National Health Expenditure Accounts (NHEA)

Stephen Heffler
Director, National Health Statistics Group
Office of the Actuary

Health Care Costs
In Pursuit of Standardized Methods and Estimates for Research and Policy Applications
December 7, 2007

What are the NHEA?

The National Health Expenditure Accounts (NHEA) are a system of production-based accounts that estimate total U.S. health care spending by type of service/good consumed, by who funds and sponsors this care, by which age group receives this care, and by which states' residents consume and which states' providers provide this care.

- The NHEA are:
  - Comprehensive
  - Mutually Exclusive
  - Multidimensional
  - Consistent over time

http://www.cms.hhs.gov/NationalHealthExpendData/01_Overview.asp

What are NHE?

National Health Expenditures (NHE) represent the total amount spent in the U.S. to purchase health care goods and services during the year, as well as the amount invested in the medical sector to produce health care services in the future.

- Medical services on an industry (NAICS) basis
- Medical goods on product-line basis
- Sources of Funding by Private (out-of-pocket, private insurance, other) and Public (Federal and State and Local programs)
- Sponsors (Households, Businesses, Governments)

Data Sources

- **AHA Annual Survey** for hospital services
- **Service Annual Survey** and **Economic Census** supplemented by other data sources (BLS employment, hours, and earnings series)
  - Physicians' offices and clinics
  - Dentists' offices and clinics
  - Other professionals' offices and clinics
  - Nursing home care
  - Home health care
- **Census of Retail Trade**, supplemented by other data sources (IMS Health, Kline)
  - Prescription drugs
  - Durable Medical Equipment
  - Non-durable goods

- **For Public Spending**:
  - CMS Program data (Medicare Program Data, CMS 64 forms)
  - Federal Budget Data
  - State and local government data

- **For Private Spending:**
  - Service Annual Survey
  - Various Trade Associations (AMA, AHA)
  - Government Surveys (such as MEPS, the Consumer Expenditure Survey)

Methodology

Total Spending for Service Sectors
(estimated using **EC, SAS,** or **AHA** data)

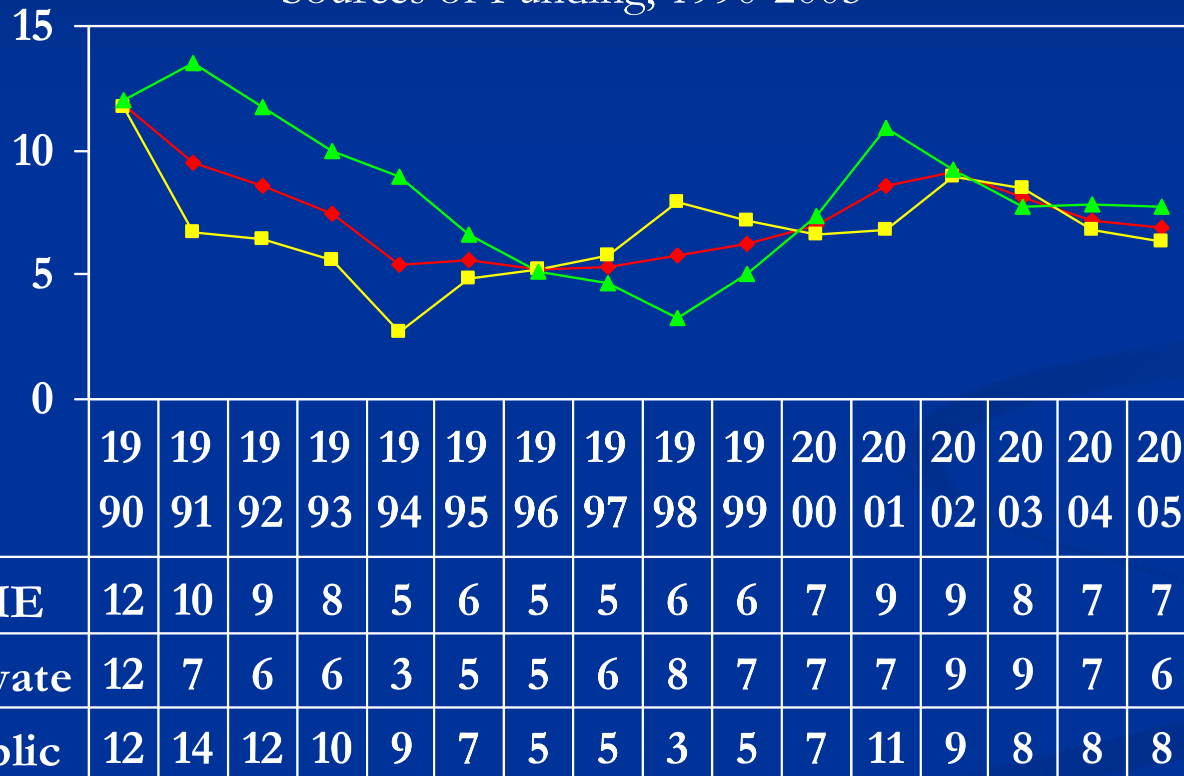
minus
Public Sources of Funding
(calculated using program or budget data)

equals
Private Sources of Funding
(residual estimate)

which are allocated using **SAS, AHA,** or **IMS** Source of Funds shares to:
Out-of-Pocket
Private Health Insurance
Other Private

Recent Results: NHE05

Annual Percent Change in Total NHE, Public and Private Sources of Funding, 1990-2005

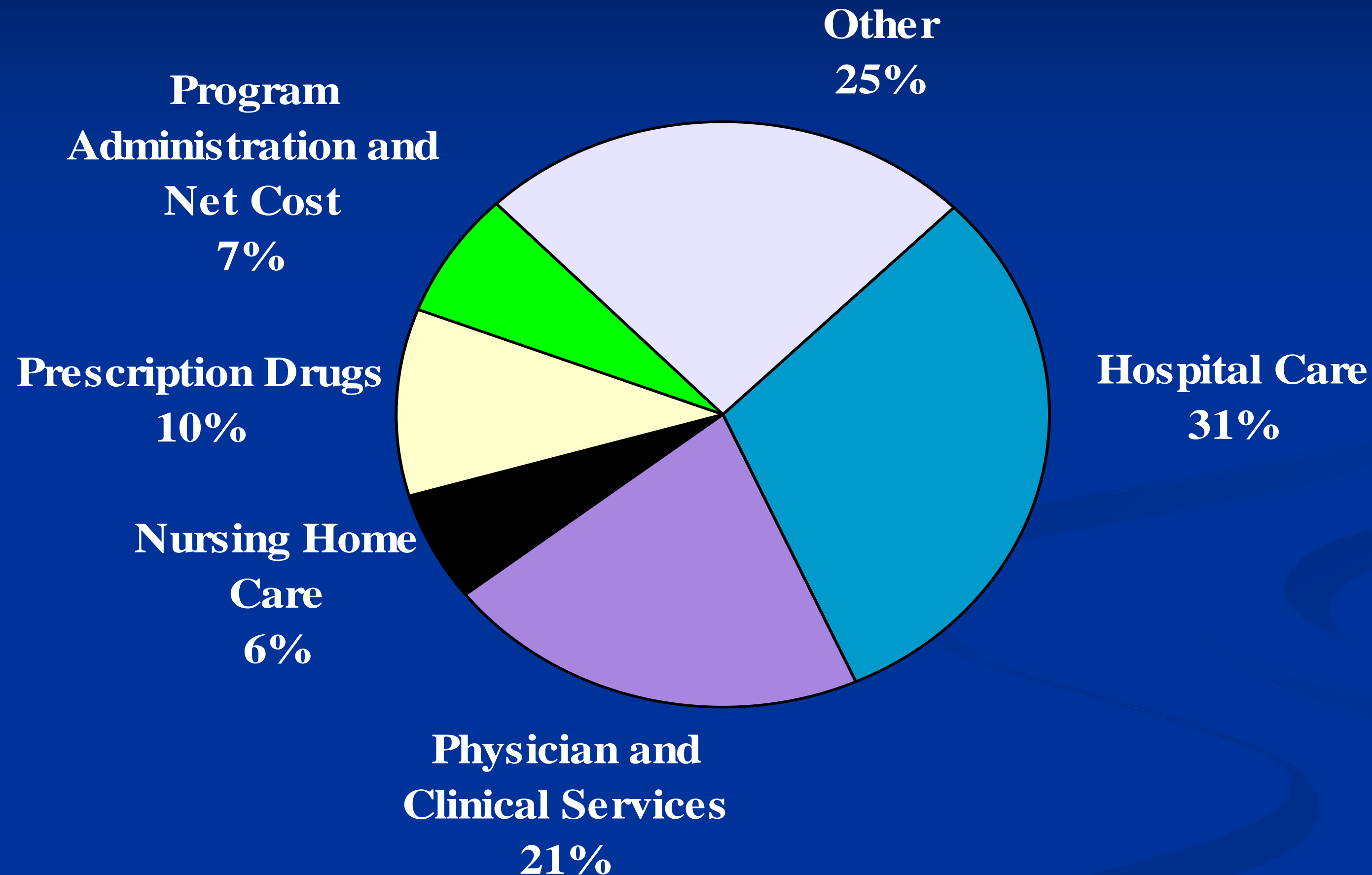


	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
NHE	12	10	9	8	5	6	5	5	6	6	7	9	9	8	7	7
Private	12	7	6	6	3	5	5	6	8	7	7	7	9	9	7	6
Public	12	14	12	10	9	7	5	5	3	5	7	11	9	8	8	8

NHE Private Public

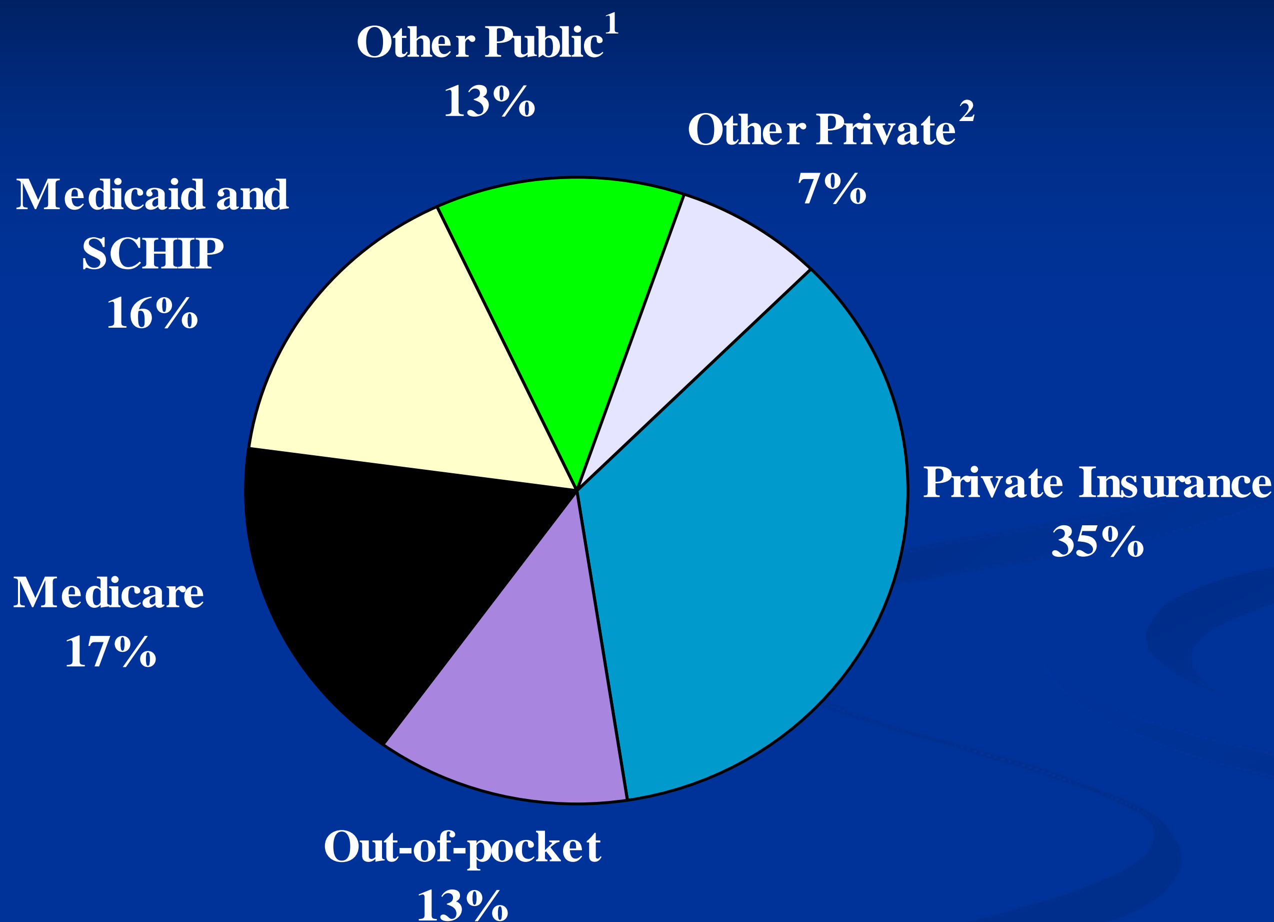
- NHE grew 6.9% to nearly $2 trillion in 2005
- $6,697 per person
- Slowest growth since 1999
- NHE as a percentage of GDP reached 16% in 2005

The Nation's Health Dollar, Calendar Year 2005: Where it Went



NOTE: Other Spending includes dentist services, other professional services, home health, durable medical products, over-the-counter medicines and sundries, public health, other personal health care, research and structures and equipment.
SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

The Nation's Health Dollar, Calendar Year 2005: Where It Came From



[1] Other Public includes programs such as workers' compensation, public health activity, Department of Defense, Department of Veterans Affairs, Indian Health Service, State and local hospital subsidies and school health.
[2] Other Private includes industrial in-plant, privately funded construction, and non-patient revenues, including philanthropy.
NOTE: Numbers shown may not add to 100.0 because of rounding.
SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

Recent NHEA Products

- ***Health Care Financing Review* Fall 2006 Issue-**
  - Monitoring Health Spending Increases: Incremental Budget Analysis Reveal Challenging Tradeoffs
  - Improved Estimates of Capital Formation in the National Health Expenditure Accounts
  - Reconciling Medical Expenditure Estimates from the MEPS and NHEA, 2002
  - Future Directions for the National Health Expenditure Accounts: Conference Overview
- **January 2007 – NHE, 1960-2005 (including sponsor analysis)**
- **February 2007 – NHE Projections, 2006-2016**
- **March 2007 – Health Spending Estimates by State of Provider, 1980-2004**
- **March/April 2007-** *J Public Health Management Practice* Article: **Refining Estimates of Public Health Spending as Measured in National Health Expenditure Accounts: The United States Experience**
- **September 2007- Health Spending Estimates by State of Residence, 1991-2004**
- **October 2007- Developing U.S. Health Spending Estimates by Function**
- **November 2007 – Health Spending Estimates by Age, 1987, 1996, 1999, 2002, and 2004**

What makes the NHEA useful?

1. Captures spending for health care goods and services; estimates are mutually exclusive and exhaustive
2. Allows policy makers to evaluate Medicare and Medicaid spending relative to other health spending
3. Allows for observation of spillover effects across sectors and payers
4. Reconciles data sources (program data, government statistical data, private sector data)
5. Serves as basis for development of predictive and analytic models
6. Allows states to compare spending to each other
7. Provides basis for developing projections consistent with official Medicare and Medicaid program projections

What are the Strengths and Limitations of NHEA data?

- **Strengths:**
  - Benchmarked to data from a census
  - Matrix Format
  - Mutually Exclusive and Exhaustive
  - Macro-level estimates put health spending in context
  - Relevant and Consistent
  - Time Series
- **Limitations:**
  - Only a certain amount of detail
  - Report nominal expenditures at the HSS and NHE level
  - Issues with survey data
  - Limited flexibility within the context of a constantly evolving health care sector

Measures

- **What do the NHEA measure?**
  - Current dollar expenditures for health care
  - What is spent in different health care sectors
  - Investments in the structures and equipment used for health care
  - What services and goods are being paid for, both by program and by sponsor
  - Average spending per person, or per enrollee
  - Can compare these statistics across every year in the NHE time series

Measures

- **What don’t the NHEA measure?**
  - Prices
  - Health welfare
  - Individual or household experience
  - Tax Expenditures
  - Spending by type of disease, episode, code, product, or function

Conclusions

1. Estimates are mutually exclusive, exhaustive, multidimensional and consistent overtime, which allows several different cuts of the data to be examined and trends and changes in services and funding to be viewed over time.
2. The NHEA provide a comprehensive representation of all economic activity within the health care sector.
3. As a result of their layout and structure, the NHEA capture the "balloon" effects within various health care sectors and among the different sources of funds overtime.
4. While a multitude of strengths exist in the NHEA, there are several limitations in what they can be used for and what they can measure. It is extremely important to understand both the strengths and limitations of these data before proceeding with any type of analysis using the NHEA.