

**The Economic Impact of Arthritis:  
Medical Expenditures and Earnings Losses among  
US Adults with Arthritis in 2013**

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**Introduction**

- Economic impact demonstrates societal and personal consequences of a condition
- Last published national arthritis cost estimates - 2003
  - Numerous changes
    - Aging of population - ↑ number
    - Medical management of arthritis – for example, rheumatoid arthritis
- Study objectives
  - Calculate arthritis-attributable medical costs and earnings losses for 2013

### **Terms used in presentation**

- Arthritis-attributable costs= costs due to arthritis
- Medical expenditures = medical costs
- Earnings losses = lost wages

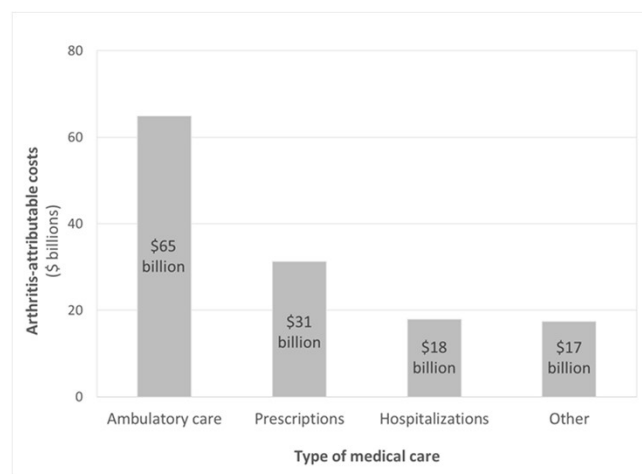
### **Study methods**

- Data source: 2013 Medical Expenditure Panel Survey (MEPS)
- Medical costs
  - All adults age 18 years and older
  - Type : ambulatory care, hospitalizations, medications, home care, emergency room visits, dental/vision, medical devices
- Lost wages
  - Adults with arthritis age 18-64 years who had ever worked
- Calculated arthritis-attributable costs using multi-stage multivariable regression models

## How much were arthritis-attributable medical costs?

- **In 2013, arthritis-attributable medical costs = \$140 billion**
  - In MEPS, 66 million US adults age  $\geq 18$  years reported arthritis
  - On average, medical costs per person due to arthritis = \$2,117
  - Total medical costs = 66 million X \$2,117 = \$140 billion

## What type of medical care had the highest costs?

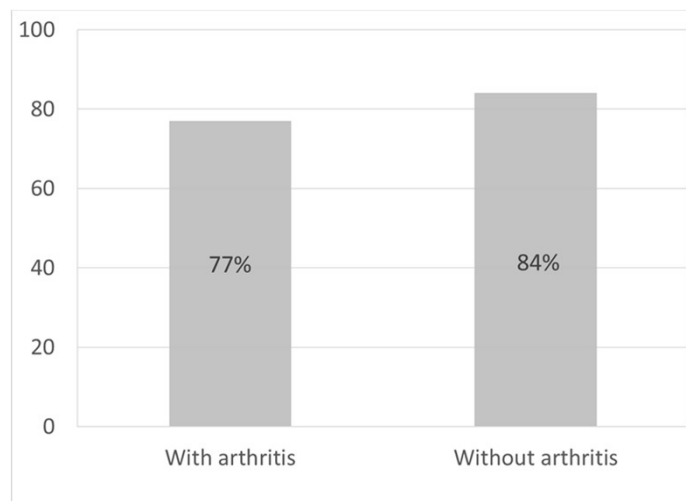


Other includes emergency room visits, home health care, dental and vision care, and medical devices

### What were arthritis-attributable earnings losses?

- **In 2013, arthritis-attributable earnings losses = \$164 billion**
  - 40.5 million adults with arthritis age 18-64 years
  - On average, each adult with arthritis earned \$4,040 less than an adult without arthritis
  - Total earnings losses = 40.5 million X \$4,040 = \$164 billion

### Percentage of adults with and without arthritis working in the past year



### **Summary**

- In 2013, total medical costs and earnings losses due to arthritis were \$304 billion
  - Represented 1% of US gross domestic product in 2013
- Total earnings losses were slightly higher than medical costs
  - Personal impact of arthritis

### **Strategies to reduce arthritis economic impact**

- Medical costs
  - Reduce pain and increase physical function
  - Interventions proven to reduce medical costs
    - CMS EnhanceFitness evaluation
    - \$945 per person
- Earnings losses
  - Interventions to keep people in the work force
    - Accommodations
  - Access to medical care
  - Community-based interventions

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**Thank you**

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### **State cost estimates**

- Currently available on the Chronic Disease Cost Calculator
  - <https://www.cdc.gov/chronicdisease/calculator/index.html>
  - Based on a slightly different definition of arthritis
    - Arthritis and other rheumatic conditions
  - Medical and absenteeism costs
  - Medical cost projections to 2020
  
- Arthritis program will be updating state cost estimates
  - Will use same arthritis definition as 2013 national study
  - Projected release – early 2019

### **Why have arthritis costs increased?**

- Cannot compare directly with previous results
  - Different definition of arthritis
  - More contemporary statistical methods
  
- Decrease in average medical cost per person
  - Reported for many other conditions as well
  - Cost containment strategies
  
- Number of adults with arthritis increased from 2003 to 2013
  - Affects both medical costs and earnings losses