



National Institute of  
Diabetes and Digestive  
and Kidney Diseases



Social & Scientific Systems  
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# EVOLUTION OF HEALTHCARE COSTS FOR LOWER URINARY TRACT SYMPTOMS ASSOCIATED WITH BENIGN PROSTATIC HYPERPLASIA

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VA



U.S. Department  
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# BACKGROUND

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- ❖ LUTS/BPH is common especially in older men
  - 70% of men ages 60-69 years
  - Nearly 80% of men over 70 years
  
- ❖ Treatment costs estimated at \$4 billion annually in the USA

<sup>1</sup>Wei et al. J Urol 2005

<sup>2</sup>Vuichoud et al. Can J Urol 2015

# SPENDING AND LUTS/BPH

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- ❖ Distribution of spending changing due to an evolution in LUTS/BPH management
- ❖ Better understanding and characterization of disease
- ❖ New medications
- ❖ Minimally invasive and office-based procedures

# UROLOGIC DISEASES IN AMERICA

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- ❖ Sponsored by National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of the National Institutes of Health

# UDA

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- ❖ Pulls from two data sources
  - Optum<sup>©</sup> Clinformatics<sup>®</sup> Data Mart (CDM)
  - Medicare 5% Sample
- ❖ Optum = private insurance men aged 40-64 from all 50 states
- ❖ Medicare = men 65 and over
- ❖ Comprehensive LUTS/BPH Cohort

# INCLUSION

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- ❖ Annual LUTS/BPH related expenditures from 2004-2013
- ❖ Examined care delivery location:
  - Inpatient
  - Hospital-based outpatient (HBO)
  - Physician office based outpatient (POBO)

# OBJECTIVE

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- ❖ To characterize BPH-related Medicare and private insurance expenditures stratified by care-delivery location over a ten-year period

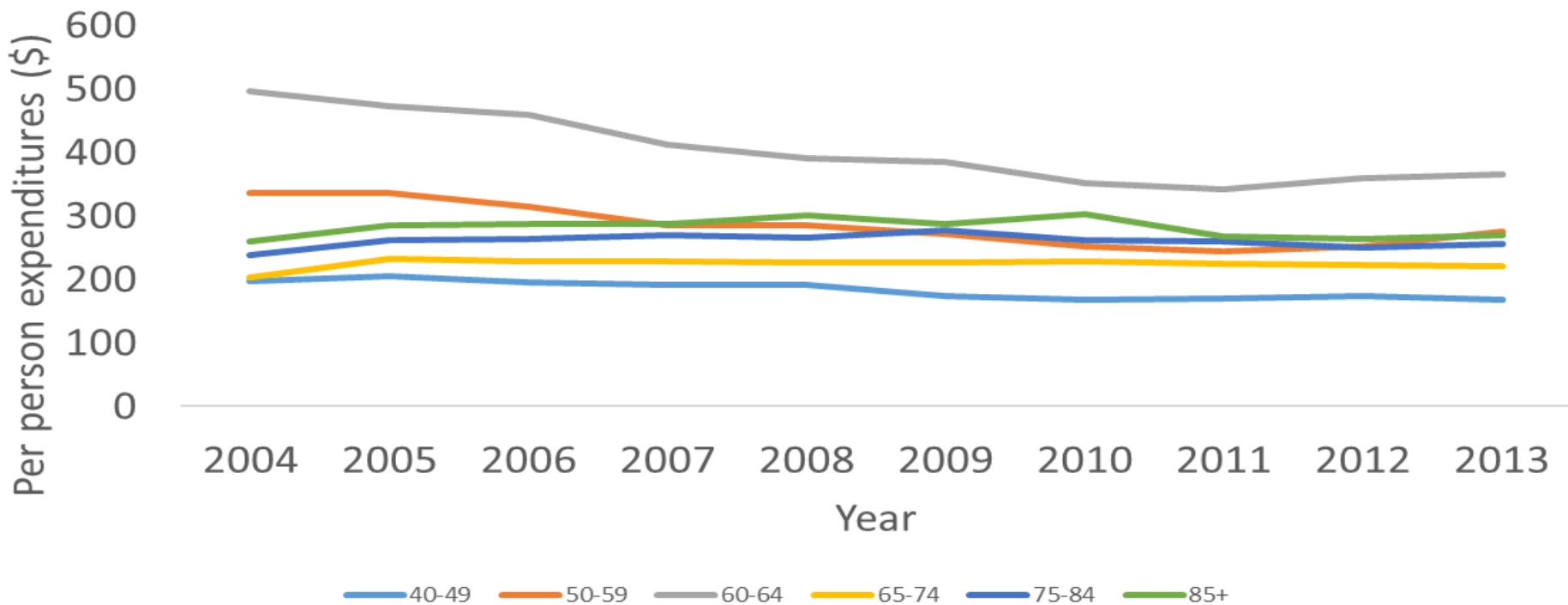
# RESULTS

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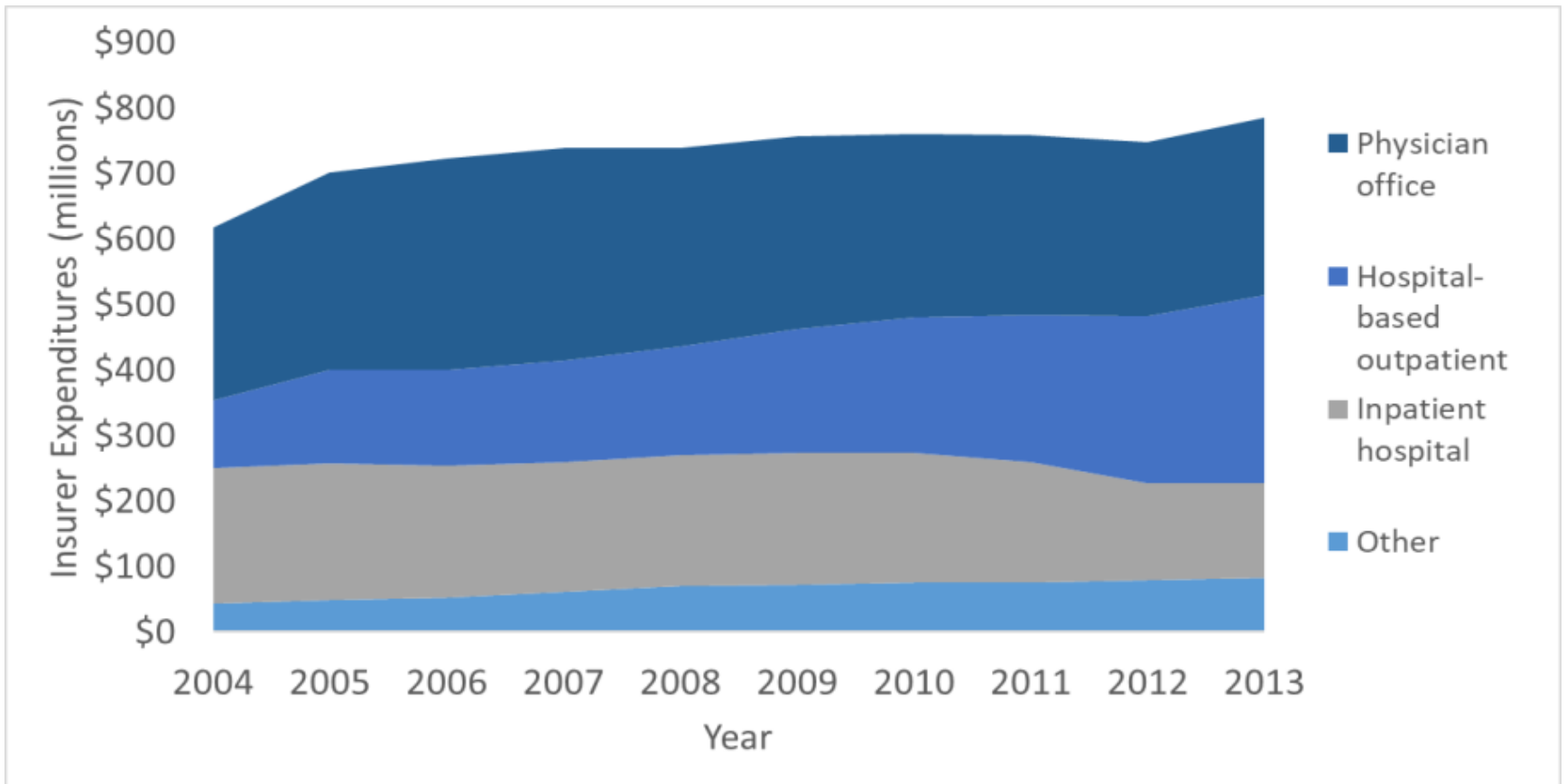


# ANNUAL COSTS

- ❖ CDM = \$305 / year
- ❖ Medicare = \$248 / year

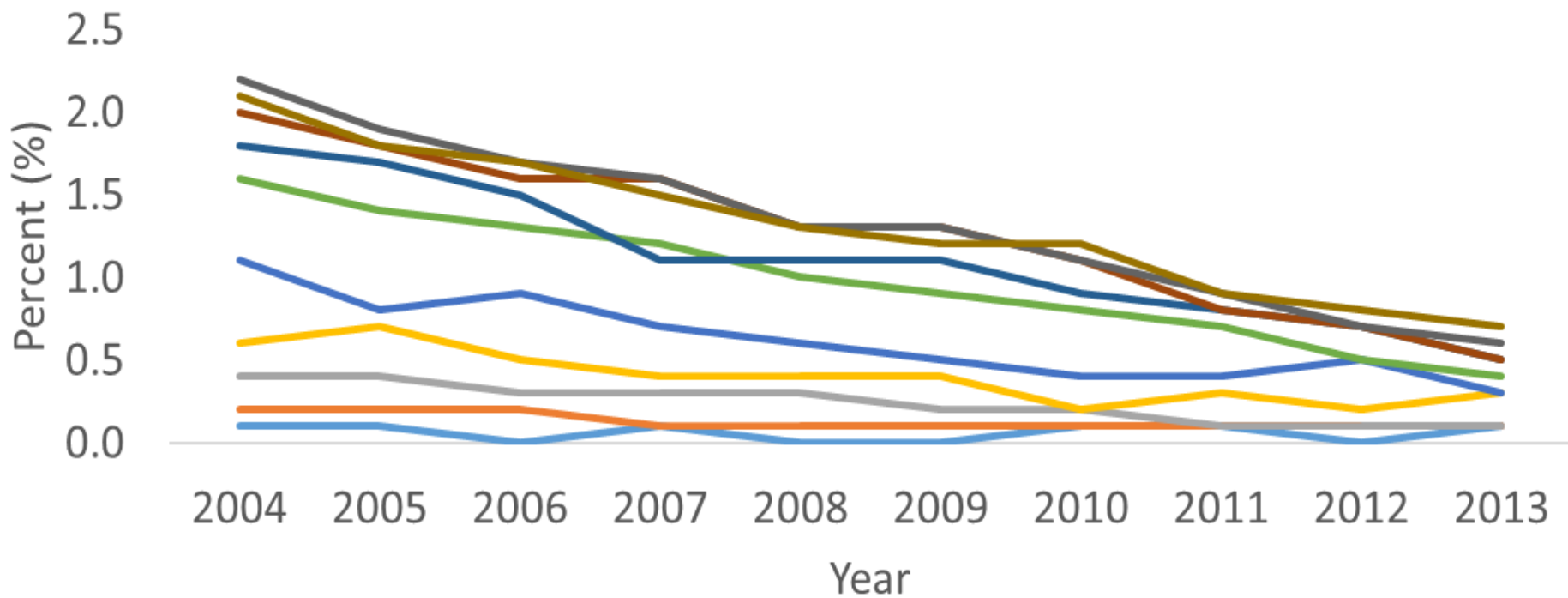


# CHANGES IN COST LOCATION



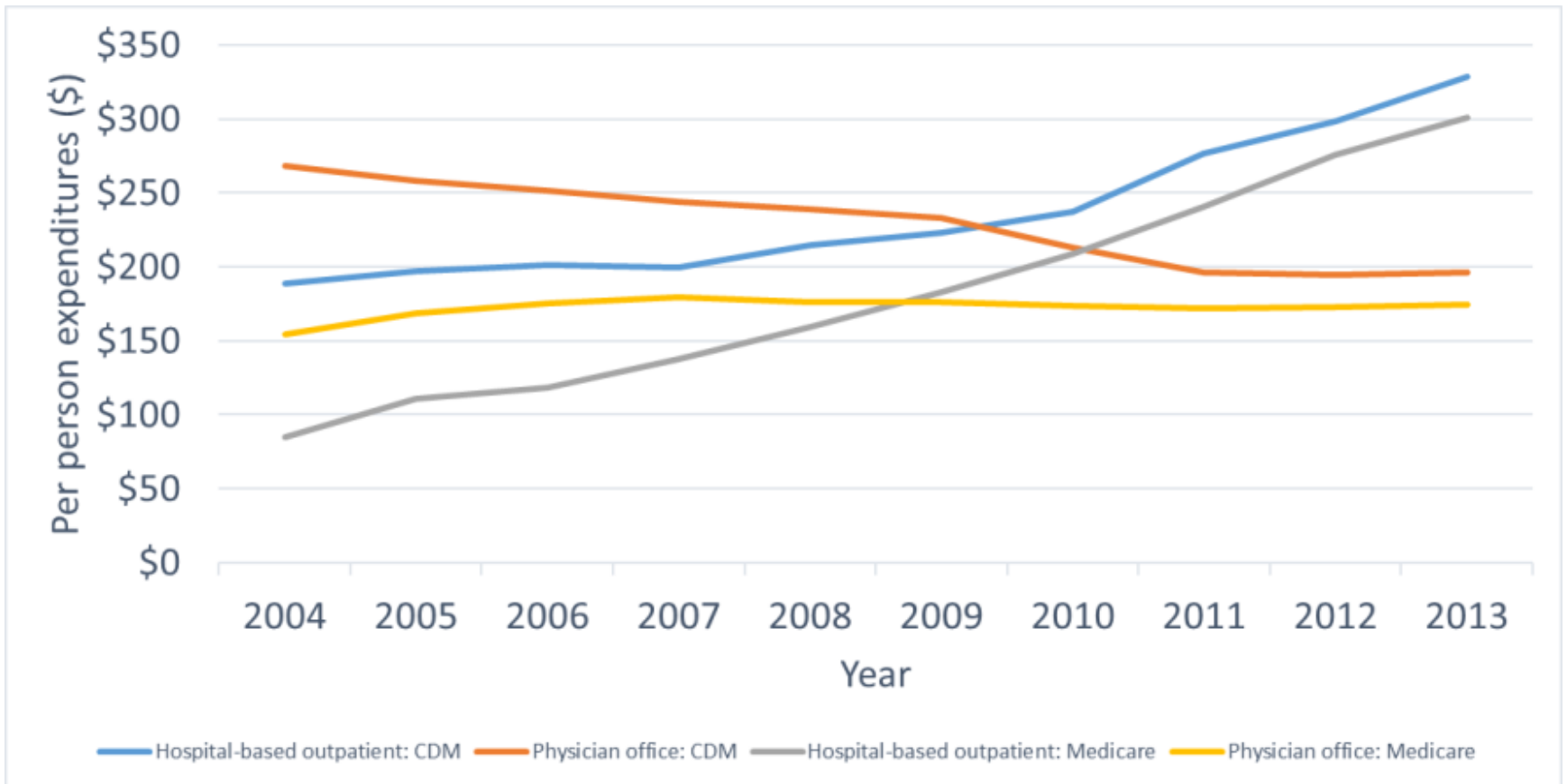
# INPATIENT HOSPITALIZATION

❖ Primary diagnosis of BPH



— 40-44 — 45-49 — 50-54 — 55-59 — 60-64 — 65-69 — 70-74 — 75-79 — 80-84 — 85+

# OUTPATIENT COSTS



# LIMITATIONS

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- ❖ Accuracy of ICD9 coding by providers
- ❖ Deidentified so unable to link across datasets

# CONCLUSIONS

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- ❖ LUTS/BPH costs increasing
- ❖ Distribution of costs is changing
  - Less inpatient and more outpatient
- ❖ Hospital based outpatient now primary cost
- ❖ In office BPH procedures may further change this