

Opioid Utilization and Cost Among Elderly and Non-elderly Medicare Beneficiaries in the United States: A State-level Comparison

Deborah A. Taira, ScD; Kimberly Wu; Wesley K. Sumida, PharmD; Daniel K. Inouye College of Pharmacy, University of Hawaii

Introduction

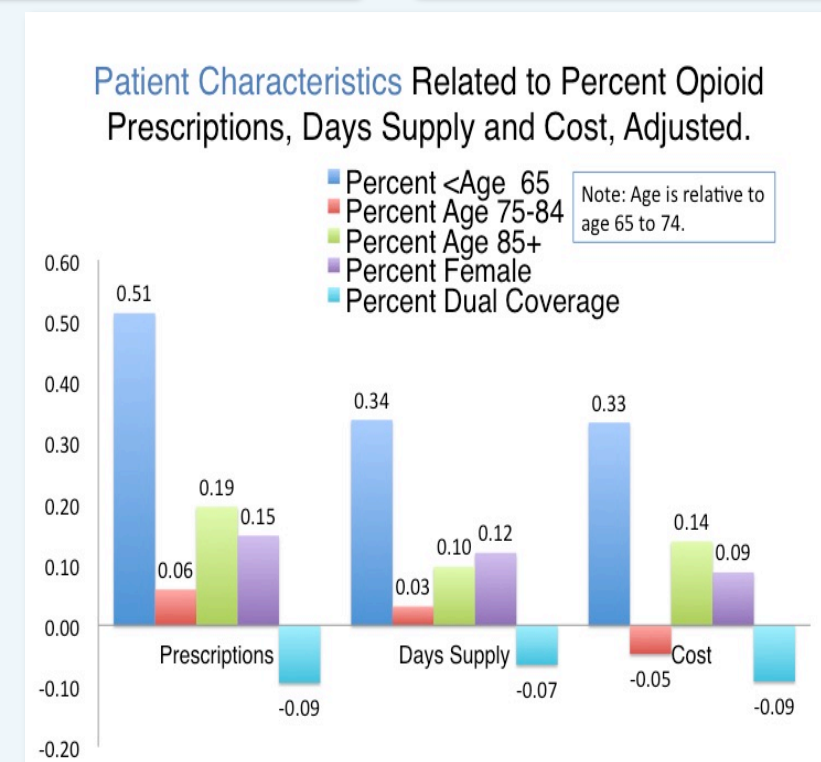
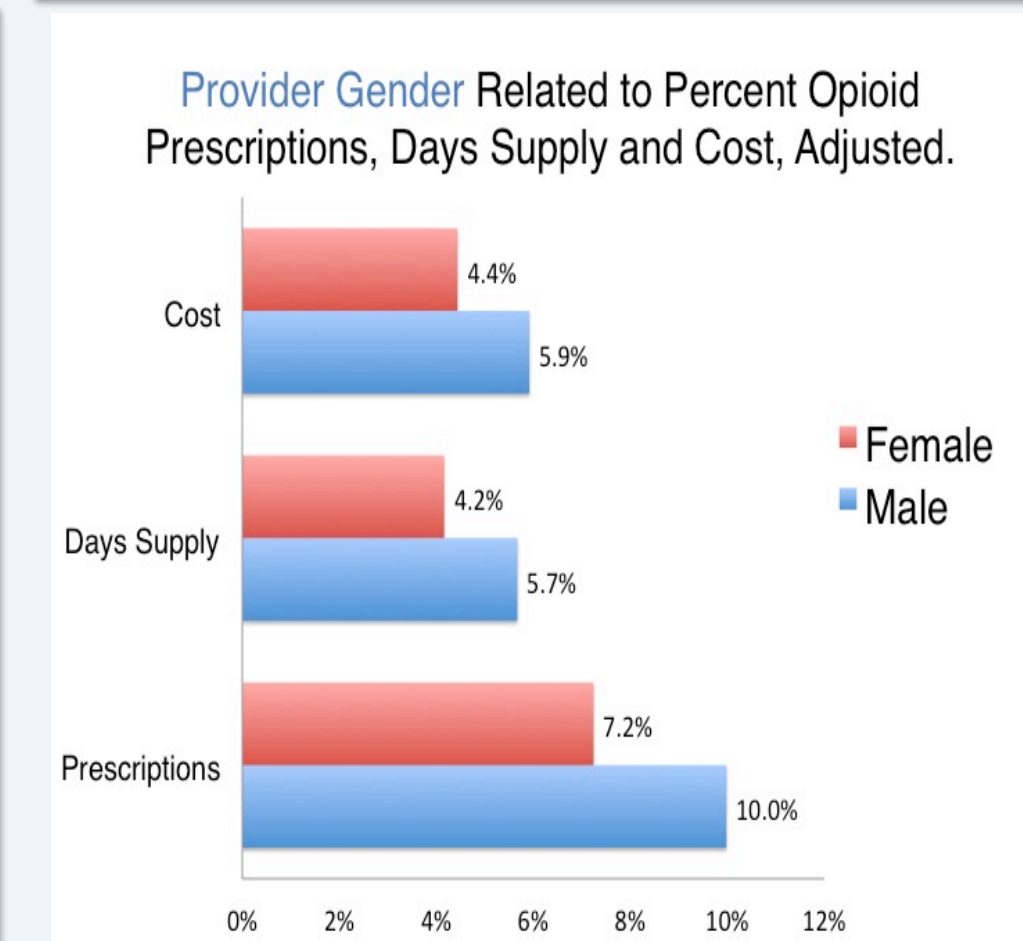
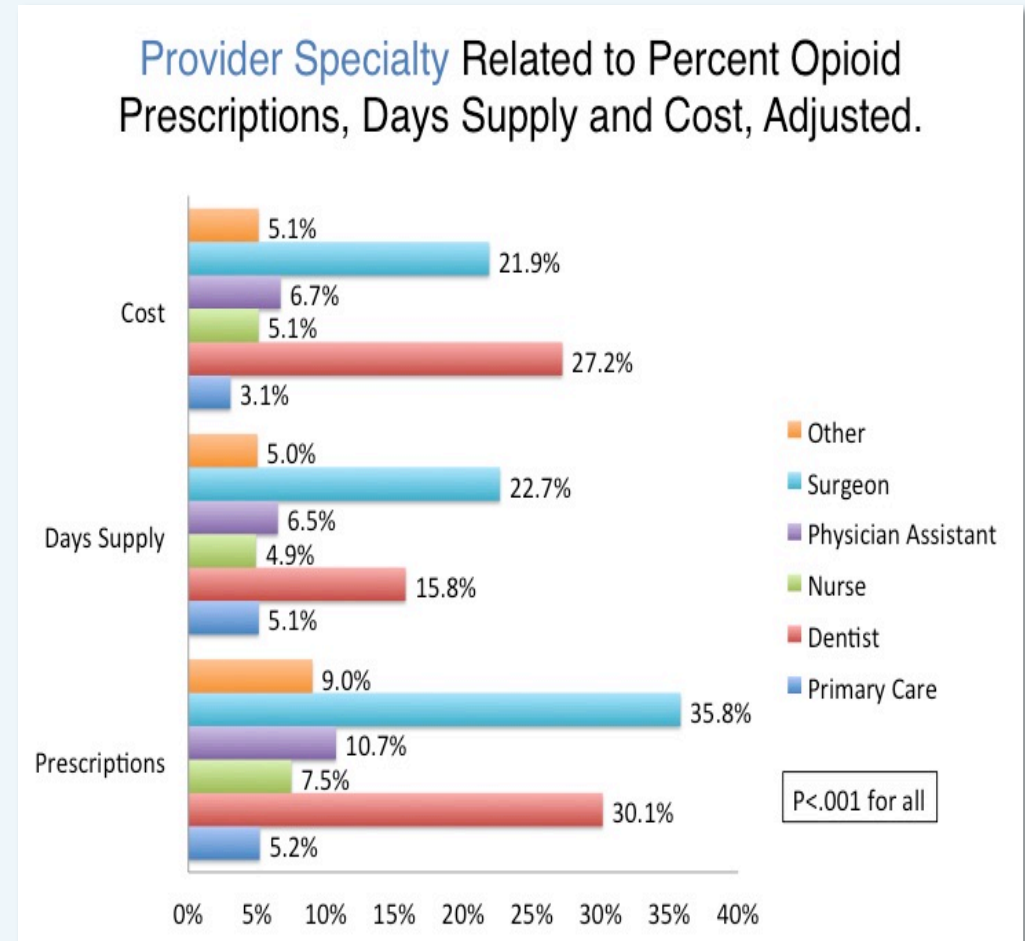
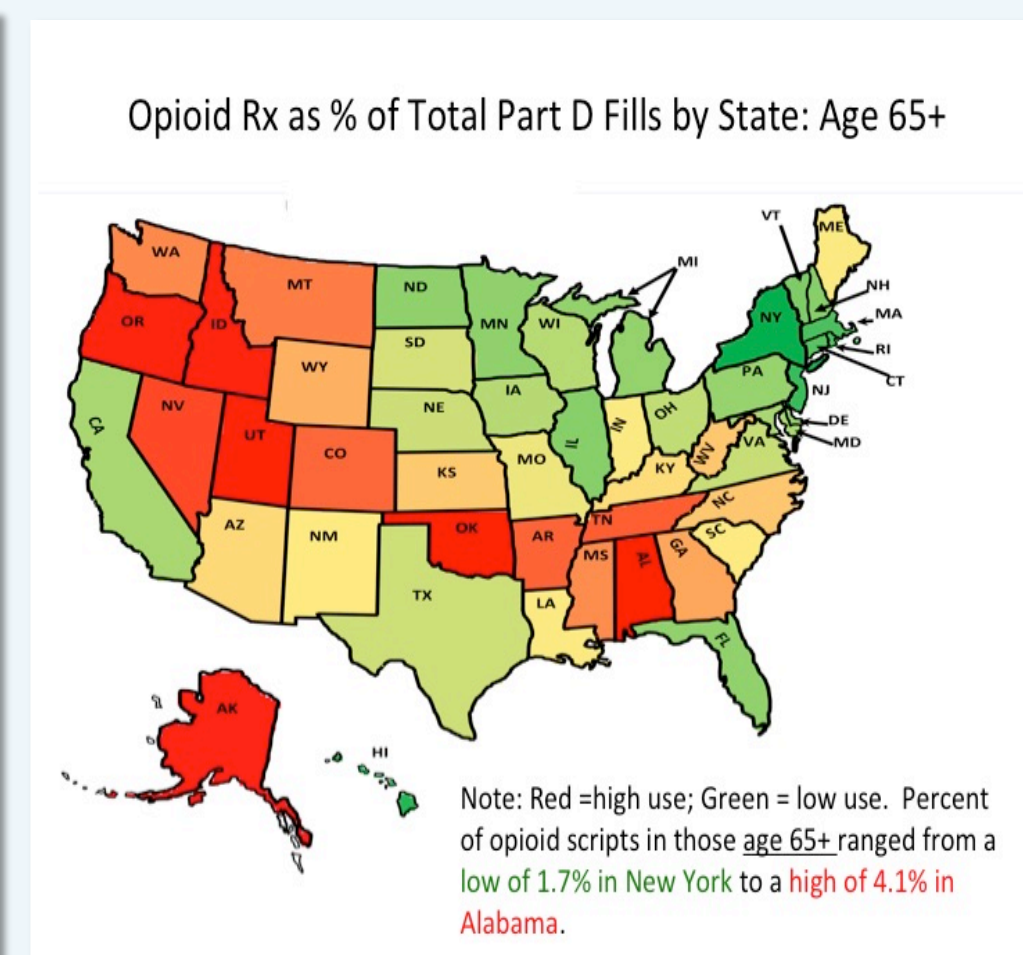
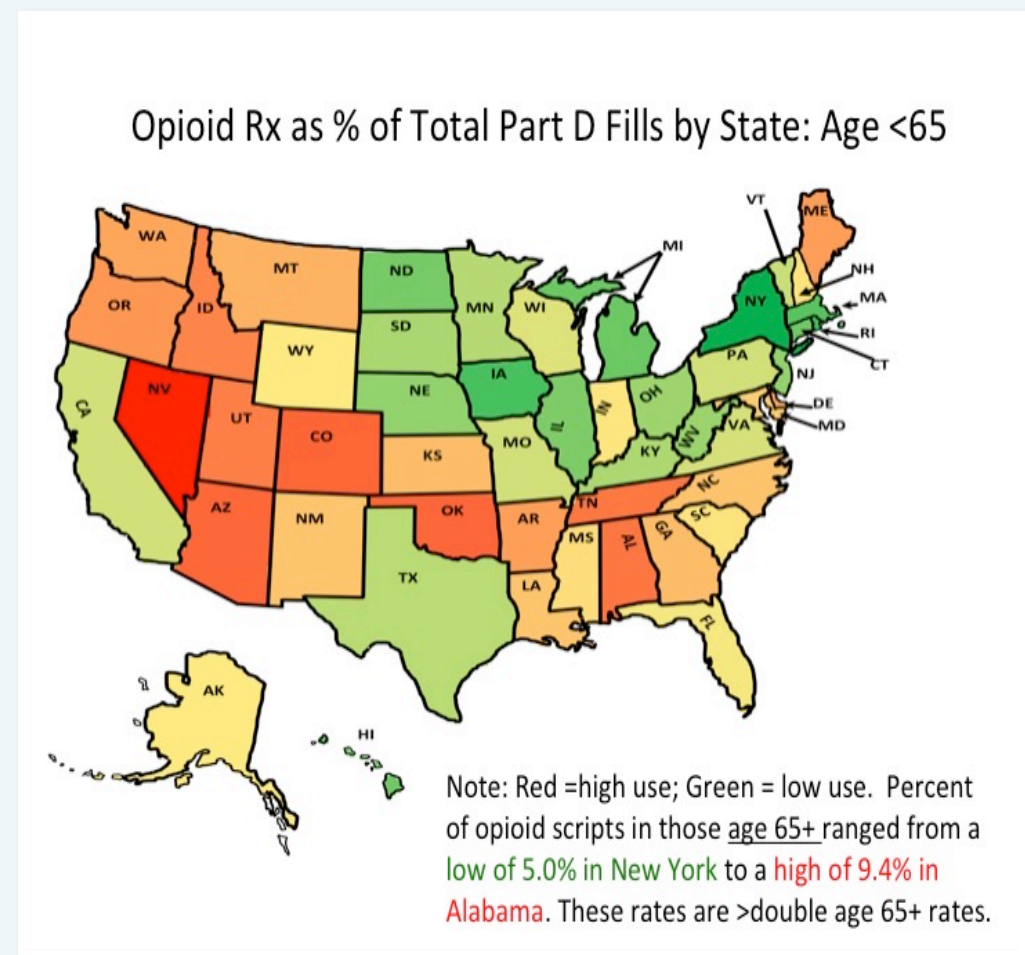
Medicare is a US federal health insurance program, available for people age 65+, younger people with disabilities and people with End Stage Renal Disease.

Objectives

- To compare opioid utilization and cost among elderly and nonelderly Medicare beneficiaries by state
- To examine how percent of opioids used by a provider relates to provider and beneficiary

Methodology

- This retrospective observational study used data from the de-identified 2015 Medicare Provider Utilization and Payment Data Public Use File, which includes prescription drug utilization and cost for 46 million elderly and 9 million non-elderly Medicare beneficiaries.
- Opioids were categorized based on Medicare's Part D Overutilization and Monitoring System.
- By state, number of standardized 30-day prescriptions for opioids was divided by the total to arrive at percent of 30-day standardized prescriptions for opioids for elderly and non-elderly beneficiaries.
- The percent of costs spent on opioids was also calculated by state.
- Correlation coefficients were estimated to measure the strength of the association between opioid use and cost in the elderly and non-elderly.
- Provider-level analyses examined the percent of a provider's scripts that were for opioids, as well as the percent of days supply and cost.
- OLS regression was used to examine the relation between provider gender and specialty as well as characteristics of the provider's patients (% female, % <age 65, %age 65-74; % age 75-84, % age 85+, % dual coverage) on percent opioid prescribing.



Results

- Opioid use in beneficiaries less than age 65, as a percentage of total prescriptions, was more than twice as high compared to beneficiaries over age 65.
- Provider-level analyses showed that dentists and surgeons prescribed the highest percent of opioids to Medicare beneficiaries, while primary care physicians and nurses prescribed the lowest percent of opioids
- Female prescribed fewer opioids than males.
- Percent of a provider's patients less than age 65 was one of the strongest predictors of increased opioid use
- Percent age 85+ and percent female also increased opioid use, but to a lesser extent than for younger patients.
- Percent of beneficiaries with dual coverage decreased opioid use
- Scripts by region ranged from 6.7% in region 2 (NY, NJ) to 9.6% in region 10 (WA, OR, ID, AK).

Conclusion

- Opioid utilization was more than twice as high in nonelderly than in elderly Medicare beneficiaries.
- Future research is needed to determine whether there is overutilization in the nonelderly, particularly in states such as Nevada and Alaska, and to examine why states like New York have relatively limited use.
- Also concerning is the high use by providers with a high percentage of patients over age 85

Acknowledgements

This study was the National Institute on Minority Health and Health Disparities (NIMHD) Grant P20 MD000173.