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Public Health Spending, Preventable Outcomes, and Medical Cost Offsets: Questions for Health Reform

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Public Health Spending, Preventable Outcomes, and Medical Cost Offsets: Questions for Health Reform

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Public health’s share of national spending

Medical care treatment, rehab, and LTC 97%

Public health and preventive services 3%

Batelle 1993, CMS 2005, NASBO 2005
Variation in Local Public Health Spending

Gini = 0.472

“Local spending varies by a factor of 13 between the top 20% and bottom 20% of communities, even after adjusting for differences in demographics, SES, and service mix.”

Mays et al. 2009
Changes in Local Public Health Spending
1993-2008

62% growth

38% decline
Drivers of geographic variation in public health spending

- Delivery system size & structure
- Service mix
- Population needs and risks
- Efficiency & uncertainty

Mays et al. 2009
Mortality reductions associated with changes in public health spending

Hierarchical regression estimates with instrumental variables to correct for selection and unmeasured confounding

Mays et al. 2011
Cross-sectional association between PH spending and medical spending

Mays et al. 2009
## Effects of public health spending on medical care spending 1993-2008

Change in Medical Care Spending Per Capita Attributable to 10% Increase in Public Health Spending Per Capita

<table>
<thead>
<tr>
<th>Model</th>
<th>Elasticity</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed effects</td>
<td>-0.10</td>
<td>0.02 **</td>
</tr>
<tr>
<td>Instrumental variables</td>
<td>-0.88</td>
<td>0.13 **</td>
</tr>
</tbody>
</table>

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

*p<0.10    **p<0.05    ***p<0.01
Projected effects of ACA public health spending

$15B in new public health spending over 10 years:

- Deaths averted: 255,000 – 437,000
- Medical cost offset: $2.2B – $6.9B
- Cost/life-year gained $9,800 – $22,400
Washington: Variation in LHD budget reductions during the 2008-11 economic downturn, and impact of reductions on service delivery and use of evidence-based practices

North Carolina: LHD responses to Medicaid maternity case management funding cut, and impact on service delivery

Connecticut: Responses to elimination of state subsidies to small LHDs

Ohio: LHD enforcement of smoke-free workplace act (magnitude & frequency) in response to economic downturn

Wisconsin & Florida: Changes in LHD spending, funding sources and resource allocation during economic recession