

Examining the effects of COVID-19 on pharmacy dispensing of naloxone, buprenorphine, and syringe sales across Massachusetts and New Hampshire

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Background

- The opioid overdose crisis has substantially worsened during the COVID-19 pandemic
- Pharmacies continued to dispense the overdose antidote naloxone and buprenorphine and sell over the counter (OTC) sterile syringes but added COVID testing during the pandemic

Objectives

Examine the effect of COVID-19 on naloxone and buprenorphine dispensing, and OTC syringe sale volume at 448 community pharmacies in two states with high overdose rates: Massachusetts and New Hampshire



Methods

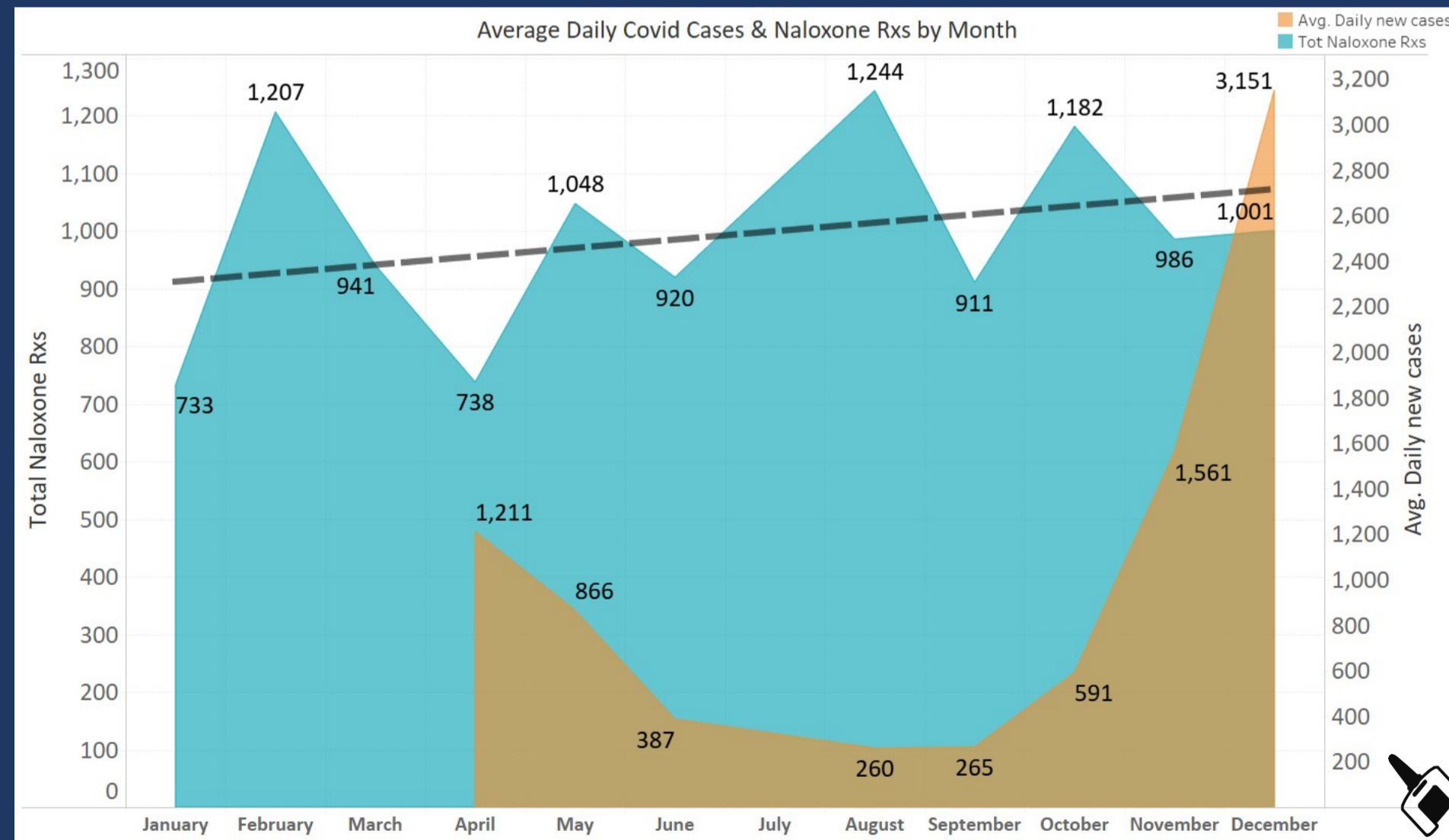
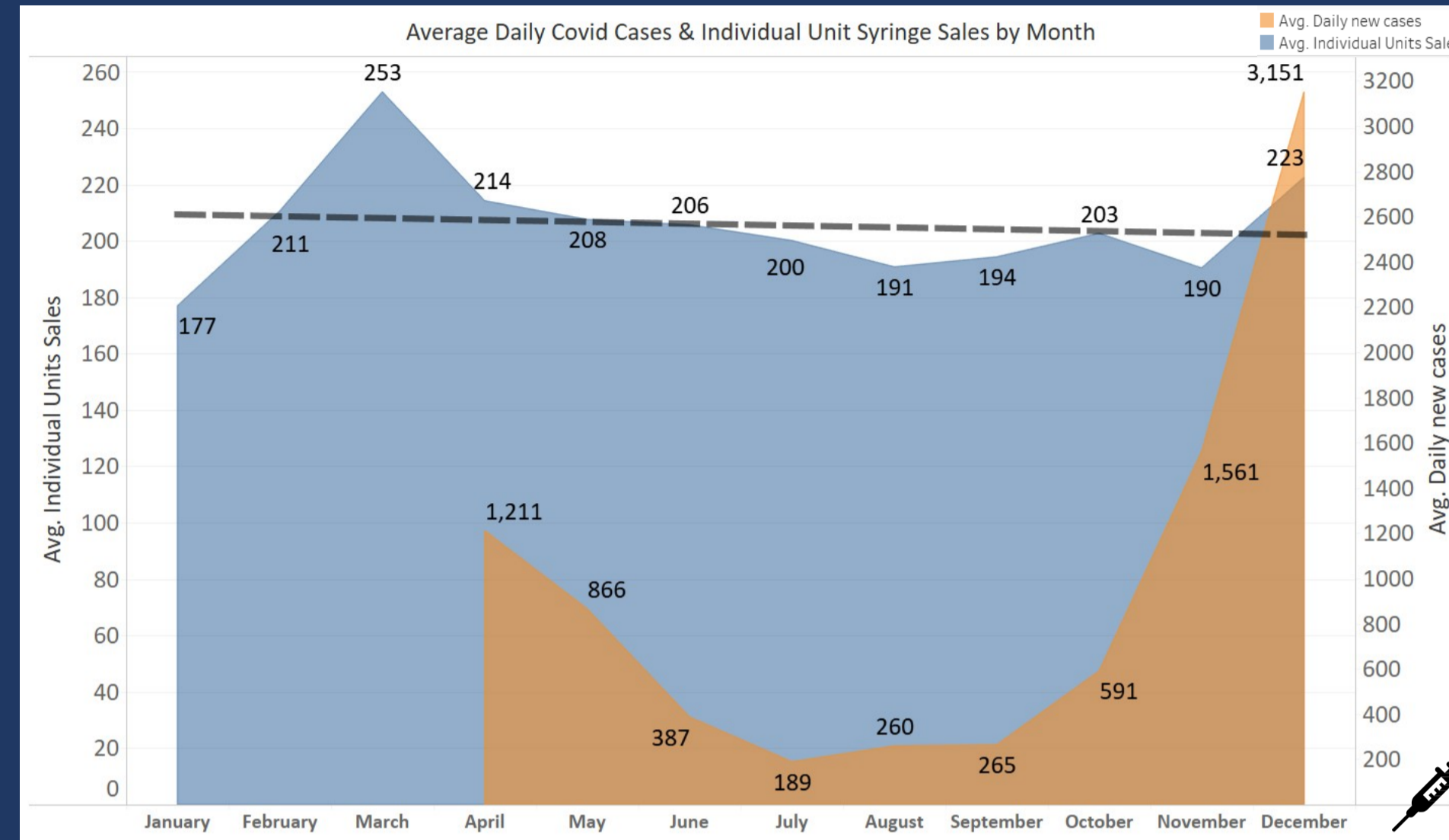
Analyzed pharmacy-level dispensing and COVID-19 testing availability data from **May 10, 2020** to **December 31, 2020** from one community pharmacy business in **Massachusetts (n=402 pharmacies)** and **New Hampshire (n=46 pharmacies)**

Massachusetts (n=402 pharmacies)

New Hampshire (n=46 pharmacies)

Dispensing data was correlated with publicly available county-level COVID-19 case rates from the same time period using exploratory generalized estimating equation models.

Time, in week intervals, and weekly COVID-19 case rates were included as time-varying fixed effects in the model; interactions tested the effect of COVID-19 case rates on naloxone and buprenorphine dispensing, and OTC syringe sales



Results



Monthly Pharmacy Averages During COVID-19:

- 196.5 OTC syringes sold
- 1 Naloxone prescription
- 17.9 buprenorphine prescriptions

COVID-19 Impact:

- Pharmacies in communities that experienced greater COVID case burden exhibited an increase in naloxone dispensing over time
- The substantial buprenorphine dispensing at pharmacies was not reduced by COVID-19 case rates
- OTC syringe sales increased over time but declined in places where COVID-19 rates were higher
- Pharmacies hosting COVID-19 testing tended to have lower OTC syringe sales and naloxone provision but exhibited increases over time in the provision of both prevention supplies
- Co-located COVID-19 testing at a community pharmacy did not affect dispensing of buprenorphine.

During a pandemic, pharmacies provided harm reduction services and dispensed life saving medications by quickly adapting to fulfill community needs without disrupting co-located services for COVID-19 response.



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