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## Introduction

Back pain is the leading cause of disability worldwide.<sup>1</sup>

Prior analysis using 2007 Medical Expenditure Survey (MEPS) data found:<sup>2</sup>

- 19.0 million United States (U.S.) adults were treated for back problems;
- \$1,589 average per person annual expenditure on back-related care.

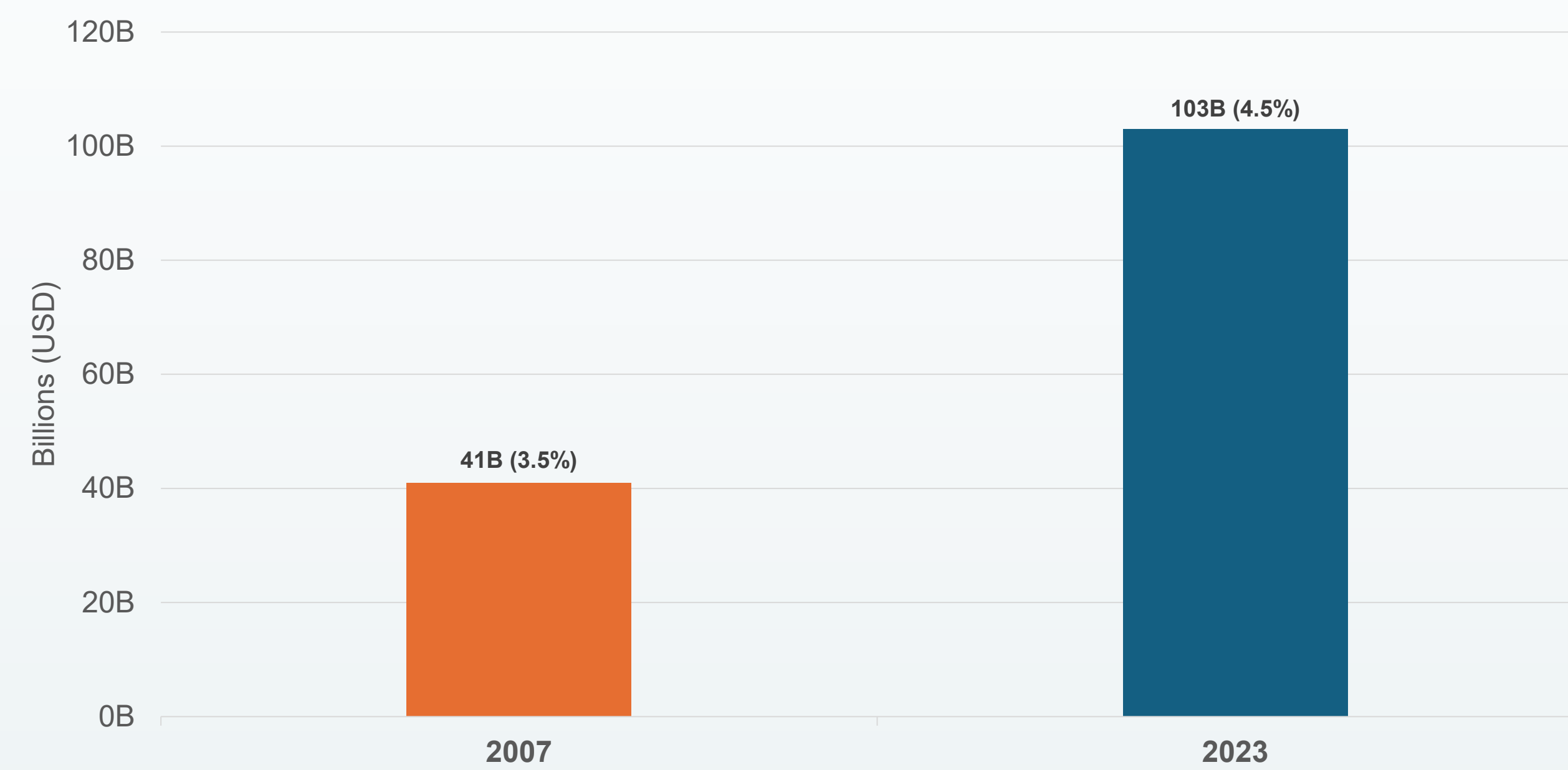
## Objective

Compare 2007 to 2023 for adult back problems:

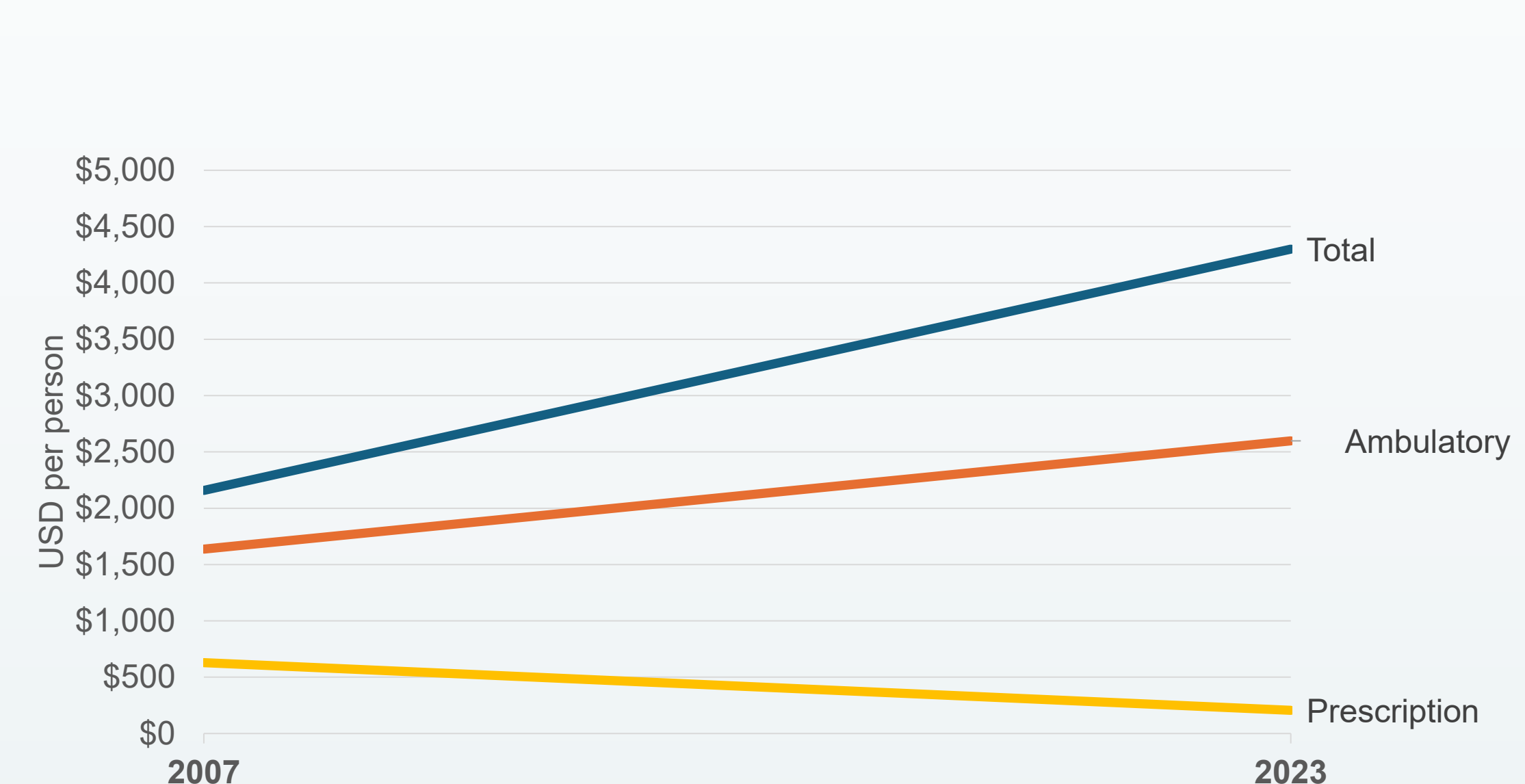
- treated prevalence;
- change in expenditures for total, ambulatory, and prescribed medication;
- change in expenditures by insurance payer.



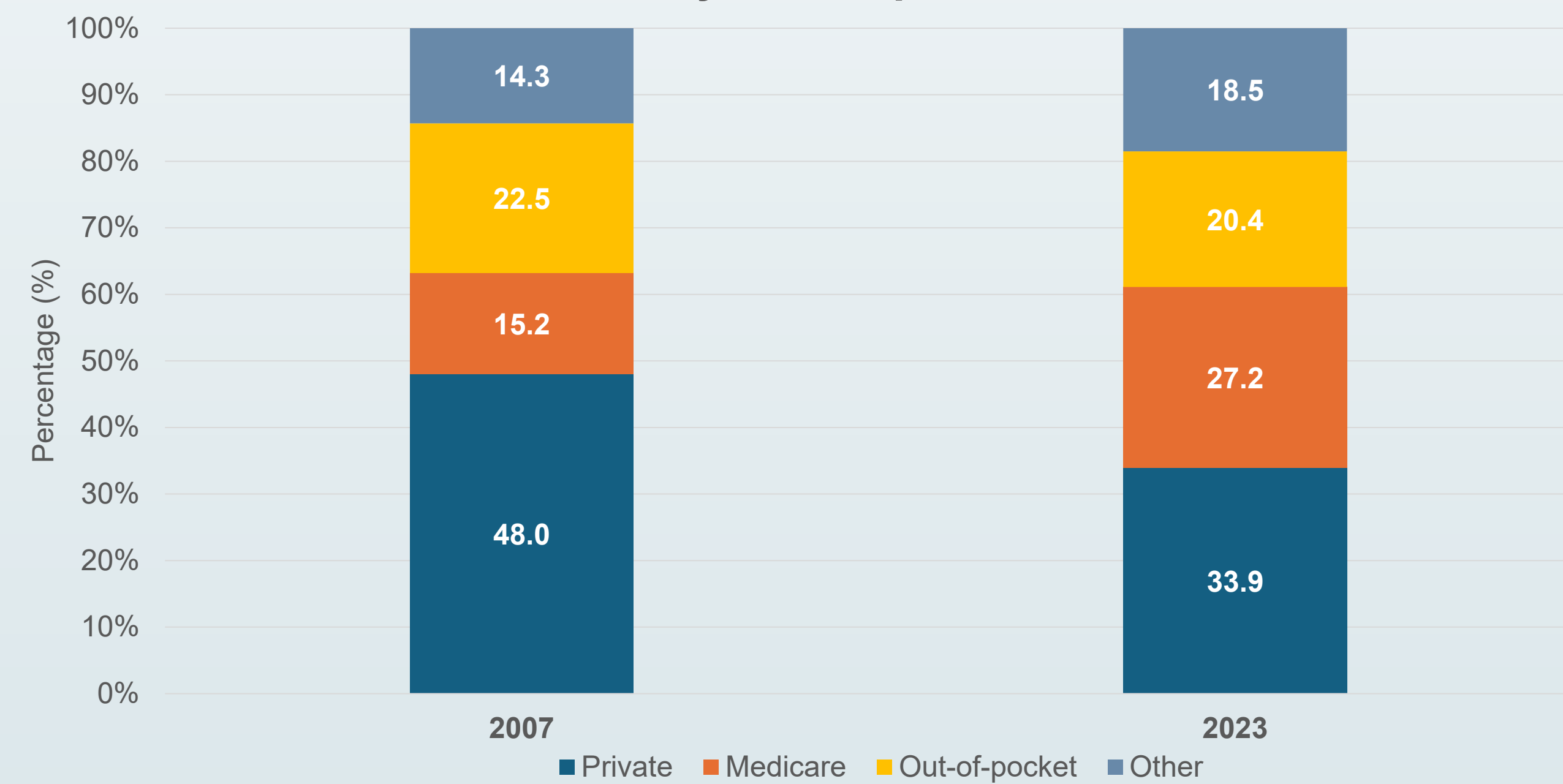
Total expenditure for back problems increased 152%.



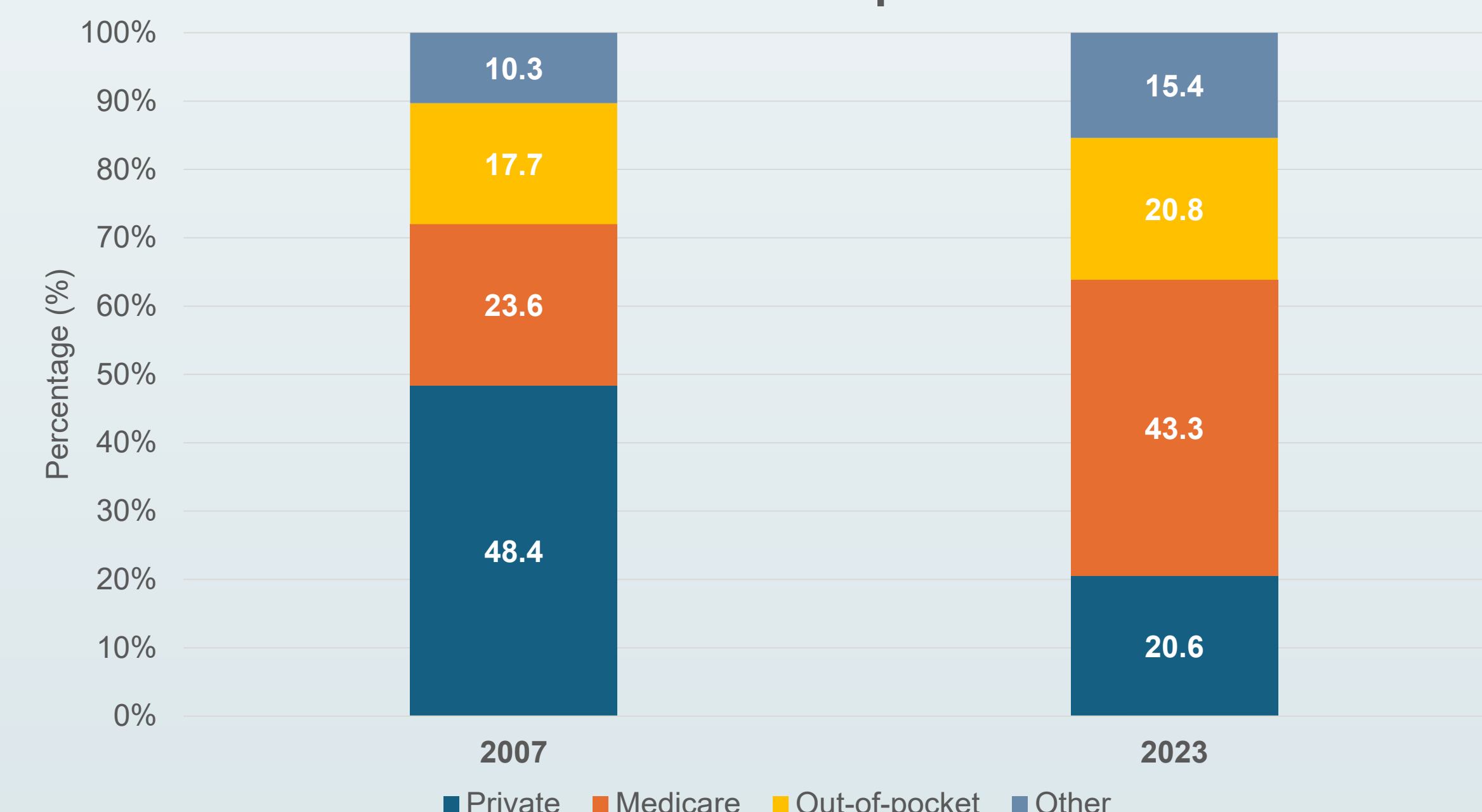
Mean per-person expenditures increased for total and ambulatory care but decreased for prescription medications.



Private insurance remained the primary payer for ambulatory care expenditures.



Medicare became the primary payer for prescription medication expenditures.



## Methodology

- Nationally representative survey data: MEPS, representing the civilian non-institutionalized U.S. population.
- Inference on adults, 18 years and older.
- Operationalization of back problems for 2007 borrowed from the Agency for Healthcare Research and Quality (AHRQ) methodology (federal statistical brief 289).<sup>3</sup>
- In 2023, back problems defined as one of 11 ICD-10 codes.
- Adjusted 2007 data for inflation using GDP Price Index per AHRQ's guidance for MEPS expenditure trend analysis.
- Z-tests for comparing population proportions across time periods and chi-square tests for payer distributions across care settings, both applying complex survey design.

## Results

- 23.4M adults (9.0% [8.5-9.5]) were treated for back problems in 2023 vs. 19.0M (8.4% [7.9-8.9]) in 2007.
- Back problems now consume 4.5% of U.S. healthcare spending, compared to 2.9% in 2007.
- Expenditures rose 92% overall and 53% for ambulatory care; while declining 68% for prescription medications.

## Conclusion

- Back problems remain highly prevalent and impose an increasing economic burden on the U.S. healthcare system.
- Higher prescription utilization among Medicare beneficiaries suggests potential gaps in guideline-concordant care.
- Further research is needed to identify strategies to optimize evidence-based care.

### References:

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2. Soni, A. Back Problems: Use and Expenditures for the U.S. Adult Population, 2007. Statistical Brief #289. July 2010. Agency for Healthcare Research and Quality, Rockville, MD. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/st289/stat289.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/st289/stat289.pdf).
3. Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey (MEPS). <https://www.ahrq.gov/data/meps.html>. Accessed February 26, 2026.

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