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# Engagement in Hepatitis C and HIV Prevention: Community Pharmacists' Knowledge and Attitudes Regarding Non-Prescription Syringe Dispensing Legislation

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Metcalfe, Dawnna Elisabeth; Dowling-McClay, KariLynn; and Hagemeyer, Nicholas E., "Engagement in Hepatitis C and HIV Prevention: Community Pharmacists' Knowledge and Attitudes Regarding Non-Prescription Syringe Dispensing Legislation" (2020). *Appalachian Student Research Forum*. 36.  
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# Engagement in Hepatitis C and HIV prevention: Community pharmacists' knowledge and attitudes regarding non-prescription syringe dispensing legislation

Dawna Metcalfe, PharmD Candidate, KariLynn Dowling-McClay, PharmD, BCACP, Nicholas E. Hagemeyer, PharmD, PhD

## Key Points

- Since 2010, the incidence of acute Hepatitis C Virus (HCV) infections in the U.S. has nearly quadrupled. Re-use and sharing of syringes is a significant contributing factor.<sup>1</sup>
- Community pharmacists can offer harm reduction services that lower HCV/HIV transmission by providing sterile non-prescription syringes to people who inject drugs (PWID).
- Legislation on nonprescription syringe dispensing varies by state and differences in individual pharmacists' knowledge and attitudes regarding these laws may impact their willingness to participate in harm reduction services.
- These preliminary results will serve as a basis for larger studies aimed at reducing ambiguity in pharmacists' interpretation of nonprescription syringe dispensing laws.

## Methods

### Survey Procedures

- A telephone survey on nonprescription syringe attitudes and behaviors was administered to community pharmacists between April and June 2018.
- The survey was a census of all licensed and operating community pharmacies in Southwest Virginia, Northeast Tennessee, and Western North Carolina (Figure 1; N=769)
- Interviewers contacted pharmacies and made up to 10 attempts to complete the survey with a pharmacist on duty. Participation was incentivized with an optional drawing for one of six \$99 gift cards.
- Survey responses were entered into Qualtrics. A response rate of 52.3% (N=391) was achieved.

### Data Analysis

- Statistical analysis was completed using SPSS version 25.
- Qualitative analysis of transcribed responses to open-ended items about law knowledge and attitudes was completed using a generalized inductive approach:
  - One researcher (DM) developed an initial set of codes from a review of the full dataset.
  - Two investigators (DM, KD) discussed and refined the coding frame by consensus, then independently coded a random selection of 10% of responses using the frame.
  - The investigators resolved coding discrepancies by consensus, revising the coding frame as needed to improve clarity and consistency.
  - DM coded the remainder of the data and the researchers subsequently generated, defined, and named the major themes by consensus.

## Results

Figure 1: Map of Study Region

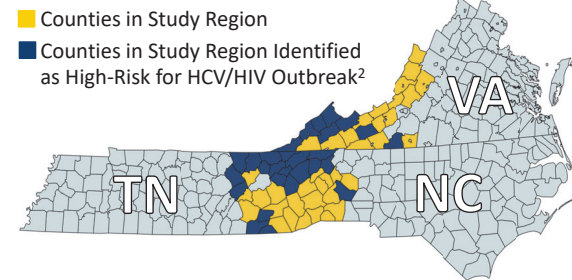


Table 1: Respondent Demographics (N=391)

State	N (%)	Gender	N (%)
Virginia	107 (27.4)	Female	190 (48.6)
Tennessee	177 (45.3)	Male	174 (44.5)
North Carolina	107 (27.4)	<b>Pharmacy Position</b>	<b>N (%)</b>
		Staff	174 (44.5)
		Manager/PIC	135 (34.5)
		Owner	42 (10.7)
		Other	11 (2.8)
		<b>Pharmacy Type</b>	<b>N (%)</b>
Chain	177 (45.3)		
Independent	145 (37.1)		
Grocery	69 (17.6)		

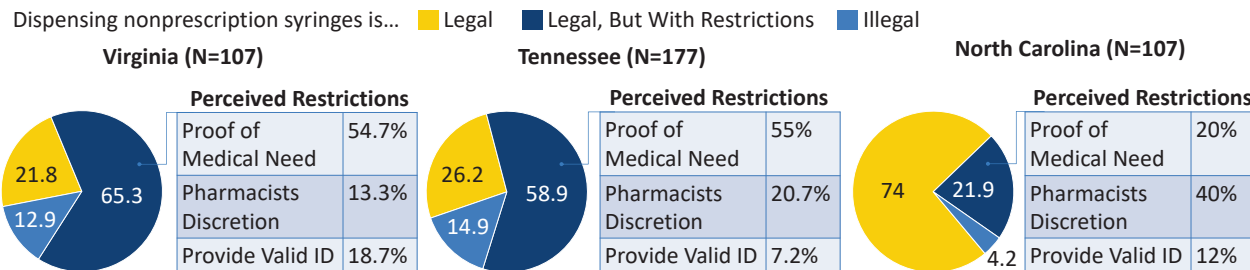
### Pharmacists' Knowledge of Nonprescription Syringe Dispensing Laws

**Virginia:** Buyer must provide legitimate purpose and valid ID. Pharmacy must keep record of sale. *CoV 54.1-3468*

**Tennessee:** Syringes can only be sold on proof of medical need. *TBOP 1140-03-.12(3)*

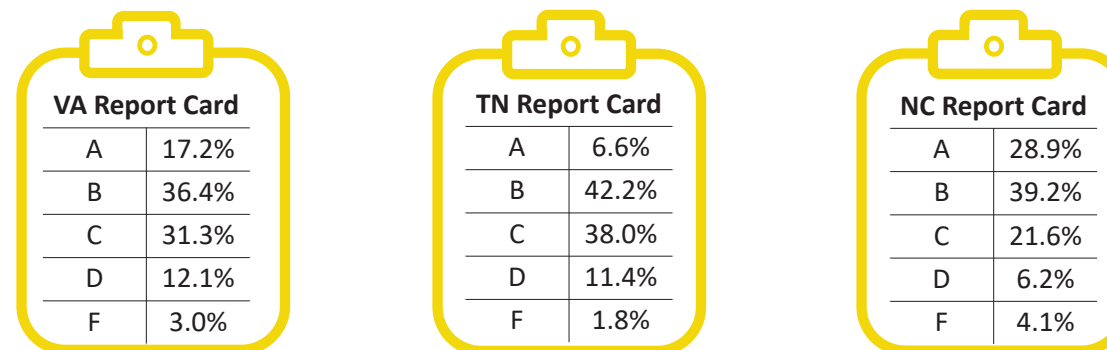
**North Carolina:** Syringes can be sold to anyone without a prescription. *North Carolina Harm Reduction Coalition*

Figure 2. In your state, how would you characterize dispensing of nonprescription syringes from a pharmacy?



### Pharmacists' Attitudes Regarding Nonprescription Syringe Dispensing Laws

Figure 3. In your opinion, please select a grade for your state's nonprescription syringe dispensing laws.



Respondents Who Selected 'A' (N=56): What aspects of your state's nonprescription syringe dispensing laws do you like?

Half of this subset of pharmacists expressed satisfaction that their state's law gives them the ability to use **professional judgement** when deciding whether to dispense syringes. A quarter of respondents liked that the state law provides rationale in the form of **presence or absence of sale restrictions** to support their individual stance on nonprescription syringe dispensing.

#### References:

1. Centers for Disease Control and Prevention (CDC). *Viral Hepatitis Statistics and Surveillance—United States, 2017.*
2. Van Handel MM, Rose CE, Hallisey EJ, et al. *County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs, United States. J Acquir Immune Defic Syndr. 2016;73(3):323-331.*

**Acknowledgement:** The authors extend their gratitude to Dr. Kelly Foster and the ETSU Applied Social Research Lab for significant roles in survey design and data collection.

Figure 3. Respondents Who Selected 'B' or Lower (N=306): What can your state do to improve the grade you gave them?

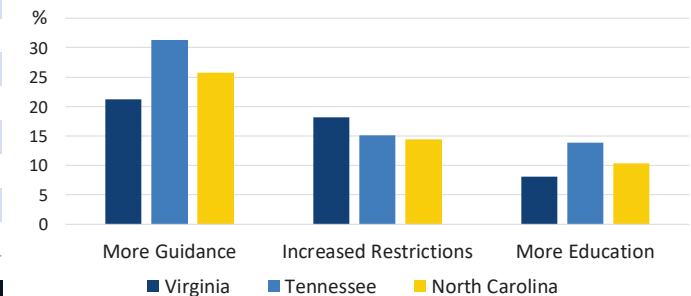


Figure 4a: Consider 10 suspected PWID who enter your pharmacy to buy syringes without a prescription. If doing so was legal without restrictions in your state, to how many patients would you sell syringes? (N=346)

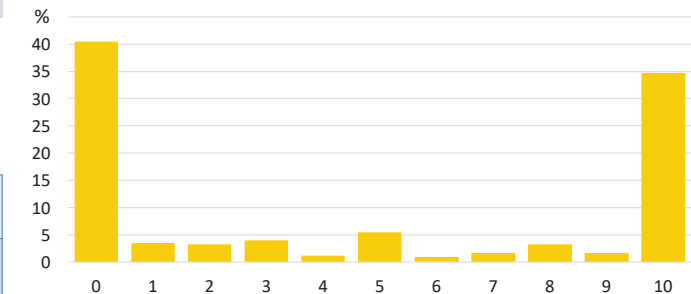
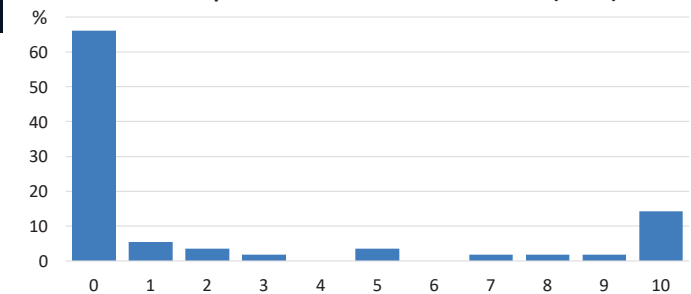


Figure 4b. Subset of respondents from Figure 4a who stated their state law would improve with increased restrictions. (N=56)



## Discussion & Implications

- Pharmacists' knowledge of and attitudes toward nonprescription syringe dispensing laws were inconsistent in all three states.
- Pharmacists who wanted increased restrictions in their state laws were less willing to sell syringes to PWID in the absence of restrictions, suggesting that pharmacists hold internal beliefs about syringe dispensing that are independent of state legislation.
- The results of this study reveal opportunities for State Board-led initiatives to provide pharmacists greater guidance on syringe law interpretation and evidence-based rationale for participation in harm reduction for the prevention of HCV/HIV transmission.