

Changes in Geographic Medicare Reimbursement for Otolaryngology Procedures from 2013 to 2022

Introduction

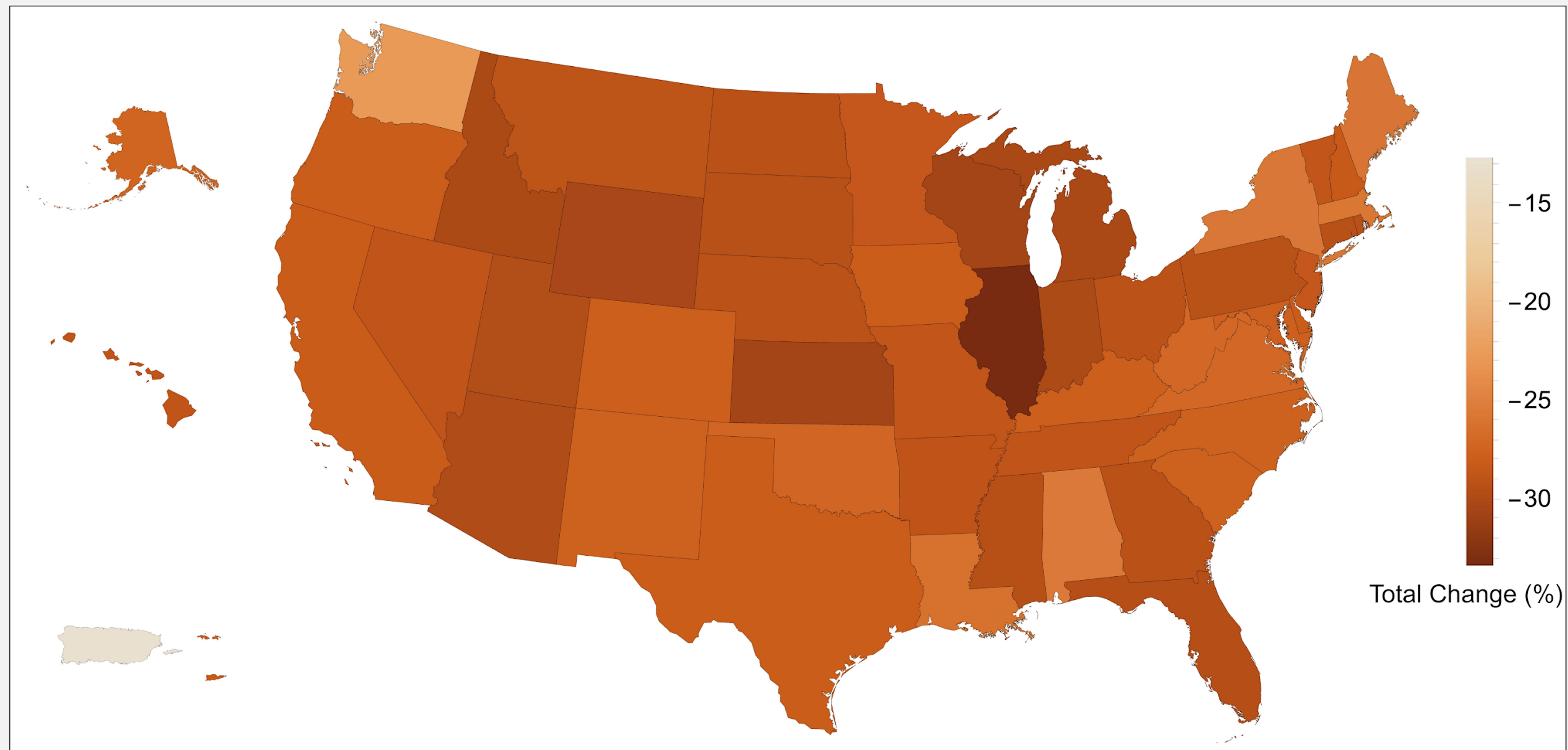
- Changes in Medicare reimbursement affect private payers and Medicaid fee schedules, which may affect access.
- Previous declines in otolaryngology Medicare reimbursement has been noted nationally but not geographically.
- Medicare reimbursement follows fee-for-service reimbursement, which does not reflect value-based care.
- Social Determinants of Health (SDOH) are a solution to improve value-based care by addressing upstream factors.
- We analyzed the relationship between geographic changes in Medicare reimbursement and SDOH metrics from 2013 to 2022.

Methods

- The 20 top-grossing procedures were sourced from the American Association of Otolaryngology-Head & Neck Surgery.
- Centers for Medicare and Medicaid Service's (CMS) Physician Fee Schedule was queried for each procedure.
- Facility prices were found with Medicare Administrator Contractor localities and were adjusted for inflation.
- State-specific SDOH data were identified using census/public government records for physicians per capita, cost of living, homelessness, population density, population age >60, and percent enrolled in Medicare.
- A correlation coefficient and p-value were calculated for each relationship between change in Medicare reimbursement and SDOH metric by state ($\alpha = 0.05$).

Results

- The mean and median for all states and territories were -28.0% and -28.5%, respectively.
- State-by-state variation can be seen in the color-shaded map.
- The five most-affected and five least-affected states are reported in the first, two tables to the right.
- Puerto Rico was least-affected, decreasing by -12.7%, while Illinois was the most-affected state, decreasing by -33.4%.
- Upon examination, there was no statistically significant correlation between state-based Medicare reimbursement changes and the selected SDOH by state. Reported in the bottom table to the right.



Least Affected States	Total Percent Change
Puerto Rico	-12.7%
Washington	-22.7%
Alabama	-25.6%
New York	-25.8%
Massachusetts	-25.8%

Most Affected States	Total Percent Change
Michigan	-30.2%
Wyoming	-30.3%
Wisconsin	-30.6%
Kansas	-30.7%
Illinois	-33.4%

Social Determinant of Health	Correlation Coefficient (r)	p-value
Physicians per capita	+0.26	0.07
Cost of Living	+0.27	0.06
Homelessness	+0.17	0.23
Population Density	+0.06	0.67
Population >60 years	0.00	0.99
Medicare Enrollment	0.00	1

Conclusions

- U.S. states and territories varied in changes for otolaryngology Medicare reimbursement from 2013 to 2022.
- None of the selected SDOH metrics correlated with state-based changes in Medicare reimbursement.
- CMS made changes in Geographic Practice Cost Index adjustments which account for these state-by-state differences.
- The differences between states could negatively affect access to otolaryngology services for Medicare beneficiaries.
- These results also suggest that changes to Medicare's fee schedule on a geographic level may not address these select SDOH metrics.
- To improve value-based care for Medicare patients, SDOH metrics should be considered.
- Limitations for this study include using Medicare data that may not be generalizable or may under-report true caseloads, weighting procedural frequency nationally instead of by state, and using static SDOH data.