

Do Prescription Opioids After Traumatic Injury Increase the Risk of SSDI Entry? Instrumental Variables Estimates from the Colorado All-Payer Claims Database

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Key Findings and Policy Implications

This paper analyzes how opioid prescriptions after traumatic injury affect the likelihood of subsequent SSDI enrollment. It relies on 2012-2018 data from the Colorado all-payer claims database and uses Medicare enrollment before age 65 as a proxy for SSDI participation. The paper finds that:

- Opioid receipt rises by 25 percentage points after a traumatic injury that results in an emergency department visit, when compared with the month preceding the injury.
- Workers without a prior opioid prescription in the year prior to injury, referred to as opioid-naïve, are much less likely to enter Medicare (and by association, SSDI) than patients with a prior history of opioid use. At 48 months post injury, the likelihood of Medicare entry is 0.58 percent for opioid naïve patients and 2.21 percent for those with prior opioid use.
- Among opioid naïve injury patients, those who receive prescription opioids within 180 days post-injury are twice as likely to enter Medicare as those who do not receive them. At 48 months post injury, the respective rates of Medicare entry are 0.44 percent for patients who do not receive opioid prescriptions and 0.88 percent for those who do.
- Among injury patients with prior opioid use, those who receive another post-injury opioid prescription are also significantly more likely to enter Medicare: 1.11 percent of those without a post-injury opioid prescription enter Medicare, 2.85 percent of those with a post-injury prescription enter Medicare.

With the widespread use of opioids among patients with musculoskeletal conditions, pain, and traumatic injury, an important policy question is how opioid prescribing relates to SSDI entry, and whether policies targeting access to prescription opioids would be likely to affect SSDI enrollment. This study provides the first individual-level estimates on the impact of opioid use on SSDI participation, complementing a growing literature on county-level or aggregate associations.

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