

Pharmacist-Initiated Harm Reduction Services

Introduction

In 2021, approximately 107,000 people lost their lives due to drug-related overdoses. This appalling figure translates to a rate of 32.4 deaths per 100,000 individuals. Even more concerning is the fact that 2021 saw the fatal drug-related overdose rate increase by almost 15% from just a year prior. Furthermore, one in ten new HIV diagnoses each year results from using sharing needles for injectable drugs.

The possibilities of a drug-related overdose or HIV transmission via shared needles are two prevalent dangers that people who inject drugs (PWID) face. Harm reduction services can be accessed by PWID to mitigate these dangers, but numerous barriers inhibit accessibility. A viable solution, however, can be found within a single, accessible location – community pharmacies. Pharmacies can be a vital harm reduction resource by offering naloxone and nonprescription syringes to people who use drugs (PWUD).

BACKGROUND: Harm reduction is an approach designed to empower PWUD by providing tools aimed at 1) preventing overdose and infectious disease transmission and 2) improving individuals' physical, mental, emotional, and social well-being. Two examples of harm reduction services are distributing naloxone and nonprescription syringes. Naloxone is a medication that can reverse a drug overdose caused by the use of opioids such as heroin, fentanyl, and prescription opioids. Nonprescription syringes are sterile syringes not prescribed by a primary care provider (PCP) and are used by PWID as an alternative to reusing or sharing used syringes.

Accessibility of Pharmacists

Among PWID, new HIV infections most commonly occur in non-Hispanic white individuals, males, and young people. The burden of HIV has also shifted to the southern United States, where people increasingly live in rural areas. Community pharmacists are widely acknowledged as key, but underutilized, resources in providing harm reduction strategies, like dispensing naloxone and selling nonprescription syringes, that prevent the spread of HIV. Pharmacists are particularly important in rural areas where it is harder to access medical care. Pharmacies offer a more accessible option than primary care for many people as 90% of Americans live within 5 miles of a pharmacy. Pharmacies often provide services for extended hours, some up to 24 hours a day, and patients can receive care without an appointment, making them a more accessible option than primary care for many individuals. Pharmacists are also consistently rated as one of the most trusted healthcare providers, if making them

ideal providers of harm reduction services, especially for PWID who are often socially marginalized and prefer to maintain their anonymity due to stigma and prejudice.xiii

Pharmacist-Initiated Naloxone

Naloxone is a medication with the profound ability to reverse an opioid-related overdose. This lifesaving medication stops the effects of opioids and restores breathing within minutes. Naloxone is also not harmful to someone overdosing on a non-opioid drug and should be administered to anyone suspected of experiencing an opioid-related overdose. Naloxone is available in two forms -1) injectable and 2) prefilled nasal spray.^{xiv}

Of the 107,000 drug-related overdose deaths in 2021^{xv}, approximately 81,000 involved opioids.^{xvi} Studies show that in more than one third of opioid overdose deaths, bystanders were present. Bystanders to an individual experiencing an opioid-related overdose are vital as they have the power to call for emergency services.^{xvii} However, help from emergency services does not always reach the individual experiencing the overdose in time. Therefore, it is essential for naloxone to be on-hand and administered immediately to an individual suspected of experiencing an opioid-related overdose.^{xviii}

Community pharmacies are an accessible resource to PWUD and individuals close to PWUD. When granted the authority to distribute naloxone without a prescription from a PCP, pharmacists can empower community members with the ability to prevent fatal opioid-related overdoses.

A pharmacist's authority to independently initiate naloxone can come from one of the three following sources: 1) a statewide standing order, 2) a statewide protocol, or 3) directly from a statute.^{xix}

A statewide standing order is when a state government official, often the State Health Director with a Doctor of Medicine (MD), issues written authorization for a specified drug (e.g., naloxone) that any pharmacist licensed to practice in the state may utilize. A statewide standing order is non-patient specific, meaning it grants pharmacists the authority to independently distribute specified drug/s to anyone within a certain population. For example, non-patient specific standing orders for naloxone allow a pharmacist to distribute naloxone to any persons at risk of opioid overdose (or in close proximity to a person at risk of opioid overdose). The authority to issue a statewide non-patient specific standing order would be granted by statute.*xx

A statewide protocol is when the State Board of Pharmacy establishes guidelines that a pharmacist must follow in order to independently distribute a specified drug (e.g., naloxone). The authority for a State Board of Pharmacy to establish a statewide protocol would be granted by statute. This statutory authority may be granted under a statute generally authorizing the Board to establish binding regulations regarding the practice of pharmacy.^{xxi}

A statute refers to a written law enacted by a state's legislature.^{xxii} A statute may directly grant pharmacists the authority to independently initiate naloxone or indirectly grant pharmacists the authority to do so by permitting the establishment of a statewide standing order or a statewide protocol.^{xxiii}

Pharmacists with the authority to independently initiate naloxone (whether it comes from a statewide standing order, a statewide protocol, or a statute) may face several requirements. Common requirements include the need to undergo specific training before the pharmacist may distribute naloxone, and limitations on how much they may distribute and/or to whom they may distribute naloxone. Such requirements serve as accessibility barriers as they place time and cost burdens on pharmacists, limit the amount of naloxone available, and restrict members of the community from possessing naloxone. Granting community pharmacies the authority to give unlimited quantities of naloxone to all community members facilitates naloxone's purpose – saving individuals from fatal opioid-related overdoses.

Figure 1

State	Do pharmacists have the legal authority to dispense naloxone without a prescription from a primary care provider (PCP)?	Statewide Standing Order, Statewide Protocol, or Statute	Authority	Effective Date
Alabama	Yes	Statewide Standing Order	AL Naloxone Standing Order	9/21/22
Alaska	Yes	Statute	Alaska Stat. Ann. §§ 17.20.085, 08.80.168; Alaska Admin. Code tit. 12, § 52.994	9/28/22
Arizona	Yes	Statewide Standing Order	AZ Department of Health Services Standing Orders for Naloxone	8/23/22 (must be renewed by 8/22/23)
Arkansas	Yes	Statewide Standing Order	Ark. Code. Ann. § 23-99-1119; <u>AR</u> <u>Naloxone Protocol</u>	9/6/17
California	Yes	Statute	Cal. Welf. & Inst. Code § 14132.968; Cal. Bus. and Prof. Code § 4052.01; CDPH Statewide Naloxone Standing Order FAQs	1/1/23

Colorado	Yes	Statute	Colo. Rev. Stat. Ann. §§ 12-280- 123, 12-30-110	9/1/21
Connecticut	Yes	Statute	Conn. Gen. Stat. Ann. § 20-633c	6/30/15
Delaware	No	N/A	Del. Code Ann. Tit. 16 § 138; 3001G; Del. Code Ann. Tit. 18 § 3571X	N/A
District of Columbia	Yes	Standing Order (not a blanket authorization; individual pharmacists must request and be approved for dispensing by the DC Department of Health)	DC Naloxone Standing Order; Guidance Document for Pharmacists Dispensing Naloxone	12/4/18
Florida	Yes, to emergency responders only	Statewide Standing Order	FL Statewide Standing Order for Naloxone	9/30/22
Georgia	Yes	Statewide Standing Order	Ga. Code. Ann. § 31-1-10; GA Standing Order for Naloxone; Naloxone Standing Order FAQ	6/29/18
Hawaii	Yes	Statute	Haw. Rev. Stat. Ann. §§ 461-11.8, 329E-4	7/5/19
Idaho	Yes	Statute	Idaho Code Ann. § 54-1733B	7/1/22
Illinois	Yes	Statewide Standing Order (not a blanket authorization; individual pharmacists must request and be approved for dispensing by the IL Department of Health)	215 Ill. Comp. Stat. Ann. 5/356z.23; IDPH Naloxone Standing Order Form; IL Naloxone Standardized Procedure	9/15
Indiana	Yes	Statewide Standing Order (not a blanket	Ind. Code Ann. § 16-42-27-2; <u>IN</u>	1/1/23 (expires 12/31/23, but

lowa	Yes	authorization; pharmacists must annually register as a "naloxone entity" with the state or local health department and follow certain protocols to dispense) Statewide Protocol	Statewide Standing Order for Naloxone Iowa Code Ann. § 155A.46; IA	expected to be re-issued for 2024)
Kansas	Yes	Statewide Protocol	Naloxone Statewide Protocol Kan. Stat. Ann. §	3/17/22
		(pharmacists must sign the protocol and submit a copy to Board of Pharmacy to dispense)	65-16,127; Kan. Admin. Regs. 68-7- 23; <u>KS Statewide</u> <u>Protocol</u>	
Kentucky	No	N/A	Ky. Rev. Stat. Ann. § 217.186; 201 Ky. Admin. Regs. 2:360	N/A
Louisiana	Yes	Statewide Standing Order	La. Stat. Ann. § 40:978.2; 46 La. Admin. Code Pt LIII, 2541; LA Standing Order for the Distribution or Dispensing of Naloxone	1/1/23
Maine	Yes	Statute	Me. Rev. Stat. tit. 22, § 2353; Code Me. R. tit. 02-392 Ch. 40, §§ 3, 4, 8, 10	6/24/17
Maryland	Yes	Statewide Standing Order	Md. Code Ann., Health – Gen. § 13- 3106; Md. Code Ann., INS. § 15- 850; MD 2023 Pharmacy Standing Order and Guidance	3/3/23 (must be renewed by 6/30/24)
Massachusetts	Yes	Statewide Standing Order	Mass. Gen. Laws Ann. ch. 94C, §§	10/4/18

Michigan	Yes	Statewide Standing Order (not a blanket	19B, 19C; Policy No. 2018-04: Naloxone Dispensing via Standing Order Mich. Comp. Laws Ann. § 333.17744e; Mich. Admin. Code	7/21/22
		authorization; individual pharmacists must request and be approved for dispensing by the MI Department of Health & Human Services)	R 338.202 – 204; MI Naloxone Standing Order	
Minnesota	Yes	Statewide Protocol	Minn. Stat. Ann. §§ 151.37(Subd. 16), 62Q.529; MN Pharmacist Prescribing Protocol Opioid Antagonists	12/30/20
Mississippi	Yes	Statewide Standing Order	Miss. Code. Ann. § 41-29-319; MS Board of Pharmacy Naloxone Statewide Standing Order	5/5/23 (expires 5/4/24)
Missouri	Yes	Statewide Standing Order	Mo. Ann. Stat. §§ 195.206, 191.1165; MO Naloxone HCL Dispensing Protocol	1/25/23
Montana	Yes	Statewide Standing Order	Mont. Code Ann. § 50-32-604; MT Statewide Standing Order for Naloxone Opioid Antagonist	1/1/23 (must be renewed by 12/31/23)
Nebraska	Yes	Statewide Standing Order	Neb. Rev. Stat. Ann. §§ 28-470, 28-470(5)(d); NE Naloxone Standing Order Information	8/11/22 (must be renewed by 8/10/23)
Nevada	Yes	Statewide Protocol	Nev. Rev. Stat. Ann. § 453C.120	7/1/17

New Hampshire	No	N/A	N.H. Rev. Stat. Ann. § 318-B:15	N/A
New Jersey	Yes	Statewide Standing Order	N.J. Stat. Ann. §§ 45:14-67.2, 26:2S- 38, 30:4D-6m; 2nd Revised Standing Order for Pharmacists to Dispense Opioid Antidote for Overdose Prevention	9/7/22
New Mexico	Yes	Statewide Protocol	N.M. Stat. Ann. § 24-23-1; N.M. Admin. Code 16.19.26.12; NM Statewide Standing Order for Registered Pharmacist Naloxone	7/1/20
New York	Yes	Statewide Standing Order	N.Y. Pub. Health Law § 3309; NY Non-Patient Specific Prescription for Naloxone with Pharmacy Dispensing Protocol	1/1/23
North Carolina	Yes	Statewide Standing Order	N.C. Gen. Stat. Ann. § 90-12.7; NC State Health Director's Naloxone Standing Order for Pharmacists	3/24/22
North Dakota	Yes	Statewide Protocol	N.D. Cent. Code Ann. §§ 23-01-42, 43-15-10; N.D. Admin. Code 61- 04-12-02	8/31/22
Ohio	No	N/A	Ohio Rev. Code Ann. § 4729.44; Ohio Admin. Code 4729:1-3-04	N/A

Oklahoma	Yes	Statute	Okla. Stat. Ann. tit. 63 §§ 2-312.2, 1- 2506.2; Okla. Admin. Code 535:10-9-15	11/1/17
Oregon	Yes	Statute	Or. Rev. Stat. Ann. § 689.682; Or. Admin. R. 855-019- 0460	4/4/16
Pennsylvania	Yes	Statewide Standing Order	35 Pa. Stat. Ann. § 780-113.8; PA Naloxone Standing Order DOH-001- 2023	1/17/23
Puerto Rico	Yes	Statewide Standing Order	2021 Puerto Rico Laws Act 035 (P. del S. 71); PR Naloxone Standing Order (in Spanish)	3/6/19
Rhode Island	No	N/A	216 R.I. Code R. § 20-20-5.4; 27 R.I. Gen. Laws Ann. § 27-18-82	N/A
South Carolina	Yes	Statewide Protocol	S.C. Code Ann. §§ 44-130-40, 44-53- 361; SC Protocol to Initiate Dispensing of Naloxone HCl Without a Prescription	2/23/22
South Dakota	Yes	Statewide Standing Order (to use the standing order, pharmacists must join the statewide participating pharmacy list)	S.D. Codified Laws §§ 34-20A-104, 105; Standing Order for Naloxone Distribution from Pharmacists in SD	9/19/22 (must be renewed by 9/18/24)
Tennessee	Yes	Statewide Standing Order (not a blanket authorization; individual pharmacists must request and be approved for dispensing by the Chief Medical	Tenn. Code Ann. §§ 63-1-152, 63-1- 157; TN Dept. of Health Opioid Antagonist Collaborative Pharmacy Practice Policy	2/25/16

		Officer for the TN		
		Department of		
		Health)		
Texas	Yes	Statewide Protocol (not a blanket authorization; individual pharmacists must request and be approved for dispensing by the TX Board of Pharmacy)	Tex. Health & Safety Code Ann. § 483.102 – 104; Tex. Occ. Code Ann. § 554.005; 22 Tex. Admin. Code § 295.13	8/1/16
Utah	Yes	Statewide Standing Order (pharmacists must <u>re-enroll</u> every 2 years)	Utah Code Ann. § 26-55-105; Utah Admin. Code r. R156-17b-625; UT Statewide Standing Order	2/16/21
Vermont	Yes	Statewide Standing Order	Vt. Stat. Ann. tit. 18, § 4240; VT Standing Order for Distribution of Naloxone Prescription for Overdose Prevention	8/31/21 (must be renewed by 8/31/23)
Virginia	Yes	Statewide Standing Order	Va. Code Ann. § 54.1-3408(X); VA Statewide Standing Order for Naloxone; VA Naloxone Protocols	2/10/23
Virgin Islands	No	N/A	None	N/A
Washington	Yes	Statewide Standing Order	Wash. Rev. Code Ann. §§ 69.41.095, 41.05.525, 48.43.760, 74.09.645; WA State Statewide Standing Order to Dispense Naloxone HCI	1/12/23
West Virginia	Yes	Statewide Standing Order	W. Va. Code Ann. §§ 16-46-3a, 16- 46-7	8/10/21

Wisconsin	Yes	Statewide Standing	Wis. Stat. Ann. §	4/7/22
		Order (pharmacists	448.9727; <u>WI</u>	
		must <u>register</u> and	<u>Statewide</u>	
		receive a signed	Naloxone Standing	
		copy to dispense)	Order for	
			<u>Pharmacists</u>	
Wyoming	Yes	Statute	Wyo. Stat. Ann. §§	6/30/22
			33-24-158, 35-4-	
			903; Wyo. Admin.	
			Code 059.0001.18	
			§ 5	

Retail Sale of Nonprescription Syringes

A 2018 study conducted across 23 U.S. cities found that 32% of PWID shared syringes and needles.** A person who is negative for HIV and shares a needle used by a person living with HIV has a 1 in 160 chance of contracting the virus.** This means that nearly one third of PWID are actively at risk of HIV transmission from shared syringe usage.

Sterile syringes and needles must be more easily accessible to PWID to combat syringe sharing. Community pharmacies are a primary accessible resource for PWID. When granted the authority to sell nonprescription syringes, pharmacies can empower PWID with the ability to prevent the transmission of infectious diseases such as HIV.

The sale of nonprescription syringes refers to the retail sale of sterile syringes and needles that can be bought without a prescription from a PCP. XXVIII Syringe service programs (SSPs) are a similar resource for PWID to access sterile syringes. An SSP may offer sterile syringes or exchange used syringes for sterile ones. While SSPs may offer a more cost-effective means of acquiring sterile syringes, pharmacies are often more accessible than SSPs. This is because limited states authorize SSPs, and even in states that do, pharmacies are more likely to be geographically accessible. Furthermore, pharmacies offer anonymity to PWID and, often, the accessibility of being open 24 hours a day. XXVIII

Some states explicitly authorize pharmacies to sell nonprescription syringes via statute. However, many states do not regulate the retail sale of syringes. In such states, the sale of nonprescription syringes and any related policies is left the discretion of the individual pharmacy. XXX

Pharmacists with explicit statutory authority to sell nonprescription syringes may face several limiting factors. Common legal restrictions include the need to verify that a customer is over the age of 18^{xxxi} and limits on how many syringes may be sold to a single customer without a prescription.^{xxxii} Additionally, in some cases, a customer may need to provide identifiable information^{xxxiii} or an explanation for their need for syringes that does not include unlawful drug use.^{xxxiv} These requirements limit the accessibility of sterile syringes for PWID and contribute to the stigma PWID already face. Establishing explicit statutory authority that permits pharmacists to anonymously sell unlimited quantities of nonprescription syringes is a vital harm reduction service that serves to combat HIV transmission via shared syringe usage.

Figure 2

State	Do pharmacists have the legal authority to sell nonprescription syringes?*	Authority	Restrictions
Alabama	Sale not regulated	N/A	N/A
Alaska	Sale not regulated	N/A	N/A
Arizona	Sale not regulated	N/A	N/A
Arkansas	Sale not regulated	N/A	N/A
California	Yes	Cal. Bus. & Prof. Code § 4145.5	Pharmacist must verify person seeking syringes and needles is 18 or older.
Colorado	Yes	Colo. Rev. Stat. Ann. § 12-280-123(4)	None
Connecticut	Yes	Conn. Gen. Stat. Ann. § 20-633c	Pharmacist must be trained and certified by the Commissioner of Consumer Protection; inform naloxone recipient on how to administer naloxone; and keep a record of naloxone distribution.
Delaware	Yes	Del. Code Ann. tit. 16, § 4762	Pharmacist must verify person seeking syringes and needles is 18 or older.
District of Columbia	Sale not regulated	N/A	N/A
Florida	Sale not regulated	N/A	N/A
Georgia	Yes	Ga. Comp. R. & Regs. 480-1013	Pharmacist may not sell syringes if they have reasonable cause to believe they will be used for an unlawful purpose.
Hawaii	Yes	Haw. Rev. Stat. Ann. § 325-21	Pharmacist must provide person purchasing syringes educational material about

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^{*} For states where the sale of nonprescription syringes is not regulated by law, the sale of nonprescription syringes and any related policies is left the discretion of the individual pharmacy.

			prevention of blood-
			borne diseases, drug
			treatment, and safe disposal of used syringes.
Idaho	Sale not regulated	N/A	N/A
	Yes		·
Illinois		720 III. Comp. Stat. Ann. 635/2	Pharmacist must verify person seeking syringes and needles is 18 or older and may only sell 20 or fewer to a single person without a prescription.
Indiana	Yes	856 Ind. Admin. Code 2-6-18	Pharmacist is required to record name and address of person purchasing syringes; persons under age 18 are explicitly permitted to purchase syringes.
Iowa	Sale not regulated	N/A	N/A
Kansas	Sale not regulated	N/A	N/A
Kentucky	Yes	Ky. Rev. Stat. Ann. § 217.177	Pharmacy that offers nonprescription syringes must also offer to provide a naloxone prescription.
Louisiana	Yes	46 La. Admin. Code Pt LIII, 2509	None
Maine	Yes	Me. Rev. Stat. tit. 32, § 13787-A	Pharmacist must verify person seeking syringes and needles is 18 or older.
Maryland	Yes	Md. Code Regs. 10.13.08.01	Person seeking to purchase syringes must show identification and state the intended purpose of syringes.
Massachusetts	Yes	Mass. Gen. Laws Ann. ch. 94C, § 27	None
Michigan	Sale not regulated	N/A	N/A
Minnesota	Yes	Minn. Stat. Ann. § 151.40	Pharmacist may only sell 10 or fewer to a single person without a prescription.
Mississippi	Sale not regulated	N/A	N/A
Missouri	Sale not regulated	N/A	N/A
Montana	Sale not regulated	N/A	N/A

Nebraska	Yes	Neb. Rev. Stat. Ann. §	None
		28-442	
Nevada	Yes	Nev. Rev. Stat. Ann. § 454.480	None
New Hampshire	Yes	N.H. Rev. Stat. Ann. § 318:52-c	Pharmacist must verify person seeking syringes and needles is 18 or older and provide information regarding drug addiction treatment and safe disposal of syringes.
New Jersey	Yes	N.J. Stat. Ann. § 2C:36-6.2	Pharmacist must verify person seeking syringes and needles is 18 or older; provide information regarding drug addiction treatment and safe disposal of syringes; and may only sell 10 or fewer to a single person without a prescription.
New Mexico	Yes	N.M. Stat. Ann. § 30- 31-25.1	None
New York	Yes	N.Y. Pub. Health Law § 3381	Pharmacist must verify person seeking syringes and needles is 18 or older; provide educational material about prevention of blood-borne diseases, drug treatment, safe use of syringes, and safe disposal of used syringes; relay a toll-free phone number for information on HIV; and may only sell 10 or fewer to a single person without a prescription.
North Carolina	Sale not regulated	N/A	N/A
North Dakota	Sale not regulated	N/A	N/A
Ohio	Yes	Ohio Rev. Code Ann. § 3719.172	None
Oklahoma	Sale not regulated	N/A	N/A
Oregon	Sale not regulated	N/A	N/A

Pennsylvania	Sale not regulated	N/A	N/A
Puerto Rico	Sale not regulated	N/A	N/A
Rhode Island	Yes	21 R.I. Gen. Laws Ann. § 21-28-4.04; 216 R.I. Code R. 20- 15-6.3	Pharmacist must provide person purchasing syringes information regarding drug addiction treatment and safe disposal of syringes.
South Carolina	Yes	S.C. Code Ann. § 44- 53-930	None
South Dakota	Sale not regulated	N/A	N/A
Tennessee	Yes	Tenn. Comp. R. & Regs. 1140-0312	Purchaser must state intended purpose of syringes.
Texas	Sale not regulated	N/A	N/A
Utah	Sale not regulated	N/A	N/A
Vermont	Sale not regulated	N/A	N/A
Virginia	Yes	Va. Code Ann. §§ 54.1-3468, 54.1-3467	Pharmacist must verify person seeking syringes is 16 or older and must record purchaser's name, address, and stated syringe purpose.
Virgin Islands	Sale not regulated	N/A	N/A
Washington	Yes	Wash. Rev. Code Ann. § 70.115.050	Pharmacist must be sufficiently satisfied that syringes will be used for a legal purpose.
West Virginia	Sale not regulated	N/A	N/A
Wisconsin	Sale not regulated	N/A	N/A
Wyoming	Sale not regulated	N/A	N/A

Conclusion

Community pharmacies are a vital harm reduction resource and need to be granted the authority to distribute naloxone and nonprescription syringes. Permitting pharmacists to provide unlimited quantities of naloxone to all individuals seeking the medication is essential in saving community members from fatal opioid-related overdoses. Furthermore, granting pharmacists the explicit and unrestricted authority to sell nonprescription syringes empowers PWUD with a resource to safeguard their physical wellbeing and prevent the potential transmission of HIV.

Drug Overdose Deaths in the United States, 2001–2021; NCHS data, CDC.

[&]quot; U.S. Overdose Deaths In 2021 Increased Half as Much as in 2020 – But Are Still Up 15%; NCHS, CDC

iii HIV and People Who Inject Drugs; CDC

iv Harm Reduction; samhsa.gov

^v Lifesaving Naloxone; NCHS, CDC

vi <u>Using Pharmacies in a Structural Intervention to Distribute Low Dead Space Syringes to Reduce HIV and HCV Transmission in People Who Inject Drugs; AJPH</u>

vii HIV Among People Who Inject Drugs | HIV by Group | HIV/AIDS | CDC

viii Rural-urban differences in HIV viral loads and progression to AIDS among new HIV cases - PubMed (nih.gov)

ix See Pharmacists and harm reduction: A review of current practices and attitudes - PMC (nih.gov) and Pharmacist attitudes and provision of harm reduction services in North Carolina: an exploratory study | Harm Reduction Journal | Full Text (biomedcentral.com)

^{* &}lt;u>Pharmacist attitudes and provision of harm reduction services in North Carolina: an exploratory study | Harm Reduction Journal | Full Text (biomedcentral.com)</u>

xi Provider Status for Pharmacists: It's About Time (pharmacytimes.com)

xii <u>Trust, influence, and community: Why pharmacists and pharmacies are central for addressing vaccine hesitancy</u> <u>Journal of the American Pharmacists Association (japha.org)</u>

Pharmacists and harm reduction: A review of current practices and attitudes - PMC (nih.gov)

xiv Lifesaving Naloxone; NCHS, CDC

^{xv} *See* endnote i

xvi U.S. Overdose Deaths In 2021 Increased Half as Much as in 2020 – But Are Still Up 15%; NCHS, CDC

xvii HIV and People Who Inject Drugs; CDC

xviii Naloxone for Opioid Overdose: Life-Saving Science; NIH, NIDA

xix See Figure 1

xx Scope of Practice; APhA

xxi Id.

xxii https://www.merriam-webster.com/dictionary/statute

xxiii Scope of Practice; APhA

xxiv See Iowa Naloxone Statewide Protocol

xxv HIV and People Who Inject Drugs; CDC

xxvi HIV and Injection Drug Use | HIV Transmission | HIV Basics | HIV/AIDS | CDC

xxvii Using Pharmacies in a Structural Intervention to Distribute Low Dead Space Syringes to Reduce HIV and HCV Transmission in People Who Inject Drugs; AJPH

xxviii Id.

xxix See Figure 2

VXX Using Pharmacies in a Structural Intervention to Distribute Low Dead Space Syringes to Reduce HIV and HCV Transmission in People Who Inject Drugs; AJPH

xxxi See Cal. Bus. & Prof. Code § 4145.5

xxxii See Conn. Gen. Stat. Ann. § 21a-65

xxxiii See 856 Ind. Admin. Code 2-6-18

xxxiv See Md. Code Regs. 10.13.08.01