

Selling syringes to injecting drug users: a study of five pharmacies in Hanoi, Vietnam

Christopher A. Pankonin,¹ Peter Higgs,² Gary Reid,² Campbell Aitken.³

¹UCLA Center for Health Policy Research, 10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024

²Centre for Harm Reduction, Burnet Institute, P.O. Box 2284, Melbourne 3004, Australia

³Centre for Epidemiology and Population Health Research, Burnet Institute, PO Box 2284, Melbourne 3004, Australia.

Abstract

Background: HIV continues to spread rapidly throughout Vietnam with injection drug use remaining the main risk factor for infection. The extent of pharmacy-based needle and syringe distribution has not previously been measured in Vietnam; this article reports on a pilot study exploring pharmacy-based harm reduction activities in Vietnam's capital, Hanoi.

Methodology: Five pharmacies located in Dong Da and Thanh Xuan districts in Hanoi, where two peer-based needle and syringe programs (NSPs) also operate, recorded the numbers of syringes sold to injecting drug users (IDUs) over a one-week period. Each pharmacist participated in a semi-structured interview aimed at understanding the pharmacists' views of syringe distribution and HIV prevention.

Results: The five pharmacies sold an average of 93 syringes per pharmacy to IDUs during the study week. Pharmacists demonstrated a solid understanding of HIV transmission risk factors and a strong commitment to continuing HIV prevention activities.

Conclusions: Our data are based on few observations and are very preliminary, but suggest that pharmacies contribute a significant proportion of the total syringe supply to IDUs in Hanoi. Given adequate support, pharmacies could be an effective vehicle for scaling up harm reduction services in Hanoi and throughout Vietnam.

Key Words: Pharmacy, Vietnam, Injecting Drug Use, HIV/AIDS Prevention, Harm Reduction, Needles and Syringes.

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Introduction

The Human Immunodeficiency Virus (HIV) continues to spread rapidly in many developing nations with injecting drug use and the sharing of used needles and syringes remaining a significant risk factor [1,2]. Injecting drug use accounts for at least 50% of all known HIV infections in Vietnam with prevalence among injecting drug users (IDUs) at 32% nationally and 25% in Hanoi [3]. The majority of Vietnamese drug users are young: it has been estimated that 52% of drug users are under 25 years old and 82% are less than 36 years old. Most IDUs start their drug use between the ages of 15 and 24 years [4]. Reported recent sharing of syringes is common, with rates reported at over 30% in Hanoi [5].

Illicit drug users in Vietnam face relatively strict punishment if arrested by police, including forced placement in a drug rehabilitation centre for up to two years (Drug Policy and Public Health Promotion in Vietnam. Paper presented at the First

International Symposium on Global Drug Policy, October, Lisbon: http://www.senliscouncil.net/modules/events/lisbon/13_oanh). Fear of arrest prompted IDUs in Hanoi to develop an injecting routine that may take only one minute to prepare, mix and inject, and IDUs can frequently be seen injecting in public places in known "heroin hotspots" such as Kham Thien in Hanoi's Dong Da District. Used syringes are then discarded as quickly as possible—on the street or along building walls—to avoid further complications of carrying paraphernalia (Personal communication 2006: Viet Dung, Program Manager, Macfarlane Burnet Institute, Vietnam.). The syringes discarded in public are not only a visual blight, but also present the potential for needle-stick injuries to the community.

Only two formal needle and syringe programs (NSPs) currently operate in Hanoi, employing a total of sixteen peer educators and two team leaders who perform a full range of harm reduction

activities including collecting used syringes from the community, syringe distribution, outreach services, peer education, community advocacy, and providing individual and family counselling [6,7]. In contrast to the situation regarding possession and use, recent legislation makes harm reduction activities explicitly legal and fully endorsed as part of a national strategy to control the further spread of HIV/AIDS; therefore, the distribution of syringes is a legal activity in Vietnam [8].

Several studies have examined syringe coverage in developing [9] and developed countries [10, 11] by comparing NSP syringe distribution against estimated IDU demand, identifying dramatic shortfalls. The role of NSPs in distributing condoms and sterile syringes to IDUs is central to HIV prevention in addition to providing educational materials and referrals to other social and medical services [12]. Nevertheless, some IDUs prefer using pharmacies to NSPs [13], and at the same time, pharmacies and NSPs attract IDUs with different characteristics [14-16]. Pharmacies play an essential role in limiting the identified NSP syringe shortfalls, assisting in HIV prevention by providing access to sterile syringes [17-26]. In Western Australia, nearly 60% of all syringes distributed originate from pharmacies [27,28]; however, in one study over a third of IDUs who reported that they shared equipment did so because they could not afford to purchase new syringes [29]. Pharmacies have assisted in increasing the numbers of syringes available to IDUs in the United States, [25, 30-33] in Glasgow, Scotland [34], and in France [35]. Pharmacy-led syringe distribution involving social marketing of sterile syringes to IDUs has also been implemented along the Vietnamese-Chinese border using peer educators to distribute syringes and pharmacy vouchers to IDUs [36].

Since Vietnamese pharmacies are potentially significant partners in HIV prevention, it is important to understand their role to assess the extent to which they could actively participate in HIV-related harm reduction activities. In Hanoi, pharmacies are a ubiquitous part of the community, with one located on nearly every commercial street and sometimes only a few shop-fronts from one another (Pankonin C. Personal field notes, 2006). The pharmacies are privately owned businesses; therefore, the decision to sell

syringes to IDUs is left entirely to the individual pharmacist. The role of private pharmacies in the supply of syringes to the IDU community in Hanoi has not previously been studied, and is not part of an official data collection system. The purpose of this pilot study was to explore pharmacy-based harm reduction activities and assess, in a preliminary manner, the contribution pharmacies make to needle and syringe distribution in Hanoi.

Materials and Methods

Pharmacy selection

A convenience sample of five pharmacies was chosen from two districts of central Hanoi, Dong Da and Thanh Xuan. These districts were selected as areas for study because each has one of only two NSPs known to be operating in Hanoi. The NSPs are managed jointly by the Burnet Institute and Vietnamese Community Mobilization Centre for HIV/AIDS Control (VICOMC), a local community-based NGO, under the “HIV prevention for IDUs and improving the quality of life of PLWHA in Vietnam” project. Three pharmacies were selected from Dong Da District near Kham Thien, which has a concentrated IDU population and is a known “heroin hotspot”—a geographical area where IDUs frequently congregate; two pharmacies were selected from opposite sides of Thanh Xuan District, which has a more geographically diverse IDU population without any known “heroin hotspots”. All five pharmacists were known to peer educators to sell syringes to IDUs and agreed to participate in the study. Three pharmacists were female and two were male, with ages ranging from the early twenties to late seventies. Business hours for the participating pharmacies ranged from 7:00 a.m. to 10:00 p.m. with no pharmacy closing earlier than 9:00 p.m.

Interviews with pharmacists

Semi-structured interviews were conducted with each of the five participating pharmacists to gain insights into their perspectives on the practice of selling syringes, injecting drug use, and HIV prevention. All interviews were conducted with the assistance of an interpreter who had knowledge of pharmacy operations and HIV prevention, and were captured by digital recorder in addition to field notes of translations provided by the interpreter.

Recording syringe distribution

Data were collected from the two NSPs and five participating pharmacies to compare the two sectors' relative contributions to syringe distribution in Hanoi. Pharmacists were asked to record the number of syringes they sold daily across one business week, and to estimate the number of syringes they thought they sold specifically to IDUs each day. The researcher maintained daily contact with each participating pharmacist during the data collection period to provide standardized data collection sheets and to ensure the continued participation of pharmacists. Four pharmacies recorded data for seven consecutive days while one pharmacy recorded data over only six days because a part-time employee had not been informed about the research. All pharmacy data collection occurred between 29 July and 6 August, 2006.

Each NSP routinely recorded the number of syringes distributed and collected. Seven peer educators recorded syringe distribution in each district for seven consecutive days following each NSP's respective reporting schedule, in Dong Da between 2 August to 9 August, 2006, and in Thanh Xuan from 3 August to 10 August, 2006. All data were collected between 29 July and 10 August, 2006, with no indication of any differences in daily patterns affecting the overlapping dates of data collection between sectors.

Total Pharmacy Distribution Estimates

Pharmacists in Hanoi must be certified and registered to sell medications. According to registration lists, 200 pharmacies operate in Dong Da District and 70 in Thanh Xuan. Peer educators from each district's NSP were asked to collectively estimate the number of pharmacies they thought were willing to sell syringes to IDUs. They estimated that approximately 50% of pharmacies in Dong Da District and 75% in Thanh Xuan District were willing to sell syringes to IDUs, or approximately 153 pharmacies in both districts. Total and conservative estimates of syringe distribution to IDUs by pharmacies were calculated from the observed data in Dong Da and Thanh Xuan with 95% confidence intervals providing a range for the true weekly averages.

Human Research Ethics

Participation in this research study was voluntary and subject to a written informed consent process. The study was reviewed and approved by the University of Melbourne Human Research Ethics Committee, HREC Project No. 060372.

Results

Pharmacist Interviews

Pharmacists' interview responses to five key issues are reported here.

Knowledge of NSPs and peer educator activities in their community

"If I were a policy-maker, I would form a community group to distribute and clean up syringes" (Pharmacist #4).

Despite being located near the Thanh Xuan NSP, Pharmacist #4 expressed this viewpoint as he was largely unaware of the activities that the peer educators perform. Three pharmacists directly expressed the desire to establish a community group formed to distribute syringes to IDUs and to collect used syringes; however, none of the five pharmacists were aware of peer educators actually at work in their community. Nevertheless, several pharmacists indicated awareness through mass media campaigns of the work that peer educators perform.

Pharmacist #5 was not expected to have knowledge of peer educator activities as his pharmacy was located out of their range, but he did know that people were actively collecting used syringes. Pharmacist #3 had never seen the peer educators distributing syringes but did see people distributing condoms.

Reasons they sell syringes to IDUs

"I sell to IDUs to contribute to the health of the community and to help in HIV prevention among the community" (Pharmacist #5).

All pharmacists expressed a professional responsibility to prevent HIV infection as the main reason for selling syringes to IDUs, even though some admitted that they sometimes hesitate to complete a transaction. This responsibility to the community and to IDUs seemed grounded in the knowledge that HIV infection is not confined to high-risk groups and does impact on the whole of the community. Pharmacist #3 also expressed an economic viewpoint; with the next available pharmacy located just a few shop-fronts down the

street, the explanation given was "if I don't sell syringes to the drug users then another pharmacy will sell to them [IDUs]."

The decision to sell syringes to IDUs is left entirely to the individual pharmacist. Asked if they hesitate to sell syringes to IDUs, three pharmacists replied that they sold without hesitation and even commonly sold other items with the syringes such as Novocain and cotton swabs. However, Pharmacist #4 did admit to hesitating to sell to IDUs at times due to past experiences of being robbed by IDU customers. He related his guiding principles as a pharmacist as his "first duty is to sell medicine, but [his] second duty is to prevent the spread of HIV." This professional sense of duty outweighed the negative past experiences for this pharmacist, but anecdotally many other pharmacists who have had negative experiences with IDU customers subsequently refuse to sell syringes to suspected IDUs.

Interest in providing educational material to IDUs who come to their pharmacies

Each of the five pharmacists expressed a willingness to provide health education information such as brochures and pamphlets on HIV prevention, and Pharmacist #2 expressed a keen interest in having both educational materials and posters at her pharmacy. Pharmacist #1 went a step further as she said she provides advice to IDUs to help treat and prevent secondary infections associated with injecting behaviours. Four of the five pharmacists indicated that they already provide IDUs with health education whenever they have the chance; however, the kinds of health education offered and the accuracy of the information are unknown and were not measured in this study.

"I think the transaction is too quick with no time to give information to IDUs, but I am always ready and willing to provide information" (Pharmacist #4).

A distinction between the willingness of pharmacists to provide health education to IDUs and the practicality quickly became apparent. Three pharmacists expressed the viewpoint that the transaction is usually too quick to provide useful information to IDUs. The reality of a sales transaction leaves little time to provide health education verbally or through a consultative format. Therefore, providing health education brochures to IDUs at the time of transaction might

be the most appropriate form of pharmacy-centered educational materials.

Discussing HIV prevention with other pharmacists

During the interviews each pharmacist was asked the extent to which they discussed HIV prevention with other pharmacists.

"There are many pharmacists interested in HIV prevention" (Pharmacist #3)

Pharmacist #1 responded that her interaction was limited to the Pharmacist Association, the main organizing group of pharmacists in Hanoi, which sometimes discusses selling syringes to IDUs as a method of preventing HIV. A total of three pharmacists indicated that they sometimes or regularly discuss HIV prevention with other pharmacists, in both formal and informal contexts. Although the frequency of conversation—and undoubtedly the depth of discussion—varies greatly amongst the pharmacists interviewed, there does appear to be a wider network of pharmacists in Hanoi willing to discuss HIV prevention.

Thoughts on pharmacies providing Anti-Retroviral (ARV) treatment to PLWHA

Viewpoints on pharmacies providing ARV treatments were solicited despite regulations stating that ARV treatment be provided only through hospitals in Vietnam.

"ARV should be provided only through hospitals and is not the responsibility of pharmacies" (Pharmacist #2).

Pharmacist #5 added, "ARV treatment should only be allowed in hospital following the doctor's orders."

These statements reflect the universal sentiment that the best place to provide ARV to PLWHA is through hospitals, with pharmacists not wishing to play any role in ARV treatment. Pharmacists were also asked their knowledge of several common anti-retroviral treatment medications; every pharmacist could identify at least three of seven ARV medications listed at the interview. The seven choices of ARV medications included Lamzidivir, Lamivudin Stada, Stavudine Stada, Nevirapin Stada, Indinavir Stada, Didanosin Stada, Efavirenz Stada.

Syringe Distribution

The five pharmacies recorded the number of syringes they sold during the study period; 655 syringes were sold to 290 contacts, with an average of 131 (range 88 to 218) per pharmacy. Of the total number of syringes sold, an estimated 465 (71%) were sold to IDUs with an average of 93 (range 69 to 143) syringes sold to IDUs per pharmacy.

During a similar time period overlapping the pharmacy data collection, 6,582 syringes were distributed by peer educators working in both Dong Da and Thanh Xuan Districts. Peer educators distributed 4,579 syringes to 811 contacts in Dong Da, and 2,003 syringes were distributed in Thanh Xuan to 433 contacts. The peer educators in Dong Da reported that this was a normal week with no significant disruptions to service provision; however, peer educators in Thanh Xuan reported ongoing law enforcement activity targeted specifically at IDUs. In addition to distributing syringes, peer educators collected and disposed of 3,183 used syringes from both districts (2,018 in Dong Da and 1,165 in Thanh Xuan). The one-week totals for each location are summarized in Table 1.

Table 1. Pharmacy and NSP syringe output during the study week.

	# Contacts	Total Syringes	IDU Syringes	Syringes Collected
Pharmacy 1	46	101	92	0
Pharmacy 2	103	143	143	0
Pharmacy 3	53	88	88	0
Pharmacy 4	32	218	73	0
Pharmacy 5	56	105	69	0
NSP-Dong Da	811	4579	4579	2018
NSP-Thanh Xuan	433	2003	2003	1165
Totals	1534	7237	7047	3183

*pharmacies 1-3 located in Dong Da, pharmacies 4 & 5 located in Thanh Xuan.

Total Pharmacy Distribution Estimates

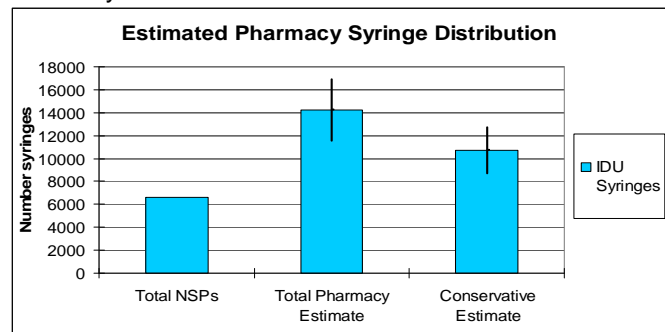
If the findings from the five sampled pharmacies prove accurate and can be applied generally, simple calculations provide estimates of the total pharmacy contribution to syringe distribution in the two districts studied (Figure 1).

The two NSPs distributed 6,582 syringes during the study period. Assuming that each pharmacy sold an average of 93 syringes per week to IDUs, pharmacies in Dong Da sold an

estimated 9,300 syringes to IDUs during the observation period (twice as many as distributed by the Dong Da peer educators), while pharmacies in Thanh Xuan sold an estimated 4,929 (2.5 times as many as distributed by the Thanh Xuan peer educators). In total, our data suggest pharmacies potentially sold 14,229 (95% CI 11,525-16,933) syringes to IDUs in the two districts under study (2.2 times as many syringes that were distributed by peer educators).

A conservative estimate based on the lower observed average number of syringes sold in Thanh Xuan (70 syringes per week per pharmacy) shows that pharmacies potentially sold a total of 10,710 (95% CI 8,674-12,746) syringes (1.6 times as many as distributed by the peer educators at the two NSPs). Pharmacies in Dong Da potentially sold 7,000 syringes while pharmacies in Thanh Xuan potentially sold 3,710 syringes to IDUs during the study week, 1.5 times and 1.9 times as many syringes distributed by the respective NSPs.

Figure 1. Total estimated weekly pharmacy syringe sales across pharmacies willing to sell syringes to IDUs in Dong Da and Thanh Xuan Districts (153) compared to weekly NSP distribution.



Discussion

Syringe availability

An accurate assessment of the total number of syringes available to the IDU community is important in HIV prevention planning. Although the number of syringes distributed by NSPs in Hanoi is regularly recorded, the contribution of syringes by pharmacies has not previously been surveyed. Individually, the contribution from pharmacies to syringe availability may appear negligible. The strength, however, lies in the collective contribution of dozens of pharmacies actively selling syringes to IDUs.

Our estimates are based on only a small sample of pharmacies in the districts under study,

and rely on untested assumptions about the proportion of pharmacies willing to sell syringes to IDUs and the ability of pharmacists to identify customers as IDUs, so must be treated with caution. Nevertheless, our results suggest that pharmacies contribute a significant proportion of total syringe distribution to IDUs in Hanoi while continuing to remain an under-recognized sector of HIV prevention.

Role of pharmacies in HIV prevention

Several factors contribute to make pharmacies attractive locations for IDUs to obtain sterile syringes in Hanoi. Pharmacists sell a range of syringes, from 1ml to 50ml, with 3ml the size most preferred by IDUs. At 500VN\$ (0.03 US\$) per syringe (about 2% the cost of a small heroin package), the prices pharmacies charge for the most commonly used syringes make the option of purchasing syringes viable to IDUs. In addition to syringes, pharmacies often also sell sterile water and Novocain that IDUs use to mix with heroin directly in the syringe prior to injecting. Business hours are also convenient; the participating pharmacies were open every day of the week from 7:00 a.m. to 10:00 p.m., with no pharmacy closing earlier than 9:00 p.m. Another factor is the widespread distribution of pharmacies throughout the districts, with pharmacies sometimes located just a few shop-fronts from each other. While an estimated 153 pharmacies are willing to sell syringes to IDUs throughout the two districts, only fourteen peer educators covered the same geographical area.

The decision to sell syringes to IDUs is left to the discretion of the individual pharmacist. Our qualitative data suggest that pharmacists willing to sell syringes to IDUs do so out of a strong sense of community and a view that HIV prevention serves the greater good. Simple pragmatism was another reason for selling syringes to IDUs; one pharmacist indicated that if she didn't sell syringes to the IDUs then they will just buy their syringes from another pharmacy. Each pharmacist expressed the willingness and the desire to educate IDUs on the harms associated with injecting drug use such as HIV infection, but three pharmacists also commented on the difficulty of providing health education and even educational materials to IDUs as the transaction is often very quick. Pharmacists' role in HIV prevention,

therefore, remains limited; and NSPs must continue to fill this niche. In addition to distributing 6,582 syringes during the observation period, peer educators collected 3,183 syringes from the community and provided health education and counselling to IDUs and their friends and families, and to other members of the community. NSPs play a vital role in HIV prevention among IDUs in Hanoi as they do elsewhere in Southeast Asia (37,38) and the world (22, 39-43).

Limitations

Five pharmacies represent only a tiny fraction of the total number of pharmacies in Dong Da and Thanh Xuan in Hanoi (200 and 70 pharmacies respectively). Several factors could have influenced the results during the limited data collection period, including law enforcement activities, changes in the heroin market, or responses to very hot weather conditions that may influence IDUs to over-utilize peer educator services after-hours. Peer educators in Thanh Xuan District did report that recent law enforcement activities overlapping the data collection period caused many IDUs to become reluctant to be seen obtaining syringes from peer educators, who are easily identified by their uniforms. No unusual activity was reported for Dong Da District and it was reported that the data collection period was a typical week.

An important limitation to the study design is in estimating the number of syringes sold specifically to IDUs. It is difficult to accurately assess whether people are injecting drug users, either on the basis of appearance or by directly asking customers. Therefore, the estimation of syringes sold to IDUs relies heavily on the pharmacists' judgment. Nevertheless, we consider the method of estimating syringe sales justified as local pharmacists in Hanoi are well positioned to know their own clientele. The size and style of the syringes being sold is also highly suggestive of injection drug use being the sole purpose.

Conclusions and Recommendations

Although highly preliminary in nature, our research suggests that pharmacies in Hanoi's Dong Da and Thanh Xuan districts play an important role in providing syringes to IDUs. The five participating pharmacies distributed an average of 93 syringes per week to IDUs,

suggesting that pharmacies across Dong Da and Thanh Xuan distribute 14,229 (95% CI 11,525-16,933) syringes per week to IDUs. Peer educators distributed 6,582 syringes and collected 3,183 syringes during the study week, and also provided health education and counselling to IDUs and their families. Estimates made on the availability of sterile syringes for IDUs in Vietnam need to account for the role which pharmacies play in the provision of HIV prevention tools.

The interviews with pharmacists provide interesting insights into their perspectives on the practice of selling syringes, injecting drug use, and HIV prevention. In addition to confirming that pharmacists in Hanoi are willing participants in distributing sterile syringes to IDUs, the interviews helped to provide recommendations whereby pharmacies could be included in a scale-up of harm reduction services in Hanoi and throughout Vietnam. First, the qualitative data suggest the existence of an informal network of pharmacists who are committed to HIV prevention activities but lack a structure to further their understanding of HIV prevention and drug use. Pharmacists are also unaware of the peer educators and the work that peer educators perform in their community. As a first step, the formation of groups of pharmacists interested in HIV prevention could include establishing formal linkages between peer educators and pharmacists. These formalised groups could provide interested pharmacists with a means of improving their knowledge of the roles of other important sectors in HIV prevention, and to provide education sessions on a range of relevant topics including HIV/AIDS prevention and treatment, harm reduction, and drug use.

Secondly, each participating pharmacist indicated a willingness to make health education brochures or posters available at their pharmacies. Support should therefore be provided to interested pharmacies to enable them to distribute health education materials as a means of broadening harm reduction activities. Although syringe sale transactions are generally very quick, brochures may be an effective means of further incorporating pharmacies into harm reduction activities.

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Corresponding Author: Christopher A. Pankonin, UCLA Center for Health Policy Research, 10960 Wilshire Boulevard, Suite 1550, Los Angeles, CA 90024 Email: cpankonin@ucla.edu

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