



TELEPHONE SURVEY OF ALASKAN PHARMACISTS' NONPRESCRIPTION NEEDLE- SELLING PRACTICES

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ABSTRACT

Objectives. To determine the availability of nonprescription needles and syringes (NS) through pharmacy sales and to assess the impact of pharmacy policies and municipal paraphernalia laws on pharmacists' selling practices.

Design. Telephone survey of all pharmacies in Alaska's four largest cities.

Setting. Anchorage, Fairbanks, Juneau, and Ketchikan, Alaska.

Subjects. A single pharmacist from each pharmacy represented in the cities' phone books.

Main Outcome Measures. Reports of (1) pharmacies' policies and individual pharmacists' procedures regarding the nonprescription sale of NS, (2) pharmacists' selling practices, and (3) identification of conditions that may affect pharmacists' decisions to sell nonprescription NS.

Results. Response rate of 86% (37/43); 77% of pharmacists reported selling at least one nonprescription NS in the last month. Store policy was related to selling practices; however, there was no difference in selling practices between a city with a paraphernalia law and cities without such laws. Logistic regression revealed pharmacists were more likely to sell NS if they worked in chain pharmacies and estimated that a high number of other local pharmacists sell nonprescription NS.

Conclusion. NS are available through nonprescription sales in Alaskan pharmacies. The majority of pharmacies have store policies that permit pharmacists to sell nonprescription NS, either in all cases or at their discretion. Municipal paraphernalia laws do not determine the selling practices of individual pharmacists.

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INTRODUCTION

Sharing needles and syringes (NS) or injection paraphernalia (e.g., cookers, cotton, rinse water) among injection drug users (IDUs) increases the likelihood of contracting or transmitting human immunodeficiency virus (HIV) and, potentially, other blood-borne pathogens.^{1,2} Providing IDUs with access to sterile injection equipment maybe a major avenue to reduce the risk of such pathogens.³ However, in many states, paraphernalia and needle possession laws have been instituted to restrict access to injection paraphernalia to those deemed to be in medical need for such equipment.⁴ Consequently, IDUs may have difficulty acquiring sterile NS in states with such possession laws.

Some states either have not instituted or have modified or repealed NS possession laws to allow IDUs access to sterile equipment. In these states, pharmacies are a viable option for obtaining sterile NS. However, in states and communities where it is legal to sell NS to anyone, studies have revealed considerable variability in pharmacists' selling behaviors. For example, Gleghorn et al.⁵ conducted a telephone survey of Baltimore, Maryland, pharmacists and found that 57% of them reported that they still required a prescription, diabetic identification (DID), or both from anyone who attempted to purchase NS. In a previous study surveying IDUs in Baltimore, half of the IDUs sampled reported NS purchases from pharmacies, and nearly one-third of the sample reported pharmacies as a usual source of NS procurement.⁶ In a 1995 national mail survey of the pharmacies in England and Wales, 35% reported selling nonprescription NS; an increase from the 28% of pharmacists found in a 1988 survey with similar samples.^{7,8} Results from Maine revealed that only 15% of surveyed pharmacists reported selling NS to an individual without a prescription or other supporting identification.⁹ On the other hand, two surveys in Connecticut, a state where it is legal to purchase a limited number of nonprescription NS, found most pharmacists (83%¹⁰ and 85%¹¹) reported selling nonprescription NS.

Alaska has no state laws concerning paraphernalia or needle possession. The Municipality of Anchorage (Alaska's largest city) has a municipal paraphernalia ordinance that discourages merchants selling NS to individuals who are suspected of using NS to inject illicit substances. In the absence of laws that dictate absolute restriction, this municipal ordinance provides considerable discretion to the merchant.

To evaluate the effects of this discretionary power, Lurie and Wolfe¹² used three research confederates to attempt to purchase NS at several Anchorage pharmacies. These researchers reported that, of 21 pharmacies investigated, only 7 Anchorage pharmacies (33%) were willing to sell NS without a prescription.

In contrast, two separate studies surveyed Anchorage IDUs, who self-reported considerable success in purchasing NS at pharmacies. Fenaughty et al.¹³ found that IDUs reported being able to purchase NS without a prescription at 20 of 30 (67%) Anchorage pharmacies. Further, these IDUs reported that, of all their purchase attempts, they were successful 96% of the time, and that the majority (85%) of their NS purchase attempts were made at five specific pharmacies, a finding that is consistent with previous research with similar methodology.¹⁴ These findings suggest widespread knowledge among Anchorage IDUs as to which pharmacies are more likely to sell nonprescription NS. In addition, the modal reason Anchorage IDUs reported for not purchasing NS via pharmacies was the availability of NS from friends, and the majority of the NS obtained through this avenue were new (D.G. Fisher, PhD, unpublished data, December 1999). This finding suggests indirect access for IDUs to NS purchased through pharmacies without a prescription.

Based on the questions and procedures utilized by Gleghorn et al.,⁵ the present investigation conducted telephone surveys of pharmacists in four Alaskan cities. The purpose of the study was to evaluate the selling practices and attitudes of pharmacists and to assess the degree to which factors such as store policy or paraphernalia laws might affect these practices and attitudes.

METHOD

A single pharmacist from each pharmacy (N = 43) listed in the yellow pages of Alaska's four largest cities (Anchorage, n = 25; Fairbanks, n = 7; Juneau, n = 6; Ketchikan, n = 5) was contacted via telephone to participate in this interview study. Interview questions were adapted from the pharmacist telephone survey used by Gleghorn et al.⁵ in Baltimore, Maryland, and consisted of 27 questions divided into four parts. The first part of the interview included questions regarding pharmacy policy for selling NS, individual pharmacist's requirements before selling NS, amount of NS sold both with and without prescriptions, customer demographics, and perceptions of illegal drug activity in the pharmacy's neighborhood. The second part involved questions regarding participants' opinions of needle-exchange programs (NEPs) and attitudes about selling NS without prescriptions. The third part of the interview asked the pharmacist their perception of other local pharmacies that sell nonprescription NS, negative incidents (e.g., shoplifting, robbery, and fraudulent prescriptions) by suspected drug users in their pharmacy, and seven factors that may influence pharmacists' decisions to sell NS without a prescription. The seven factors were customer's appearance, customer's sobriety, presence of other customers, familiarity with customer, risk

of theft or robbery, concern for health and HIV prevention, and HIV status of customer; all factors were rated on a 5-point Likert scale that ranged from *not at all important* (1) to *ultimately important* (5). The final part of the interview was concerned with questions regarding the type (i.e., independent, franchise, chain, hospital, or health maintenance organization) and setting of the pharmacy. Completion of the interview took approximately 15 minutes.

The first author who contacted the pharmacies during January 1999 to speak with the pharmacist on duty conducted all interviews. After briefly describing the survey, the interviewer asked whether the pharmacist was willing to participate. To minimize disruption of the pharmacist's regular activities, the telephone interview was arranged around the pharmacists' schedules. For example, the interviewer offered to call back busy pharmacies at times that were more convenient, and when needed to minimize pharmacy business disruption, the interview was paused while the pharmacist helped customers. Individual question response rates varied slightly due to pharmacists' refusals to answer particular questions.

The SAS statistical software package (SAS System 6, SAS Institute, Inc., Cary, NC, 1990) was used to conduct all analyses. Statistics included chi-square test analyses, Wilcoxon rank sum tests, multivariate analysis of variance (MANOVA) using Wilks lambda test criterion, and logistic regression.

RESULTS

Of the 43 pharmacies contacted, 37 (86%) agreed to participate. Fifteen pharmacies were independent, and 22 were part of a chain. Five pharmacies (14%) had store policies permitting NS sales to anyone, 27 (73%) had policies that granted pharmacists discretion in sales, and 5 (13.5%) required prescriptions for all NS sales. In all, 77% (27/35) of pharmacists reported selling nonprescription NS in the last 30 days, with store policies being related significantly to these sales, $\chi^2(2) = 11.4$, $P = .003$. Specifically, 100% (5/5) of the pharmacists at stores with permissive policies reported selling nonprescription NS at least once (median = 90 times; range 2–600) in the past 30 days; 84% (21/25) of pharmacists at stores that granted discretion reported nonprescription NS sales (median = 5; range 0–90); and 20% (1/5) of pharmacists at stores with restrictive policies reported such NS sales. Regarding potential differences between cities, a chi-square test of the difference between two proportions revealed no significant difference between the proportion of Anchorage pharmacists (89%, 17/19) and the proportion of pharmacists from the other three cities (63%, 10/16) who reported selling nonprescription NS, $\chi^2(1) = 3.58$, $P = .06$; Fisher's exact $P = .07$. Pharmacists who sold and those who did not sell nonprescription NS described the pharmacy's

clientele similarly with respect to ethnicity and socioeconomic status, $r(4) = .96$ and $r(3) = .88$, respectively.

Pharmacists who sold at least one nonprescription NS within the last 30 days reported greater support for NEPs than those who did not report such sales, Wilcoxon $Z = 2.36$, $P = .019$. Further, the majority of pharmacists reported being supportive of selling nonprescription NS (67%, 24/36) and having supportive attitudes toward NEPs (58%, 21/36). Compared to pharmacists who reported being less restrictive, those who required a prescription, DID, or both from customers to purchase NS attributed greater importance to customer familiarity in the decision to sell nonprescription NS (Wilcoxon $Z = 2.34$, $P = .02$) and estimated fewer other local pharmacists sold nonprescription NS (Wilcoxon $Z = 2.52$, $P = .01$). For illustration purposes, the original 5-point Likert scales for the seven factors included in section C of the interview were collapsed to reflect 3-point scales; the Table summarizes the pharmacists' responses across these factors. A one-way MANOVA conducted to compare pharmacists who reported selling nonprescription NS and those who reported no such sales on these seven factors revealed no significant differences, $F(7,25) = 0.69$, $P > .05$.

Logistic regression analysis was conducted to determine predictors of nonprescription NS sales. Candidate variables included number of negative incidents related to illicit drug use (e.g., fraudulent prescriptions, robbery), importance of customer-related factors (e.g., appearance, sobriety, familiarity, health status), customer demographics (i.e., ethnicity, socioeconomic status), perception of other

TABLE Reported Importance of Factors Related to the Decision to Sell Nonprescription Needles and Syringes*

| Factor | Not at All or Slightly Important, n (%) | Fairly Important, n (%) | Generally or Ultimately Important, n (%) |
|---|--|-------------------------------|---|
| Customer sobriety | 6 (16) | 3 (8) | 28 (76) |
| Familiarity with customer | 8 (22) | 5 (14) | 24 (65) |
| Concern for health and HIV prevention among IDU [†] | 13 (36) | 9 (25) | 14 (39) |
| Fear of theft or robbery | 27 (73) | 1 (3) | 9 (24) |
| HIV status of customer [†] | 22 (62) | 7 (19) | 7 (19) |
| Customer appearance | 19 (51) | 12 (32) | 6 (16) |
| Presence of other customer [†] | 32 (91) | 3 (9) | 0 — |

*N = 37.

†Missing responses reduced n.

pharmacists' selling practices, pharmacy policy, perceived level of local drug activity, participant support for NEPs and nonprescription NS sales, pharmacy type (i.e., chain or independent), and city. Results revealed two predictor variables ($P < .05$; $-2 \log \text{likelihood} = 34.11$), type of pharmacy (i.e., chain vs. independent; odds ratio [OR] = 22.1, 95% confidence interval [CI] 1.6 to 298.2) and participant estimate of other local pharmacists who sell nonprescription NS (OR = 2.2, 95% CI 1.1 to 7.0). Participants at chain pharmacies were more likely to sell nonprescription NS, and as the participant's estimate of other pharmacists that sell nonprescription NS increased, the participants' willingness to sell nonprescription NS also increased.

DISCUSSION

The majority (87%) of surveyed Alaskan pharmacies had either no store policy regarding sales of nonprescription NS or had a store policy that granted discretion for such sales to the pharmacist. Of all the pharmacists, 78% reported selling nonprescription NS, a percentage comparable to the 83% and 85% found in the Connecticut studies.^{10,11} Despite the presence of an Anchorage paraphernalia ordinance, there were no differences between this and other Alaskan cities in the proportions of pharmacists who reported nonprescription NS sales. This suggests that, when granted discretion for nonprescription NS sales, even with a paraphernalia ordinance, the majority of pharmacists will sell NS without a prescription or DID.

The primary factor associated with the lack of nonprescription NS sales was the presence of a restrictive store policy. However, given that only 14% of the pharmacies had such a policy, it is evident that pharmacies are a viable option for Alaskan IDUs to obtain sterile NS. Previous research demonstrated that most Anchorage IDUs (85%) reported attempting to purchase NS at five specific pharmacies.¹³ One conclusion that might be drawn is that local IDUs learn which pharmacies are more likely to sell nonprescription NS and frequent these businesses for their purchases. In addition, results of the logistic regression analysis revealed a constellation of variables that were not related to nonprescription NS sales, including the pharmacists' reports of customer ethnicity and socioeconomic status.

When examining pharmacist attitudes, those pharmacists who reported selling nonprescription NS were more supportive of NEPs. Although not evaluated, one possible explanation may be that such pharmacists have greater knowledge of the potential of freely accessible NS for the reduction of blood-borne pathogens. If additional research were to confirm this explanation, one course of action

might be more focused education for pharmacists on the role of sterile NS in disease prevention.

Customer sobriety and familiarity with the customer were identified by pharmacists as the most important factors that influence their decision to sell nonprescription NS. Individuals attempting to purchase nonprescription NS via pharmacies should recognize these factors might influence a pharmacist's decision to sell NS, particularly if the pharmacy policy grants discretion to pharmacists regarding nonprescription NS sales.

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