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# Trends in Demographics and Health Characteristics of Medicare Beneficiaries Receiving Interventional Pain Management Services.

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## Introduction

Medicare provides coverage to 65 million Americans (1) who are steadily aging and increasingly reliant on medical services (2). 18.8% of all insured Americans are insured through Medicaid, and 18.7% are insured through Medicare. Thus, a significant proportion of interventional pain medicine (IPM) procedures are performed on Medicare or Medicaid beneficiaries and reimbursed by CMS. This study trends the demographic and health-related characteristics of Medicare beneficiaries receiving interventional pain management services from 2013 to 2021.

## Materials and Methods

This study performed a cross-sectional analysis of Medicare Part B utilizing publicly available CMS Physician and Other Practitioners - by Provider (3) file of the years 2013 – 2021. Data was filtered by specialty, including Pain Management and Interventional Pain Management, and excluded all other specialties. Data on the number and demographic and health characteristics of Medicare beneficiaries were extracted for each year. Linear regression was applied to model trends over time. Statistical analysis was conducted using R 4.0.3. This study was exempt from IRB review as it utilized publicly available online CMS data and no patient identifiable information per Metro Health IRB Policy.

## Results/Case Report

From 2013 – 2021, the absolute number of Medicare beneficiaries receiving IPM services rose from 1,168,192 in 2013 to 1,396,996 in 2021, although this trend was not significant ( $p=0.27$ ). The average age of beneficiaries receiving IPM services rose steadily by 0.45 years each year to 70.32 years in 2021 ( $p<0.00001$ ). No significant difference was found between the proportion of male and female beneficiaries over time ( $p=0.056$ ). While proportions of White, Black, Asian, and American Indian beneficiaries were unchanged, the proportion of Hispanic beneficiaries increased significantly from 3.85% to 4.15% ( $p<0.001$ ) and the proportion of Other Race increased from 0.08% to 0.84% from 2013 - 2021 ( $p<0.05$ ).

From 2013-2021, beneficiaries receiving IPM services had significantly increased rates of several comorbid health conditions. Specifically, rates of Atrial Fibrillation, Alzheimer's Disease or Dementia, Cancer, Congestive Heart Failure, Chronic Kidney Disease, Hyperlipidemia, Hypertension, Osteoporosis, and Rheumatoid or Osteoarthritis, all

had a significant increase in representation within the beneficiary population in 2021, compared to 2013. Notably, both Asthma and Psychotic Disorders had a significant decrease in comorbidity burden on the population in 2021 compared to 2013. The average HCC risk score was 1.43 in 2013 and 1.44 in 2021 ( $p=0.19$ ). Thus, while certain comorbidities saw an increase or decrease rate within the population, the average risk score of an individual receiving IPM services remained the same. A score of 1.0 on the HCC score indicates an average patient within the overall beneficiary sample; thus, the beneficiaries of IPM services have a greater comorbidity burden than the average beneficiary and are more likely to utilize services.

## Discussion

We explored trends in Medicare and Medicaid beneficiaries receiving IPM services from 2013 - 2021. We illustrate an aging population as well as an increasing proportion of Hispanic and other races obtaining pain management services. While the average risk score has remained the same, we demonstrate certain comorbidities such as CKD or HTN are becoming more prevalent within those receiving chronic pain management.

## References

### References

1. Centers for Medicare & Medicaid Services. Medicare Monthly Enrollment. Accessed February 22, 2024. <https://data.cms.gov/summary-statistics-on-beneficiary-enrollment/medicare-and-medicaid-reports/medicare-monthly-enrollment>
2. Gaudette É, Tysinger B, Cassil A, Goldman DP. Health and Health Care of Medicare Beneficiaries in 2030. *Forum Health Econ Policy*. 2015;18(2):75-96. doi:10.1515/fhep-2015-0037. Epub 2015 Nov 28. PMID: 27127455; PMCID: PMC4845680
3. Centers for Medicare & Medicaid Services. Medicare Physician & Other Practitioners. Accessed February 22, 2024. <https://data.cms.gov/provider-summary-by-type-of-service/medicare-physician-other-practitioners>

## Disclosures

No

## Tables / Images