



NEW YORK STATE  
PHARMACISTS' ATTITUDES  
TOWARD NEEDLE AND  
SYRINGE SALES TO  
INJECTION DRUG USERS  
BEFORE IMPLEMENTATION OF  
SYRINGE DEREGULATION

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**ABSTRACT** In May 2000, New York State passed legislation permitting the sale, purchase, and possession of up to 10 needles and syringes without a prescription. The law is intended to reduce the transmission of human immunodeficiency virus (HIV) and hepatitis among injection drug users (IDUs), their sexual partners, and their children. To obtain baseline information about the attitudes and likely practices of New York State pharmacists, we distributed a self-administered questionnaire to attendees of the state pharmacy association meeting in June 2000. Of 48 usable responses, 19% were from New York City and the rest from New York State. Of the 48, 42% were unaware of the new law before the day of the survey, and 60% were somewhat or very willing to sell needles and syringes to an IDU. Of those who were not willing to sell to an IDU, 82% cited familiarity of the customer as a very important consideration in their decision making. Those who were not willing to sell to an IDU were more concerned about the detrimental impact of syringe sales on the community, were less likely to be aware of the new law, and were more likely to be concerned about legal liability for syringe sales. Over 80% of all pharmacists believed that syringe sales to IDUs are an important preventive health measure. The majority also favored learning more about the law. Compared to other state surveys of pharmacists, these preliminary data show a similar level of interest in becoming involved with syringe availability programs.

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In May 2000, the New York State legislature passed provisions to permit the sale and possession of needles and syringes. Effective January 1, 2001, individuals aged 18 years and older will be able to purchase, without a prescription, up to 10 needles and syringes from a pharmacy. In addition, Article 28 health care providers will be allowed to sell or furnish syringes to patients. The AIDS Institute of the New York State Department of Health will develop regulations governing nonprescription syringe sales and will register participating pharmacies.

New York's expanded syringe-access law, like similar bills passed in Connecticut, Minnesota, Maine, and Rhode Island, is intended to reduce the rapid transmission of human immunodeficiency virus (HIV) and hepatitis C virus (HCV) among injection drug users (IDUs). Sharing injection equipment is the major route of transmission of both HIV and HCV among IDUs.<sup>1-4</sup> Access to clean syringes is thus of critical importance to a comprehensive approach to HIV and hepatitis prevention.

The purpose of this early survey was to assess correlates of pharmacists' knowledge, attitudes, and likely practices toward syringe sales. With the cooperation of the Pharmacists Society of the State of New York (PSSNY), we were able to administer a survey at the annual statewide pharmacists' convention. The convenience sample provided an efficient means of gathering early data from a broad cross section of the state's pharmacists. The information collected is intended to highlight pharmacists' interests and concerns about syringe deregulation to guide program planners in implementing the law.

#### METHODS

On June 29, 2000, the PSSNY held continuing education classes at its annual statewide convention of pharmacists. The convention provided a convenience sample of pharmacists for a self-administered, anonymous survey of understandings and concerns about syringe deregulation. In the early summer, we contacted the director of the society to obtain permission to come to the continuing education gathering and to distribute our written questionnaire. Participants in the conference were from both independent and chain pharmacies, primarily from upstate locations.

When pharmacists attending the continuing education program entered the room on June 29, they found a copy of the self-administered questionnaire waiting at their seats. To increase participation with the survey, the executive director of the society spoke briefly, introducing the project and encouraging members to take a few minutes to provide responses. The cover sheet for the instrument was a letter from the New York Academy of Medicine, Center for Urban Epidemi-

ologic Studies, explaining the importance of the instrument as both a component of an ongoing policy evaluation and a continuing education needs assessment. Two members of the research team were present at the conference and wore easily recognizable identity badges. Researchers remained in the back of the auditorium to answer questions and directed respondents to deposit completed instruments in one of two well-marked boxes by the exit. The executive director, cover letter, and research team representatives all clearly articulated the voluntary and anonymous nature of responses.

We developed the survey instrument in consultation with staff from the New York and Connecticut State Departments of Health, the Centers for Disease Control and Prevention, PSSNY, the American Pharmaceutical Association, and the New York Academy of Medicine. Questions were modeled closely on similar surveys conducted in Connecticut and Maryland.<sup>5,6</sup> The instrument was pilot tested on 10 pharmacists in New York City, who reported that it took approximately 8 to 10 minutes to complete.

The survey collected information about the pharmacist's demographics, characteristics and current activities of the pharmacy, willingness to provide various preventive health and health education services, and factors influencing the sale of syringes without a prescription. The survey also asked about perceptions of the impact of syringe sales on the pharmacy and the community and interest in continuing education programs related to HIV and injection drug use.

Data analysis was primarily the generation of frequency distributions and was focused on describing current pharmacy practice, as well as exploring differences between respondents who do and do not indicate a willingness to sell syringes to IDUs. Cross tabulations were generated with Fisher exact tests to guide interpretation. Due to limited sample size, willingness to sell syringes without a prescription was dichotomized into "unwilling" and "somewhat or very willing."

## RESULTS

Of the 66 individuals who attended the morning continuing education seminar, 50 (76%) returned completed survey instruments. Of the respondents, 2 were not pharmacists, leaving a respondent pool of 48.

### RESPONDENT CHARACTERISTICS AND PHARMACY TYPES REPRESENTED

Responding pharmacists were predominantly white (83%), male (67%), experienced practitioners (mean 21 years in practice), and had a bachelor of science degree (83%). There was an approximately equal distribution of pharmacy owners (27%), nonowning managing pharmacists (31%), and staff pharmacists (40%) represented. Half (50%) of respondents reported working in an independent

pharmacy, while 42% worked in a chain drug store. There were 81% who practiced in pharmacies located in Upstate New York. Asked to estimate the level of illegal drug activity in the neighborhoods in which they work, 50% estimated that there was moderate activity, 37% estimated minimal or virtually no activity, and 12% indicated high or very high activity (Table I). PSSNY keeps minimal demographic information for comparison.

#### **CURRENT PHARMACY PRACTICE**

We asked respondents to report their current preventive health and health education activities. In general, almost all pharmacists (94%) reported selling male condoms, while 63% reported selling female condoms. Nearly every pharmacist (94%) reported selling syringes in packs of 10, and 84% said that they sell individual needles and syringes (singles). Between one-third and one-half of the respondents indicated that they currently provide some form of HIV prevention literature or counseling. For example, 46% reported currently providing safer sex literature, 40% had spoken to a customer about the sexual transmission of HIV, and 34% had counseled a customer about proper condom use. There were 35% who provided literature about safer drug injection practices, and 42% offered literature about safe syringe disposal. In the past year, 38% spoke to customers about safer drug injection practices, 63% spoke about safe syringe disposal, and 38% spoke about drug treatment services.

Pharmacies currently do not sell many syringes to suspected IDUs. There were 4% who reported that they had sold syringes to a suspected IDU 4 weeks prior to the survey, while 33% did not know if they had, and 63% said that they had not.

Pharmacies are not, in general, a site for used syringe disposal. Of the pharmacies surveyed, 27% currently accept used syringes in biohazard containers for safe disposal, while 17% accept loose syringes for disposal.

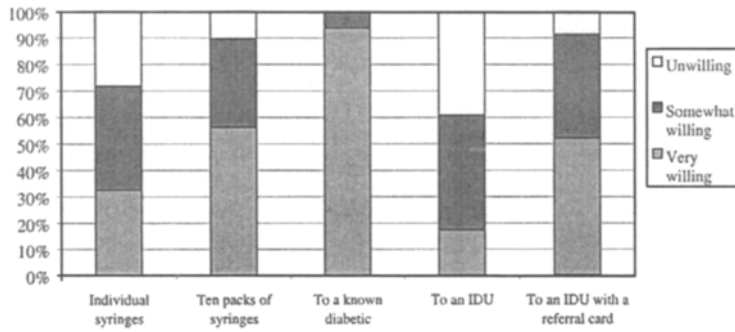
#### **WILLINGNESS TO SELL SYRINGES AND TO PROVIDE PREVENTIVE HEALTH SERVICES**

Widespread implementation of nonprescription syringe sales requires pharmacist participation. Interested in whether pharmacists are receptive to the idea of selling syringes without a prescription, we asked respondents to indicate on a 3-point scale whether they would be "unwilling," "somewhat willing," or "very willing" to sell syringes in each of a variety of situations (Fig. 1). In general, pharmacists reported being more willing to sell syringes in packs of 10 than as individual syringes. As expected, over 90% of respondents reported that they would be very willing to sell syringes to a known diabetic without a prescription.

**TABLE I** Characteristics of Pharmacists and Pharmacies

	Sample	PSSNY Membership
Pharmacist characteristics		
White	83%	NA
Black	2%	NA
Asian/Pacific Islander	6%	NA
South Asian/Indian	4%	NA
Other	4%	NA
Male	67%	69%
Licensed 0–5 years	10%	18%
Licensed 6–15 years	19%	24%
Licensed 16–30 years	48%	34%
Licensed over 30 years	23%	23%
BS/BA	83%	NA
MS/MA	13%	NA
Other	4%	NA
Owner and manager	27%	26%
Nonowner manager	31%	NA
Staff pharmacist	40%	NA
Other	2%	NA
Upstate	39 (81%)	
New York City	9 (19%)	
Pharmacy characteristics		
Independent	50%	42%
Chain	42%	44%
Hospital	6%	7%
Franchise	2%	NA
Part of a larger store	21%	NA
Storefront on a plaza	15%	NA
Free-standing	52%	NA
Part of a hospital	8.3%	NA
Other	4%	
Virtually no drug activity	4%	NA
Minimal drug activity	33%	NA
Moderate drug activity	50%	NA
High drug activity	4%	NA
Very high drug activity	8%	NA

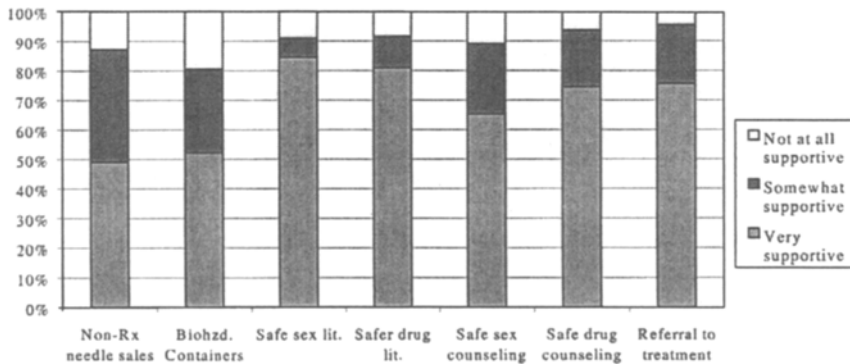
There were 43% who reported that they would be somewhat willing to sell syringes to a suspected IDU, while 17% reported being very willing to sell to an IDU. Respondents were more willing to sell syringes to a suspected IDU if the customer came with a referral card from an agency or clinic, with 38% being somewhat willing and 50% being very willing.



**FIGURE 1** Pharmacist willingness to sell syringes without a prescription.

Pharmacists also indicated their level of support for providing a variety of preventive health services in their pharmacies. Respondents generally indicated a great deal of support for playing an expanded role as public health providers (Fig. 2). There were 87% who reported that they were somewhat or very supportive of providing syringe sales without a prescription (with no direct mention of selling to IDUs). Also, 88% were very supportive of providing pamphlets about safer sex, and 65% were very supportive of offering counseling about the sexual transmission of HIV. There were 83% who were very supportive of providing literature about safer drug injection practices, with 74% being very supportive of providing counseling on the topic and 76% being very supportive of offering referrals to drug treatment.

While there was support for distributing biohazard containers, pharmacists were much less enthusiastic about the prospect of serving as a site for used syringe disposal. There were 24% who indicated that they were very willing to accept and dispose of loose syringes, while 11% were very willing to provide syringe-exchange services.



**FIGURE 2** Willingness to provide services in pharmacy.

### **FACTORS INFLUENCING WILLINGNESS TO SELL SYRINGES WITHOUT A PRESCRIPTION**

Interested in the concerns that pharmacists have about selling syringes without a prescription, we asked respondents to indicate the factors that will influence their thinking in deciding whether to sell without a prescription. Pharmacists ranked the importance of several factors on a 3-point scale of "not important," "somewhat important," or "very important." We also asked pharmacists to indicate the extent to which they agreed with a series of common statements concerning nonprescription syringe sales.

We grouped questions into four dimensions: safety, customer-related considerations, perceived impact on pharmacy and community, and legal concerns. We report the results of bivariate analysis of each item within a dimension by willingness to sell syringes to an IDU.

*Safety* Most pharmacists indicated that safety concerns would be very important in their thinking about nonprescription syringe sales (Table II). Pharmacists who indicated that they will be unwilling to sell syringes to an IDU expressed equal concern for the "safety of yourself and your staff," "the risk of discarded needles in or around the pharmacy," and "concern for injection drug use on the premises." Two-thirds of pharmacists who indicated that they will be somewhat or very willing to sell syringes to an IDU also expressed that personal and staff safety will be very important. In general, pharmacists who expressed willingness to sell syringes to an IDU were less concerned about safety issues than their colleagues who are currently unwilling to sell, but the difference did not reach statistical significance.

*Customer-related considerations* Pharmacists who reported that they will be unwilling to sell syringes to an IDU generally indicated that customer-related variables will be very important in their decision making (Table II). The familiarity of the customer was the most commonly mentioned consideration (82%), followed by the customer's sobriety and behavior (77%) and knowledge about insulin and diabetes (75%). Pharmacists who reported being unwilling to sell to an IDU were significantly more likely to indicate that customer familiarity will be very important to their decision making about nonprescription syringe sales ( $P = .013$ ). Pharmacists who reported that they would be willing to sell to an IDU generally were less concerned about customer-specific variables, though sobriety remained an important consideration.

*Perceived impact on pharmacy and community* We asked pharmacists to indicate the extent to which they agreed with a series of common statements concerning

**TABLE II** "Very Important" Influences on Pharmacists' Decision to Sell Syringes Without a Prescription by Support for Syringe Sales to Injection Drug Users (IDUs)

	Not Willing to Sell to an IDU (N = 18)	Somewhat or Very Willing to Sell to an IDU (N = 28)	P
<b>Safety concerns</b>			
Safety of self and staff	72%	67%	.753
Risk of theft or robbery	67%	46%	.227
Risk of discarded needles	72%	62%	.531
Concern for injection drug use on premises	72%	52%	.222
<b>Customer-related concerns</b>			
Whether the customer is familiar	<b>82%</b>	<b>43%</b>	<b>.013</b>
Customer sobriety	77%	63%	.509
Customer knowledge about insulin and diabetes	75%	54%	.208
Customer appearance	13%	26%	.446
<b>Health-related considerations</b>			
Concern for HIV/hepatitis prevention	53%*	75%	.184
Presence of others in pharmacy	24%	4%	.060
Potential income from nonprescription sales	0%	7%	.513
<b>Legal concerns</b>			
Aware of new law before survey†	<b>39%</b>	<b>71%</b>	<b>.037</b>
Concern for legal liability	<b>78%</b>	<b>31%</b>	<b>.005</b>
State board regulations	94%	89%	.999

**Bold** indicates statistical significance.

\*N = 15.

†Percentage answering "aware."

the impact of nonprescription syringe sales on the surrounding community. Responses were given on a 4-point scale of "strongly disagree," "somewhat disagree," "somewhat agree," and "strongly agree." Responses were dichotomized and compared between respondents who were unwilling and willing to sell syringes to an IDU (Table III). Almost all pharmacists agreed that syringe sales to IDUs play an important role in HIV and hepatitis prevention. Over 80% of all respondents believed that selling syringes is an important part of a comprehensive approach to AIDS prevention. Over 80% also agreed that selling syringes will decrease HIV transmission among IDUs.

Pharmacists who were unwilling to sell syringes to an IDU were more likely to agree that sales would have a detrimental impact on the pharmacy and the community. Of those who would not sell syringes to a drug user, 63% were concerned that customers would not want to wait in line with a drug user, as compared to 26% of those willing to sell to an IDU ( $P = .026$ ). Pharmacists who



**TABLE III** Pharmacists' Opinions About the Impact of Syringe Sales to Injection Drug Users (IDUs) by Willingness to Sell to an Injection Drug User

	Not Willing to Sell to an IDU (N = 18)	Somewhat or Very Willing to Sell to an IDU (N = 28)	P
<b>Beneficial impact*</b>			
Important part of HIV prevention	82%	89%	.426
Decrease HIV transmission	80%†	85%	.686
<b>Detrimental impact*</b>			
Increase drug use	50%	31%	.327
Customers will not want to wait in line with drug users	63%	26%	.026
Community will not support pharmacy that encourages drug use	60%†	19%	.015
Community will be littered with dirty syringes	71%	42%	.118

**Boldface** indicates statistical significance.

\*Percentage who "somewhat agree" or "strongly agree."

†N = 15.

were unwilling to sell to an IDU were also more likely to express concern that the community will not support a pharmacy that encourages drug use (60% vs. 19%,  $P = .015$ ).

*Legal concerns* Although new legislation decriminalizes syringe sales without a prescription, pharmacists who are unaware of the law or unsure of its meaning may be unwilling to participate in syringe sales to IDUs. Of all respondents, 58% were aware of the deregulation law before the day of the survey. Those who were aware of the law were significantly more likely to express willingness to sell syringes to an IDU (71% vs. 39%,  $P = .037$ ). In addition, pharmacists who were not willing to sell syringes to an IDU were significantly more concerned about legal liability when deciding whether to sell syringes (Table II).

#### **INTEREST IN FURTHER EDUCATION**

Respondents generally were very interested in learning more about injection drug use and HIV prevention. These data should be viewed in context, however, as the survey was administered at the continuing education day of the convention. The most popular continuing education topics were state legislation affecting syringe sales (80% very interested) and experience with deregulation in other states (74% very interested). The least popular topic was the effectiveness of needle-exchange programs (48% very interested).

## DISCUSSION

Recognizing the central role of injection drug use in the rapid transmission of HIV and HCV and encouraged by successful experiences in other states, the New York State legislature recently deregulated syringe sales. Because not every community can support a needle exchange and because some drug users feel uncomfortable accessing needle-exchange services, pharmacy sales have the potential to reach a far greater proportion of IDUs than does needle exchange alone. There are estimated to be over 80 million drug injection events per year in New York State.<sup>7</sup> Distributing the quantity of needles necessary to ensure easy access to sterile injection equipment therefore will require extensive pharmacist participation.

This study found that 60% of pharmacists reported being somewhat or very willing to sell syringes without a prescription to an IDU. The level of support is similar to that reported in other cities that have deregulated syringe sales previously (64% in Connecticut cities and 67% in Baltimore, MD) and is encouraging from a preventive health perspective. Pharmacist support, however, is not guaranteed. While experiences with pharmacy sales in Connecticut and Maine generally have been positive, policy evaluators in both states recommend peer and continuing education for pharmacists to maximize syringe availability.<sup>8,9</sup> This study provides insight into pharmacists' understanding and concerns about nonprescription syringe sales immediately after passage of legislation, but before the new policy takes effect. The timing of the study was ideal, as opening a window of analysis at this juncture creates the possibility of designing continuing education and support services for pharmacists tailored to their expressed concerns at the outset of the new law.

A first step toward maximizing pharmacist participation in nonprescription needle sales is ensuring that all licensed pharmacies receive notification of the new law and information about its specific impact on pharmacist practice. Pharmacists who were aware of the law before completing the survey were significantly more likely to support syringe sales to IDUs. Further, those who were unaware were significantly more likely to express concern for legal liability of syringe sales. Though the cover letter to the survey, the society director's introductory remarks, and the survey instrument itself explained the significance of the new law, pharmacists who did not have time to digest the new information and formulate a well-considered opinion were less likely to support syringe sales to IDUs.

The relationship between awareness of the law and willingness to sell syringes to IDUs is also interesting to the extent that it provides evidence that education and training about the public health rationale for expanded syringe access will

increase pharmacist participation. Though we did not know it before administering the survey, a group from the New York State Department of Health was invited to the conference to speak about expanded syringe access on the day prior to our arrival. Many of the respondents we spoke to mentioned that they had first learned of the law at the previous day's event. Though from a statistical perspective this effect is uncontrolled, we speculate that pharmacists who learn more about the public health rationale for expanded syringe access might be more likely to support syringe sales to IDUs. Subsequent to this meeting, in late August, the AIDS Institute of the New York State Department of Health conducted a mailing to over 4,000 pharmacists throughout the state to obtain and provide information about this program.

The reported enthusiasm on the part of pharmacists for expanding their role as preventive health service providers also suggests that they may be willing to distribute syringes as part of a comprehensive HIV/HCV prevention strategy. There is a gap between pharmacists' support for providing health education literature and counseling in their pharmacies and the extent to which they currently do so. For example, while 35% of respondents reported that they currently provide literature about safer drug injection, over 80% indicated that they would be very supportive of providing such information. Though only 2% reported having sold a syringe to a suspected IDU in the past 4 weeks, 60% are somewhat or very willing to do so. Education, training, and professional support for pharmacists that addresses the specific concerns of those who are unwilling to sell syringes to IDUs may help pharmacists bridge that gap and facilitate the transition to expanded syringe access.

Not surprisingly, safety concerns were very important to all pharmacists. Customer familiarity was also very important to those unwilling to sell to an IDU. Educational materials and support services therefore need to include information about the public and personal safety consequences of expanded syringe access in other states.

Pharmacists who currently are unwilling to sell needles to drug users also indicated significant worry that nonprescription sales will have a detrimental impact on their businesses and communities. Concerns that syringe sales will increase rates of drug use and lead to littered syringes in the community could be addressed by data from the syringe-exchange experience. Concern that syringe sales to IDUs will alienate customers waiting in line and cause the community to withdraw support from the pharmacy may be more difficult to assuage, although the experience in Connecticut might be useful to consider. Peer education and conversations with pharmacists in Connecticut may comfort some in

New York, but the best information likely will stem from personal experiences when the new law takes effect. Future continuing education and training efforts should be sure to include the experiences of New York pharmacists who are selling syringes without significant negative impact on their pharmacies or customers.

Interestingly, almost all respondents agreed that nonprescription syringe sales are an important part of a comprehensive approach to HIV/AIDS prevention. There is no relationship, however, between understanding the public health rationale for syringe sales and willingness to sell to an IDU. While pharmacists who expressed willingness to sell to IDUs were more likely to cite the importance of HIV/hepatitis prevention in deciding whether to sell syringes without a prescription, the association was not overwhelming. This disconnect between understanding and behavior is essential to consider in planning for expanded syringe access. It suggests that providing data about the effectiveness of syringe sales and needle exchange likely will be ineffective unless it is coupled with direct consideration for pharmacists' concerns about potential negative consequences of expanded syringe access.

It is important to consider these data in context. The survey methods have limitations that should constrain the conclusions drawn. Most notably, the sample size was small, limiting the power of the study to find significant differences between groups. Further, the sample was not random, and generalizations should be viewed with caution. In addition, the survey asked pharmacists to anticipate future activities and thought processes. There is no guarantee that actual practice will reflect the reported influences and behaviors. Finally, we cannot assess from these data whether or how particular influences or behaviors will vary over time. As publicity and education begin to have an impact on pharmacists' thinking about nonprescription syringe sales, the relative importance of different influences and beliefs could change.

Nonprescription syringe sales begin in New York on January 1, 2001. Findings from this survey suggest that pharmacists generally are supportive of the idea of selling syringes to IDUs, that they are aware of the public health rationale for the policy, and that they are willing to expand their own roles as preventive health providers and health educators. To maximize the effectiveness of the intent of the policy (i.e., HIV and HCV prevention), it is important to work with pharmacists to assuage concerns and encourage participation.

These data identify several important focus areas for future training efforts. First, pharmacists who were not willing to sell needles and syringes to IDUs were significantly more likely to be very concerned about the familiarity of the

customer and the legal liability that comes with syringe sales. Second, they also expressed significantly greater worry that customers will not want to wait in line with IDUs, and that their communities will not support a pharmacy that encourages drug use. Public health officials, pharmacists, and peer educators interested in designing effective training and support services for pharmacists can use this information as a guide as they prepare for implementing nonprescription syringe sales.

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