

Health Care Satellite Account

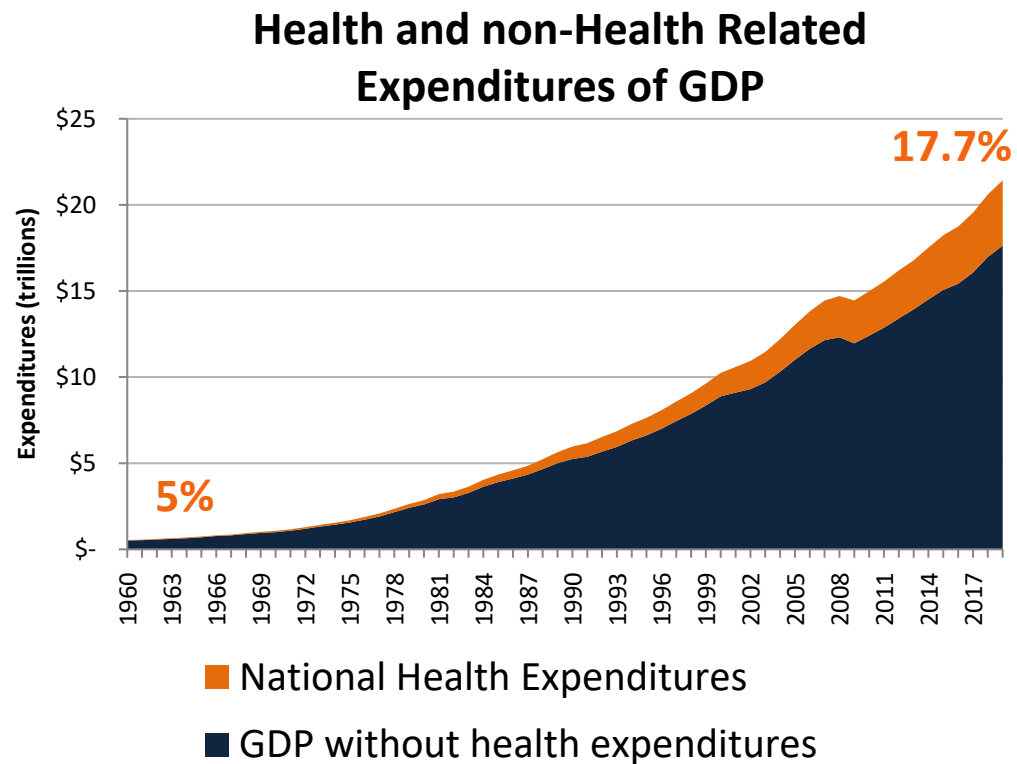
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- Motivation for BEA's Health Care Satellite Account
- Role of private data
- Next steps
- Lessons learned



Motivation for Health Care Satellite Account (HCSA)

- HCSA's goal: improve understanding of health care spending in the United States
- Redefine health expenditure into more meaningful units
 - Output is the treatment of a condition (e.g., diabetes) not individual goods and services (e.g., prescription drug or doctor's office visit)
- Example
 - Output = number of patients treated for diabetes
 - Expenditures = spending on the treatment of diabetes
 - Price = average spending per treated patient for diabetes

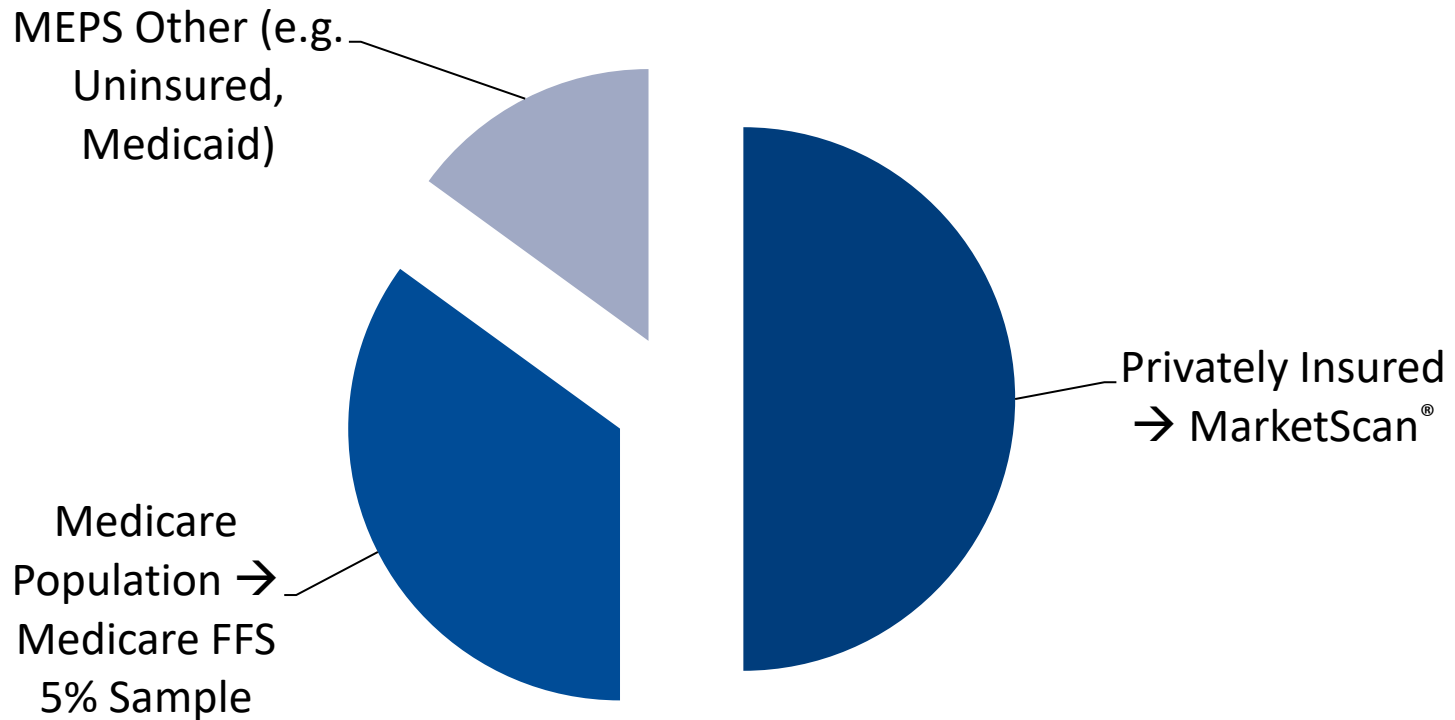
HCSA provides 2 versions (currently covering 2000-2018)

1. “MEPS Account” – using Medical Expenditure Panel Survey (MEPS)
 - Publicly available survey with around 30 thousand individuals annually

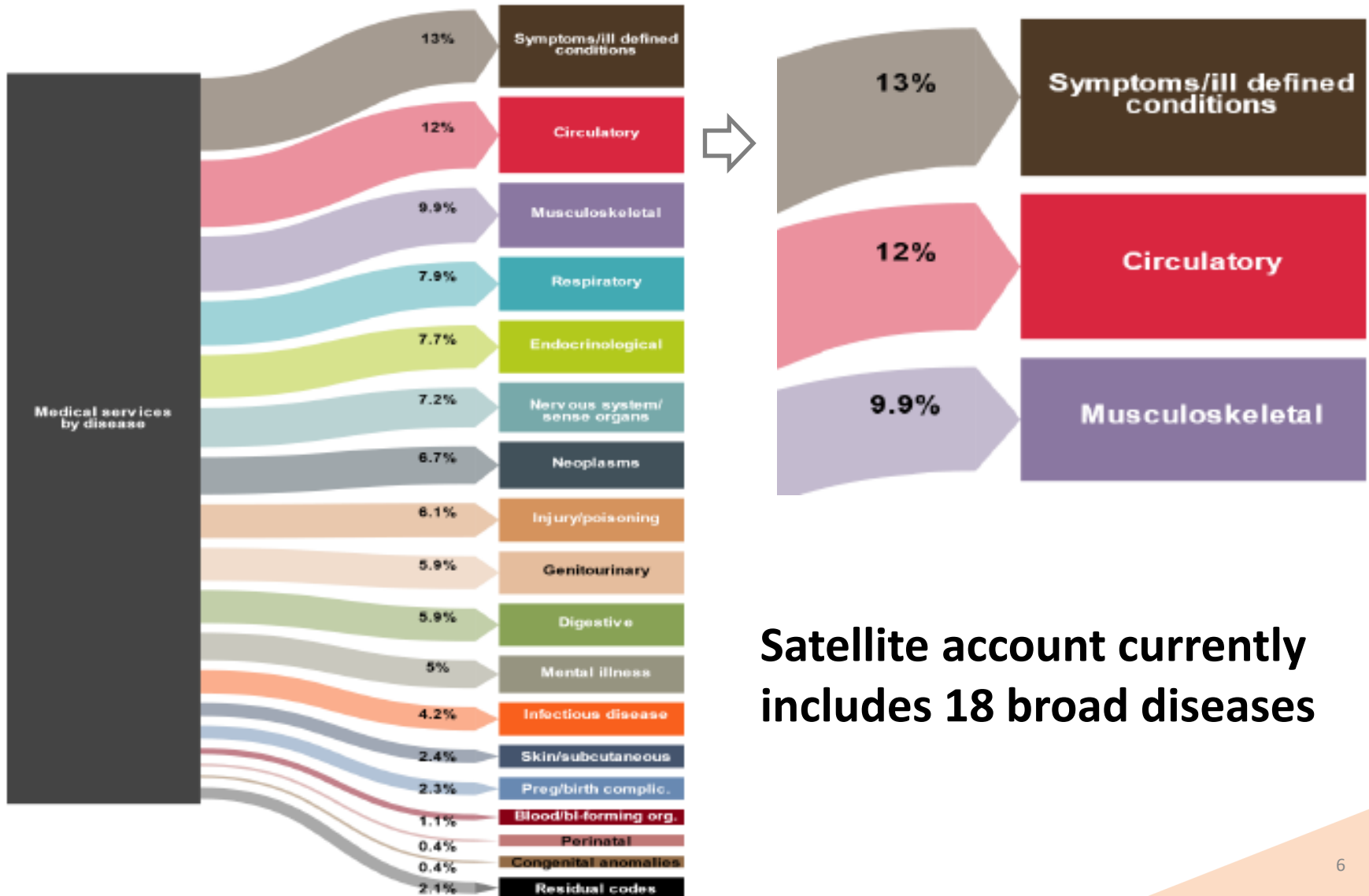
2. “Blended Account” – MEPS, MarketScan[®] claims data, and Medicare claims data
 - Incorporates millions of enrollees and billions of claims for Medicare population and private insurer claims

Construction of Blended Account

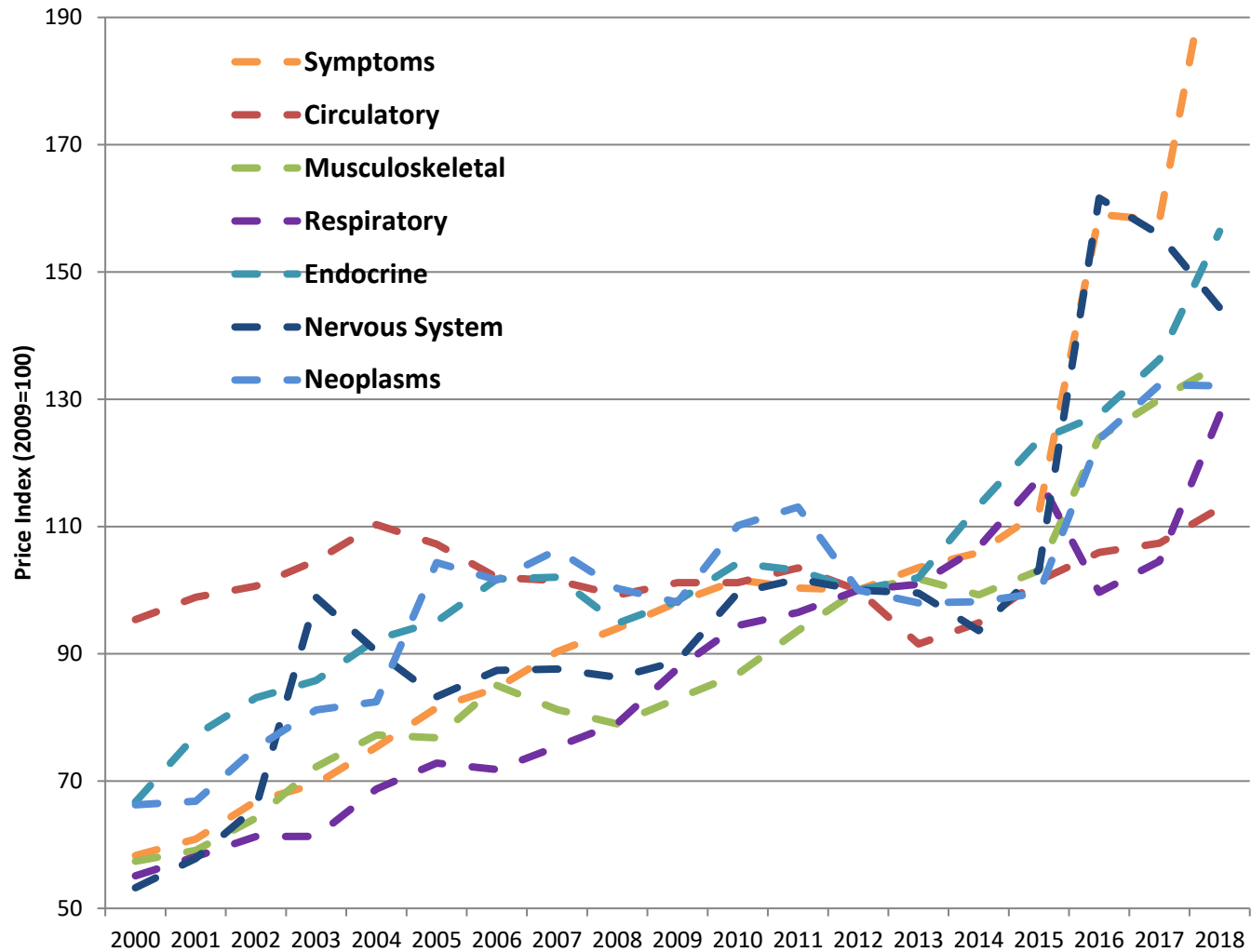
Use population weights from MEPS to fold in data from different sources



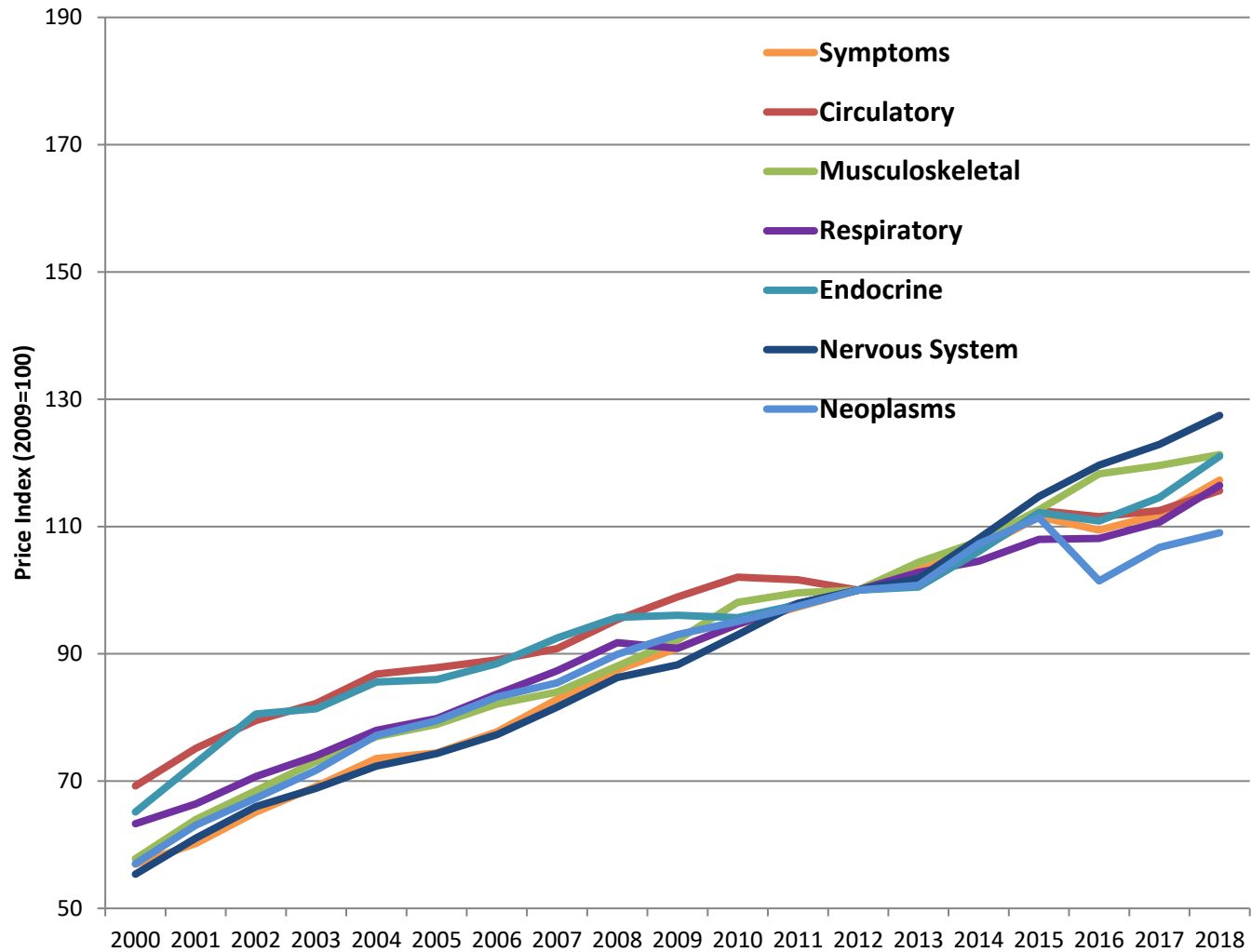
Health Care Satellite Account, MEPS



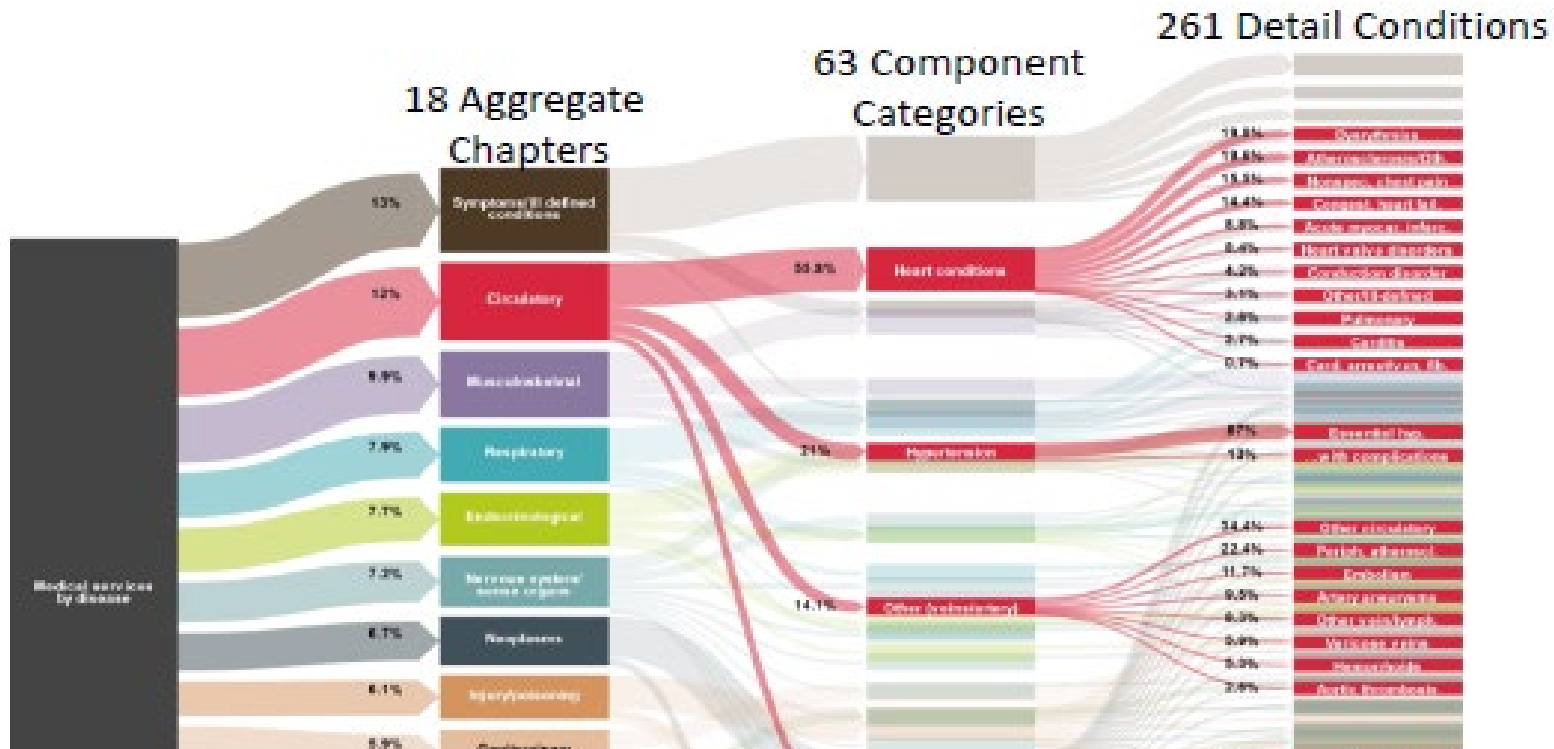
Volatile trends in disease-based price indexes using the MEPS account index



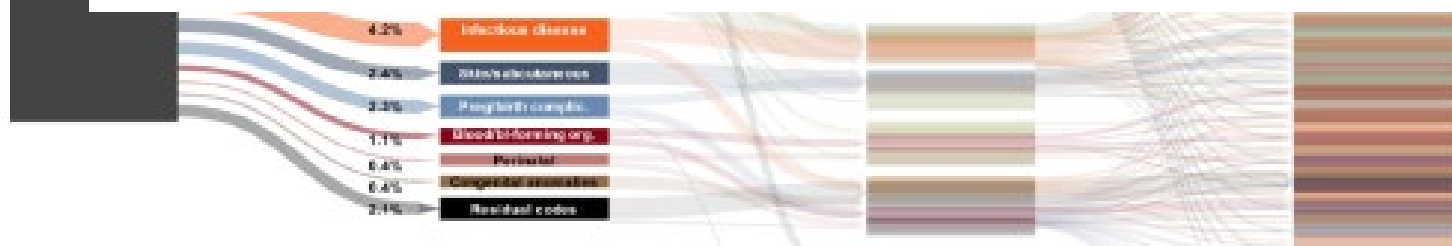
Less volatile disease-based price indexes using the Blended account index



Health Care Satellite Account, Blended



Big data used to produce detailed condition-level estimates

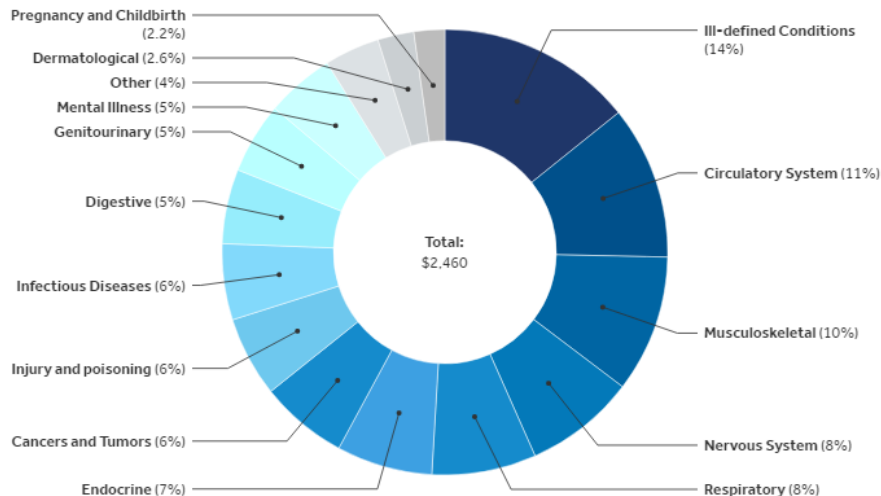


THE WALL STREET JOURNAL

The Diseases We Spend Our Health Dollars On

But there is good news for those who want to understand more. The [Bureau of Economic Analysis](#) (BEA) has made a real contribution to making health spending more comprehensible by analyzing health spending and price growth by common diseases and diagnoses such as cancer, heart disease, diabetes, and even the common cold.

Distribution of total medical services expenditures (US \$, billions), by medical condition, 2018



At Last: The Data To Routinely Discuss Health Spending By Medical Condition

- Continued improvement in the timeliness of data releases
- Improving coverage, e.g., HMOs, Medicaid
- Research focus on improving quality adjustment in health care sector

Econometrica, Vol. 90, No. 2 (March, 2022), 859–886

ARE MEDICAL CARE PRICES STILL DECLINING? A RE-EXAMINATION BASED ON COST-EFFECTIVENESS STUDIES

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More than two decades ago, a well-known piece of evidence suggesting that, when appropriately adjusted, medical care prices were actually declining (Cutler, McClure, and Rowe 2000). This paper revisits this subject by leveraging evidence from cost-effectiveness studies across a broad range of conditions. It finds that quality-adjusted price declines associated with quality-adjusted indexes into an aggregate quality-adjusted medical-care price index, quality-adjusted medical care prices, and proxies for the diffusion of medical care technologies. Statistics that suggest medical care prices are declining relative to economy-wide inflation from 2000 to 2020. Medical care prices declined by 1.33 percent per year.

KEYWORDS: Price index, quality adjustment

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A Satellite Account for Health in the United States[†]

By DAVID M. CUTLER, KAUSHIK GHOSH, KASSANDRA L. MESSER,
TRIVELLORE RAGHUNATHAN, ALLISON B. ROSEN, AND SUSAN T. STEWART*

This paper develops a satellite account for the US health sector and measures productivity growth in health care for the elderly population between 1999 and 2012. We measure the change in medical spending and health outcomes for a comprehensive set of 80 conditions. Medical care has positive productivity growth over the time period, with aggregate productivity growth of 1.5 percent per year. However, there is significant heterogeneity in productivity growth. Care for cardiovascular disease has had very high productivity growth. In contrast, care for people with musculoskeletal conditions has been costly but has not led to improved outcomes. (JEL E01, H51, I10)

“The welfare of a nation can scarcely be inferred from a measure of national income.”

—Simon Kuznets (1934, p. 7)

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Quantifying Productivity Growth in the Delivery of Important Episodes of Care within the Medicare Program Using Insurance Claims and Administrative Data

John A. Romley, Abe Dunn, Dana Goldman, and Neeraj Sood

(MFP) growth is the ultimate source of gains which appears to have slowed in the United States (Byrne, Oliner, and Sichel 2013; Fernald 2015). The main reason is that the technological progress of earlier eras is in the future, notwithstanding the ongoing pace of foreseeable developments (Gordon 2016). An important reason government economic statistics have systematically understated it (Feldstein 2017).

- Representativeness

- Blended account draws on weights from MEPS survey data

- Scope

- Private claims data sources typically lack treatment outcome information

- Timeliness

- High quality claims data only available with lags of several months because of the adjudication process
- Private sector data often timelier than survey data (e.g., card transaction data used by BEA for early service sector estimates)

- Documentation

- Private data not originally created with the goal of sharing with a statistical agency; this requires resources to assess and document data

- Availability

- Access to private sector claims data depends on vendors willing to sell data on an ongoing basis.
- Have seen availability and vendors shift for health care and other private data

- Cost of data and storage

- In a recent ICSP survey, cost was the number one obstacle among respondents in using private data. Not just the cost of purchasing data, but the computing power required to analyze it and the storage costs.

- Design a flexible contract including multiple option years and potential to expand coverage (e.g., higher frequency, more sectors or products)
- Plan early for staffing expertise, data acquisition, and IT costs
- Assess and manage data quality to quickly uncover and start solving data challenges
 - Test alternative datasets prior to acquisition
 - Early, rapid prototyping upon acquisition
- Collaboration across federal agencies to help assess large datasets, sharing resources and findings