Where You Live and Who You Are Matter: Prescription Opioid Treatment Admissions

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Background: Use of prescription opioids has increased remarkably in recent years. Commensurate with the rise in medical use, there are growing public health and safety concerns over prescription opioid abuse. Many studies to date have characterized trends and risk factors for prescription opioid abuse; yet little information is available on the geographic patterns.

Objective: Using treatment admissions related to prescription opioid abuse to describe the geographic patterns of prescription opioid abuse across the contiguous United States.

Methods
- Data Source: 2010 Treatment Episode Data Set (TEDS). The TEDS comprises publicly available admission-level data that are routinely collected by states from their individual substance abuse treatment systems. The reporting facilities in general receive state alcohol and/or drug agency funds for the provision of substance abuse treatment.
- Geographic Unit: Core based statistical areas (CBSAs). The CBSAs consist of the county or counties or equivalent entities associated with at least one core (urbanized area or urban cluster) of at least 10,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties associated with the core.
- Measure and Analysis: For each CBSA, crude and age-, sex-, race-adjusted proportion of prescription opioid treatment admissions in total opioid treatment admissions were calculated respectively. These proportions were later mapped and displayed in quintiles.

Results
- Border or cross-border CBSAs in general are more likely to report high proportions of prescription opioid treatment admissions in total opioid treatment admissions.
- Crude proportions of prescription opioid treatment admissions in total opioid treatment admissions showed that CBSAs that made up the higher (4th and 5th) quintiles concentrated mostly in the Midwest and South, with few exceptions in Montana, Idaho, Oregon, California, Vermont and Delaware.
- However, after adjusting for age, sex, and race of patients receiving opioid treatments in each CBSA, the geographic distribution of CBSAs in higher quintiles of proportion of prescription opioid treatment admission changed and spread more evenly throughout the contiguous United States.

Conclusion and Policy Implication
- Observation of more potential prescription opioid abuse at the border warrants further examination of the association of prescription opioid abuse with state prescription drug monitoring programs (PDMPs).
- The geographic patterns of potential prescription opioid abuse are largely different before and after adjustment for basic demographic characteristics. Policy-makers should attend to the calibrated statistics and accordingly identify hot spots of potential prescription opioid abuse for future intervention.
- Within states, potential prescription opioid abuse varies. State-level prescription drug monitoring programs alone may not be an ultimate solution to prescription opioid abuse.

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