

BEAs Plans for a Medical Care Spending Satellite Account

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There are many different types of satellite accounts

Examples of Satellite Accounts

- R&D
- Travel and Tourism
- Environmental
- Health Accounts

BEAs satellite account will focus on medical care spending

Example of a Health Account	
Inputs	Outputs
Medical Care Spending	Health status
Market labor/capital	Longevity
Volunteer labor	Quality of life
Time invested in own health	
Other consumption items	
Research and development	
Quality of environment	

Source: National Research Council. (2005). *Beyond the Market: Designing Nonmarket Accounts for the United States*. Panel to Study the Design of Nonmarket Accounts, K.G. Abraham and C. Mackie, eds. Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

Our value-added is tracing through the implications of a new definition of the output of the medical care sector

For example

- Output = number of patients treated for cancer
- Expenditures = spending on the treatment of cancer
- Price = spending per patient treated for cancer

Spending will be reported by disease classes.

Growth in Nominal Spending (2001-2005)			
Old Method		New Method	
Revenues by Industry		Medical Care Spending for the Treatment of:	
Prescription Drugs	12.10%	1 Infectious and Parasitic Diseases	15.00%
Physician Services	10.00%	2 Neoplasms	11.80%
Hospital Services		3 Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders	11.60%
Inpatient	8.40%	4 Diseases of the Blood and Blood-Forming Organs	28.30%
Outpatient	9.10%	5 Mental Disorders	10.70%
Emergency Room	7.30%	6 Diseases of the Nervous System and Sense Organs	11.80%
		7 Diseases of the Circulatory System	5.30%
		8 Diseases of the Respiratory System	4.50%
		9 Diseases of the Digestive System	11.10%
		10 Diseases of the Genitourinary System	15.80%
		11 Complications of Pregnancy, Childbirth, and the Puerperium	7.60%
		12 Diseases of the Skin and Subcutaneous Tissue	9.30%
		13 Diseases of the Musculoskeletal System and Connective Tissue	9.80%
		14 Congenital Anomalies and Certain Conditions Originating in the Perinatal Period	22.70%
		15 Certain Conditions Originating in the Perinatal Period	18.90%
		16 Symptoms, Signs, and Ill-Defined Conditions	10.80%
		17 Injury and Poisoning I	8.60%
		18 Supplementary Classifications--E Codes	5.70%
	9.70%		9.70%

Source: Calculations based on data used in Aizcorbe, Bradley, et al (2011)

Price vs. volume split changes with output redefinition.

Effect of redefining the output of the medical care sector, 2001-2005 (compound annual growth rates)		
Output Definition		
	<i>Old Method</i>	<i>New Method</i>
Medical Care Sector		
Nominal spending	9.70%	9.70%
Price Deflator	7.80%	6.80%
Real spending	1.80%	2.70%
Contribution to real GDP	.36pp	.54pp

Source: Calculations based on data used in Aizcorbe, Bradley, et al (2011)

Bottom line: BEA/BLS research suggests that real GDP growth over 2001-2005 grew about .2 percentage points faster than currently shown in the national accounts

Our findings are robust to different data sources and methods.

Study	Data Source	Episode Grouper	Time Period	Allocation of spending to diseases	Other
Song et. al (2009)	Thomson Claims Data	Yes	Jan 1999-December 2002	ETG	Only 3 cities, Only 40 randomly selected ICD-9.
Aizcorbe and Nestoriak (2010)	Pharmetrics Claims Data	Yes	2003Q1 - 2005Q4	ETG	Quarterly indexes for all diseases, national representation.
Bradley et. al. (2010)	MEPS and CPI	No	Jan 1999-December 2004	Proration	Monthly indexes for all diseases, national representation
Dunn, Liebman, Pack, Shapiro (2010)	Marketscan (weighted)	Yes	2003Q1 - 2007Q4	ETG	Quarterly indexes for all diseases with robustness checks
Contract with Analysis Group (2007)	Ingenix	Yes	2001Q1 - 2004Q4	ETG	Quarterly indexes with claims data from private health insurers



This continues to be a very data-intensive project.....

Data Must:

- Provide patient-level information
- Include spending for all services
- Report diagnoses

...using data from many different sources.

Timeline																		
1930	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	Present	
x																		
						x				x		x		<-----MEPS ----->				
														<---Private Vendors --->				
														<---Medicare Claims --->				
														<---Medicaid Claims--->				

Type of data	Patient Coverage
Compiled Reports (based on 30K respondents)	All
Government Survey Data (thousands of patient	All
Administrative Data (billions of patients)	varies

The background of the slide features a blue gradient with a faint, stylized map of the United States. Overlaid on the map is a bar chart with various colored bars (yellow, orange, green, blue) and numerical data labels. The text 'Our research agenda' is prominently displayed in white, italicized font across the middle of the slide.

Our research agenda

Current Focus:

- Study usefulness of potential data sources
- Price indexes
- Methods

Later:

- Consistency with SNA
- Other national accounting issues

Please visit our “Health Accounts” website for papers and other background materials

Health Care Satellite Account

BEA's Plans

- Understanding the changing role of health care in the U.S. economy and its impact on economic growth is critical to addressing many of the important policy issues being raised regarding health care. With this initiative, BEA is improving the accuracy of its core GDP estimates and developing a supplemental set of satellite accounts on health care that will:
 - Create common BEA-CMS sets of health expenditure statistics.
 - Produce a comprehensive set of health care sector accounts for health care income, expenditure, and product.
 - Develop state-of-the-art medical care price and real output measures that better break out the delivery of health care from increases in the price of that care.
 - Produce estimates of medical care spending by type of disease that go beyond estimates of spending by provider type.

For details on BEA's plans, see: [Toward a Health Care Satellite Account](#) (PDF)

Completed Work:

- [“Changing Mix of Medical Care Services: Stylized Facts and Implications for Price Indexes.”](#) (PDF) Aizcorbe and Nestoriak. *Journal of Health Economics*, May 2011.
- [“Medical Care Expenditure Indexes: A Comparison of Indexes using MarketScan and Pharmetrics Data”](#) (PDF) Dunn, Liebman, Pack, Shapiro. BEA Working Paper (WP2010-17)
- [“Alternative Price Indexes for Medical Care: Evidence from the MEPS Survey.”](#) Aizcorbe, Bradley (BLS), Herauf, Kane, Liebman, Pack, Rozental (BLS). BEA Working Paper (WP2011-01)
- [“A Reconciliation of Health Care Expenditures in the National Health Expenditure Accounts and in Gross Domestic Product.”](#) (PDF) Caitlin (CMS), Hartman (CMS), Kornfeld (BEA). *Survey of Current Business*, September 2010.
- [“Measuring Health Care Costs of Individuals with Employer-Sponsored Health Insurance in the U.S.: A Comparison of Survey and Claims Data.”](#) (PDF) Aizcorbe, Liebman, Pack, Cutler, Chernew, Rosen. BEA Working Paper (WP2010-06).
- [“Price Indexes for Drugs: A Review of the Issues.”](#) (PDF) Aizcorbe and Nestoriak. Forthcoming *Handbook of the Pharmaceutical Industry*, Danzon and Nicholson, eds.
- [“Drug Innovations and Welfare Measures Computed from Market Demand: The Case of Anti-Cholesterol Drugs.”](#) (PDF) Dunn. BEA Working Paper (WP2010-15).