowledge of drugs, and they were therefore eagerly looking for guidance from those they considered to be more experienced. One hundred is a very small number for a group of determined radicals to penetrate and persuade; this could be seen taking place at drug education conferences and training sessions at the time, without it being apparent to anyone other than the activists just how wide-reaching and profound it was to become.

The British harm reduction movement did not content itself with staying in Britain -it soon established links elsewhere. It could be seen that those involved were using electronic means of communication globally, long before e-mails were common. One of the 'travelling salesmen' was Julian Cohen, co-author of the ambiguously-titled *Taking Drugs Seriously*. Cohen (23) argues for the 'plusses of drug taking'; a typical item in Julian's carpetbag is:

The primary prevention approach ignores the fun, the pleasure, the benefits of drug use ... drug use is purposeful, drug use is fun for young people and drug use brings benefits to them.

Prevention or promotion?

Scouring the various libraries for data on drug prevention proved a low-yield exercise for drug professional Ann Stoker, herself the director of two local government drug agencies in west London. Her agencies counselled and helped problem users and their families but also worked in local schools, with Ann appointed as the government-funded Drug Education Co-ordinator. Attendance at national drug conferences highlighted the creeping emphasis on harm reduction rather than preventive education - this at a time when the two largest preventive education bodies in the UK (DARE UK and Life Education Centres UK) were under constant fire from the libertarian trenches.

Stoker decided that a detailed audit of the UK drug education scene was needed and set about producing one. Her book, entitled *Drug Education: Prevention or Promotion?*, was published in 2000 (24) and examined all programmes that could reasonably be collected within the literature, identified approaches known to be in use in England at that time and compared them with works in other countries as known to the author. The findings were bleak and salutary; the Education sector had clearly embraced the harm reduction approach, and the lobbying work of the 'Liverpool cabal' (as described in the opening paragraphs of Section 3 of this paper) had been an unqualified success.

It is an understandable aspect of any educational area in conflict that some charitable (NGO) agencies will feel the pressure and adjust their position in order to protect their market or their funding. For drug education in UK this has been seen several times over. Both Life Education Centres UK and Hope UK were founder members of the NDPA (which is firmly based in primary prevention). As pressure on NDPA mounted, both these organisations reviewed their positions, adjusted their missions and sent NDPA a 'Dear John' letter along the lines of "We can still be friends but we can't sleep together anymore".

In Hope UK's case, their materials now extend into the harm reduction field as well as prevention. Life Education Centres took a more radical route by largely removing themselves from the 'discomfort zone' which is drug education, focusing instead on other aspects of personal health. (This contrasts interestingly with Life Education Centres Australia, which some years earlier had taken on harm reduction as a key component of its curriculum after being threatened with loss of its funding. Life Education Centres New Zealand and Life Education Centres UK at that time dissociated themselves from Life Education Centres Australia).

When you wish upon a tsar ...

In 1998 a Labour government came to power, and one of its first tasks was to review the previous (Tory) National Drugs Strategy, which had been published in 1995 under the title *Tackling Drugs Together* (21) and had received all-party support. The new strategy was at first encouragingly close to its predecessor - even in its choice of title - *Tackling Drugs Together to Build a Better Britain*.

The new government pinned its hopes on their innovation - the establishment of a 'Drugs Tsar' (Anti-Drugs Co-Ordinator) to co-ordinate the various government departments in respect of drug policies. The drugs tsar job went to Keith Hellawell, a former Chief Constable with considerable insight in drugs matters, but he was surprised by an insistence from a government Minister on the eve of his appointment that he must take on a specified deputy, a Mr. Mike Trace from the treatment field.

This less than auspicious start to the tsar's office was not the last of its troubles. The media predominantly favoured a harm reduction approach, seeing this as closer to its own liberal philosophies. This meant that Hellawell would constantly take scrutiny and criticism on any enforcement/prevention missions he introduced, while his deputy would receive that much easier a ride on his work in harm reduction and treatment.

In 2001 the scene changed again. Jack Straw was replaced as Home Secretary by David Blunkett, and scarcely had Blunkett entered his office than he announced he was 'minded to reclassify cannabis'. The mechanisms applied to progress this idea were the Home Affairs Select Committee (HASC) and the Advisory Council on the Misuse of Drugs (ACMD). HASC, which is an All-Party Committee, embarked on a review of the whole UK strategy, *The Government's Drug Policy - Is It Working?*, (25) under the chairmanship of Labour MP Christopher Mullen (now with SENLIS). In May 2002 HASC concluded that reclassification was a jolly good idea. ACMD also endorsed the notion - hardly a surprise, given that they had been pushing precisely this change for years.

Another radical move by new Home Secretary Blunkett on entering his office was to sideline his Drugs Tsar, moving him into a nebulous backwater called 'International Affairs'. Hellawell was clearly not happy with this sidelining nor with the downgrading of cannabis, and he took the unusual action of resigning his post on national radio - BBC's 4's *Today* programme.

Several have since wondered how David Blunkett had come up with such a radical idea as cannabis downgrading when he had clearly had little or no time to 'read himself in' - a process that would inevitably take much longer for him, given that he was profoundly blind. Clearly, he would have had to be helped, and equally clearly, Hellawell would not have been in a helpful mood. It is therefore a fair assumption that Mike Trace's team did much of the briefing, and the consequent shift in UK strategy towards harm reduction is therefore more understandable. This shift in emphasis was also self-evident in the Strategy Update of Christmas 2002 and prior to this at a conference in Ashford, Kent, southeast of London, in the summer of 2002 in a speech by Drugs Minister Bob Ainsworth where he committed the government to taking harm reduction to the core of its policies.

National journalist Melanie Phillips was at the Ashford conference and subjected it to a lacerating criticism. Phillips is a professional journalist and one of Britain's leading social commentators, producing articles and books full of thoughtful and forthright comment on social affairs. She also runs a public access website - www.melaniephillips.com. In October 2002, after attending the Ashford conference, she issued a trenchant piece entitled "The Drugs Policy of **Harm Production**", (26) from which the following extract is taken:

A silent coup has taken place in drugs policy. The legalisers have captured the Home Office. The government has quietly downgraded its attempt to reduce the number of people taking illegal drugs. This astonishing development became clear last Friday, when the Home Office minister Bob Ainsworth told a conference that the government was going to place 'harm minimisation' at the centre of its revised drugs strategy, to be unveiled in a few weeks' time.

Dutch drug legalisers were in great evidence; Peter Cohen, Freek Polak. Hans Visser, all took their turn. This group was described to Melanie by Hans Koopmans, of the De Hoop psychiatric hospital for drug users in Dordrecht in Holland, as 'the nucleus of the legalisation movement in the Netherlands',

It was apparent that most drug agencies now promote 'harm reduction'. The Home Office listens to them. And some of the most prominent of these agencies — Turning Point, DrugScope, and the International Harm Reduction Association (IHRA) - were involved alongside the Home Office in organising this conference. Of these, one at least had the honesty to admit that 'meaningful harm reduction' inevitably requires legalisation.

Winston, Wiston, Wilton

Just after the Second World War, Winston Churchill perceived the idea of a "calm, residential environment", in which democracy-building could be nurtured.

Wilton Park classifies itself as "... an academically independent agency of the British Foreign and Commonwealth Office" (albeit financially underwritten by the FCO) . Around 60 conferences are organised each year and typically bring together 50-60 policy makers and opinion leaders from 25 countries. Generally, around half attendees are government officials – people "in a position to make direct impact on government policy". Wilton Park sees itself as "helping to move forward international policy agendas".

Over the past five years there have been yearly conferences on drug policy. (27) At first sight this seems laudable, but closer examination shows that Mr Soros' Open Society Foundation has been a major funder of these drug policy conferences, would most certainly have been involved in planning the agendas and libertarian/harm reduction speakers have been to the fore; e.g., "Keynote speech by Ethan Nadelmann", "Rapporteur supplied by TNI" and so on. Key speakers in the past in addition to Ethan Nadelmann have included Peter Reuter, Mike Trace, Axel Klein, Martin Jelsma, Peter Cohen, Dennis Peron and more with a similar leaning. There have been few representatives of prevention-based policies - conceivably due to the £800 registration fee. Britain's NDPA has had representatives at five conferences, but acting very much as a "voice in the wilderness". The US State Department has withdrawn from speaker slots at the last two conferences - presumably in disgust.

A regular at Wilton Park has been Carel Edwards, head of the European Commission's Drugs Branch, based in Brussels. It might seem that his department has little influence on member states' drug policies, given that drug strategy is something that states decide for themselves (which must multiply the difficulties he faces in running his department). However, there is no doubt that Carel's own series of conferences and statements are influential, especially on nations that are relatively undecided about their drug strategies.

The sum total therefore is that we have the bizarre situation of the British government funding an event which substantially undermines its own strategy - and the strategy of the USA - and gives unfettered promotion of the libertarian view in front of senior representatives from other countries who are unaware of the background machinations. Typical of the confusion created has been the remarks made to this writer by a foreign delegate who thought that Mr. Nadelmann was officially representing the government of the USA!

Paradigm shift coming?

There is some brighter news on the horizon, though the liberalisers are already anxiously decrying it. Under the leadership of Professor Neil McKeganey at Glasgow University's Centre for Drug Misuse Research, authoritative questions are being asked about harm reduction (28): Where and what are the significant results, if any, after fifteen to twenty years of substantial investment? And why were we so ready to emasculate primary prevention? Moreover, CDMR interviewed a large cohort of drug addicts and asked them what services **they** wanted: needles? syringes? methadone? and so on. A sizeable majority answered, "We want none of the above – what we really want is help to give up using drugs". McKeganey is not alone in raising these concerns, and it does seem that a reappraisal of policy priorities, with benefit to all concerned, is on the cards.

Cameron on substance

A recent blog by a Conservative party advisor (29) explores the new leader David Cameron's current attitude on drugs and drug policy. Cameron, before his selection as party leader, served his time on the HASC, which reviewed the whole of Britain's drug policy. According to the blog writer:

He was a tight-lipped as ever about his possible past use of illegal drugs, and seemed unwilling to recant his utterances when on the HASC – downgrade cannabis and ecstasy, set up shooting galleries, issue heroin on prescription – ideas which had provoked strong reaction amongst right-wing Tories. But he was anxious to dispel any notion that he was soft on drugs, saying: 'Whoever you are, wherever you live, drugs wreck lives. And they wreck the lives not just of those who use drugs, but the lives of their families and the lives of the many people who are victims of drug-related crime.'

He suggested two priorities:

- ▶ 'Proper education about drugs' – 'The Government sends mixed messages with too much on reducing the harm and not enough on reducing the use.'
- ▶ 'Treatment and rehabilitation' – He cited good models of rehab in Sweden, Holland and the USA. 'We have to make it available – indeed, we have to make it compulsory for each and every young addict. That is both tough and compassionate.'

5. O, Canada!

Whilst the USA has remained implacably opposed to almost every liberalisation of drug laws (the exception being a few states where cannabis laws have been relaxed in relation to what is loosely termed 'medical use'), north of the 49th Parallel the situation is very different. There is considerable pressure to go soft on cannabis. A British company, GW Pharmaceuticals, has been awarded a Canadian government licence for its synthetic cannabinoid-based product Sativex, but GW Pharmaceuticals insist that this licensing "has no direct consequences for the legal status of herbal cannabis for research and medical use".

Vancouver has been a focal point in the conflict over drug policy with much volatile rhetoric on liberalising as the solution to the problems of the city – especially on the Lower East Side, but also with the sterling outreach work of Vancouver's police 'Odd Squad' as a balancing factor. Perhaps the most damaging aspect of cannabis in Canada has been hydroponic cultivation in domestic properties – nowadays known as 'Home Grow'. Domestic properties are filled with light systems and produce hundreds of high-grade plants. Electricity and water are illegally 'boosted' from the mains supplies in the road outside. Unsuspecting buyers or landlords of properties, after the home-growers have moved on, find themselves saddled not only with enormous services bills but also severe structural decay to the timber framework from the effects of sustained high humidity. In 2006/7 scores of similar homes used to grow cannabis hydroponically have been found in the UK – many set up and run by Vietnamese.

A major customer for the Canadian product is that large country just south of the 49th. Canada is not without internal conflicts as to its relationship with its southern neighbour, and the situation is further complicated by the internal tension between the Quebecois and the rest of the country. Randy White is a former Member of Parliament and is now the President of the Drug Prevention Network of Canada, the only Canadian national organization that promotes prevention, treatment and enforcement as its primary goal. It believes that those who are addicted are best served by treatment that does not accommodate or encourage their addiction. Asked for his summary of how 'so-called harm reduction' came to grow so fast in Canada, he replied with the following statement:

I was a Member of Parliament in Canada when the concept of harm reduction appeared on the Canadian scene around 1994. It wasn't a concept really - it was an effort to accept drug abuse as another sickness that Canadians couldn't avoid, so attempts began to accommodate addiction. An extremely weak National Drug Strategy at the federal level, virtually non-existent prevention programs, treatment as a minimum effort, and judges and lawyers sentencing offenders like they were selling candy on street corners all led to legalization efforts and "harm reduction" becoming a theory that might work better than past political failures.

First a needle exchange began, then more needle exchanges as governments at all levels jumped on the band wagon with money but without looking at a long term strategy. Money was easier to get for a new concept and people looking for more incomes for their own existence began to invent more and more accommodating programs like medical marijuana, crack inhalation sites, wet houses, legalized prostitution, heroin programs, addicts shooting up other addicts and on it goes under the umbrella of "harm reduction". No one questioned, no one understood and no one watched as the scene developed.

I initiated a House of Commons special committee to study the non medical use of drugs in 2001. At each meeting [and there were many] I asked witnesses "What was harm reduction"? Virtually every witness answered differently, and to this day most people are not consistent with what it is and what it has accomplished. A common thread with those who wanted "harm reduction" was that they believed in legalization of drugs.

So today in Canada "harm reduction" has a tenuous foothold - achieving very little but soaking up tax dollars that could otherwise be used for prevention, treatment and enforcement. Canada, unlike most other civilized nations, followed the programs of Holland and Switzerland in such "harm reduction" concepts even when those two countries started to realize the failure in their approaches.

The "harm reduction movement" has come to represent a philosophy in which illicit substance use is seen as largely unpreventable and, increasingly, as a feasible and acceptable lifestyle - as long as use is not "problematic". At the root of this philosophy lies an acceptance of drug use into the mainstream of Canadian society.

As an example, a pilot project was established with government money for an injection site; the organizers then built in a smoke site [crack] within the confines of this building. Addicts did not just inject heroin, they injected 'meth' and other drugs. All this in the face of law enforcement, parents and friends as well as government expecting addicts would eventually kick the habit. This did not happen. When it came time for the Government to close the site, significant outcry began. Who was at the center of it? The workers and legalization advocates and even harm reduction/legalization advocates from other countries as well. The government, concerned about a noisy public lobby, did not close the facility, so there it stands - extending the harm to addicts and flying in the face of prevention and treatment. Such political expediency hardly deserves the term 'philosophy' – but if it were, then it would be a philosophy which is fatalistic and faulty at its core. The idea that we can use drugs 'safely' is a dangerous one – and in no way is substance use inevitable.

The Canadian movement into "harm reduction" crept into our society because people, governments and organizations failed to recognize the real agenda of the organizers. Canadian families and communities have considerable power to prevent substance use if they have the will and resources and the support of governments. As a world society, we should be concentrating on prevention, treatment and enforcement now.

Reason and Rights (Be reasonable – we're right)

As an example of the environment in which the Drug Prevention Network of Canada has to work, there is a relatively uninhibited contribution from the modestly-named British Columbia 'Centre of Excellence' (in HIV/AIDS). Author Richard Elliott (30) takes no prisoners.

In his 2005 paper "Reason and Rights in Drug Control" from British Columbia Centre for Excellence in HIV/AIDS, Richard Elliott, et al starts by accusing countries who "enforce prohibition" and resist harm reduction of "disregarding the available scientific evidence", and, for good measure, "contributing to the spread of AIDS". Elliott called on WHO and UN to rise to (his) challenge – or to continue their "timidity in the face of ideological bullying".

Canada is, Elliott concedes, bound by the human rights obligations it has undertaken as a member state of the UN. But, he says, Canada should build on its declared control objective of harm reduction, and put itself about with vigour as a "strong global advocate for harm reduction".

6. 'Advance Australia Fair' (and 'God Defend New Zealand')

Australia has proved itself an interesting laboratory in responses to the drug problem. Not by nature inclined to match its Southeastern Asian neighbours such as Singapore in their severity of law enforcement (the death penalty being a prominent feature), Australia has several noteworthy initiatives in its casebook.

Since the role of primary prevention as a prime tool in harm reduction is (even) accepted by some liberalisers, it is appropriate to mention two Australian examples (and one New Zealand one). Australia has produced some excellent prevention materials and programmes. Life Education Centres started there under the stewardship of its author, the Reverend Ted Noffs at the Wayside Chapel in the Kings Cross area of Sydney. The Kangaroo Creek Gang programme came from Perth. Meanwhile, just across the Tasman Sea in New Zealand, one of the most approachable books ever for parents - now also available on interactive DVD is *The Great Brain Robbery* (31) created by Tom Scott and Trevor Grice, the latter being also a Director of Life Education New Zealand. But since those heartening days when those resources were produced, things have slid downwards, and Australia is now a strongpoint of harm reduction.

One of the most prolific current experts in the Australian drug scene is Brisbane GP Stuart Reece. From his wide-ranging output, the following extract gives a good insight into what prevention workers face in Australia. The extract is taken from his commentary on an address to the 'National Abstinence Summit' in San Antonio, Texas, in 1999. The full paper (32) deals in depth with sexual behaviours and diseases as well as drugs matters – only the drugs aspect is covered in the extracts which follow:

Fatigue of 'harm minimization' / 'risk reduction'

Just as in its maturing years the hedonistic materialistic atheistic "drugs sex and rock and roll" culture of the '60's is now widely acknowledged to have spawned a multiplicity of major medical and social pathologies, so too the public health philosophy which appears to have been created to justify it seems from an international perspective to be having not only a very brief initial effect, but also major unintended consequences of harm maximization and indeed risk multiplication.

Injecting Drug Users

The other classic area in which the harm reductionists / risk reducers have been very busy is in the area of drug policy. Their touchstones are needle and syringe distribution programs and methadone. I recently had one of their leading advocates tell me that methadone is a major factor reducing the HIV transmission risk. Whilst it may be true that most methadone patients do not inject heroin as often as they used to, considering that

we estimate that only about 10% of all heroin addicts are on methadone, and that most still inject occasionally, the overall protective effect of methadone is likely to be quite modest in term of its global impact on the whole epidemic. A few reports on methadone are not favourable.

As in the case of condoms, harm minimization / risk reduction appears to have begun in Amsterdam. However, there was a report from there that in fact there were some indications that the number of injecting drug users (IDU) was thought to have increased both in the estimate of the total, and in terms of the numbers of clients entering rehab facilities. The same holds true in Australia, where the estimates of the number of IDU has been creeping steadily upwards during the 1990's from about 150,000 earlier in the decade to the order of 250,000 heroin addicts alone now, and possibly almost as many speed injectors also. However, the factual basis of any such estimates is enormously problematic. Few would deny, however, that there has been an obvious increase in the nation's drug problems associated with a fairly "laissez faire" liberal official attitude to drug policy under a protracted period of socialist administration since the 1970's.

HM/RR in drug policy began in Amsterdam with the introduction of a syringe distribution program to help fight the rise in Hepatitis B amongst injectors. The HIV virus and the HIV tests were discovered the following year, and the program serendipitously happened to be in place. Interestingly, the Hepatitis B incidence appeared to fall away after its introduction, but the HIV incidence rose from 2% in 1988 to 6% in 1991 and 5% in 1992! Note that a very similar pattern was observed with the HIV seroincidence amongst homosexual men. Hepatitis C incidence is not usually reported to respond well to needle and syringe programs either in Amsterdam or Australia.

Reports from Amsterdam in the early 90's showed that the effect of the needle program on needle sharing was transient and not significant. A similar effect was noted in Sydney, Australia, when needles and syringes were introduced in that the injecting behaviour rapidly and significantly escalated both in the study needle exchange and in another program in the same city in a matter of a few weeks!

NSP City Failures

Indeed when needle and syringe programs (NSP) are studied closely there is not infrequently a very adverse finding against the program. This has been seen most dramatically in the two Canadian programs in Montreal and Vancouver where HIV seroincidence has been studied in detail amongst NSP attenders and non-attenders and the incidence found to be 2.5 fold greater amongst NSP participants. Indeed when all the cities reporting major problems with their NSP facilities are listed, it makes an impressive list of failures: Amsterdam, San Francisco, Zurich, Montreal, Vancouver, Dublin, London, Sydney, Baltimore!

Suggestive Correlations

The numbers of syringes distributed in Australia is not readily available but may be ascertained from the articles written by the leaders of HR/RR. Based on these figures, it may be said that the correlation between heroin overdose deaths and the number of syringes distributed is $P = 0.0022$. The correlation between the methadone registrations and numbers of heroin overdose deaths is $P = 0.00825$. Perhaps most frightening of all was the fact that in a recent survey of 80 heroin addicts conducted in my clinic, some **40% felt that government encourages drug using** through activities such as NSP, methadone programs which persist indefinitely, and the kind of drug education which sends dominant messages like "We won't tell you whether or not to use drugs, but if you decide to we'll spend the next one hour telling you how to do so safely."

Conclusions on harm minimization

In summary, from the world literature, the best that can be said about harm minimization / risk reduction (HM/RR) is that HM/RR has a transient effect lasting a few years at most. In reality, the major studies which are usually thought to support HM/RR are deeply flawed and offer little or no supportive evidence at all. Indeed, it is one of the hallmarks of HM/RR philosophies that they deliberately refuse to address the problematic underlying risky and often selfish and irresponsible behaviours which underlie the pathologies they pretend to address. Meanwhile, evidence shows clearly that the underlying problematic behaviours spread and may be transmuted into different harmful forms, such as the transformation of the Australian AIDS epidemic into a heroin epidemic with a higher annual mortality than AIDS ever had, or the degradation of the culture of Amsterdam or Zurich under the influences of the liberal risk reductionists in those cities.

The epidemiological evidence would, however, strongly indicate several major conclusions including:

Knowledge imparted in the standard values free sex or drug education exercises will usually not positively impact behaviour as desired without the added variable of 'Wisdom.'

The inculcation of wisdom, however, absolutely necessitates that character be taught; character based not on relativistic personal subjective values, but the ancient virtues of society and civilization, indeed, character traits of eternal moral and spiritual importance, and, indeed, those endorsed by most of the world's major religions.

Perhaps my heroin patients can help indicate at least the beginnings of an answer to the classically difficult chestnuts posed by causality. When we surveyed 80 heroin patients recently, 40% said that the government encouraged them to use drugs (through methadone, syringe distribution and drug 'education' programs). John Saunders, Professor of Drug and Alcohol Studies in the Dept. of Psychiatry at the University of Queensland, says that in many respects Australia has traded an AIDS epidemic for a heroin epidemic.

The intrinsically **behavioural** determinants of the world wide epidemic of mortality from psychosocial disorders need to be formally addressed once again. Clearly the "way forward" is in some respects also the way back, to the traditional virtues which have always been shared by stable, self-perpetuating civilizations. Clearly we need together and internationally to turn from the immature selfish and self-centred hedonistic delirium which saw the explosion of various serious disorders manifested by rising trend lines in many nations and were heralded by unsafe modern contraception and followed by its many ideological offspring and cousins including condoms, needles and syringes, methadone and values-free value-less so-called "education" programs in many fields, and begin to deal with the core problems and the root