A special double issue of *Substance Use & Misuse* has been published with papers on syringe access and use from multiple countries. (courtesy of *Steve Jones, MD).*

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 771 - 776

Special Issue on Syringe Access and Secondary Syringe Exchange: International Perspectives and Future Directions

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 777 - 813

Do Needle Syringe Programs Reduce HIV Infection Among Injecting Drug Users: A Comprehensive Review of the International Evidence

Alex Wodak A1 and Annie Cooney A1

A1 St. Vincent's Hospital, Sydney, Australia

Abstract:: This first international review of the evidence that needle syringe programs reduce HIV infection among injecting drug users found that conservative interpretation of the published data fulfills six of the nine Bradford Hill criteria (strength of association, replication of findings, temporal sequence, biological plausibility, coherence of evidence, and reasoning by analogy) and all six additional criteria (cost-effectiveness, absence of negative consequences, feasibility of implementation, expansion and coverage, unanticipated benefits, and application to special populations). The Bradford Hill criteria are often used to evaluate public health interventions. The principal finding of this review was that there is compelling evidence of effectiveness, safety, and cost-effectiveness, consistent with seven previous reviews conducted by or on behalf of U.S. government agencies. Authorities in countries affected or threatened by HIV infection among injecting drug users should carefully consider this convincing evidence now available for needle syringe programs with a view to establishing or expanding needle syringe programs to scale.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 815 - 825

Thinking Ethically About Needle and Syringe Programs

John Kleinig A1, A2

A1 Professor of Philosophy, John Jay College of Criminal Justice, City University of New York

A2 Professorial Fellow in Criminal Justice Ethics, Centre for Applied Philosophy and Public Ethics, Charles Sturt University, Australia

Abstract:: Accepting—for the sake of argument—our current legal policies concerning heroin use and its users, what ethical questions are raised for needle and syringe program (NSPs)? Do they weaken drug laws, send the wrong message or obscure the right message, do little to eliminate the harm of drugs, detract from alternatives, and/or constitute a counsel of despair? I suggest that in the absence of established better alternatives, NSPs constitute a morally acceptable and in some cases even desirable option despite the continued criminalization of

injecting drug use. Yet they must be conceived and administered in ways that do not reinforce prevailing social prejudices.

=========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 827 - 829

Critical Condition Facing Needle Exchange Programs: The Politics of Science

Susan G. Sherman A1

A1 Johns Hopkins Bloomberg School of Public Health, 615 N. Wolfe Street, E6543, Baltimore, MD, 21205, USA, ssherman@jhsph.edu

This article does not have an abstract. – EXCERPTS below

…In their extensive review of the effectiveness of SNEPs in the impressive body of research documenting reductions in HIV/AIDS, hepatitis B, and hepatitis C infections among injection drug users (IDUs), Wodak and Cooney (2004) asserted that the cumulative research findings which span time, populations, and continents support a casual relationship between SNEPs and HIV/AIDS. Based on the time-tested method of deductive reasoning, one would assume that the body of first-generation research would be widely embraced as truth and inform policies and practices in a number of diverse countries spanning from Eastern Europe to Southeast Asia where HIV/AIDS epidemics rage among IDUs.

In addition to the relationship between SNEP and risk behaviors, infectious disease prevalence, first-generation SNEP research included defying other myths that served as fodder for those against SNEPs, including demonstrating that they are not associated with an increase in criminal activity (Marx et al., 2000), they do not result in an increase of discarded contaminated syringes

(Doherty et al., 1997, 2000) they are not associated with the creation of risky IDU networks (Junge et al., 2000), and they do not increase the number of IDUs by their mere presence in a community. In addition to defying these myths, research have found that SNEPs are associated with entry into drug treatment (Brooner et al., 1998; Heimer et al., 1998; Strathdee et al., 1999) and can serve as a link to a range of needed health services (Riley et al., 2002) to marginalized populations. As far as expanding the reach of SNEPs, there is an increased focus on the role of secondary syringe exchangers, who often have access to at-risk IDUs that otherwise are not reached by services. Finally, overdose prevention and naloxone distribution programs are increasingly becoming incorporated into the fabric of SNEPs' basic services (Bigg, 2002; Seal et al., 2003; Sherman et al., 2003, 2004).

But as we continue to learn again and again, science does not inform sound judgement and good policies, as exemplified by the United States. Rather, scientific integrity and research has been under attack for the past 4 years, with morality and politics, rather than science, informing the priorities of many government-sponsored research and public health initiatives. Because the United States is the largest single donor country in the world, our policies have far-reaching influence. As a result, we are back to the basics of having to "prove" a proven argument—that SNEPs do not cause drug use and are not a part of a large drug legalization agenda. How can we still be having this conversation in 2005? Through the rest of the Western industrialized world and many parts of the developing world, SNEPs are a vital component of the fight against drug abuse and HIV/AIDS…

Although debates continue on the effectiveness of condoms and syringes in abating the HIV/AIDS epidemic, people continue to contract the disease that is entirely preventable. An estimated 4.8 million new HIV infections occurred worldwide during 2003, which is roughly 14,000 infections each day. More than 95% of these new infections occurred in developing countries (CDC, 2004). In the United States, approximately 40,000 new HIV infections occur each year, which translates to roughly 110 people each day. In 2003, 17% of reported new HIV infections in the United States were attributed to injection drug use or sex with an IDU. Additionally, 43% of all AIDS cases among African American men and 53% of African American women diagnosed through 2003 were attributed to injection drug use or sex with an IDU. Although millions have been spent on prevention with IDUs, the need to increase the reach of SNEPs is grossly apparent. This translates to the changing of drug paraphernalia laws, lifting the illegal nature of syringe exchange, and the expansion of funding to increase the number of SNEPs, now estimated at 140 in the United States.

The potentially deleterious effects of this administration and congress' policies toward not simply funding such cost-effective and necessary prevention tools such as harm reduction, but their active attempts to ban the provision of this service throughout the globe is beyond critical. As researchers, we have an obligation to continue doing the research that improves the health

and welfare of our study participants. As important, we are obliged to engage in the political process that so single-mindedly defies the logic and reason that is the very basis for our work.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 831 - 832

Research-Informed Policy: Our Most Critical Unresolved Issue in AIDS

Merrill Singer A1

A1 Director, Center for Community Health Research, Hispanic Health Council, 175 Main St., Hartford, CT, 06106, anthro8586@aol.com

This article does not have an abstract. EXCERPTS BELOW:

Editorial

Research-Informed Policy: Our Most Critical Unresolved Issue in AIDS

Merrill Singer, Ph.D.1

1Director, Center for Community Health Research, Hispanic Health Council, 175 Main St., Hartford, CT, 06106, E-mail: anthro8586@aol.com.

Within the context of the United States, the most critical unresolved issue regarding syringe exchange is not a question of research, not a question of gaps in our knowledge, and not a

question of intervention efficacy, it is, instead, one of strategy: how to most effectively respond at the local and national levels to opposition to syringe exchange. As research scientists, our work is guided by an often unarticulated belief that research matters and therefore good research will inform good policy. Repeatedly, in the arena of syringe exchange research, however, we have had to confront the painful reality that research that does not conform with politically dominant perspectives is ignored or, worse still, is misrepresented and used to justify unhealthy health policy (Buchanan et al., 2003, Shaw and Singer, 2003).

In Springfield, Massachusetts, for example, despite the existence of rigorous research and analyses indicating major health costs (in terms of the significant number of preventable infections that result from not having syringe exchange or even pharmacy purchases of syringes without a prescription) and despite the backing of local public health officials, the city council has not been able to decide to implement syringe exchange. The debate has gone on for several years, during which time the cumulative number of infections in the city related to injection drug use has continued to climb. Council members have been caught between their awareness of the proven public health benefits of syringe exchange and the actions of a vocal opposition in one sector of the local community. ..

In Willimantic, Connecticut, an existing syringe exchange that was effectively reaching an unusually large drug-injecting population for a small city in a semirural area was closed down by the Connecticut Department of Public Health, again because of the vocal opposition of one sector of the community. In neither of these cases, not surprisingly, was the perspective of individuals who inject drugs considered. Ostracized as “outside of the community,” drug users are not granted a voice in health policies that affect their well-being; quite simply, because they are defined as “bad people” their perspectives are irrelevant. Without doubt, this insidious pattern of demonization has contributed, needlessly, to continued spread of HIV/AIDS. Worse still, even well-established syringe exchange programs that have effectively contributed to slowing the epidemic among drug users and lower infection prevalence levels in this population have faced numerous structural impediments (Heimer et al., 1997).

At the national level, of course, over a decade of data collection and multiple commissioned reviews of the literature with consistently positive findings by an array of government bodies has failed to convince an administration, Democratic or Republican, that syringe exchange is good public health policy. Rather than being accepted as a rational, measured, and reality-based approach to public health, the whole program of harm reduction, syringe exchange included, has come to be defined by the powers that be as newest threat to the American way of life (clearly filling a void left by the collapse of the Soviet Union).

Speaking truth to power is always a worthy goal. In an epidemic, however, it is insufficient. How, strategically, to overcome the ideological barriers that separate us from the types of evidence-based public health policies that are needed at the national and local levels to effectively confront the AIDS epidemic in the United States remains our most critical contemporary unresolved issue.

=========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 833 - 834

The Prevention and Care of HIV-Infected Drug Users in Contemporary Brazil

Francisco I. Bastos A1

A1 Oswaldo Cruz Foundation, Brazil, bastos@cict.fiocruz.br

This article does not have an abstract.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 835 - 836

Needle and Syringe Exchange Programs in Amsterdam

Ewald Witteveen A1 and Gerard Schippers

This article does not have an abstract.

======

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 837 - 839

Lessons From the First International Review of the Evidence for Needle Syringe Programs: The Band Still Plays On

Alex Wodak A1

A1 St. Vincent's Hospital, Victoria Street, Darlinghurst, NSW, 2010, Australia

This article does not have an abstract. Excerpts BELOW:

AIDS is now recognized as a paramount threat to the health, well-being, economy, and national security of many countries around the world. By the end of this decade, the epicentre of the AIDS epidemic will shift (National Intelligence Council, 2004) from sub-Saharan Africa to Asia. This involves a shift from a region where injecting drug use is rarely detected to the most populous region of the world, Asia, where injecting drug use is a major (Wodak et al., 2004), if not the major, transmission route.

The principal finding of this comprehensive and first international review of the subject (Wodak and Cooney, 2005) is that the case that needle syringe programs (NSPs) reduce HIV effectively, safely, and cost-effectively is now overwhelmingly strong. The Bradford Hill criteria, generally regarded as the most robust method of assessing public health interventions, were used in this international review. Conservatively, six of the nine Bradford Hill criteria and all five additional criteria were clearly fulfilled. By any objective consideration, this is strong support indeed. All seven previous published national reviews conducted by, or on behalf of, U.S. government agencies had found that NSPs were effective in reducing HIV among injection drug users (IDUs) and did not increase illicit or injecting drug use.

Despite the strength and consistency of this evidence, the level of implementation of NSPs around the world is still desperately poor. HIV continues to spread among IDUs faster than the establishment of new NSPs. Many countries implemented NSPs far too late. Many other countries expanded NSPs far too slowly. Some countries did both. Industrialised countries generally adopted and expanded NSPs to scale relatively early. However, the United States adopted NSPs late and coverage is still very poor. The United States has the highest prevalence and incidence of AIDS in the developed world (National Centre in HIV Epidemiology and Clinical Research, 2002) and at least a third of new AIDS cases are attributable (Centers for Disease Control and Prevention, 1996) directly or indirectly to the sharing of needles and syringes. Not one federal dollar has yet been spent on NSPs in the United States, and a ban on federal funding for NSP research was only rescinded recently. The limited impact of evidence in shaping HIV prevention policy in the United States has influenced the decision to reject or delay adoption of NSPs in many resource poor and transitional countries.

Ironically, some countries have been prepared to wage war on the basis of inadequate and severely flawed evidence, while unwilling to adopt and expand NSPs to save lives and money, notwithstanding copious and high quality evidence of their effectiveness, safety, and cost effectiveness. After almost two decades of scientific research evaluating NSPs, much has been learned. Yet it is clear that the resistance to adopting and expanding NSPs has had little to do with any concerns about the size and quality of this evidence. Authorities in some countries proved to be “data resistant.” They reluctantly accepted evidence of the effectiveness, safety, and cost-effectiveness of NSPs when it became clear that the scientific case was virtually beyond question. But authorities in some other countries have proved to be not just “data resistant” but “data proof.” No quantity or quality of data would ever be able to shake their preordained conclusions. Instead, these authorities have relied on the few existing negative studies, even after the authors of these studies had rejected their earlier negative interpretation after more careful analysis.

The world will pay a high price for this obdurate denial of the evidence for NSPs. In a world of ever-increasing globalisation, HIV will increasingly cross borders along with capital, labor,

goods, and services. Countries that adopted HIV prevention policies late and expanded slowly, resulting in a high prevalence of HIV, will export HIV to countries that accepted evidence-based approaches and maintained low HIV prevalence.

What is the rational explanation for the failure of so many intelligent and committed authorities in so many countries to reject the clear findings from the scientific evaluation of NSPs? The major factor has clearly been a deeply entrenched commitment to global drug prohibition and a perception that adoption and expansion of NSPs was incompatible with a continuing commitment to global drug prohibition. The fact that NSPs do not breach the international drug treaties, according to a recent authoritative review (UNDCP, 2002), has had minimal impact. In many countries, what "works" in drug policy is not particularly popular and what is popular usually does not "work." This has been a debate (Buchanan et al., 2003) largely between those who took the view that actions should be judged solely by their costs and benefits and those who took a contrary view that moral values over ride consequences. But how moral is it to consign future generations to endemic HIV when this can be readily prevented?

The limited impact of science on the policymaking of HIV prevention among and from IDUs is part of a strong and consistent pattern in drug policy over many decades. Global drug prohibition began almost 100 years ago with a meeting in Shanghai convened by the United States in 1909 (Bewley-Taylor, 1999). Over succeeding decades, global drug prohibition was strengthened and intensified. Illicit drug use began to expand in the third quarter of the 20th century, but the rate of expansion accelerated rapidly in the final quarter of the last century. The recognition of AIDS in 1981 changed the world irrevocably. The questioning of global drug prohibition began about that time and has continued to gather pace.

Many countries have shown that it is possible to continue a commitment to global drug prohibition and adopt and expand NSPs. But it is also true that the strong case for NSPs has caused many to begin questioning the case for global drug prohibition. "Harm reduction" gathered increasing support as a public health framework of the AIDS era. This framework enabled an urgent switch from a preoccupation with reducing drug consumption, whatever the cost, to an overarching aim of reducing drug-related harm. The first phase of harm reduction has been efforts to contain HIV infection among IDUs. Despite two decades of feverish activity, HIV still continues to spread among IDUs in many countries, although an increasing number of countries have adopted NSPs and some have explicitly adopted harm reduction. The second phase of harm reduction has begun in a number of Western European countries. Recognizing that powerful market forces affecting illicit drugs under prohibition create immense harms, this approach seeks to identify a less harmful drug distribution system than one based on criminals and corrupt police.

We are now in the early part of the third decade since AIDS was first recognized as a pandemic. The evidence for NSPs has been strong for many years. The band still plays on (Shilts, 1987) and looks like playing on for many years to come.

=======

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 841 - 843

Needle Exchange and the HIV Outbreak Among Injection Drug Users in Vancouver, Canada

Evan Wood A1, A2 and Thomas Kerr A1, A3

A1 British Columbia Centre for Excellence in HIV/AIDS, 608-1081 Burrard Street, Vancouver, BC, V6Z1Y6, Canada

A2 Department of Health Care and Epidemiology, University of British Columbia, Vancouver, BC, Canada

A3 Department of Medicine, University of British Columbia, Vancouver, BC, Canada

This article does not have an abstract.

=====

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 845 - 864

Threat or Opportunity? Secondary Exchange in a Setting With Widespread Availability of Needles

Simon Lenton A1, Jude Bevan A2, Tania Lamond A3

A1 National Drug Research Institute, Curtin University of Technology, Australia

A2 Department of Health, Government of Western Australia

A3 Western Australia AIDS Council

Abstract:: Where authorized access to needles and syringes from exchanges and pharmacies is limited, secondary exchange (SE) can provide an important source of sterile injecting equipment. Interventions can be developed to use SE to facilitate needle and syringe exchange programs to reach a wider population of drug injectors. Yet in a context such as Western Australia, where needles and syringes are available to drug injectors from many authorized sources, the added benefit of SE is unknown. This review of data and literature conducted in October 2003 shows potential benefits but also concerns about undermining vulnerable public and political support for authorized needle provision schemes that has been nurtured and supported over a number of years.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 865 - 882

Secondary Syringe Exchange Among Users of 23 California Syringe Exchange Programs

Jennifer Lorvick A1, Ricky N. Bluthenthal A2, A3, Andrea Scott A1, Mary Lou Gilbert A2, Kara S. Riehman A4, Rachel L. Anderson A5, Neil M. Flynn A5, Alex H. Kral A1, A6

A1 Urban Health Program, RTI International

A2 Health Program and Drug Policy Research Center, RAND

A3 Drew CARES, Department of Psychiatry, Charles R. Drew University of Medicine and Science

A4 Substance Abuse Treatment Evaluations and Interventions, RTI International

A5 Department of Internal Medicine, University of California, Davis

A6 Department of Family and Community Medicine, University of California, San Francisco

Abstract:: This article describes the secondary syringe exchange (SSE) practices of injection drug users (IDUs) attending 23 syringe exchange programs (SEPs) in the state of California during 2002 (n = 539). The sample was primarily heroin injecting, about two thirds male, half White and half other racial/ethnic groups. Participants were interviewed with a structured questionnaire that included items on sociodemographic factors, drug use practices, sexual practices, use of SEP and other social services, and satisfaction with SEP services. Interviews lasted about 30 minutes. SSE was highly prevalent: 75% of IDUs reported participating in SSE in the 6 months before interview. Program characteristics, such as legal status, SSE policy, and exchange policy, did not affect the prevalence of SSE among SEP clients. Infectious disease risk behaviors were significantly more common among SSE participants than nonparticipants. SSE participants were more likely to share syringes ($p < .001$) and cookers ($p < .001$) in the previous 6 months. SSE was significantly associated with being stuck with another person's syringe (needle-stick), a little-discussed “occupational hazard” of this practice. In multivariate analysis, the adjusted odds ratio of needle-stick among SSE participants was 2.8 (95% confidence interval, 1.3, 6.0). The high prevalence of SSE and the infectious disease risk associated with it warrant additional research to determine the causality of these associations. In the interim, SEPs should consider reinforcing HIV prevention education messages and training IDUs who engage in SSE in safe handling of biohazardous materials.

=========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 883 - 899

Factors Associated With Buying and Selling Syringes Among Injection Drug Users in a Setting of One of North America's Largest Syringe Exchange Programs

Laura M. Kuyper A1, Thomas Kerr A1, A2, Kathy Li A1, Robert S. Hogg A1, A2, Mark W. Tyndall A1, A3, Julio S. G. Montaner A1, A3, Evan Wood A1, A2

A1 British Columbia Centre for Excellence in HIV/AIDS, St. Paul's Hospital, Vancouver, British Columbia, Canada

A2 Department of Health Care and Epidemiology, University of British Columbia, Vancouver, British Columbia, Canada

A3 Department of Medicine, University of British Columbia, Vancouver, British Columbia, Canada

Abstract:: We performed analyses of syringe buying and syringe selling among Vancouver injection drug users, recruited from May 1996 and followed up between November 2002 and August 2003, in the context of one of North America's largest syringe exchange programs (SEPs). An interviewer-administered questionnaire, approximately 45 minutes in duration, was used to collect information regarding risk factors for HIV infection and sources of sterile syringes. Seventy participants (15%) reported syringe selling and 122 (26%) reported syringe buying. Syringe sellers were more likely to be female, reside in unstable housing, need help injecting, and have visited the SEP at least once weekly. Syringe buyers were more likely to need help injecting, have difficulty finding new syringes, have binged on drugs, and have visited the SEP at least once weekly. Syringe buying most frequently occurred when the SEP was closed.

========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 883 - 899

Factors Associated With Buying and Selling Syringes Among Injection Drug Users in a Setting of One of North America's Largest Syringe Exchange Programs

Laura M. Kuyper A1, Thomas Kerr A1, A2, Kathy Li A1, Robert S. Hogg A1, A2, Mark W. Tyndall A1, A3, Julio S. G. Montaner A1, A3, Evan Wood A1, A2

A1 British Columbia Centre for Excellence in HIV/AIDS, St. Paul's Hospital, Vancouver, British Columbia, Canada

A2 Department of Health Care and Epidemiology, University of British Columbia, Vancouver, British Columbia, Canada

A3 Department of Medicine, University of British Columbia, Vancouver, British Columbia, Canada

Abstract:: We performed analyses of syringe buying and syringe selling among Vancouver injection drug users, recruited from May 1996 and followed up between November 2002 and August 2003, in the context of one of North America's largest syringe exchange programs (SEPs). An interviewer-administered questionnaire, approximately 45 minutes in duration, was used to collect information regarding risk factors for HIV infection and sources of sterile syringes. Seventy participants (15%) reported syringe selling and 122 (26%) reported syringe buying. Syringe sellers were more likely to be female, reside in unstable housing, need help injecting, and have visited the SEP at least once weekly. Syringe buyers were more likely to need help injecting, have difficulty finding new syringes, have binged on drugs, and have visited the SEP at least once weekly. Syringe buying most frequently occurred when the SEP was closed.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 901 - 913

Social Context of Needle Selling in Baltimore, Maryland

Carl A. Latkin A1, Melissa A. Davey A1, Wei Hua A2

A1 Faculty of Social and Behavioral Sciences, Department of Health Policy and Management, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, USA

A2 Department of International Health, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, USA

Abstract:: Although much of the debate surrounding the distribution of sterile syringes to injection drug users (IDUs) has focused on needle exchange programs (NEPs), IDUs acquire their syringes from three major sources: NEPs, pharmacies, and secondary exchangers or needle sellers. The purpose of the present study is to examine types and frequencies of social interactions among drug injectors who sell needles, most of which come from NEPs, compared with individuals who do not sell needles. Specifically, we compared engagement in drug-related behaviors, roles in the drug economy, and social network membership. Data were collected as part of the SHIELD study, an HIV prevention intervention targeted at drug users and their social networks (n = 910) from February 2001 through September 2003 in Baltimore, Maryland (USA). In this sample, 56 participants reported selling needles. Needle sellers had higher levels of engagement in drug-related social interactions, including using drugs with others, giving or receiving drugs from others, and buying drugs with other users. Participants who sold needles had a significantly higher number of roles in the drug economy. Also, they had more social network members who were injectors, with whom they talked about risky drug behaviors, gave needles to, and shared cookers and bleach with. Compared with nonselling injectors, needle sellers engage in HIV risk-related behaviors, such as injecting daily and sharing injection equipment, more frequently. The study's findings may be useful to determine whether secondary exchangers should be targeted for HIV prevention activities both to reduce their own risk and to diffuse risk reduction information throughout the drug using community.

========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 915 - 935

An Exploratory Qualitative Study of Polydrug Use Histories Among Recently Initiated Injection Drug Users in San Juan, Puerto Rico

H. Ann Finlinson A1, Héctor M. Colón A1, Rafaela R. Robles A1, Mayra Soto-López A1

A1 Center for Addiction Studies, School of Medicine, Universidad Central del Caribe, Bayamón, Puerto Rico

Abstract:: It is well documented that drug users often modulate the effects of their primary drugs of use (e.g., cocaine) by using other drugs (e.g., alcohol), yet the effect of modulating and primary drug interactions on transitions from one class of drugs to another and from noninjected drugs to injected drugs is not clear. This issue, which is critical for understanding polydrug abuse,1 is explored in formative research based on in-depth qualitative interviews conducted during 2003–2004 with 25 recently initiated drug injectors residing in San Juan, Puerto Rico. This study suggests that increased use of a primary drug (e.g., cocaine) was influenced by enhancing or attenuating drugs, which were used in a particular order (e.g., alcohol, heroin) reflecting effectiveness in modulating primary drugs at different use intensities, as well as by participants' perceptions of the relative dangers associated with different drugs. Neither availability nor access appeared to affect the order in which participants used modulating drugs.

=======

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 937 - 951

Assessing Needle Exchange Operations in a Poor Brazilian Community

Francisco I. Bastos A1, Monica Malta A1, Mariana A. Hacker A1, Maya Petersen A1, A2, Mirtha Sudbrack A3, Marcia Colombo A3, Waleska T. Caiaffa A4

A1 Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil

A2 University of California, Berkeley, CA, USA

A3 Porto Alegre Harm Reduction Project, Rio Grande do Sul, Brazil

A4 Federal University of Minas Gerais (UFMG), Minas Gerais, Brazil

Abstract:: This article assesses the operations of Porto Alegre, State of Rio Grande do Sul, (southern Brazil) needle exchange program (NEP), a setting where HIV infection rates have been on the rise among injection drug users (IDUs) in recent years, contrasting with substantial declines observed in this population, in major Brazilian cities (located in the southeast and southernmost part of Brazilian northeast). We explored local syringe dynamics, with the exclusive delivery in the local NEP of tagged syringes, and the subsequent monitoring of returned tagged/untagged used syringes from January to September 2002. We further assessed local NEP operations using focus groups and field observation, trying to expose the underlying reasons for the substantial delay in the return of tagged syringes and the continuous and relevant return of untagged syringes throughout the study period. We found that local IDUs reuse, divert, and create caches of syringes at their discretion. All efforts should be made to increase the availability of clean syringes and to fully integrate syringe exchange with comprehensive health education and health screening to effectively curb HIV spread.

======

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 953 - 977

Needle Syringe Acquisition and HIV Prevention Among Injecting Drug Users: A Treatise on the “Good” and “Not So Good” Public Health Practices in South Asia

Samiran Panda A1 and Mukta Sharma A2

A1 HIV/AIDS and STI Research and Training Consultant, Society for Positive Atmosphere and Related Support to HIV/AIDS (SPARSHA), Kolkata, India

A2 Department of Social Policy, London School of Economics and Political Science, London, UK

Abstract:: This article describes the prevalence of HIV/AIDS and other bloodborne infections is well established among injection drug user (IDU) populations in South Asia (SA). IDU populations in SA are diverse and display different demographic and socioeconomic profiles. The current provision of sterile injecting equipment as part of public health initiatives is suboptimal. Although some needle and syringe exchange programs (NSEPs) operate in the region, pharmacies and “friends” continue to be a major source of syringe acquisition. It is suggested that the cost of syringes in the region is significantly higher in real terms than in several other countries and negatively impacts on the ability of IDUs to acquire needles and syringes. In addition, existing NSEPs offer poor coverage both at the population and individual level. Their effective functioning is hampered by resource constraints, ambivalent policy positions, little attention to quality, and environmental factors. Secondary syringe exchange is a nascent phenomenon in SA that needs to be adequately documented and evaluated. Urgent attention needs to be given to developing alternative models of needle syringe delivery to scale-up HIV prevention interventions for IDUs. This study was conducted in the first quarter of 2004 and updated in 2006. We used key informants, previously unpublished and published data from research studies, and interventions programs, service statistics, and primary data to inform this study.

======

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 979 - 999

Secondary Syringe Exchange as a Model for HIV Prevention Programs in the Russian Federation

Kevin Irwin A1, Evgeni Karchevsky A2, Robert Heimer A1, Larissa Badrieva A3

A1 Department of Epidemiology and Public Health, Yale University, New Haven, CT, USA

A2 Harm Reduction Project “Renewal,”, Kazan, Russian Federation

A3 AIDS Prevention and Control Center, Ministry of Health, Republic of Tatarstan, Kazan, Russian Federation

Abstract:: Effective prevention of syringe-borne transmission of HIV and the hepatitis viruses can be undermined if contact between injection drug users and the staff of prevention programs is impeded by police harassment, limited program resources, and the absence of an open “drug scene.” All these are commonplace in the Russian Federation. In response, “Project Renewal,” the harm reduction program of the AIDS Prevention and Control Center of the Tatarstan Ministry of Health in Kazan, has created a hybrid syringe exchange program that as its primary focus recruited and trained volunteers to provide secondary syringe exchange. To compensate for operational barriers, the program staff identified private venues and trained responsible individuals to work through their own and related networks of injectors to provide clean syringes, other harm reduction supplies, and educational materials, while facilitating the collection and removal of used and potentially contaminated syringes. Program staff developed a detailed set of tracking instruments to monitor, on a daily and weekly basis, the locations and types of contacts and the dissemination of trainings and materials to ensure that the secondary distribution network reaches its target audience. Data show that these secondary exchange sites have proven more productive than the primary mobile and fixed-site syringe exchanges in Kazan. Beginning in 2001, Project Renewal has trained other harm reduction programs in the Russian Federation to use this model of reaching injectors, identifying and training volunteers, and monitoring results of secondary syringe exchange.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 1001 - 1016

Motives for and Against Injecting Drug Use Among Young Adults in Amsterdam: Qualitative Findings and Considerations for Disease Prevention

Ewald Witteveen A1, Erik J. C. Van Ameijden A2, Gerard M. Schippers A3

A1 Health Service Amsterdam, The Netherlands

A2 Municipal Health Service Utrecht, The Netherlands

A3 The Amsterdam Institute for Addiction Research, The Netherlands

Abstract:: To elucidate injection initiation and risky injection practices among young drug users (YDUs) in Amsterdam, this study identifies self-reported motives for injecting and not injecting to inform interventions to be targeted at issues personally relevant for this population. A qualitative study was performed using in-depth interviews to obtain retrospective drug use histories. Recruitment took place both directly (by street outreach, outreach at methadone outposts) and indirectly (by respondent-driven sampling). The study started in the year 2001 and included 50 YDUs, aged 18–30, of which 18 had a history of injecting. Reasons for not starting injection were fears of needles, overstepping a limit, damage to appearance, fears of missing veins and causing abscesses, and illnesses. Reasons for starting injection were stronger effect or rush, curiosity, economy, knowing injectors, and perceived lack of danger to health. Motives for injecting and not injecting can differ widely individually. Some strong motives are hardly addressed by prevention programs and should inform new prevention initiatives. Users' own motives for not injecting should be promoted, whereas their motives for initiation should be counter-balanced with factual information.

=====

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 1017 - 1028

Changes in the “Get-Off”: Social Process and Intervention in Risk Locales

J. Bryan Page A1 and Renee Llanusa-Cestero A1

A1 University of Miami, Coral Gables, FL, USA

Abstract:: Because of ongoing resistance in Florida's legislature to interventions involving exchanges of sterile syringes for contaminated ones, Miami/Dade County's population of injection drug users (IDUs) reduce risk of HIV and hepatitis C infection by buying illegal syringes, participating in illegal syringe exchanges, or decontaminating their paraphernalia. Although it is completely legal, wherewithal for decontamination of injection paraphernalia, including sodium hypochlorite (laundry bleach), water, and cotton for filtering drugs, only appears sporadically in Miami/Dade's risk locales (called “get-off” houses). To ensure consistent decontamination, our intervention instituted regular delivery of these goods to known risk locales. In addition, personnel in half of the locales received training in techniques for optimal decontamination. RNA polymerase chain reaction measured impact of this intervention in terms of viral load found on harvested paraphernalia. Regular delivery of cleansing paraphernalia provided opportunities for observation and characterization of adaptations among people who run risk locales. These people may lead highly stable lives or highly changeable ones, but in most cases their roles as regular hosts of injection activities continue with only brief hiatuses due to incarceration, eviction, or familial dissolution. Proprietors of risk locales maintain their roles as facilitators of self-injection because they use that role to make money or to obtain opportunities to inject drugs and also because their clientele demands they continue.

==========

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 1029 - 1044

A Rapid Assessment of Heroin Use in Mombasa, Kenya

Susan Beckerleg A1, A3, Maggie Telfer A2, Ahmed Sadiq A3

A1 London School of Hygiene & Tropical Medicine, London, UK

A2 Bristol Drugs Project, UK

A3 The Omari Project, Kenya

Abstract:: This article reports on a rapid assessment (RA) carried out in the city port of Mombasa, Kenya in March 2004 by the Omari Project to inform the scaling up of their services to heroin users. Heroin has been a street drug in Mombasa for over 25 years. From 1998, white crest, probably from Thailand, started to replace brown sugar, and there was a major shift from inhalation of the vapor ("chasing the dragon") to injecting. The Omari Project has been monitoring the heroin situation in Mombasa and treating heroin users from Mombasa since 1997. In the course of the RA, 496 heroin users were interviewed of whom 95% were men and 5% were women. A range of methods were used, including mapping of the Mombasa region, work with a key informant/guide who was a heroin user, administration of a brief questionnaire and informal interviews, and feedback of findings to other local agencies working with drug users. Respondents were from a wide range of cultural/ethnic groups, the two largest being Mijikenda and Swahili, who are indigenous to the Kenya coast. Overall, 15% of respondents had "ever injected" heroin, and 7% were current injectors (n = 37). These data indicate a shift away from injecting but also reflect the death of many established injectors, either through overdose or AIDS or hepatitis. The figure of 7% of the sample reporting being current injectors is likely to be an underestimate. Syringes were available from a number of pharmacies and most injectors reported using a syringe for 1–3 days. The majority reported injecting in a group of three or more and described risk behaviors for HIV transmission. The results of the assessment highlight the need for a range of services, including needle exchange, counseling, and referral to residential treatment programs. However, progress toward responding to the findings of the RA by establishing effective services are hampered because of legal impediments to operating needle exchange programs in Kenya.

=======

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 1045 - 1048

Rethinking Coverage of Needle Exchange Programs

Dave Burrows A1

A1 AIDS Projects Management Group, Level 2, 50 York St., Sydney, NSW, 2000, Australia, dave@aidsprojects.com

This article does not have an abstract.

==========

Introductory Overiview article

Substance Use & Misuse, 2006, Vol. 41, Issue 6-7, p. 771 - 776

Editor's Introduction to This Special Issue on Syringe Access and Secondary Syringe Exchange: International Perspectives and Future Directions

Thomas Stopka

Since the advent of the HIV/AIDS pandemic, improved syringe access has been highlighted as one of the most effective means to successful disease prevention among injection drug users

(IDUs). Different social, cultural, political, economic, moral, and legal contexts have influenced the creation, maintenance, interference with, and closing down of syringe access–oriented programs in locations across the globe. Local de facto realities, as well as individual and systemic stakeholders, have and continue to dictate the ease or difficultly with which these programs are developed, utilized, changed, and sustained. In many areas, particularly in communities where harm reduction is less supported, innovative disease prevention and health promotion approaches are required to maintain authorized syringe access and prevention efforts. Where these are not possible, informal and indigenous programs often effectively fill the prevention void and can provide needed resources and a humanity-driven ethics—saving thousands of lives globally over the years.

The purpose of this special issue of *Substance Use & Misuse* (*SUM*) is to share some of the latest research surrounding syringe access and disease prevention. Syringe access programs—primarily syringe exchange programs (SEPs) and pharmacy sales of over-the-counter syringes—are considered sound disease prevention and health promotion initiatives that are supported by scientific research internationally even as they remain challenged by various political stakeholders and modern moral entrepreneurs. Secondary syringe exchange (SSE)—the exchange of syringes by an individual on behalf of IDUs who do not regularly access SEPs, pharmacies, or other syringe sources—is increasingly documented in the literature, but many questions persist, as do many opinions. This issue of *SUM* adds to the literature on syringe access and secondary exchange by highlighting new and important research findings and sharing new intervention, assessment, and research models that merit consideration.

Often, secondary exchangers are dichotomized in the literature into secondary exchange *providers* and secondary exchange *recipients*, the latter of which experience little if any contact with SEPs, pharmacies, and harm reduction programs and their staff. In this issue, you will read about secondary syringe exchangers, syringe sellers, needle dealers, syringe relayers, designated exchangers, and resident agents. Although these terms may have slightly different connotations and may evoke different emotions and responses from researchers, program staff, policymakers, and the lay community, they all point to dependence, within the IDU community, on peer networks for sterile syringes, other harm reduction materials, referrals, and health education.

A growing body of literature indicates that SSE is important to consider from a public health perspective for several reasons:

- First, SSEs tend to operate within larger peer networks than do other individuals in substance using and substance user injecting communities. Thus, at a minimum, SSEs are gatekeepers who can serve as a locus of communication, and, at best, they are indigenous peer leaders who can share harm reduction materials and information with relatively large networks of injectors who find themselves on the periphery of local communities, often outside of typical public health catchment areas that offer prevention materials and clinical care.
- Second, research indicates that SSEs may be at higher risk for transmission of bloodborne illnesses because they may practice more risky injection behaviors (Latkin et al., this issue) and because they are more likely to experience accidental needle-sticks (Lorvick et al., this issue). Provision of health education and training to well-connected SSEs, who can serve as trained “pubic health agents” in their “drug use landscapes,” can decrease the individual risk behaviors of SSEs for acquiring bloodborne illnesses and can increase

the possibility that important harm reduction messages, techniques, and materials are provided to individuals who would not otherwise receive them.

Third, SSEs can facilitate referrals to ancillary services such as drug user treatment programs; abscess wound care clinics; HIV and hepatitis counseling, testing,

In This Issue

This issue of *SUM* has integrated an international compilation of articles that focus on the challenges and successes that surround syringe access, disease prevention, harm reduction, and health promotion among IDUs. Although this issue focuses, in large part, on secondary exchange, it also attempts to integrate some of the latest findings and discussions pertaining to syringe access and assessment methods on a broader scale globally.

We begin by looking at the macro picture. Wodak and Cooney provide the first international review of the evidence that needle and syringe programs reduce HIV infection among injecting drug users. They utilize the Bradford Hill criteria (Bradford Hill, 1965), originally devised to assess inferences of causality drawn from observational studies and increasingly used to evaluate public health interventions, to conduct a comprehensive assessment of needle and syringe programs across the globe. The principal finding of this review is that there is compelling international evidence of effectiveness, safety, and cost-effectiveness consistent with seven previous reviews conducted by, or on behalf of, U.S. government agencies.

Despite the overwhelming body of scientific evidence, moralistic arguments continue to trump sound and scientifically proven public health interventions. Kleinig provides a provocative piece that focuses on several ethical considerations that surround syringe access, particularly in a society (United States) where political will and moralistic debates often hinder progress. He argues that SEPs constitute a morally acceptable and even desirable option despite the continued criminalization of drug use. Even so, he cautions, SEPs must be administered in ways that do not reinforce prevailing social prejudices.

The subsequent grouping of articles focuses primarily on SSE, or the lack thereof, in a number of locations internationally. Lenton and colleagues provide a balanced discussion of the potential advantages and disadvantages of interventions that use SSE to facilitate needle and syringe exchange internationally and reflect specifically on the context surrounding SSE in Western Australia.

In their study of SSE practices among IDUs attending 23 SEPs in the state of California, Lorvick et al. found that SSE was ubiquitous, with 75% of IDUs reporting participation in SSE. SEP characteristics, such as legal status, SSE policy, and exchange policy, did not affect the prevalence of SSE among SEP clients, but infectious disease risk behaviors were significantly more common among SSE participants than among nonparticipants. SSE participants were more likely to share syringes and cookers and were significantly more likely to experience accidental needle-sticks.

Kuyper and colleagues performed analyses of syringe buying and syringe selling among Vancouver IDUs. Fifty percent of IDUs in their study reported syringe selling and 26% reported syringe buying. Syringe sellers were more likely than nonsellers to be female, reside in unstable housing, need help injecting, and have visited the SEP at least once weekly. Syringe buyers were more likely than nonbuyers to need help injecting, have difficulty finding new syringes, have

binged on drugs, and have visited the SEP at least once weekly. Illustrating how alternative syringe providers are able to fill an important gap in syringe supply, the investigators found that syringe buying most frequently occurred when the SEP was closed.

In their study in Baltimore, Maryland, Latkin et al. highlight that needle sellers have higher levels of engagement in drug-related social interactions and have a significantly higher number of roles in the drug economy. Also, needle sellers have more social network members who are injectors, with whom they talk about risky drug behaviors, share cookers and bleach, and to whom they provide needles and syringes. Compared with nonselling injectors, needle sellers engage in HIV risk-related behaviors more frequently. Latkin's findings highlight the importance of targeting secondary exchangers for HIV prevention activities both to reduce their own risk and to diffuse risk reduction information throughout the drug using community.

Comparing Puerto Rican IDUs in Puerto Rico and in New York City, Finlinson and colleagues examine changes during a 3-year period in syringe acquisition by street-recruited IDUs characterized by frequent drug injection and high HIV seroprevalence. The study indicates that New York SEPs became more dominant over time than other syringe sources, whereas private syringe sellers in Puerto Rico remained the dominant and most expensive source.

In southern Brazil, Bastos and colleagues share findings from an assessment of an SEP that explored local syringe dynamics, with the exclusive delivery in the local SEP of tagged syringes and the subsequent monitoring of returned tagged/untagged used syringes. The investigators found that local IDUs reuse, divert, and create caches of syringes at their discretion. Operators of home-based exchanges, locally known as *agentes moradores* (resident agents), play a key role in the current operations of the program, handling no less than 50% of all clean syringes delivered by the SEP every day.

Panda and Sharma describe the well-established prevalence of HIV/AIDS and other bloodborne infections among injecting populations in South Asia. They note that the current provision of sterile injecting equipment as part of public health initiatives is suboptimal. Although some SEPs operate in the region, pharmacies and "friends" continue to be a major source of syringe acquisition. It is suggested that the cost of syringes in the region is significantly higher in real terms than in several other countries and negatively impacts on the ability of IDUs to acquire needles and syringes. In addition, existing Needle and Syringe Exchange Programs offer poor coverage both at the population and individual level. The authors also note that SSE is a nascent phenomenon in South Asia that needs to be adequately documented and evaluated. Urgent attention needs to be given to developing alternative models of needle and syringe delivery to scale-up HIV prevention interventions for IDUs in the region.

Irwin et al. describe an innovative peer-based prevention model, "Project Renewal," that was facilitated by creation of a hybrid SEP that as its primary focus recruited and trained volunteers to provide SSE. To compensate for operational barriers, the program staff identified private venues and trained responsible individuals to work through their own and related networks of injectors to provide clean syringes, other harm reduction supplies, and educational materials, while facilitating the collection and removal of used and potentially contaminated syringes. Data document that these secondary exchange sites have proven more productive than the primary mobile and fixed site syringe exchanges in Kazan, Russia.

The final three articles in this issue highlight the importance of qualitative, ethnographic, and rapid assessment methodologies in Amsterdam, Florida, and Mombasa, respectively. Witteveen and colleagues conducted a qualitative study in Amsterdam to elucidate reasons for injection

initiation and risky injection practices among young drug users identifying self-reported motives for injecting and not injecting. They suggest that users' own motives for not injecting should be promoted, whereas their motives for injection initiation should be counterbalanced with factual information. Page et al. focus on the use of ethnographic methods utilized to learn more about the role of "get-off houses" in the informal economy and in harm reduction efforts. Beckerleg, Telfer, and Sediqqu report on a rapid assessment carried out in the city port of Mombasa, Kenya to inform the scaling up of Warm Reduction services to heroin users. The investigators illustrate how rapid assessment can be used to provide a preliminary glimpse of drug use and syringe access patterns in locations throughout the developing and developed world where little is currently known.

Finally, we invited a number of international investigators and harm reduction specialists to share their perspectives as they relate to syringe access today. Specifically, we asked investigators to respond to the following question: "What for you is the most critical contemporary unresolved issue that is associated with needle and syringe exchange programs?" Responses to this question are included in the final section of this special issue, unedited, in Op-Ed style.

Future Directions

Although this special issue adds to the international literature on syringe access and SSE, additional research and programmatic needs and questions remain. Most studies of SSE have been conducted retrospectively, focused on findings in existing data sets. Further, most research on SSE is descriptive in nature that, although helpful, highlights the growing need for studies that prospectively study the effectiveness of secondary exchange in reducing disease transmission rates, increasing the health status of the active drug user, and augmenting access to prevention materials and referrals. Several questions need to be addressed:

- What role does SSE play in enhancing program coverage?
- Can interventions with SSEs effectively lower disease transmission risk among SSEs and continue to reach IDUs on the periphery with effective prevention for sustained periods?
- Can SSE/peer educators successfully and consistently connect IDUs to services that they would otherwise not receive?
- Within in the context of limited funding and staffing, is it better to create new mobile or fixed exchange sites or to support SSEs in reaching outlying pockets of disease transmission risk?
- How does SSE influence syringe discard practices among IDUs?

Integration of qualitative, ethnographic, and quantitative research methodologies to answer these and other questions while monitoring interventions that utilize SSE is essential.

A number of ethical questions also emerge:

- Should SSE be integrated into formal public health interventions or should it continue naturally within the social economy?
- Should SSE interventions work solely with existent SSEs, or recruit interested individuals to learn how to become SSEs, 'public health change agents' and peer educators?
- Do the benefits of SSE outweigh the potential risks?

- Should SSE programs work with sellers of illicit substances?
- Should SSEs be remunerated by public health agencies in order to reduce the need for social capital exchanges in communities?
- Can post-exposure prophylaxis be provided on demand to SSEs who experience accidental needle-sticks?

Future intervention planning and needed relevant research will need to consider these questions as well as others.

Enhanced syringe access will continue to play an integral role in future disease prevention efforts among IDUs. Social, political, cultural, economic, moralistic, and legal factors will continue to influence whether and how syringe access is made available formally and informally. In locations where legally authorized programs exist and coverage is adequate, current syringe sources may suffice. In regions where IDUs encounter numerous barriers to adequate syringe access, alternative modes and systems of distribution, including secondary syringe exchange, will continue to exist. Public health officials need to decide whether these alternative syringe access options should remain informal or whether they should be integrated into formal prevention plans. Future research and evaluation will assist in guiding such decisions.

References

Anderson, R., Clancy, L., Flynn, N., Kral, A., and Bluthenthal, R. Delivering syringe exchange services through “satellite exchangers”: the Sacramento Area Needle Exchange, USA. International Journal of Drug Policy (2003), 14(5/6): 461–463 .

Bradford Hill, A. The environment and disease: association or causation. Procedures of the Royal Society of Medicine (1965), 58: 295–300