

Prevention, Treatment, and Rehabilitation; a Three-pronged Approach to Optimizing Visual Health

David Rein



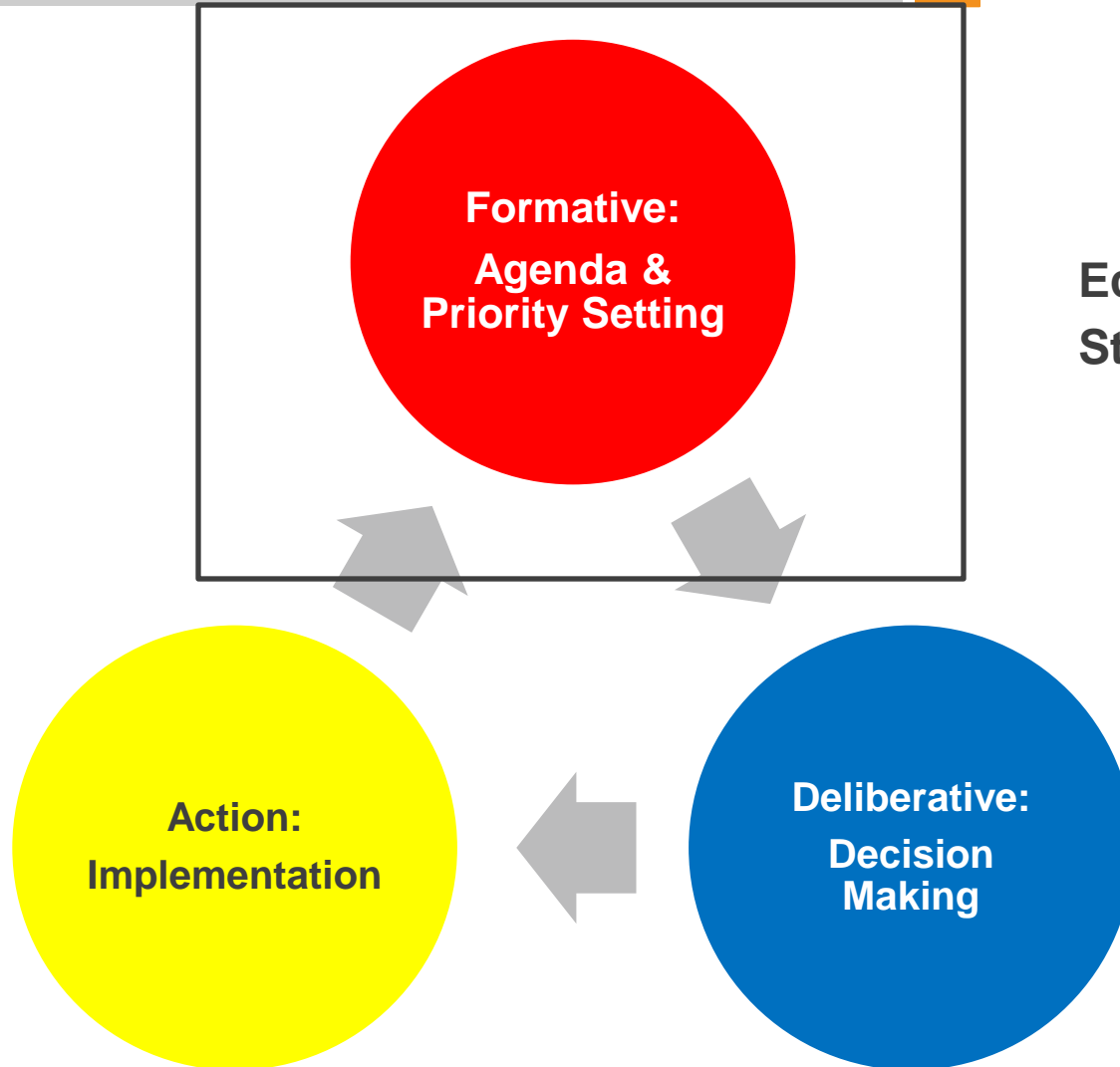
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Promote Eye Health. Section 5, Perspectives on
Policy and Systems Change

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NORC

at the UNIVERSITY of CHICAGO

Cyclical Nature of Public Health Policy



Economic Burden Studies

Uses of Economic Burden Studies In Public Health

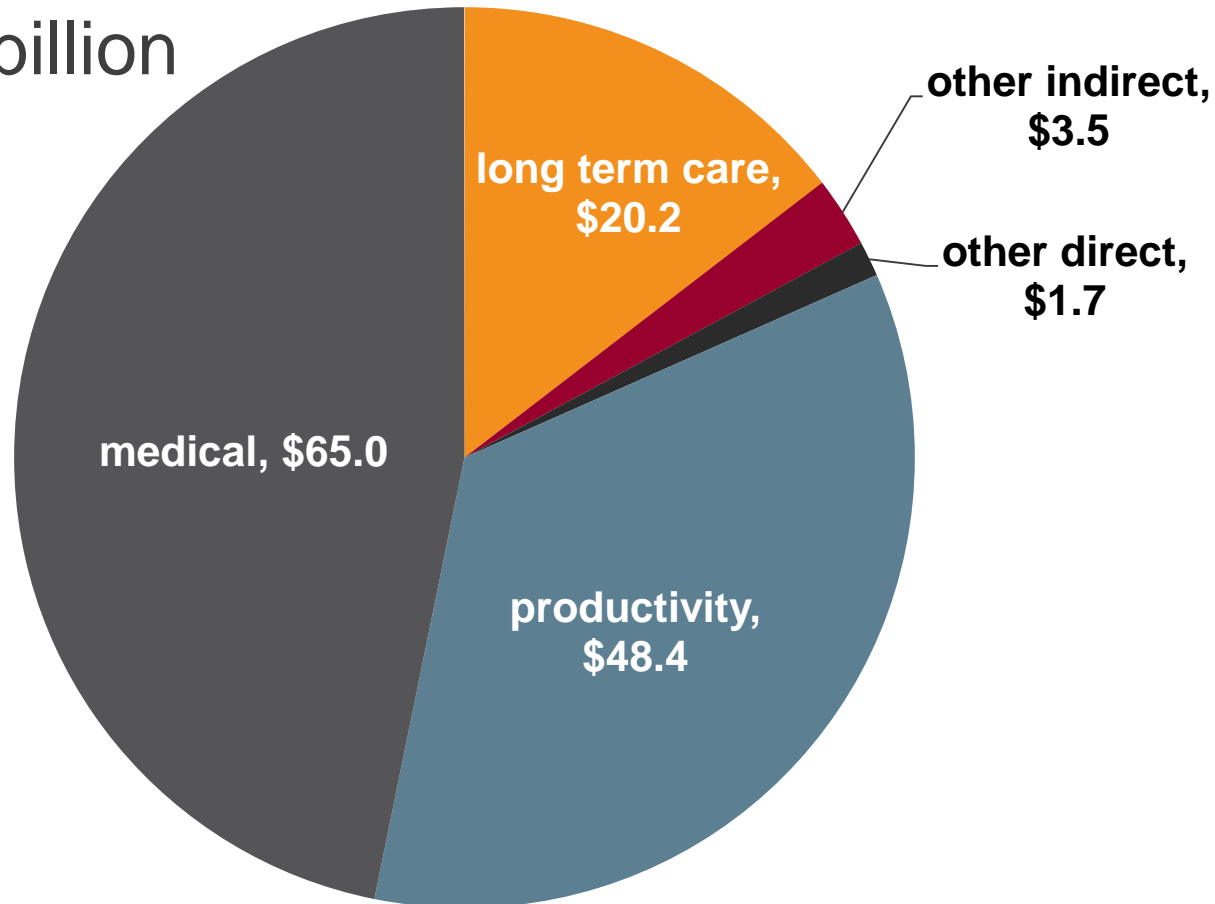
- External Uses (outside the field)
 - Draw attention
 - Compare and contrast with other conditions
 - Motivate policy responses
- Internal Uses (within the field)
 - Categorization and Prioritization
 - By condition. population, region
- Actions can be set in motion based on what is included or excluded from the study
- Alternatively, aggregate burden can be used to motivate action on minor or unalterable problems

- Funded by Prevent Blindness and released in 2013
- Conducted by NORC (Wittenborn & Rein)
- Intended to be inclusive of multiple conditions, and cost implications of visual outcomes
- Web-enabled

costofvision.preventblindness.org

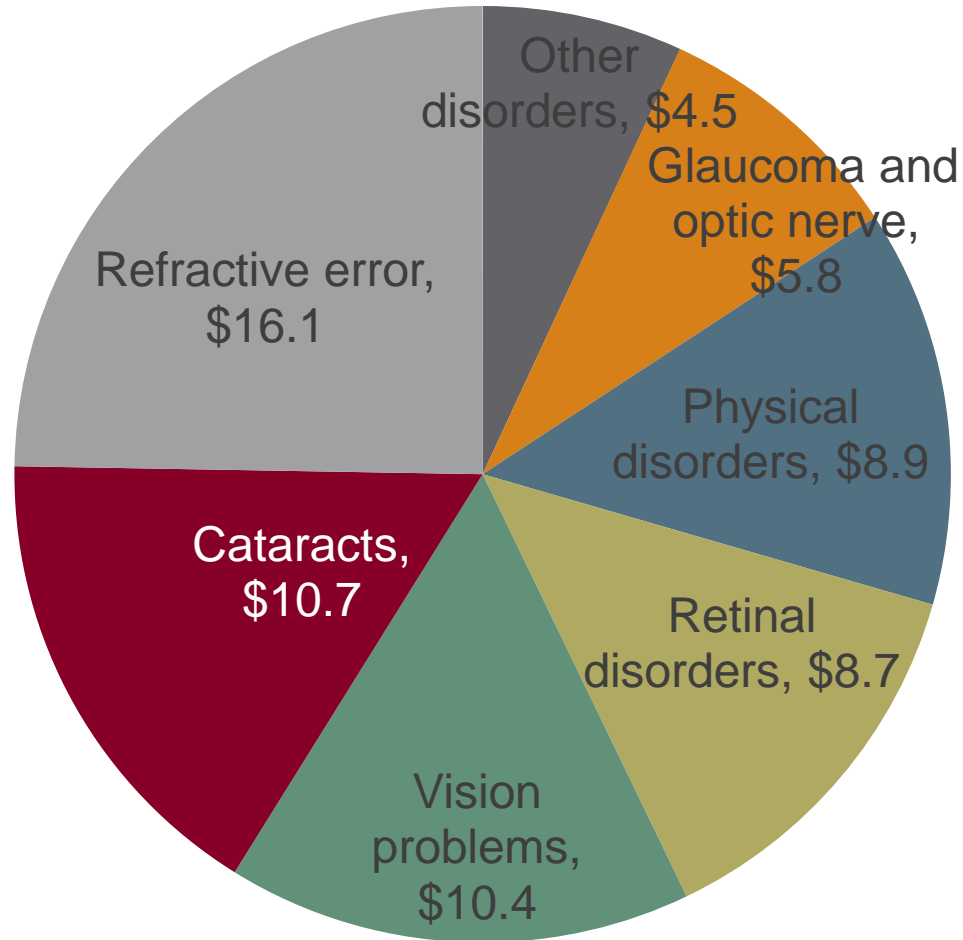
2013 Burden of Visual Disorders – By Cost Category

- \$139 billion



Source: Wittenborn JS, Rein DB. Cost of vision problems: the economic burden of vision loss and eye disorders in the United States. NORC at the University of Chicago. Prepared for Prevent Blindness America, Chicago, IL, 2013. Available at: <http://costofvision.preventblindness.org>.

2013 Direct Medical Cost by Condition, Total = \$65 bn

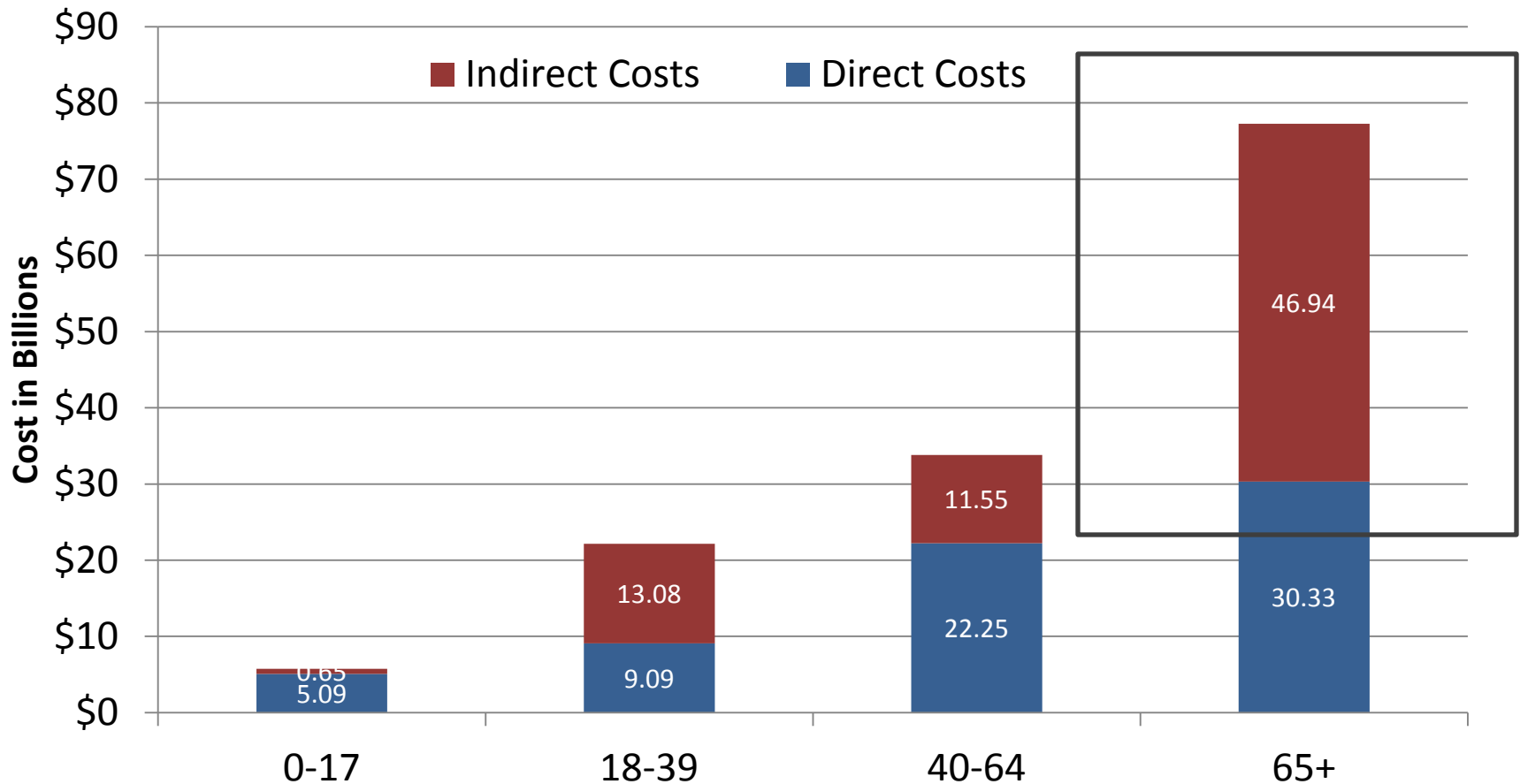


Direct Medical Costs Only

Condition	Direct Medical Cost
Heart Conditions	85.4
Visual Disorders	65.0
Cancer	61.0
Mental Disorders	59.9
Pulmonary Conditions	58.0
Hypertension	46.1
Diabetes	35.7
Stroke	20.7

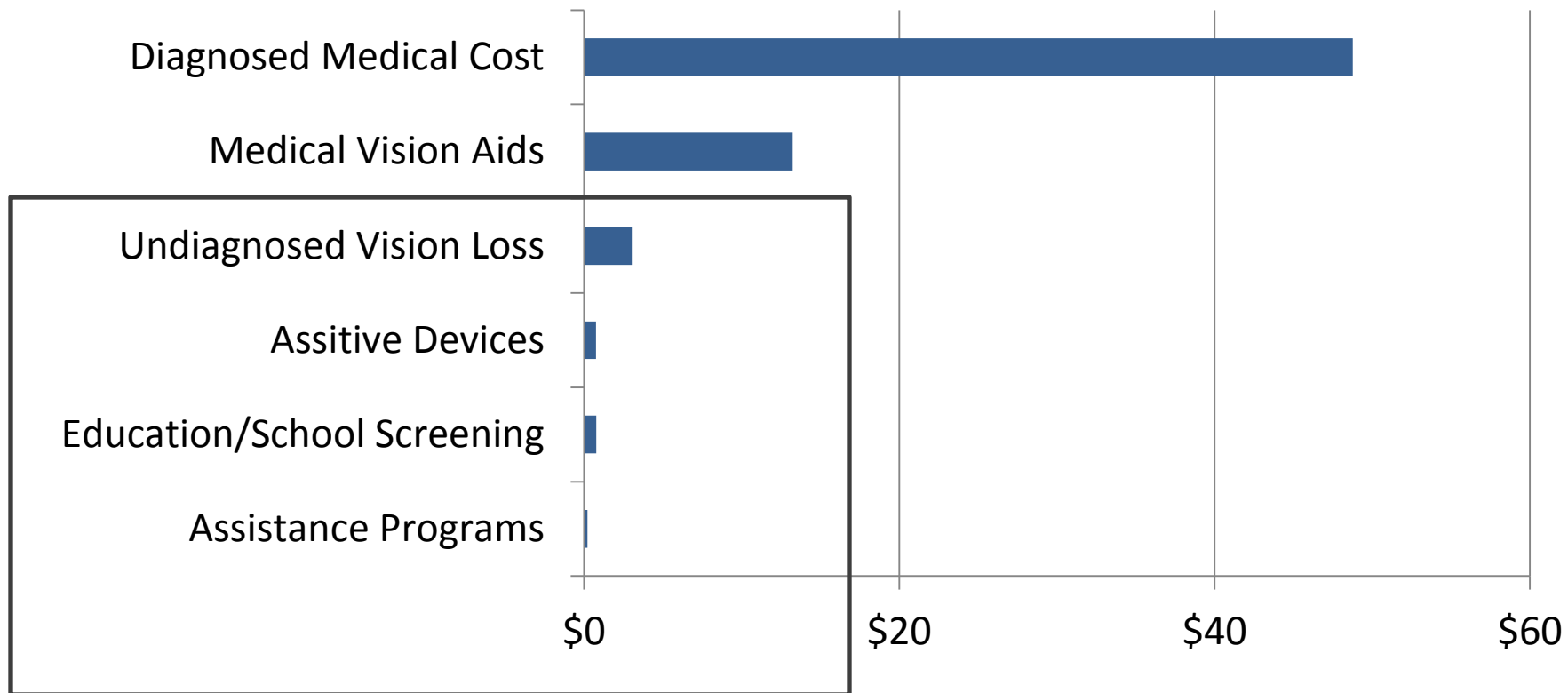
Source of other condition costs: Agency for Healthcare Research and Quality. Total expenses for conditions by site of service: United States, 2003. Medical Expenditure Panel Survey Component Data.

2013 Burden By Age Group



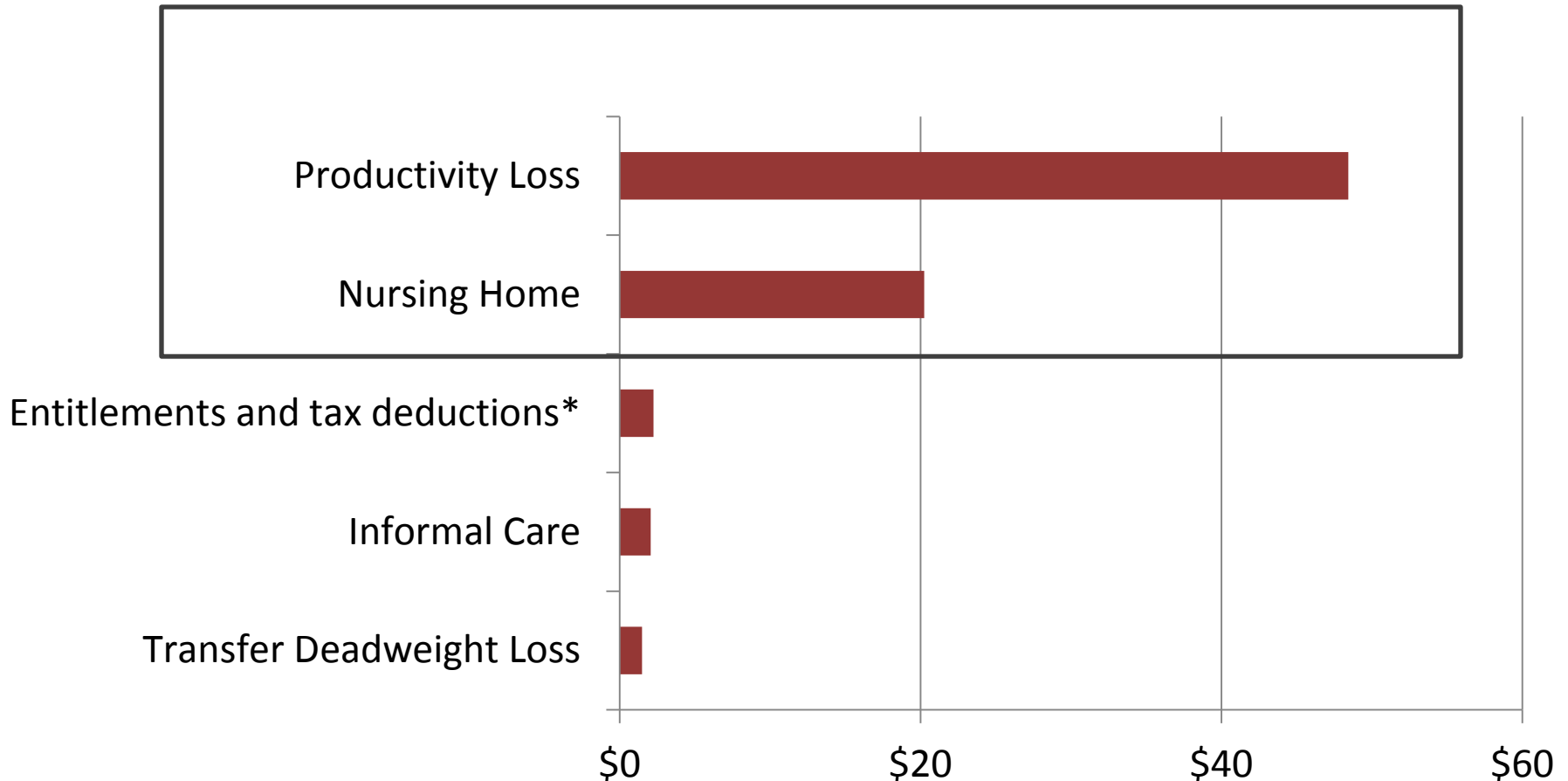
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2013 Burden by Category: Direct Costs



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2013 Burden by Category: Indirect Costs



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Research gaps related to burden

- Published Visual Health Research July 5, 2008 to July 3, 2013, indexed in PubMed
- Used a list of visual health related search terms to identify research and commentary
- 134,582 articles related to visual health
- Gaps
 - Refractive errors: 7.4% of articles
 - Rehabilitation/adaptation: 2.3% of articles
 - Productivity: 1.4% of articles
 - Long term care: 0.5% of articles

Similar Gaps in Health Economic Studies

Search Term	Number of Articles	Percent of Total
Economics + Prior Terms	1,190	100.0%
Cost-effectiveness or Cost-benefit	259	21.8%
Insurance or Actuarial	229	19.2%
Utilization	123	10.3%
Burden	90	7.6%
Long Term Care	64	5.4%
Implementation	62	5.2%
Utility	55	4.6%
Productivity	41	3.4%
Resource Allocation	22	1.8%
Value of Information	11	0.9%
Return on Investment	1	0.1%

- Visual health is costly
 - among the most costly health conditions in the US
- Medical Tx & innovation is important
- Assuring affordable refraction, and effective, evidence based rehabilitation, and adaptation are as important
 - Indirect costs exceed direct costs
 - Without insurance or government reimbursement, market-based solutions to avert productivity losses and long term care costs are unlikely to emerge
 - Market failure, motivation for government action

- How can society maximize the quality and quantity of visual perception?
- How can society minimize the personal and family impact of impairment among those afflicted?
- What private organizations and/or governmental bodies are best positioned to address these issues?
- What tools are available to these organizations?

Acknowledgements and Resources

- John Wittenborn, NORC
 - Developed the revised burden estimates
- Prevent Blindness
<http://costofvision.preventblindness.org/>
- Rein, DB. (2013) 'Vision Problems Are a Leading Source of Modifiable Health Expenditures'. IOVS, 54:14, 18-22.

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Thank You!



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