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Update on Public Health Financing and Economics Studies from the PHSSR and PBRN Programs

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publichealtheconomics.org

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Acknowledgement



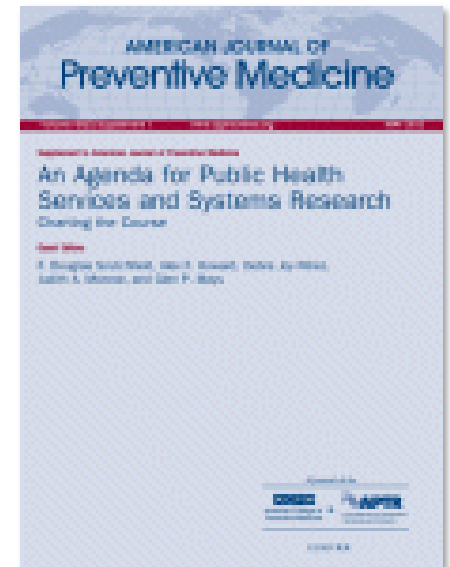
The ***Public Health Services & Systems Research Program***, and the ***Public Health Practice-Based Research Networks Program*** are national programs of the **Robert Wood Johnson Foundation**.

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What we do






Research to reveal how to improve the **organization**, **financing**, and **delivery** of public health services at local, state and national levels, and the **impact** of these activities on **population health**

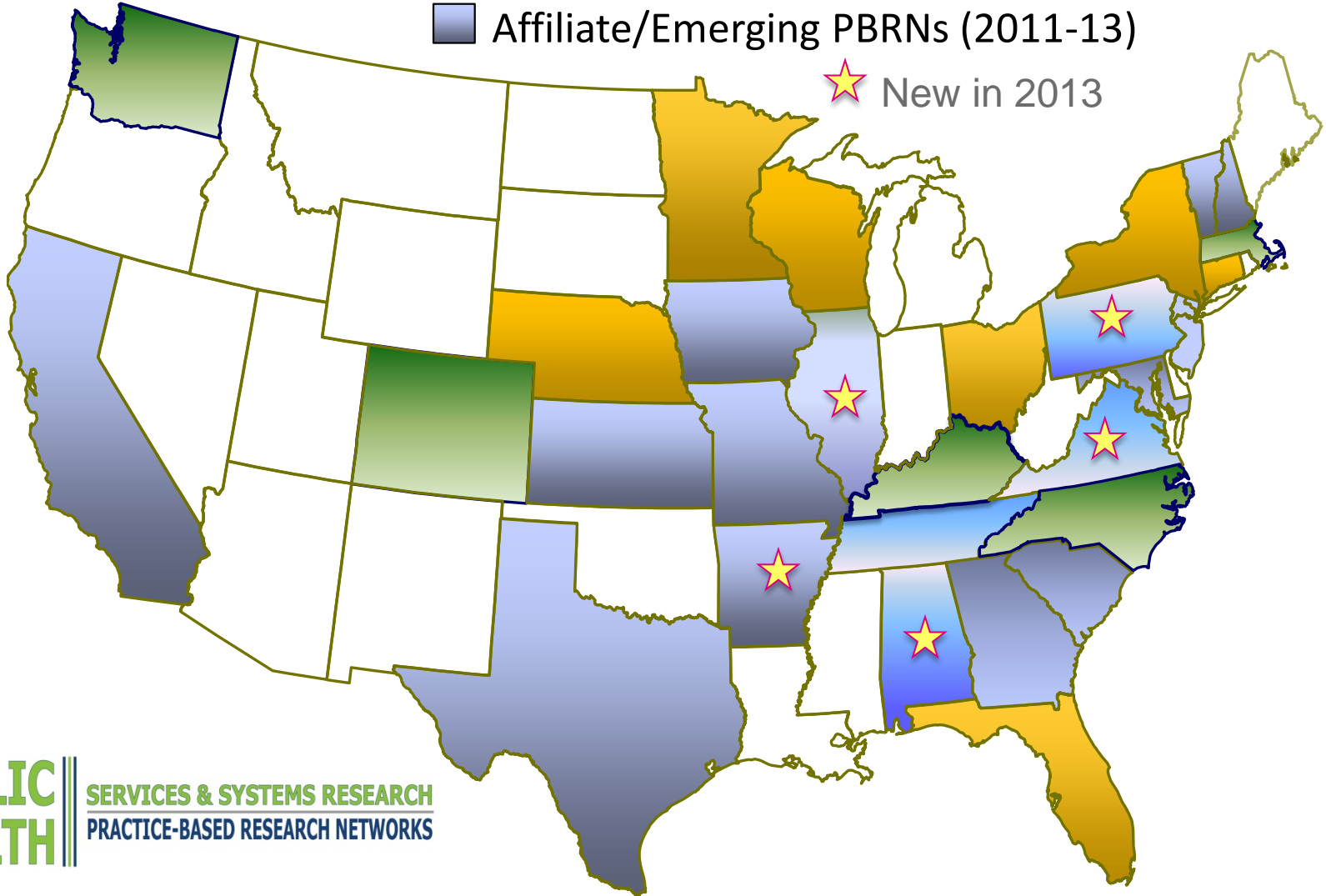


<http://www.publichealthsystems.org/research-agenda.aspx>

Public Health

-  First cohort (December 2008 start-up)
-  Second cohort (January 2010 start-up)
-  Affiliate/Emerging PBRNs (2011-13)

★ New in 2013



Updates on two streams of research

- Understanding the ***effects of the recession*** on public health financing and service delivery
- Estimating ***health and economic effects*** attributable to changes in public health financing

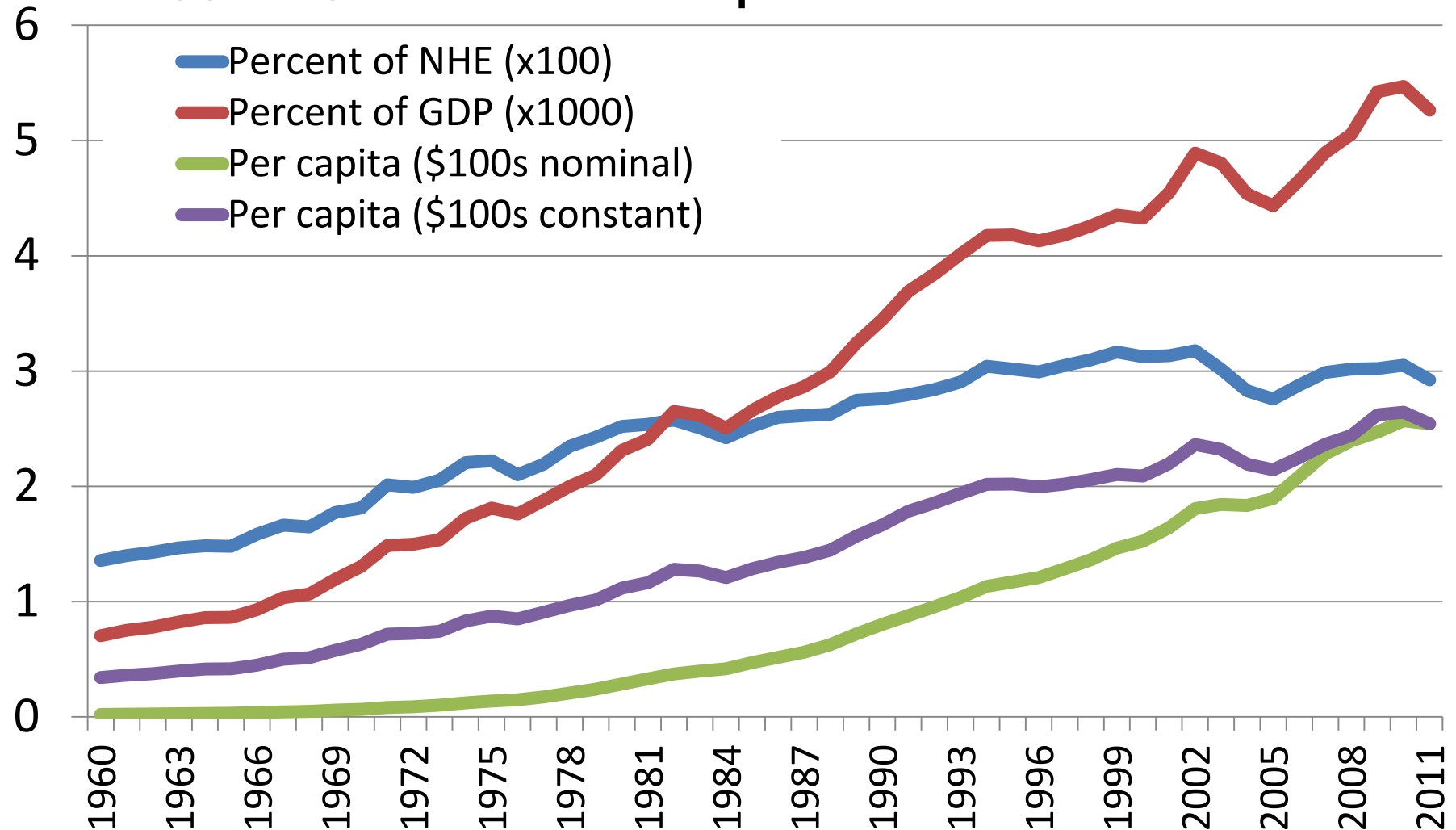


Economic shocks to public health delivery

- Recessionary impact on state and local fiscal capacity, 2008-present
- Growth in demand for public services
- Estimated 55,000 state and local public health jobs lost since 2008
- Expiration of federal stimulus spending, 2011-12
- Diversion of ACA Prevention & Public Health funds
- 2013 Sequester

What we know, sort of...

Governmental Expenditures for Public Health Activity, USDHHS National Health Expenditure Accounts



Public health responses

- Changes in scope and scale of services delivered
- **Intensive margin**: effort exerted by governmental public health
- **Extensive margin**: other organizations contributing to public health
- **Quality/effectiveness**: degree to which services meet community needs

Data used in empirical work

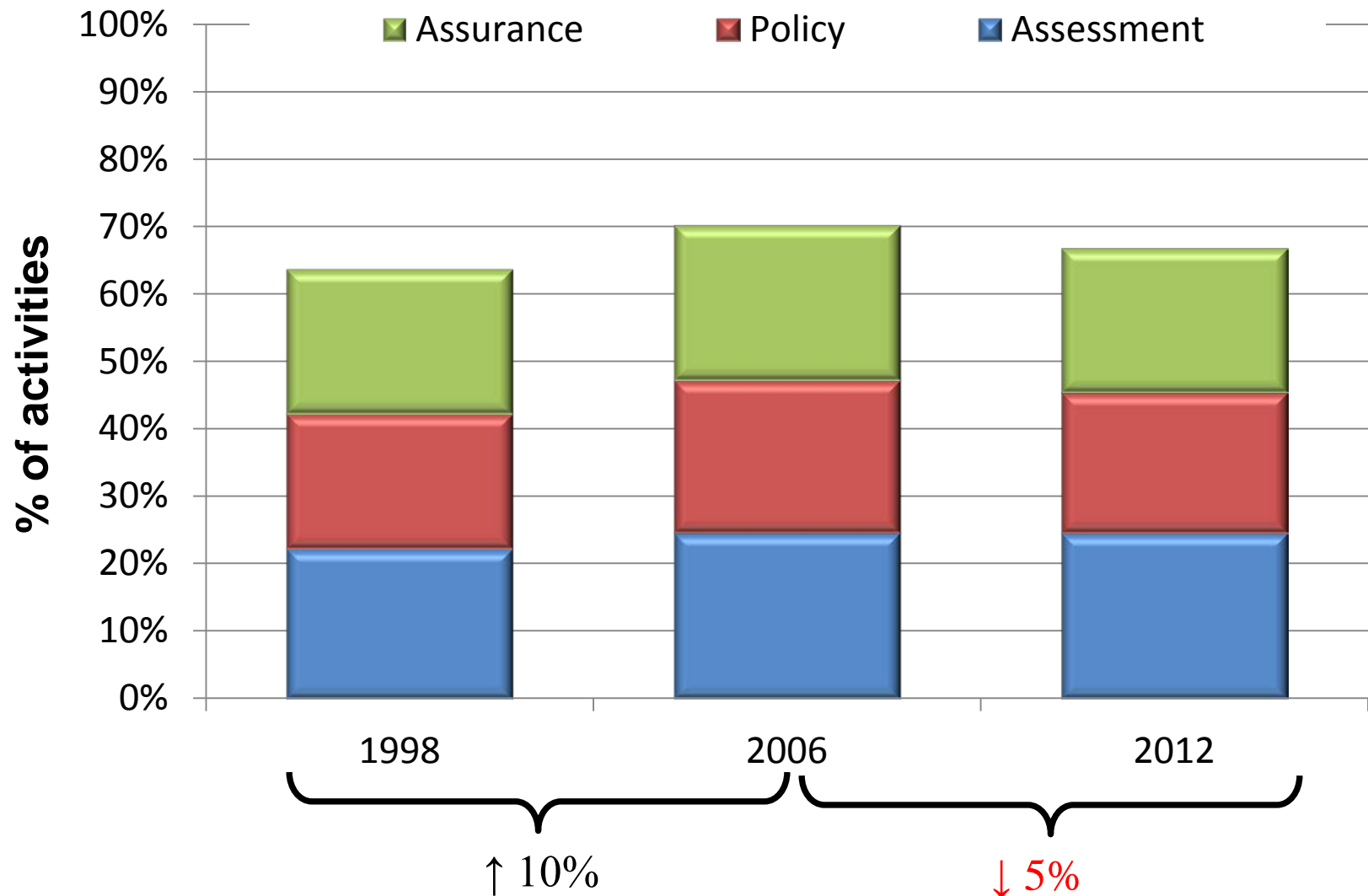
National Longitudinal Survey of Public Health Systems

- Cohort of 360 communities with at least 100,000 residents
- Followed over time: 1998, 2006, 2012
- Measures reported by local public health officials:
 - **Scope**: availability of 20 recommended PH activities
 - **Intensive Margin**: effort contributed by the local PH agency
 - **Extensive Margin**: other organizations contributing to PH
 - **Quality**: perceived effectiveness of each activity
- Linked with secondary data on agency and community characteristics

Data used in empirical work

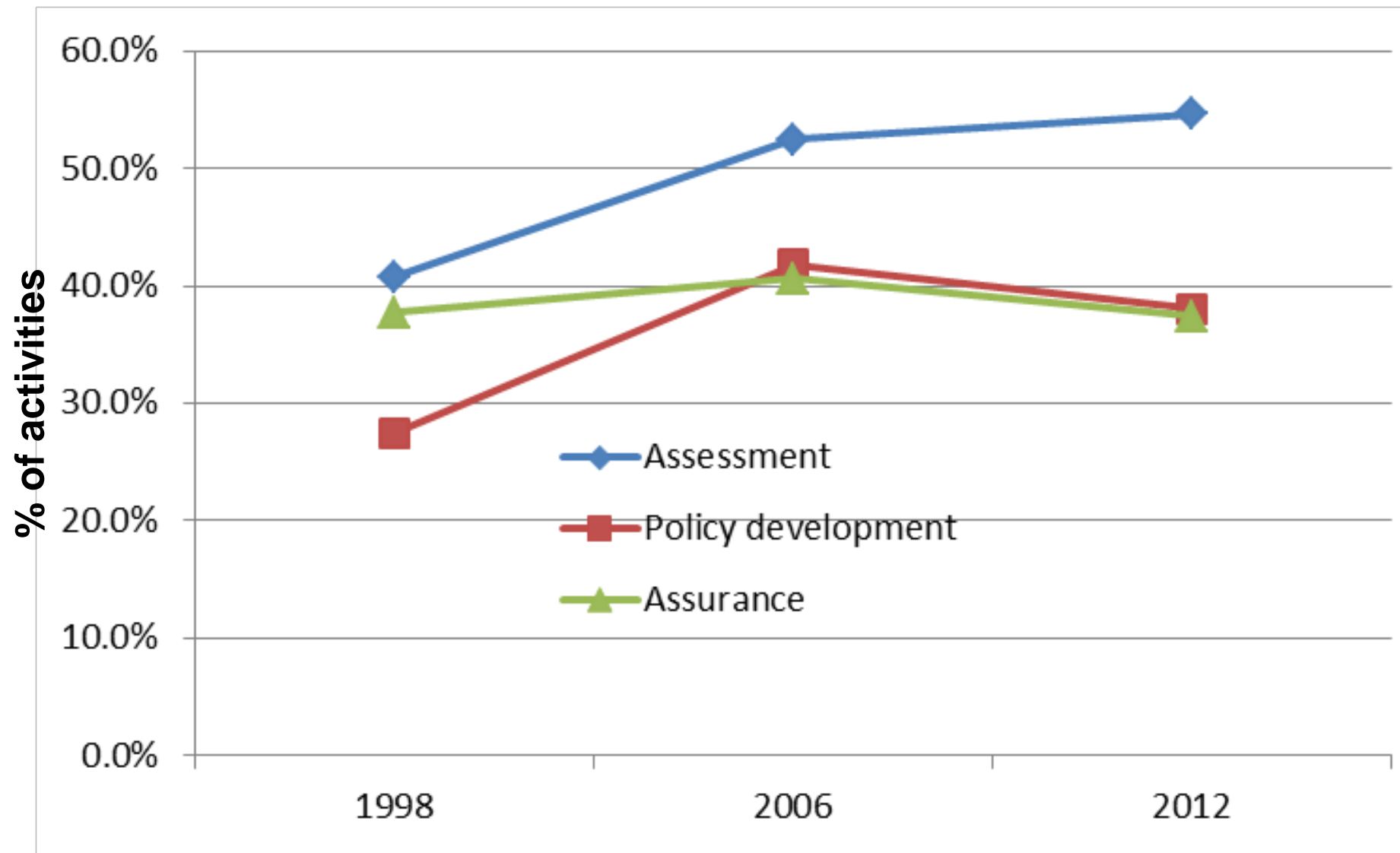
- **NACCHO Profile**: financial and institutional data collected on the national population of local public health agencies (N≈2800) in 1993, 1997, 2005, 2008, 2010
- Residual state and federal spending estimates from US **Census of Governments** and **Consolidated Federal Funding Report**
- Community characteristics obtained from Census and **Area Resource File** (ARF)
- Community mortality data obtained from CDC's **Compressed Mortality File**
- Medical care spending data from **CMS and Dartmouth Atlas** (Medicare claims data, HSA-level)

Results: Delivery of recommended public health activities

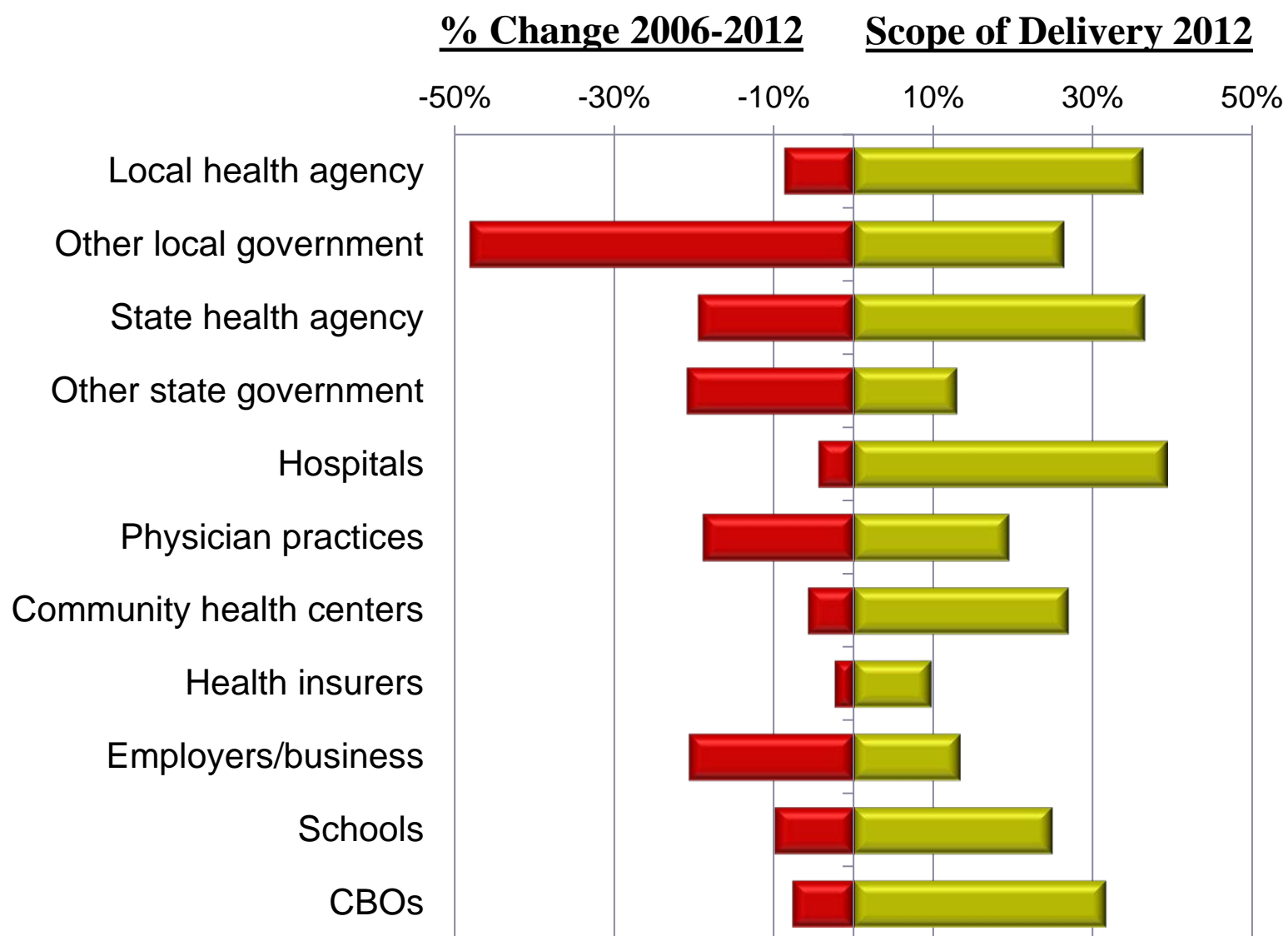


National Longitudinal Survey of Public Health Systems, 2012

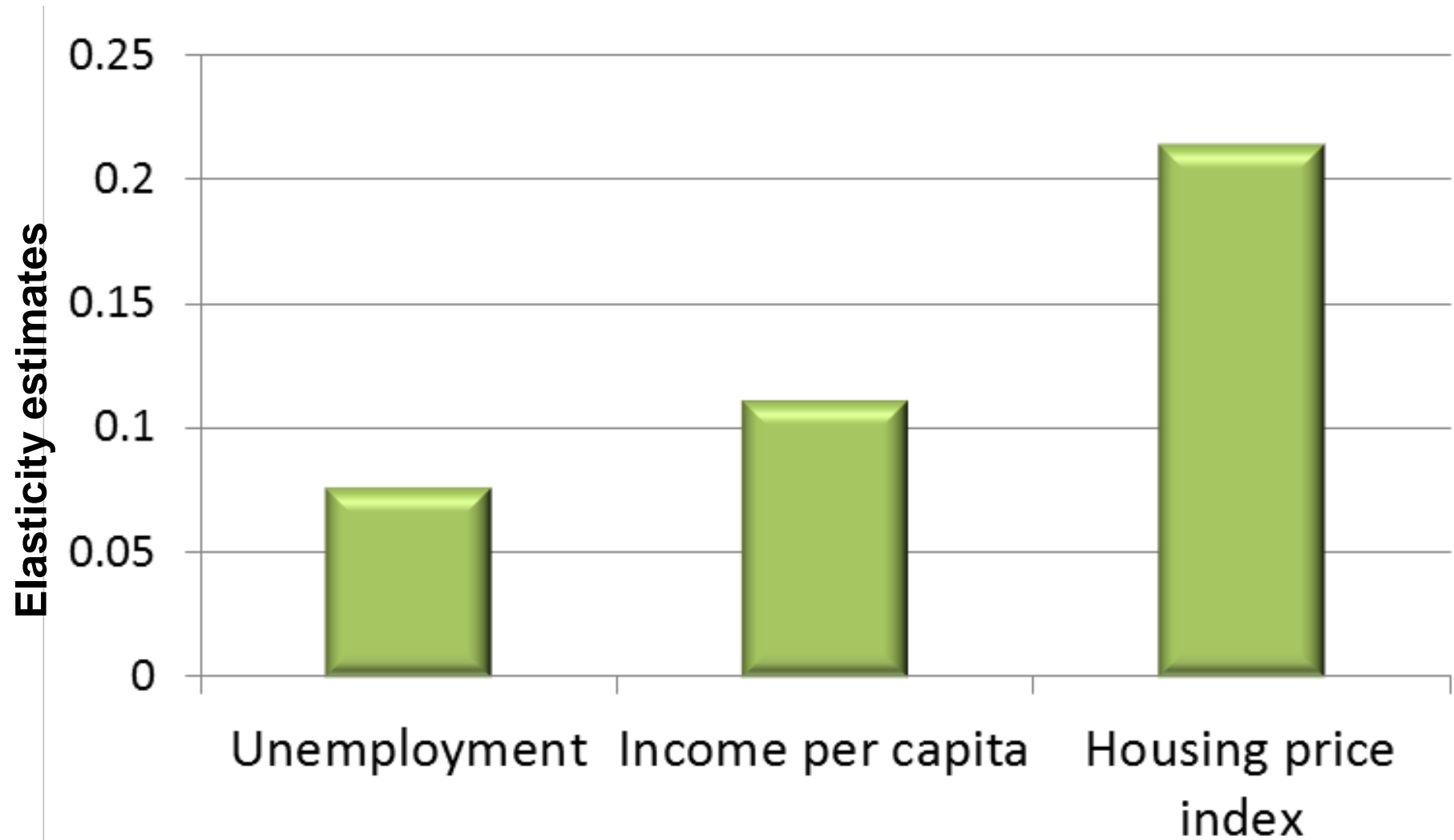
Results: Delivery of recommended public health activities



Results: changes in intensive and extensive margins

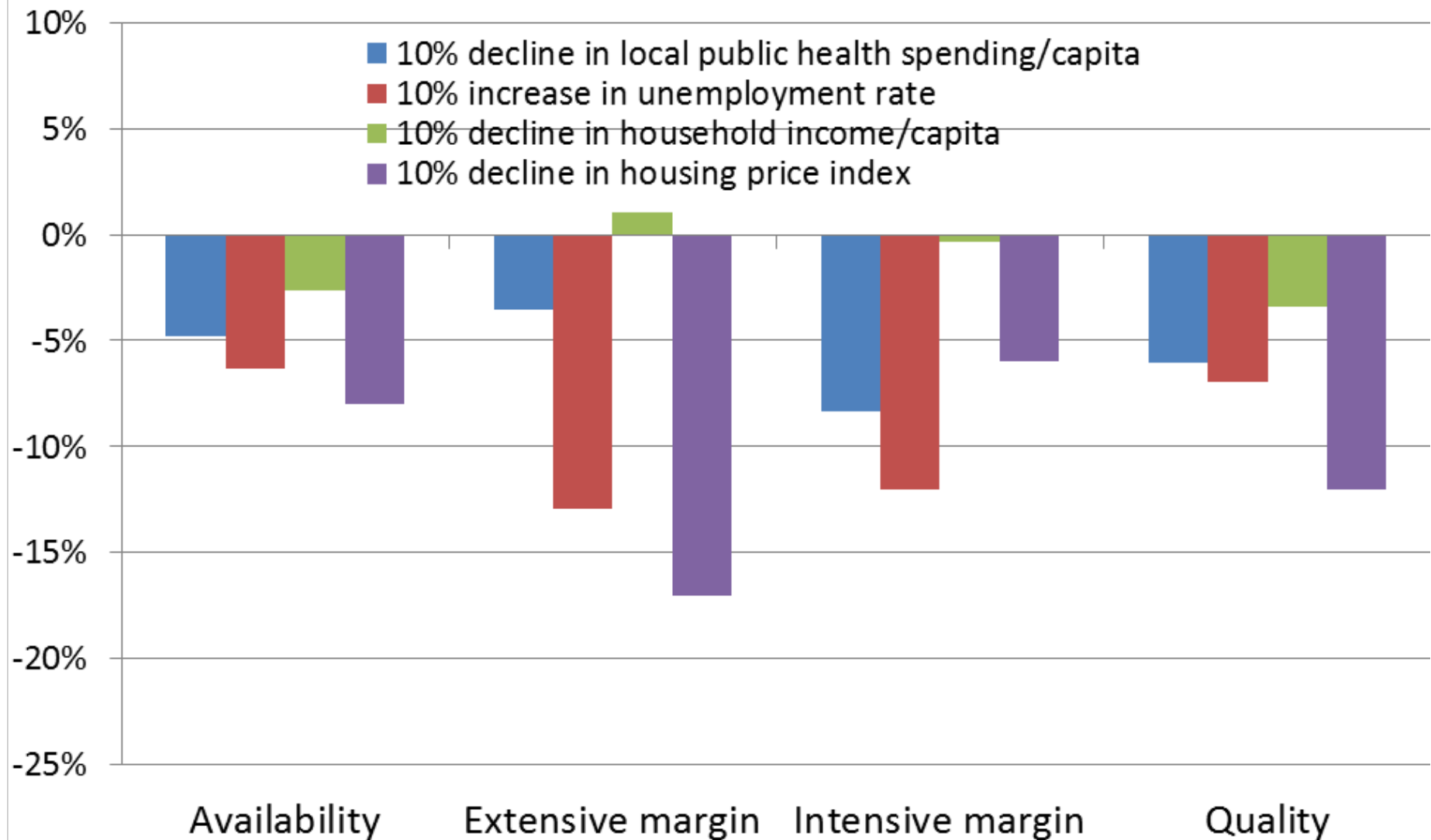


Results: Effects of economic indicators on PH spending



GEE regression estimates with logarithmic link function, controlling for population size, age composition, racial composition, physician and hospital supply, and governance structure

Results: Effects of economic indicators on PH delivery



GEE regression estimates with logarithmic link function, controlling for population size, age composition, racial composition, physician and hospital supply, and governance structure

Estimating health & economic effects of spending changes

- Who benefits from public health spending and how long does it take?
 - Larger gains in low-resource communities
 - Larger gains in communities that offer a broader scope of public health activities
 - Effects accumulate over time: largest with 10-year lag periods
- Tuesday at 3:30pm, BCEC Room 160C

Effects of public health spending on medical care spending 1993-2008

Change in Medical Care Spending Per Capita Attributable to 1% Increase in Public Health Spending Per Capita

<u>Model</u>	<u>N</u>	<u>Elasticity</u>	<u>S.E.</u>	
One year lag	8532	-0.088	0.013	***
Five year lag	6492	-0.112	0.053	**
Ten year lag	4387	-0.179	0.096	*

log regression estimates controlling for community-level and state-level characteristics

*p<0.10 **p<0.05 ***p<0.01

Mays et al. forthcoming 2013

For More Information



Supported by The Robert Wood Johnson Foundation

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