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# **Needle Exchange Programs and HIV Prevention: The Greater Good or the Promotion of Evil?**

by

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The world is facing a "runaway epidemic" according to Dr. Peter Piot, head of the United Nations AIDS program. Speaking at the 12th World AIDS Conference, Dr. Piot told the conference that "it is time to embrace a new realism and a new urgency in our efforts to overcome complacency about human immunodeficiency virus (HIV) which causes AIDS."<sup>1</sup> Many AIDS experts believe embracing this new realism and urgency should include government subsidy of needle exchange programs because they have been proven effective in reducing the transmission of HIV and other blood-borne infections associated with intravenous drug use by providing sterile needles for used, potentially contaminated syringes. However, it appears that the Clinton Administration did not share the sentiments of these experts or the data of its own top government scientists supporting their claims. On 20 April 1998 the Clinton Administration declined to lift the nine-year ban on federal financing for the distribution of clean needles to intravenous drug users because of the possible ambiguous message in regards to illegal drug use. Is the data such that the message would be ambiguous?

On 25 November 1997, the United Nations raised its estimate of people infected with HIV or AIDS from 22.6 million to 30.6 million. They believe that 2.3 million people around the world will die from AIDS this

year, an increase of more than 50 percent from the estimate that 1.5 million people died of the disease in 1996.<sup>2</sup> In the United States it has been estimated that 280,000 to 300,000 individuals suffer from AIDS and as many as 600,000 others are infected with HIV.<sup>3</sup> Many in the medical community argue that these are conservative estimates. The Centers for Disease Control and Prevention (CDC) estimates that more than one third of new HIV cases are the result of intravenous drug use particularly among the poor and minorities.<sup>4</sup> Dr. David Satcher, the Surgeon General, stated that he believes that 40% of all new HIV infections in the United States are either directly or indirectly attributed to infection with contaminated needles; among women and children, the figure rises to 75%.<sup>5</sup> Among injectors diagnosed with AIDS, 77% of women and 79% of men have come from communities of color.<sup>6</sup> To confirm this statistic concerning minorities, recent data compiled from 25 states by the CDC shows that African-Americans account for 57% of new HIV infections in the United States, even though they make up only 13% of the population. While the death rates from AIDS in the United States have declined for all groups, the decline is much greater among whites than African-Americans. In particular, young African-Americans fare the worst. In data collected between January 1994 and June 1997, African-Americans accounted for 63% of infected individuals between the ages of 13 and 24 and the majority of infections were directly or indirectly associated with injecting-drug use.<sup>7</sup>

Studies on the effectiveness of needle exchange programs in Montreal, Vancouver, Switzerland, and 100 cities in the United States show that needle exchange programs, from a scientific point of view, have been successful in reducing HIV transmissions. According to Jon Fuller, M.D., assistant director of the Adult Clinical AIDS Program at Boston Medical Center, "a University of California study has calculated that up to 10,000 lives might have been saved thus far if we, as a nation, had supported needle exchange early on. It further estimated that 'if current U.S. policies are not changed ... an additional 5,150 - 11,329 preventable HIV infections could occur by the year 2000.'"<sup>8</sup> It appears that public tolerance for needle exchange programs has increased. A Harris poll commissioned by the Lindesmith Center, a group that advocates for needle exchange programs, in October of 1997 found that 71% of Americans surveyed supported needle exchange.<sup>9</sup> This support is confirmed by the fact that the American Medical Association, the American Bar Association, the American Public Health Association, the United States Conference of Mayors and even some top ranking members within the Clinton Administration had endorsed federal funding for needle exchange programs. Sandra L. Thurman, as White House Director of National AIDS Policy, advocated spending for needle exchange programs as a way of

saving lives. "You have to understand that every day, 33 Americans become infected as a result of drugs. While not all cases of HIV can be prevented I think we have a moral obligation to stop as many as we can."<sup>10</sup> With all this scientific data and expert opinion supporting needle exchange programs one might ask why the Clinton Administration refused to lift the ban on federal support for these programs? Was their fear of complicity with the illegal drug industry a legitimate concern? Did the Administration allow political considerations to take precedence over public health concerns?

Those in the Clinton Administration opposed to lifting the ban believed their position was based on a solid ethical foundation. To allow government funding of needle exchange programs would have sent the wrong message to our nation's children regarding illegal drug use. Leading the opposition was General Barry R. McCaffrey, the director of national drug policy, who argued that "as public servants, citizens and parents we owe our children an unambiguous 'no use' message. And if they should become ensnared by drugs, we must offer them a way out, not a means to continue addictive behavior."<sup>11</sup> There is the fear that using federal funds to support needle exchange programs would be viewed by some as being complicitous with the illegal drug industry. However, McCaffrey was quite clear that the government does not ban needle exchange programs, it only bans financial support for such programs. McCaffrey viewed this as both a practical and a moral issue. The United States Bishops in their 1989 pastoral letter on AIDS, "Called To Compassion And Responsibility: A Response To The HIV/AIDS Crisis," also raise serious practical and moral concerns about needle exchange programs. They fear that instead of reducing HIV transmission to drug addicts, their sexual partners and infants, such programs might increase drug usage. More importantly, it may even send the wrong message that intravenous drug use can be made safe.<sup>12</sup> The central focus of both the Clinton Administration's position and the position of the U.S. Bishops is that the appearance of potential scandal – sending the wrong message about drugs – takes priority over the possibility of saving human lives. The ethical question at the center of this controversy is whether needle exchange programs in the United States are for the greater good or do they enhance the promotion of evil?

The purpose of this article is threefold: first, to examine the scientific data on needle exchange programs that are presently in existence; second, to give an ethical analysis of the arguments for and against these programs; and third, to determine if the Clinton Administration and the United States Conference of Bishops should revise their positions based on solid ethical principles.

## Needle Exchange Programs

It is estimated that in the United States more than a million people inject illegal drugs at a cost to society in health care, lost productivity, accidents and crime of more than 50 billion dollars a year.<sup>13</sup> Scientific studies have proven that when new syringes are not available to drug addicts, these addicts tend to reuse injection equipment numerous times, and often share it with others.<sup>14</sup> As a consequence, almost half of the new HIV infections are directly or indirectly related to intravenous drug use. With HIV infection rates rising among intravenous drug users and inadequate education and drug treatment resources available, numerous needle exchange programs have sprung up around the world and in the United States to address this problem. It should be noted that in the majority of these programs the focus is on **exchange** not **distribution** of needles. Clean needles are provided in exchange for used ones. It is true that in Europe there are some programs that have installed "vending machines" for needle exchange, but even these require that a used syringe be deposited before a clean one is given.<sup>15</sup> The needle exchange programs that will be examined will be those in which human contact is not only the central focus but the highest priority.

Internationally, needle exchange programs first started in Amsterdam in 1983 to prevent the transmission of hepatitis B and HIV. The long-term goal of this program was to get those addicted into recovery programs, but the short-term goal was to protect addicts from these diseases and also to prevent secondary transmission to sexual partners and infants.<sup>16</sup> By the late 1980s, governments in England, Switzerland, Austria and Germany also initiated needle exchange programs, and within a few years the remainder of European countries followed their lead.<sup>17</sup> These programs differed in size, structure, and budget but their commitment remained the same – to maximize the availability of sterile needles. The exchange of needles takes place through storefronts, outreach workers, mobile vans, pharmacies, and in some countries even the police departments have joined in the effort. The results have been that there is substantial evidence of reduced needle-sharing among regular participants in needle exchange programs. According to the American Medical Association, "more importantly, HIV infection rates among drug users have been consistently lower in cities with needle exchange programs, as well as lower in cities that implemented programs early in the AIDS epidemic, compared with those doing so later."<sup>18</sup> Internationally, the implementation of needle exchange programs has saved lives and lowered health care costs.

In the United States there are approximately 100 legal needle exchange programs in twenty states.<sup>19</sup> The problem is that they exist on

very low budgets which depend on private and local monies. This is because in 1989 Congress declared that no federal money could be used to support clean needle exchange programs until the government could provide conclusive evidence that such programs not only reduced the spread of HIV infection but that it did not encourage drug use. To address Congress' concern about reducing the spread of HIV transmission, various studies in the United States have concluded that there is increasingly strong evidence that needle exchange programs not only bring addicts in for treatment but have lowered the HIV infection rate. One study done in Baltimore on 2,900 heroin addicts concluded that the needle exchange program dramatically reduced the sharing of tainted needles and that half the participants in the program entered drug treatment centers.<sup>20</sup> In New York City, a large comprehensive study of needle exchange programs concluded that the rate of new HIV infections for participants in the exchange was 2%. This rate was much lower than the estimated 4% - 7% HIV infection rate among intravenous drug users not enrolled in the exchange program. The study also found that among clients, using rented syringes decreased 75%, using borrowed syringes decreased 62%, and using alcohol wipes went up 150%.<sup>21</sup> Clearly, the data supports the initiation of and federal funding for needle exchange programs.

Critics of the needle exchange programs contend that it merely encourages addicts to continue drug use. It also sends an ambiguous message to the youth in America about drugs. To reinforce this position, General McCaffrey has cited two Canadian studies in Montreal and Vancouver to show that needle exchange programs have not only failed to reduce the spread of HIV infection, but also may have worsened the problem. The authors of these two studies, Dr. Julie Bruneau at the University of Montreal and Dr. Martin Schechter at the University of British Columbia, wrote an editorial in *The New York Times* on 9 April 1998 and stated that "these officials have misrepresented our research. True, we found that addicts who took part in the needle exchange programs in Vancouver and Montreal had higher HIV infection rates than addicts who did not. That's not surprising. Because these programs are in inner-city neighborhoods, they serve users who are at the greatest risk of infection. Those who didn't accept free needles often didn't need them since they could afford to buy syringes in drugstores. They also were less likely to engage in the riskiest activities."<sup>22</sup> It appears that General McCaffrey's position is flawed in its reasoning because it is based on scientific data that he and others have misinterpreted and misrepresented.

To address Congress' concern that these programs do not encourage drug use, various scientific studies in the United States have shown that there is no evidence that needle exchange programs increase the amount of



drug use by needle exchange clients or in the wider community. A study done in 1988 of the San Francisco needle exchange program found that from 1987 to 1992 the frequency of injecting drugs among street-recruited intravenous drug users declined from 1.9 to 0.7 injections per day. The mean age of intravenous drug users increased from 36 to 42 years, and the percentage of new initiates into injection drug use dropped from 3% to 1%.<sup>23</sup> Other studies have found that needle exchange programs actually serve as a bridge to drug treatment and have provided referrals and in some cases actual services for HIV testing and counseling, primary medical care, tuberculosis and sexually transmitted disease screening.<sup>24</sup> In Seattle, the needle exchange program issued 181 vouchers for drug treatment, 78% were successfully redeemed. Fifty-eight percent entered methadone maintenance, and 86% of those were still in treatment three months after intake.<sup>25</sup> The evidence from both the European and American studies concludes that "needle availability decreases needle-sharing and HIV transmission and does not increase the number of drug users or the frequency of injection among current users."<sup>26</sup>

Another concern regarding needle exchange programs is the issue of cost-effectiveness. In this era of managed care, the allocation of medical resources is as much an ethical as it is a financial concern. It is estimated that the medium annual budget for operating a needle exchange program is \$169,000, with a range of \$31,000 to \$393,000. This amounts to \$.71 to \$1.63 per syringe distributed. In addition, mathematical models predict that over a five-year period, needle exchange programs could prevent many HIV infections among clients, their sex partners and offspring, at a cost of \$9,400 per infection averted. This is well below the \$119,000 lifetime cost of treating an HIV-infected person.<sup>27</sup>

It is true that the act of exchanging needles for used ones can be a powerful symbol and may be interpreted by some to condone and encourage drug use. However, from all the scientific data gathered it is clear that the positive ramifications clearly outweigh the symbolic fears. In February 1997 a consensus panel of the National Institutes of Health concluded that these programs, "show reduction in risk behavior as high as 80% in injecting drug users, with estimates of a 30% reduction of HIV."<sup>28</sup> These statistics alone should have been enough to influence the Clinton Administration to reverse its position on needle exchange. In addition, the United States Catholic Bishops appear to have supported the Clinton Administration on this position. As stated above, the Catholic Bishops were fearful of scandal. By scandal, the Bishops mean some act that is itself evil or has the appearance of evil, and is consequently the occasion of the sin of another.<sup>29</sup> The Bishops, not unlike General McCaffrey, fear by approving of needle exchange programs they will be sending a mixed

message that they not only condone drug use but also advocate methods that make illegal drug use easier. Despite the plethora of scientific data available the Bishops have not revised their position and remain conspicuously silent as a group on this issue. According to Jon Fuller, "several state bishops' conferences have spoken against programs, but to my knowledge the only U.S. Catholic agency that has actively promoted needle exchange programs is the Catholic Family Center in the diocese of Rochester, New York."<sup>30</sup> The threat of symbolic fear and scandal is a reality, but from an ethical point of view is not the sanctity of human life a greater good?

### **Ethical Analysis**

Society in general, and the Catholic tradition in particular, have always recognized that in our complex world there is the possibility that we may be faced with a situation that has two consequences – one good and the other evil. The time-honored ethical principle that has been applied to these situations is called the principle of double effect. As the name itself implies, the human action has two distinct effects. One effect is intended and good; the other is unintended and evil. As an ethical principle, it was never intended to be an inflexible rule or a mathematical formula, but rather it is to be used as an efficient guide to prudent moral judgment in solving difficult moral dilemmas.<sup>31</sup> The principle of double effect specifies four conditions which must be fulfilled for an action with both a good and an evil effect to be ethically justified:

- 1) The action, considered by itself and independently of its effects, must not be morally evil. The object of the action must be good or indifferent.
- 2) The evil effect must not be the means of producing the good effect.
- 3) The evil effect is sincerely not intended, but merely tolerated.
- 4) There must be a proportionate reason for performing the action, in spite of the evil consequence.<sup>32</sup>

The principle of double effect is applicable to the issue of needle exchange because it has two effects, one good and the other evil. The good effect is that these programs do reduce needle sharing and HIV transmission and do not increase the number of drug users or the frequency



of injection among current users as scientific data has shown. The evil effect is that some believe that it may send a message that illegal drug use is condoned and even encouraged. To determine if needle exchange programs are ethical, this issue will be examined in light of the four conditions of the principle of double effect.

The first condition allows for needle exchange because the object of the action, in and of itself, is good. The moral object is the precise good that is freely willed in this action. The moral object of this action is to stop the spread of HIV infection to intravenous drug users, and subsequently to their sexual partners and potential offspring by exchanging used needles for clean ones. The immediate goal is not to endorse illegal drug use or to encourage it. Rather, the **direct** goal is to stop the spread of a lethal disease among a group of individuals who are addicted to illegal drugs and who are either unwilling or unable to seek drug treatment. The second condition permits needle exchange because the good effect of stopping the transmission of HIV to addicts, their sexual partners and infants is not produced by means of the evil effect. The third condition is met because the direct intention of needle exchange programs is to protect and preserve human life and to encourage drug rehabilitation, social support, professional counseling and medical care. Studies have shown that HIV infection has increased among minority populations especially for those between the ages of 13 and 24 years of age and most of these infections are the result of intravenous drug use. The direct intention of needle exchange programs is to preserve the lives of the most vulnerable, that is, the poor and the minorities, by stopping the spread of HIV transmission. The foreseen but unintended consequences of this may be the belief by some that this is condoning and even encouraging illegal drug use. Nevertheless, scientific studies support the claim that drug use does not increase among users and that needle exchange programs do not promote new drug use. Finally, the argument for the ethical justification of needle exchange by the principle of double effect focuses on whether there is a proportionately grave reason for allowing the unintended possibility of scandal and the possibility of increased drug usage among the youth. Proportionate reason is the linchpin that holds this complex moral principle together.

Proportionate reason refers to a specific value and its relation to all elements (including premoral evils in the action).<sup>33</sup> The specific value in allowing for needle exchange programs is to preserve human life by preventing the lethal transmission of HIV to the most vulnerable. The premoral evil, which may come about by trying to achieve this value, is the foreseen but unintended possibility that some may view this as condoning and even encouraging illegal drug use. The ethical question is whether the value of preserving human life outweighs the premoral evil of the foreseen

but unintended possibility of scandal and possible increased drug usage? To determine if a proper relationship exists between the specific value and the other elements of the act, ethicist Richard McCormick, S.J., proposes three criteria for the establishment of proportionate reason:

- 1) The means used will not cause more harm than necessary to achieve the value.
- 2) No less harmful way exists to protect the value.
- 3) The means used to achieve the value will not undermine it.<sup>34</sup>

The application of McCormick's criteria to needle exchange supports the argument that there is a proportionate reason for allowing these programs. First, scientific data has proven that needle exchange reduces needle sharing and HIV transmission and does not increase drug usage or the frequency of injection among users; therefore, the exchange of needles does not cause more harm than necessary. Second, at present there does not appear to be an alternative that is as effective as needle exchange. It is true that other means exist such as drug treatment efforts and safer-sex education, but according to the most reliable medical and scientific sources, needle exchange programs are the best means presently available for preventing HIV transmission and saving lives among intravenous drug users. Most experts contend that few drug addicts, especially those within the 13 – 24 age range, will take advantage of drug treatment programs and educational resources on their own because their addictive behavior stands in the way. The critical aspect that cannot be overlooked in the needle exchange programs is the element of human contact. Human contact allows outreach workers to form personal relationships with the addicts and thus provide the opportunity to offer them appropriate health care, personal counseling and referrals to treatment centers. Various scientific studies have confirmed that intravenous drug users reduce risk-laden behaviors when pertinent information and services, such as counseling are made available, and especially when they are offered by peers who are members of the drug-using subcultures.<sup>35</sup> "The human contact and protection from disease that these programs offer communicates a powerful message to addicts that their lives and well-being are still valued by the community, even though they may not yet be able to break the cycle of addictive behavior."<sup>36</sup> Needle exchange programs not only protect human lives but also foster human dignity and respect. Third, needle exchange does not undermine the value of human life. One can argue convincingly that the intention of needle exchange is to save human lives. These programs prevent the transmission of HIV to sexual partners and other diseases like hepatitis B and prevent the secondary transmission of HIV to sexual

partners and infants. In the process, there is the possibility that an addict could overdose from using a needle that he or she has exchanged. However, overall, the purpose of the needle exchange program is to save lives and it has been proven scientifically to be effective. This is a public health issue that must be addressed because innocent lives are being lost. It seems clear that there is a proportionate reason for the federal government and the Catholic Church to financially sponsor needle exchange programs. Such programs contribute to the well-being of those affected because it preserves their lives and the lives of others by preventing the transmission of HIV and it offers those addicted the opportunity to realize that they are valued as persons and that with the appropriate assistance addiction can be overcome. Therefore, it is ethically justified under the principle of double effect to allow and to financially sponsor needle exchange programs in the United States. The greater good is promoted in spite of the potential for evil consequences.

In addition to the principle of double effect, John Fuller argues that needle exchange programs are ethically justified by the "principle of cooperation," which allows us to cooperate to some degree with individuals or groups whose goals we may not fully share. There are two types of cooperation — formal and material. Formal cooperation is when an individual helps another to accomplish a sinful act and intends the sinfulness of it. Formal cooperation is always morally wrong. Material cooperation is when an individual helps another accomplish an external act by an act that is not sinful and does so without approving what the other individual is doing. Material cooperation in an act may be morally permissible depending on whether it is mediate versus immediate and proximate versus remote. Material cooperation is immediate if it is cooperation in a sinful act of the other, as to help a burglar to empty jewels that he is stealing into the burglar's wallet. Material cooperation is mediate if it is an act that is secondary and subservient to the main act of another. Mediate cooperation is proximate if the help given is very intimately connected with the act of another; it is remote if the help given is not closely connected with the other's act.<sup>37</sup> Fuller argues that the intention in distributing needles is material, not formal, since needle exchange programs do not encourage or condone drug use but only attempt to make drug use less harmful. The action is mediate cooperation, which is permitted, not immediate, which is forbidden, because the illicit activity of drug injection is not the same as the action of cooperating in the needle exchange. And since individuals would be cooperating with needle exchange rather than with drug injection, then our material cooperation would be remote and not proximate. Since HIV is lethal, and needle exchange programs can protect addicts from HIV and their sexual partners

and infants, then there is a sufficiently grave reason to cooperate materially.<sup>38</sup> In addition to toleration and cooperation, Fuller argues that needle exchange programs are also consistent with the ethics of mercy, traditional Catholic moral principles and with the pastoral mission of the Church to help the poor and the marginalized. "This approach recognizes that addiction is a disease whose natural history includes relapse, and it assists addicts in taking whatever small steps toward recovery are possible while protecting them and society from serious harm."<sup>39</sup> Whether one argues from the ethics of mercy or the principles of double effect or cooperation, it is clear that ethically, the greater good of the addict and the common good of society is advanced by financially supporting needle exchange programs.

### Conclusion

I believe needle exchange programs are both a necessary and a vital part of a broader comprehensive strategy for preventing HIV transmission among intravenous drug users. After reviewing all pertinent scientific data it is clear that there is more than sufficient evidence to have warranted the Clinton Administration to lift the ban (which still exists) on federal funds for these worthwhile programs and for the U.S. Bishops to support that lifting, as well as develop and initiate their own needle exchange programs. Time is of the essence and while the debate continues more people are becoming infected with HIV than need be infected. Dr. Peter Lurie, a research associate at Public Citizen (an advocacy group specializing in public health issues) estimates that, had the government paid for needle exchange programs, 17,000 lives could have been saved during Mr. Clinton's terms in office.<sup>40</sup> And this is only a rough estimate. If we as a nation and as a Church believe that the life of every person is sacred and should be treated with dignity and respect, especially the lives of the most vulnerable then we must do what we believe is the greater good to protect and preserve human life. This does not mean that we should not continue to explore, test, and develop other approaches to HIV prevention among intravenous drug users. It means that if this is the best method available at the present time to protect the lives of drug users, their sexual partners and infants, then we must utilize it to its fullest capacity. It appears that the Clinton Administration and the U.S. Bishops' Conference put politics and appearances ahead of science and public health considerations. The AIDS virus is a runaway epidemic and, as Dr. Piot has stated, the time is now for us to embrace not only a new realism but also a new sense of urgency if we are going to combat this dreaded killer.<sup>41</sup> We cannot allow the appearance of scandal or the fear of accusation of being soft on drugs stand in the way

of proven scientific evidence. Human lives are hanging in the balance. If the protection and preservation of human life is a priority, then we must act before it is too late for those who are the most vulnerable.

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18. American Medical Association's Council of Scientific Affairs, 8-A-97, page 8. "For example, while the HIV infection rate among injection drug users remained 1% to 2% in the Scottish city of Glasgow, where a needle exchange program was quickly established, it reached 70% in nearby Edinburgh, where the response of government officials was to implement even more stringent controls over injection equipment. While the intended purpose of the increased controls was to discourage drug injection, the consequences included increased needle-sharing and escalating HIV rates." Ibid. See also, G.V. Stimson, "Risk Reduction by Drug Users With Regard to HIV Infection," *International Review in Psychiatry* 3 (1991): 401-415; and R.P. Brettell, "HIV and Harm Reduction for Injecting Drug Users," *AIDS* 5 (1991): 125-136.

19. Needle exchange programs are defined as legal if they operate in a state that has no law requiring a prescription to purchase a hypodermic syringe (i.e., a prescription law) or has an exemption to the state prescription law allowing needle exchange programs to operate; illegal-but-tolerated if they operate in a state with a prescription law but have received a formal vote of support or approval from a local elected body (e.g., city council); and illegal-underground if the needle exchange program operates in a state with a prescription law but have not received formal support from local elected officials. For a more detailed analysis, see D. Paone, et al. "Update: Syringe-Exchange Programs—United States, 1996," *Morbidity and Mortality Weekly Report* (Rockville, MD: U.S. Health and Human Services, Public Health Service, June 20, 1997): Vol. 46, 565-568.

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24. In a 1996 study conducted by Beth Israel Medical Center in New York City and in collaboration with the North American Syringe Exchange Network of 87 needle exchange programs found that needle exchange programs led to many other services. "Other services included referral of clients to substance-abuse treatment programs (84 [97%]), instruction in the use of condoms and dental dams to prevent sexual transmission of HIV and other sexually transmitted diseases (84 [97%] ), and sexually transmitted disease-prevention education (70 [81%] ). Health services offered on-site included HIV counseling and testing (35 [40%] ), primary health care (15 [17%] ), tuberculosis skin testing (23 [26%] ), and sexually transmitted disease screening (17 [20%] )." See Paone, et al., "Update: Syringe-Exchange Programs – Unites States, 1996," 2.
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34. McCormick's criteria for proportionate reason first appeared in Richard McCormick, *Ambiguity In Moral Choice* (Milwaukee, WI: Marquette University Press, 1973). He later reworked the criteria in response to criticism. His revised criteria can be found in *Doing Evil to Achieve Good*, eds. Richard McCormick and Paul Ramsey (Chicago, IL: Loyola University Press, 1978).
35. American Medical Association's Council on Scientific Affairs, 10. See also, R. Booth and W. Wiebel, "Effectiveness of Reducing Needle-Related Risks for HIV through Indigenous Outreach to Drug Users," *American Journal of Addictions* 1 (1992): 277-287; A. Neaigus, M. Sufian, S.R. Friedman, et al., "Efforts of Outreach Intervention on Risk Reduction Among Intravenous Drug Users," *AIDS Education Prevention* 2 (1990): 253-271; and J. Watters, M. Downing, P. Case, et al., "AIDS Prevention for Intravenous Drug Users in the Community: Street Based Education and Risk Behavior," *American Journal of Community Psychology* 18 (1990): 587-596.
36. Fuller, 9.
37. For a more detailed analysis of the "Principle of Cooperation," see Davis, 341-342.
38. Fuller, 10-11.
39. Fuller, 11.
40. Stolberg, A-18.
41. Altman, A-13.