

Naloxone Access and Availability without a Provider Prescription at Pharmacies in Minnesota

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OBJECTIVES

- To determine the proportion of pharmacies registered for the MDH Opioid Antagonist Protocol that dispenses naloxone without a consumer prescription. Among these pharmacies, we also assess whether naloxone is readily available (in stock, backordered, or ordered-as-requested).
- To determine which pharmacy-specific factors affect naloxone availability without a prescription, including urbanity, store ownership structure (local, regional, or national chain), and community socioeconomic status.

BACKGROUND

- The opioid epidemic has run rampant in the United States since the late 1990s¹. The hallmark of the first wave of the opioid epidemic was the over prescribing of opioids for pain management². In 2014, 28,703 individuals lost their lives to opioid overdose deaths³. 317 of those opioid overdose deaths were in Minnesota⁴. Naloxone, a quick acting medication that can reverse the effects of opioids, was first approved for use by the FDA in 1971. For decades, this life-saving drug required a prescription to be administered. If over-prescribing of opioids originally started the opioid epidemic then perhaps allowing laypeople to acquire naloxone without a prescription can help end it.
- All 50 states and the District of Columbia have now passed legislation that allow pharmacists to dispense naloxone to laypeople. Specifically, in 2016, Minnesota passed a state-wide standing order allowing pharmacies to dispense naloxone to laypeople without a physician prescription given they have an agreement with: a) an individual physician, b) a county health board, or c) the Minnesota Department of Health (MDH). MN Pharmacies expressed interest in joining the MDH opioid antagonist protocol through completion of a simple online form, and then were added to the standing order. In an effort to assess pharmacy uptake of this legislation and its effect on naloxone availability in MN, we conducted a phone survey of the 385 pharmacies participating in the MDH opioid antagonist protocol.

FIG. 1: (Right) Pharmacy Naloxone Access Breakdown -- Study flowchart demonstrating categories of naloxone accessibility. * Note that 41 of the pharmacies willing to dispense naloxone initially refused or were unsure if they could. In this case, if a pharmacy technician answered, then surveyors requested confirmation with the pharmacist.

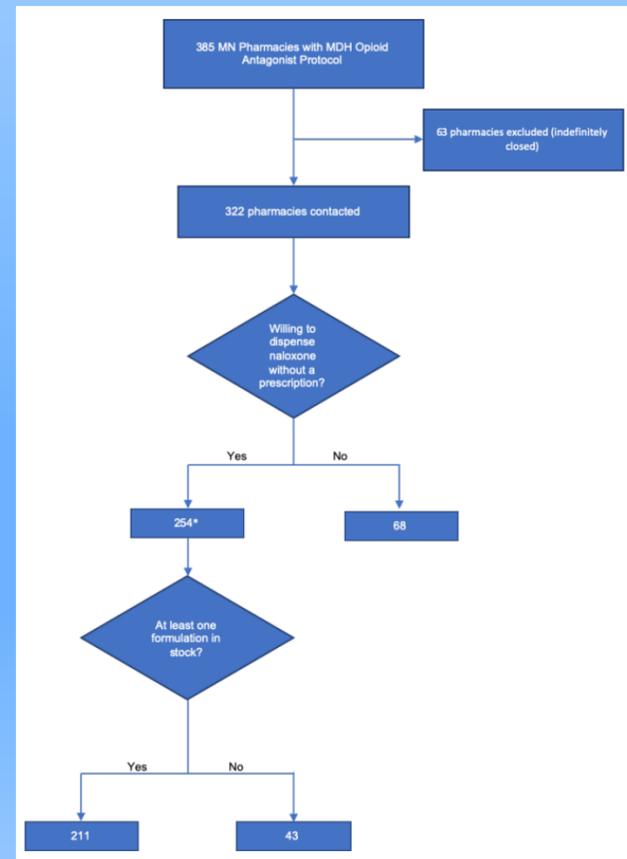
METHODS

Survey:

- Surveyors: Via phone, trained anonymous customers followed a script inquiring about availability and procedures for purchasing naloxone
- Population: Pharmacies participating in MDH Opioid Antagonist Protocol (2019)
- Timeline: March through June 2020

Analysis:

- Outcomes: Availability of naloxone based on pharmacy and neighborhood characteristics
 - Pharmacy characteristics: local, regional, national stores
 - Neighborhood characteristics: census tract data from American Community Survey (2014-18)
 - Socioeconomic status: if > 20% of households below federal poverty line, classified "low-income"
 - Population diversity: if < 70% of population was non-Hispanic white, classified as "diverse"
- Statistical analysis: binomial logistic regression using SPSS 25
- Figures: generated using ArcGIS Online



RESULTS

- Of the 385 pharmacies surveyed, 63 (16.4%) were indefinitely closed and thereby excluded from our analysis.
 - Of the remaining 322 pharmacies, 254 (78.9%) were willing to dispense naloxone without a physician prescription, while 211 (65.5%) also had it in stock. (Figure 1)
- Pharmacy ability to dispense naloxone did not significantly vary according to local racial diversity (OR 1.42; 95% CI, 0.58 - 3.48) or urbanity (OR 0.74; 95% CI, 0.44 - 1.25).
- Pharmacies in low-income neighborhoods (OR 0.329; 95% CI, 0.127 - 0.853) were significantly less likely to be able to dispense naloxone compared to their higher income counterparts. (shown graphically in Figure 2)
- Local (OR 0.05; 95%CI, 0.01 - 0.200) and regional (OR 0.05; 95% CI, 0.02 - 0.162) pharmacies were significantly less likely to be able to dispense naloxone than national chains. (shown graphically in Figure 3)

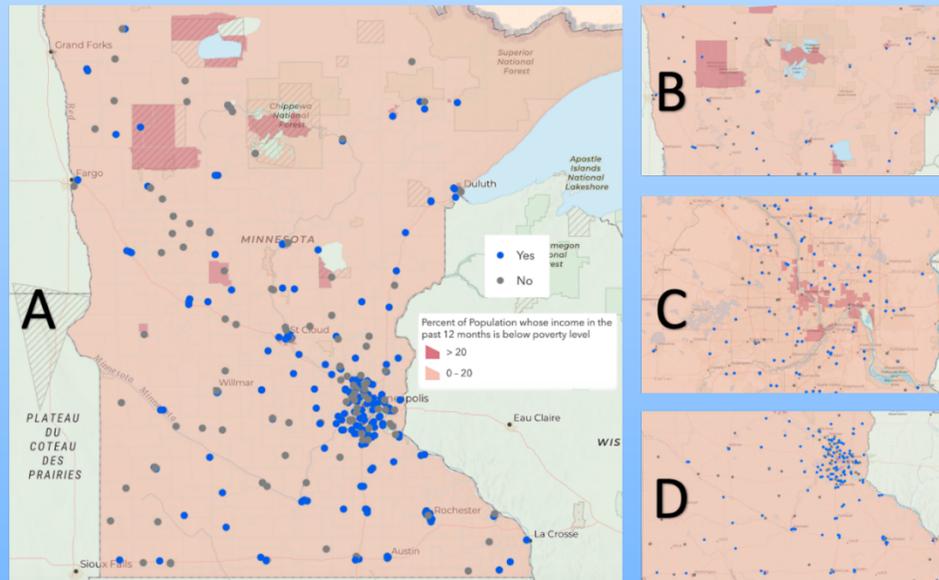


FIG. 2 : Naloxone Access For Low-Income vs. Higher Income Areas -- In all panels, blue dots indicate pharmacies willing and able to dispense naloxone without prescription. Grey dots indicate pharmacies either unwilling or unable to dispense naloxone without prescription. Panels A shows MN as a whole. Panels B, C, and D show higher magnification of northern MN, Minneapolis, and southern MN, respectively. Dark red shading indicates census tracts classified as low income..

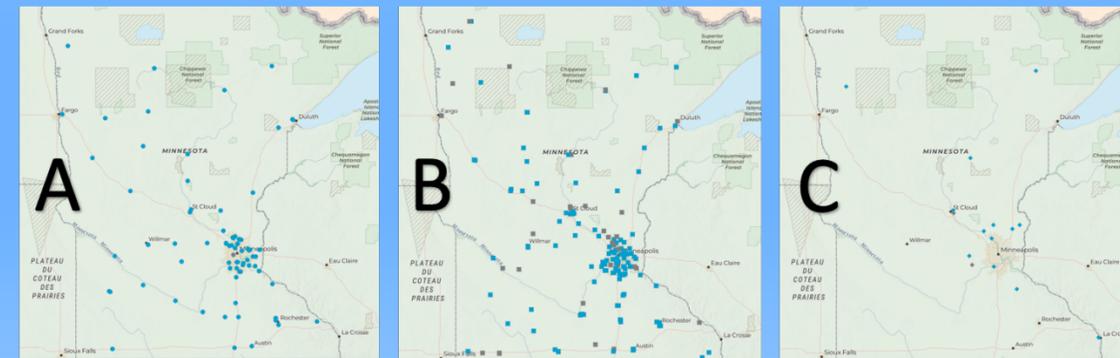


FIG. 3 : Naloxone Access According to Pharmacy Type -- All panels show blue shapes for pharmacies able and willing to dispense naloxone without prescription. Grey shapes represent pharmacies either unwilling or unable to dispense naloxone. Panels A, B, and C show national, regional, and local/independently-owned pharmacies, respectively.

DISCUSSION/CONCLUSIONS

- > 30% of pharmacies with an MDH opioid antagonist protocol did not carry naloxone or required a customer-provided physician prescription
- Local/regional MN pharmacies and MN pharmacies in low-income neighborhoods were less likely to offer naloxone without a customer-provided prescription
- Legislation alone is not sufficient for increasing naloxone availability; local pharmacy engagement and education is needed to fill in gaps
- Limitations: the survey population is a convenience sample. Because these pharmacies had a formal agreement with MDH, we would expect higher naloxone availability compared to other MN pharmacies. Furthermore, cost/insurance coverage may present an additional barrier to naloxone access regardless of pharmacy availability
- Future directions: compare areas of need (opioid overdose hotspots) to pharmacy naloxone availability to determine areas to target such education efforts
- This study characterizes availability of naloxone without a prescription at MDH pharmacies and demonstrates a need to fill in gaps missed by legislative efforts alone; This is especially pertinent with upcoming legislative change to authorize pharmacist prescription of naloxone in January 2021

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