



Low-Value Care: Opioids for Low Back Pain

2018-2022

Georgia All-Payer Claims Database

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Background

Sometimes, medical interventions provide minimal to no benefit to patients, leading to unnecessary costs and potential harm.¹ This phenomenon is often referred to as low-value care. Inappropriate prescribing of opioids for low back pain has become a significant concern due to the lack of effectiveness and potential for harm. Low back pain is a prevalent and painful condition that can be debilitating, making it one of the leading causes of disability worldwide.² It is often chronic, and pinpointing the exact causes can be challenging, complicating effective pain management.

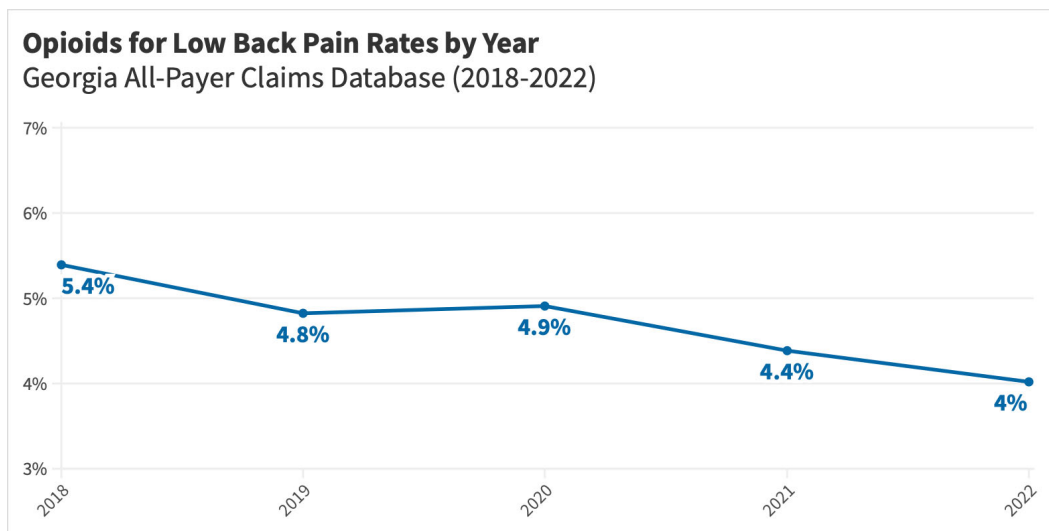
Recent studies have found that opioids have little to no long-term effectiveness for low back pain.^{3,4} Additionally, opioid prescriptions carry significant risk for opioid use disorder, overdose, falls and fractures, and all-cause deaths.⁵ However, opioid prescriptions for non-acute pain remain in clinical settings.⁶ In response to these challenges, medical organizations have recently developed guidelines to curb inappropriate opioid prescribing. The American College of Physicians (ACP) and the American Academy of Family Physicians (AFP) now generally advise against using opioids for low back pain, preferring non-opioid alternatives such as non-steroidal anti-inflammatory drugs (NSAIDs).⁷ The Centers for Disease Control and Prevention (CDC) has similarly published guidelines recommending against opioids as an initial treatment for most pain.⁸

This report uses data from the Georgia All-Payer Claims Database (GA APCD) to examine rates of early opioid prescriptions for new-onset low back pain, which may be indicative of inappropriate care.⁹ This instance of low value care will be referred to as ‘opioids for low back pain’ throughout this report. See Appendix A for additional details on study design.

Findings

Overall Rates

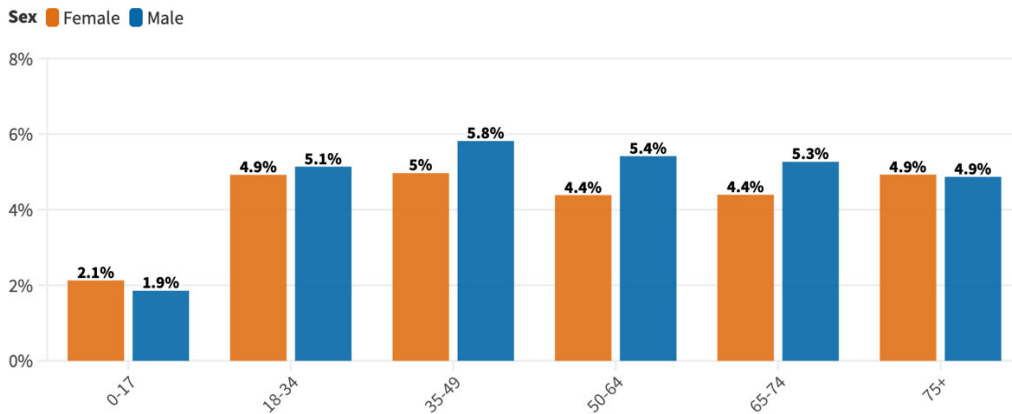
In 2018, 5.4% of eligible individuals in the Georgia APCD with no prior low back pain or opioid use in the preceding year were dispensed opioids for low back pain. As shown in the figure below, opioid prescription rates for low back pain decreased steadily from 2018, dropping 26% between 2018 and 2022 to 4.0%. This decline follows national trends in opioid prescribing to treat pain.¹⁰



Age and Sex Based Differences

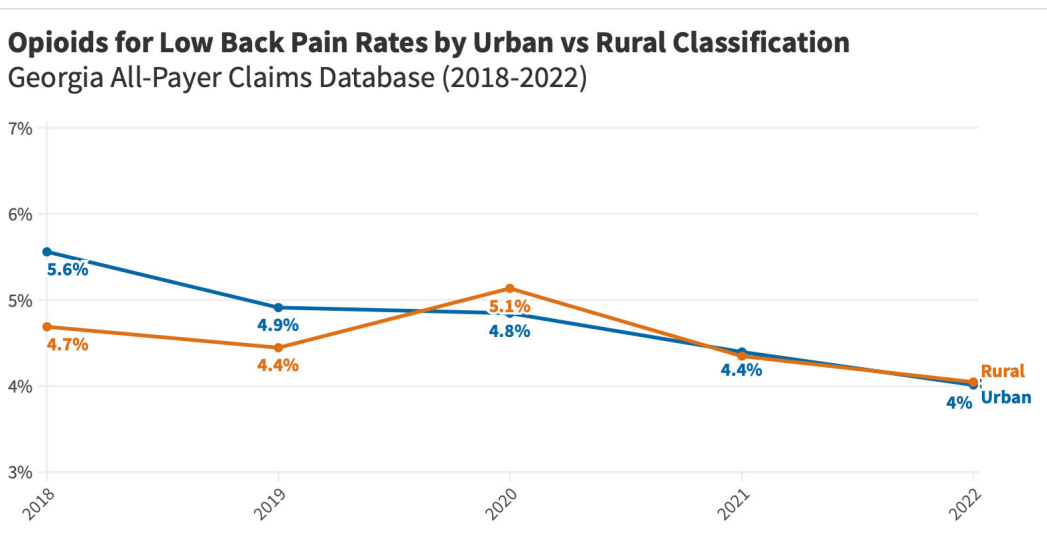
Eligible individuals aged 0-17 in the Georgia APCD had lower rates of prescribed opioids for low back pain compared to adults. Men aged 35-74, also tended to have slightly higher rates of opioids for low back pain than women. This is consistent with prior literature that men have a higher likelihood of receiving opioids for new-onset low back pain.⁹

Opioids for Low Back Pain Rates by Age and Sex
Georgia All-Payer Claims Database (2018-2022)



Geography-Based Differences

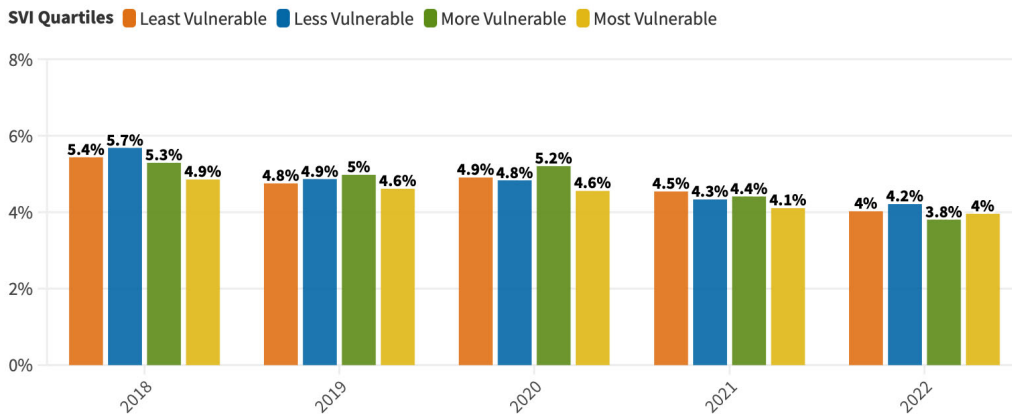
In 2018, eligible individuals in urban counties across the Georgia APCD had higher rates of opioids for low back pain, however, the rates have decreased consistently in urban areas, showing no differences by Urban-Rural Classification in 2022. Historically, national opioid prescribing rates have been higher in rural areas, but current opioid rates for low back pain in the Georgia APCD do not seem to follow this pattern.¹¹



Social Vulnerability Index

CDC's Social Vulnerability Index (SVI) combines various county-level socioeconomic, household composition, racial and ethnic minority status, and housing variables from the American Community Survey to identify communities most likely to need support during public health crises and emergencies.¹² After stratifying counties by quartiles of SVI, rates of opioids for low back pain appear to be fairly consistent across the strata, the most vulnerable counties having slightly lower rates from 2018 to 2021.

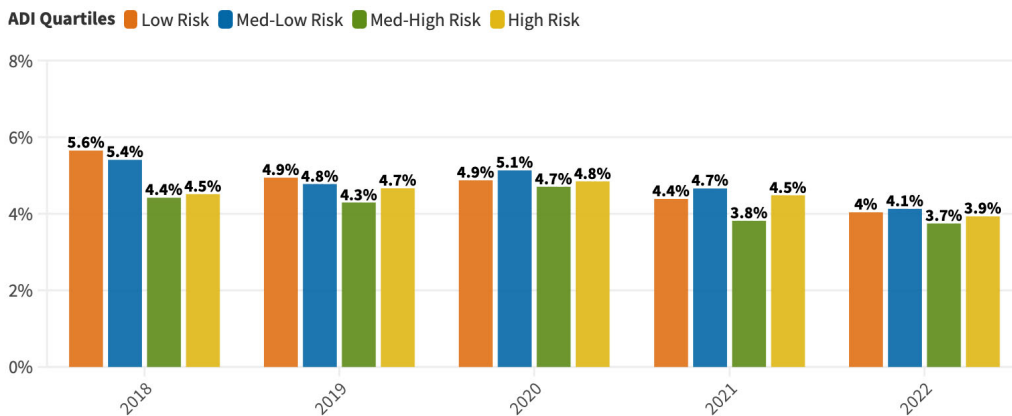
Opioids for Low Back Pain Rates by Social Vulnerability Index Georgia All-Payer Claims Database (2018-2022)



Area Deprivation Index

In similar fashion to SVI, Area Deprivation Index (ADI) also utilizes variables from the American Community Survey to characterize socioeconomically disadvantaged neighborhoods.¹³ No easily distinguishable patterns emerged across the different groups. However, the overall trend is decreasing, and the differences across the strata appear to be shrinking.

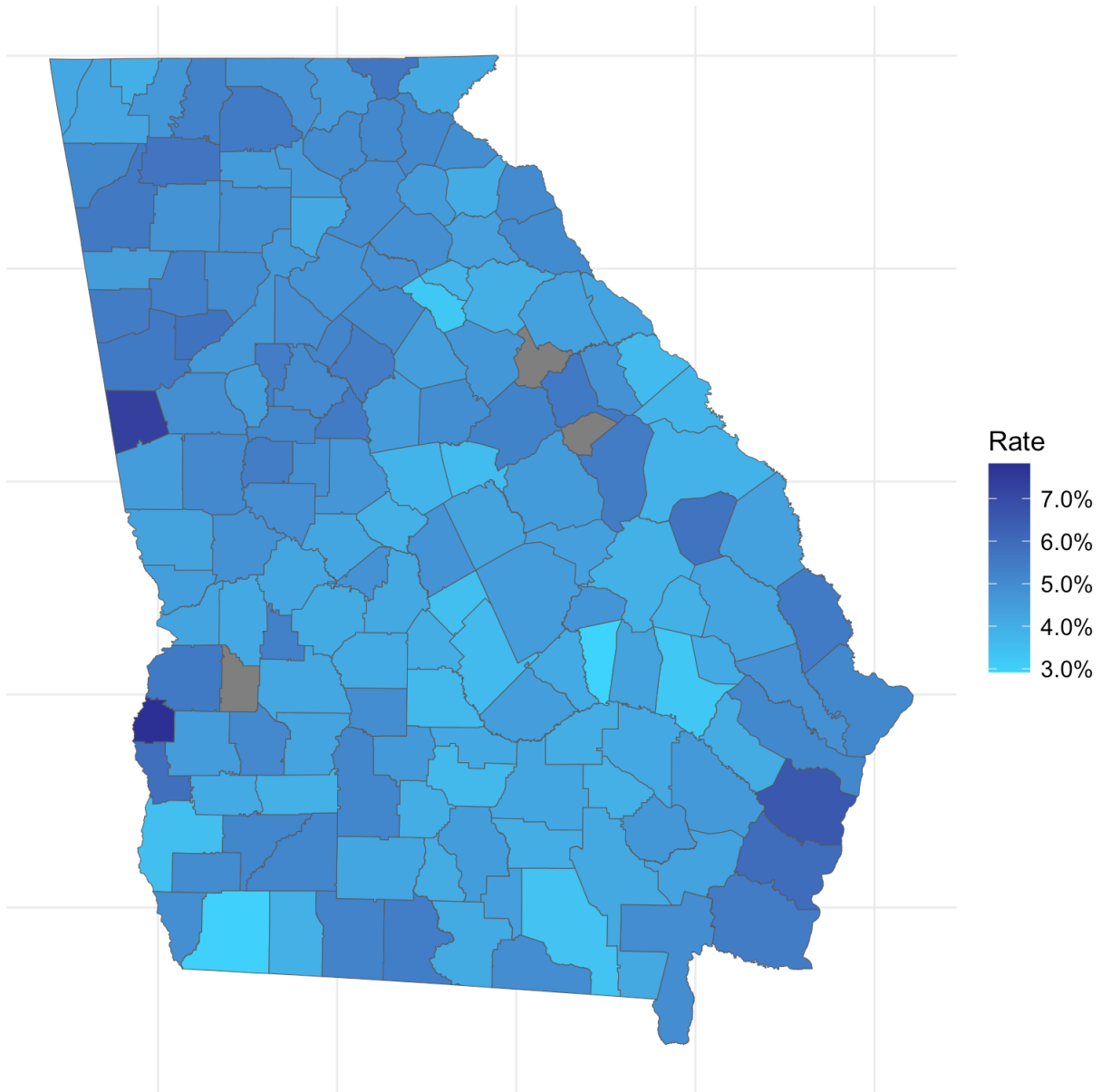
Opioids for Low Back Pain Rates by Area Deprivation Index Georgia All-Payer Claims Database (2018-2022)



Mapping by County

To provide an overview of county-level differences, we mapped the 5-year mean of opioid rates for low back pain from 2018 to 2022. Differences in prescribing rates are seen across the state, specifically higher rates in northern counties, coastal counties, and scattered counties in the middle, western, and southwestern portions of the state.

Opioids for Low Back Pain Rates by County in GA APCD (2018-2022)



Summary

Opioid rates for low back pain in the Georgia APCD are consistent with national trends in opioid prescribing.

Key findings are:

- Prescribing rates have decreased steadily since 2018
- Individuals aged 0-17 are prescribed opioids for low back pain at lower rates compared to adults
- Middle-aged men (35-74) have opioids prescribed at slightly higher rates compared to women in similar age groups

Further studies will investigate locations of care and provider specialties.

Appendix A: Methods

The numerators for calculating opioid rates for low back pain were defined as the number of eligible individuals who had a medical claim for low back pain during the year of interest, had no prior diagnoses of low back pain or opioid prescriptions in the 365 days preceding their low back pain (indicating history of prior back pain or opioid use), and were prescribed an opioid within 14 days of the low back pain diagnosis. The denominators were calculated as all eligible individuals with low back pain during the year of interest. Finally, the rates were calculated as the numerators divided by the denominators for each stratum of interest.

Eligible individuals were defined as individuals who:

- Resided in Georgia
- Had medical coverage for at least 90 days before a diagnosis of low back pain

Urban and Rural classification was constructed using the metropolitan and nonmetropolitan classifications from CDC's Urban-Rural Classification Scheme.¹⁴ The state ranks of ADI census blocks were averaged on the county level to produce county mean state ranks. Locations were based on patient county information.

Low Back Pain ICD-10 Codes

- S34.5
- S34.5XXD
- S33.8XXD
- S39.92XA
- M54.89
- M54.9
- S33
- S33.39XA
- M54.50
- M54.51
- S32.9XXA
- S39.92

- S33.9
- S33.8XXA
- S39.82XA
- S32.9XXD
- M54.59
- S39.82
- S33.8
- S33.9XXD
- S34.5XXA
- S33.30
- L89.146
- S39.92XD
- L89.136
- S39.82XD
- S32.9
- M54.8
- S32.9XXB
- S33.39XD
- S33.9XXA
- S33.39
- M54.5
- S32.9XXG
- S32.9XXK
- S33.30XA
- S33.30XD

Opioids Included

- buprenorphine
- butorphanol
- codeine
- dihydrocodeine
- fentanyl
- hydrocodone
- hydromorphone
- meperidine
- methadone
- morphine
- nalbuphine
- opium
- oxycodone
- oxymorphone
- pentazocine
- tapentadol

- tramadol

Caveats and Limitations

This analysis is based on data present in the Georgia All Payer Claims Database as of November 2023. Georgia Medicaid and Traditional Medicare parts are not included in the current data. The APCD has limited or no information on certain key demographic data including race, ethnicity, income, and education status, which limits analysis based on these factors.

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