

ISLCCC 2025 Abstract

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Title: Association Between State Opioid Limiting Laws and Opioid Prescription Among Medicaid-enrolled Survivors of Childhood Cancer

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Background: At least one third of childhood cancer survivors experience moderate to severe pain in adulthood. While opioid analgesics are recommended for acute cancer pain, they are generally not the class of drug choice for chronic pain. Further, by 2019, 39 states have enacted opioid-limiting laws that restrict opioid prescriptions, often capping the duration of opioid prescriptions at seven days without clear exemptions for cancer survivors. However, the impact of these laws on opioid prescription and potential misuse among childhood cancer survivors remains unknown.

Methods: We linked data from the Childhood Cancer Survivor Study (CCSS) Medicaid administrative claims from 2009-2019. Eligible survivors were aged ≥ 18 years by 2009, had a known zip code, did not relocate across states with differing opioid-limiting laws during the study period, and had continuous Medicaid coverage (≥ 11 months of enrollment) in one given year. Outcomes were dichotomous indicators for any filled opioid prescription, opioid prescriptions exceeding seven days of supply, and potential opioid misuse (any opioid prescription with daily dose ≥ 100 Morphine Milligram Equivalents, opioid overlap, opioid and benzodiazepine overlap, or opioid dose escalation) in each year. A difference-in-differences linear probability model assessed the association between opioid-limiting law implementation and these outcomes, adjusting for sociodemographic and clinical characteristics. Adjusted probability differences (marginal effects) were reported.

Results: Our analyses included 2,355 unique survivors followed for 15,347 person-years. Half (50.7%) were aged 21–29 years, 57.0% were female, 10.1% were non-Hispanic Black, and 9.7% were Hispanic. The percent of survivors who filled any opioid prescription ranged from 15.2% to 22.7%, with 6.0% to 12.2% of prescriptions exceeding seven days of supply and 4.0% to 8.7% with potential opioid misuse in 2009-2019. Multivariable difference-in-differences models

showed that opioid-limiting laws were associated with a 1.8 percentage point (ppt) reduction (95% CI: -3.6 to -0.1) in prescriptions exceeding seven days, with larger declines among older survivors (40-64 years: -3.5 ppts, 95% CI: -6.5 to -0.4), survivors with grade 3-4 chronic health conditions (-2.6 ppts, 95% CI: -4.7 to -0.4), and those with second cancer (-8.1 ppts, 95% CI: -12.5 to -3.6). No significant changes were seen in any opioid prescription or potential opioid misuse following the implementation of state opioid-limiting laws.

Conclusions: Among Medicaid-enrolled childhood cancer survivors, state opioid-limiting laws were associated with a reduction in opioid prescriptions exceeding seven days of supply, with no significant impact on potential opioid misuse based on available measures. Future research will examine whether the observed restrictions have led to undertreated pain, particularly among older survivors and those with severe chronic conditions or second cancer.