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### **DIFFICULT-TO-REUSE SYRINGES UNLIKELY TO REDUCE HIV SPREAD AMONG ILLICIT DRUG USERS**

Single use, self-destructing, non-reusable or auto-destruct needles and syringes have received attention as a possible means for reducing the transmission of human immunodeficiency (HIV) virus among illicit drug users. According to the congressional Office of Technology Assessment (OTA), redesigning injection equipment is unlikely to reduce the spread of HIV and may have other unintended consequences.

Approximately one-third of the cases of acquired immunodeficiency syndrome (AIDS) in the United States have been associated with the sharing of drug injection equipment either directly or indirectly as the child or sexual partner of someone who injects illicit drugs.

In a background paper released today, OTA considers potential new injection equipment as difficult-to-reuse (DTR) rather than truly non-reusable. There is no syringe yet designed and feasible to manufacture that could not be defeated by someone seeking to reuse it, says OTA. At the same time, there are significant logistical and ethical dilemmas in distributing enough DTR syringes to prevent the establishment of an illicit market for injection equipment that can be easily reused.

In addition, says OTA, evidence indicates that many of the proposed redesigns would interfere with usual drug-taking practices, making drug users unlikely to accept them. Redesigned syringes would also likely cost more than current syringes and could significantly add to medical waste problems.

Some injecting drug users, however, have indicated a willingness to use redesigned injection equipment in order to reduce transmission of HIV, says OTA. "Targeted" distribution of redesigned injection equipment could be used to identify those situations in which: (1) injecting drug users would be least likely to try defeating difficult-to-reuse equipment; (2) the cost, supply, and safe disposal problems would be manageable; and (3) use of difficult-to-reuse equipment would have the greatest impact on reducing HIV transmission among injecting drug users.

From the perspective of a drug user, says OTA, intravenous injection is by far the most cost-efficient method of administering drugs such as heroin and cocaine. Many of the current single-use, but easy-to-reuse types of needles and syringes available can be used dozens of times before the needle gets too dull to inject or becomes clogged.

The policy framework within which the DTR injection equipment is adopted may well be more important than specific technologies proposed, notes OTA. DTR technology might, for instance, be adopted within general medical settings without simultaneously providing it to persons injecting illicit drugs. This situation would create a scarcity of injection equipment in the illicit market, and trigger attempts to defeat the DTR technology through several means, and might actually lead to more sharing of equipment and hence an increase in HIV transmission.

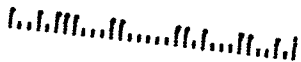
Another strategy would be to target distribution of DTR needs and syringes more selectively, to situations where multiperson use of equipment is highly likely, such as "shooting galleries," situations particularly associated with rapid spread of HIV among drug injectors. This strategy would require a kind of cooperation between healthcare workers and persons involved in drug use that would be difficult to achieve or maintain. It could be field-tested to gain more experience with the likely frequency and methods for defeating DTR technology, as well as to provide the best means for furthering cooperation between health care workers and injecting drug users to reduce HIV transmission.

This background paper responds to the request by the Subcommittee on Regulation, Business Opportunities, and Energy, Committee on Small Business. The Subcommittee, chaired by Rep. Ron Wyden (D-OR), has held hearings on the risks to health care workers posed by AIDS-infected needles.

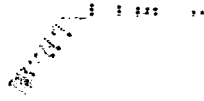
"This report is an important step in evaluating single-use needle technology," Wyden said. He added that syringe manufacturers should continue to investigate methods to hinder AIDS transmission. It is the ninth in OTA's series of studies on HIV-related issues, and was conducted for OTA by Don C. Des Jarlais of the Beth Israel Medical Center in New York City.

Copies of the 24-page background paper *Difficult-to-Reuse Needles and Syringes for the Prevention of HIV Infection Among Injecting Drug Users* for congressional use are available by calling 4-9241. Copies for noncongressional use may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402-9325; phone (202) 783-3238. The GPO stock number is 052-003-01307-8; the price is \$1.75.

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