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Background

Corresponding with CDC's Guideline for Prescribing Opioids for Chronic Pain in 2016, policies and procedures enacted by private and public institutions, prescriptions for opioid medications have been declining. However, the trends in opioid use among older adults remain poorly understood, perhaps because older individuals are not at the center stage of the national overdose crisis.

Objective

This study aimed to estimate the utilization and trends in new opioid prescriptions and new long-term opioid episodes among older adults enrolled in Medicare.

Methods

- Data: 5% national Medicare claims data from 2012-2020.
- Study design: Retrospective cohort study.
- Study cohort: Medicare beneficiaries older than 65 who were enrolled in Medicare Parts A, B, and D, but not Part C for at least ten months each year.
- Key variables of interest: The presence of a new opioid prescription and new long-term opioid episode among older adults in each year.
- Annual utilization in new and long-term prescription opioid use episodes were measured over 8 years (2013-2020).
- Changes in trends of new opioid prescriptions and long-term opioid use over time was assessed using joinpoint regression.
- Other outcomes assessed across study period: Demographic characteristics of the eligible individuals, presence of chronic non-cancer pain, cancer, and other comorbidities as well as average (SD) morphine milligram equivalents (MMEs) per new prescription, the percentage of high-dose new prescriptions (MME greater than 50), the percentage of new prescriptions with the short-acting formulation, and new prescriptions' average days of supply.

Results

- Administrative claims of nearly 2.75 million older adult Medicare beneficiaries for each year were analyzed. A majority of them were female (~56%) and White (~81%) with a mean age of about 75 years in each year.
- The proportion of all eligible beneficiaries with at least one new opioid prescription increased significantly from 6.64% in 2013 to 10.05% in 2016 (trend change, annual percentage change (APC) = 14.16; 95% CI: 2.16 to 49.96), and significantly decreased afterward to 5.37% in 2020 (trend change, APC = -15.27; 95% CI: -32.15 to -9.06).
- The proportion of individuals with long-term opioid use among those with a new opioid prescription decreased significantly from 12.40% in 2013 to 8.60% in 2017 (trend change, APC = -11.60; 95% CI: -24.23 to -5.65). It increased afterward to 10.68% in 2020, although nonsignificant (trend change, APC = 7.37; 95% CI: -2.78 to 24.16).

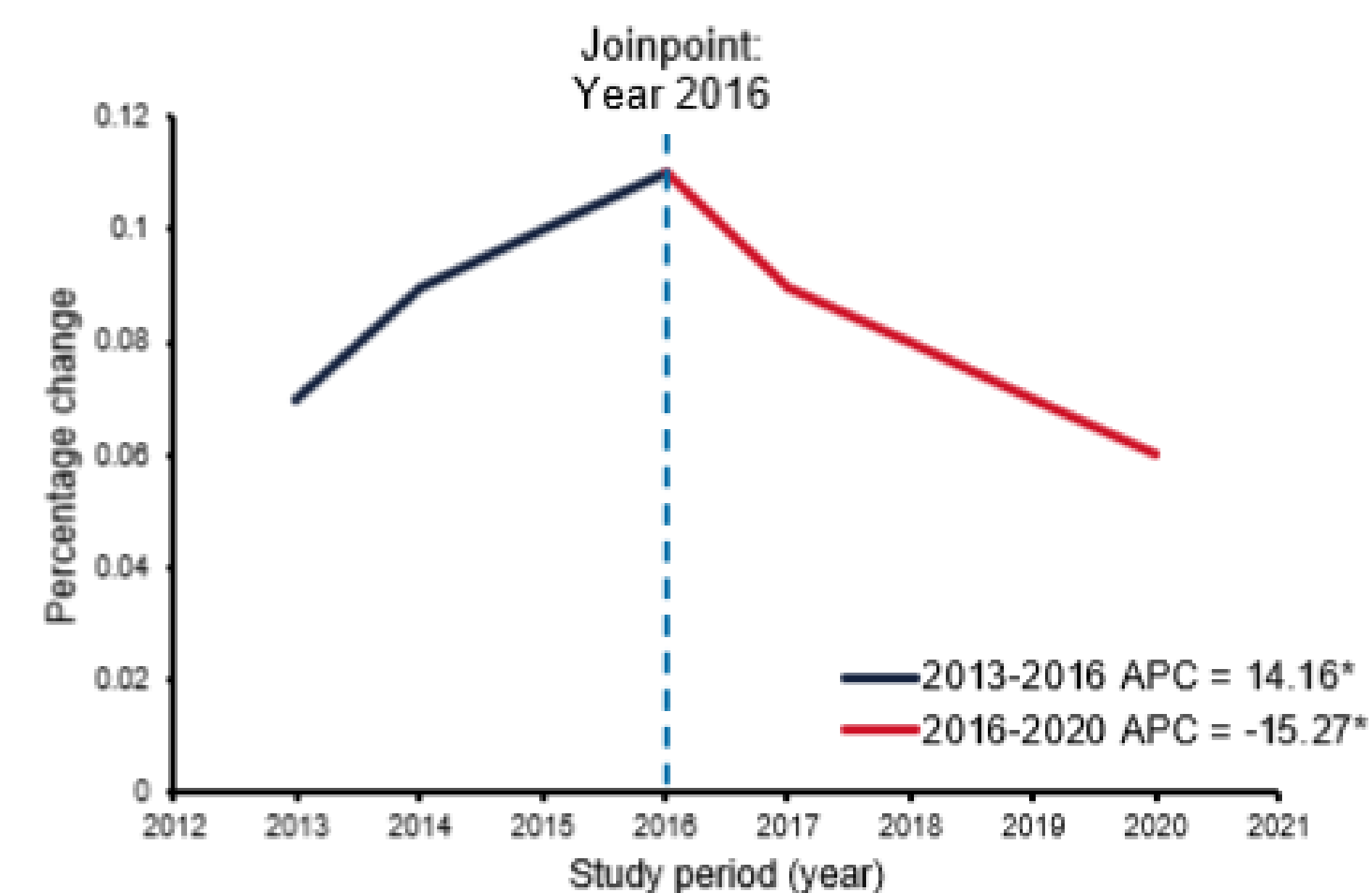


Figure 1. Trends of eligible beneficiaries with new opioid prescriptions across the study years

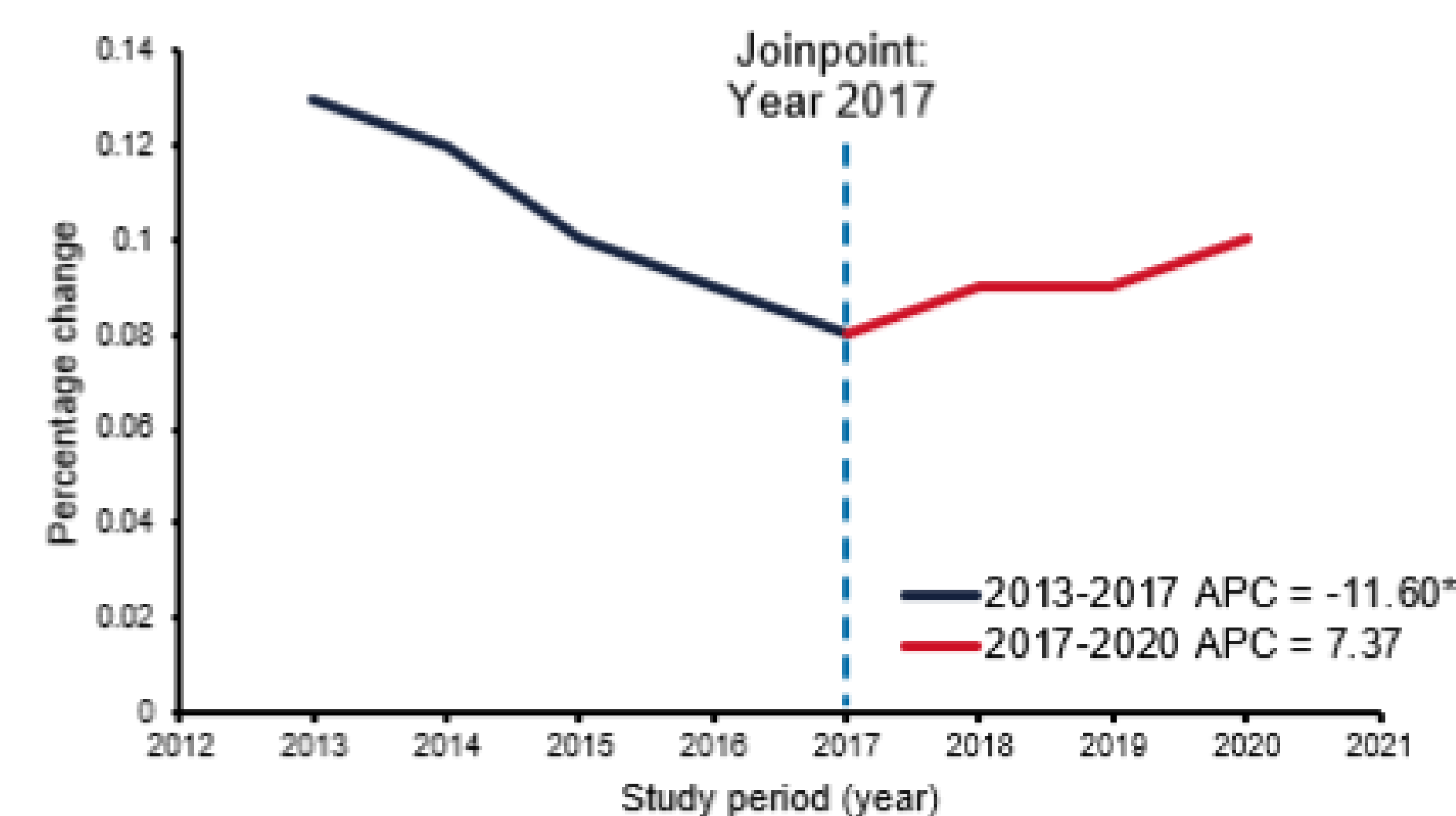


Figure 2. Trends of eligible beneficiaries new long-term opioid episodes across the study years

Results

- Among new long-term opioid users, the proportion of beneficiaries with cancer during the study years fluctuated between 13.30%-15.60%, and the proportion with chronic non-cancer pain fluctuated between 28.99%-33.67%.
- Across all years, Southern states accounted for a large proportion of long-term opioid users increasing from 41.61% in 2013 to 55.73% in 2020.
- Average (SD) MME of new opioid prescriptions decreased constantly from 31.5 (27.44) in 2013 to 26.82 (17.48) in 2020. In addition, the percentage of high-dose prescriptions decreased from 15.25% in 2013 to 7.6% in 2020.
- While the proportion of prescriptions with the short-acting formulation increased from 97.41% in 2013 to 99.41% in 2020, the average (SD) days of supply of new opioid prescriptions decreased from 21.91 (23.49) in 2013 to 12.40 (15.27) in 2020.

Conclusion

- Updated evidence supports that although both new opioid use and long-term opioid use decreased among older adults in the last decade, transition of new opioid use to long-term episodes increased in 2019 and 2020.
- Regional variation in long-term opioid use have widened, indicating differences in the approaches to manage chronic pain across geographic locations.

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Key references

Ramachandran S, Salkar M, Bentley JP, Eriator I, and Yang Y. Patterns of long-term prescription opioid use among older adults in the United States: A study of Medicare administrative claims data. *Pain Physician*. 2021;24(1):31-40.