Medical Expenditure Panel Survey

Agency for Healthcare Research and Quality

STATISTICAL BRIEF #242

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The Five Most Costly Children's Conditions, 2006: Estimates for the U.S. Civilian Noninstitutionalized Children, Ages 0–17

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Introduction

Health care expenditures for the treatment of children's ailments have been on the rise in the U.S. Traditionally, medical expenditures have been concentrated for the treatment of certain types of highly prevalent conditions or for which treatment often entails the use of high cost services.

This Statistical Brief presents data from MEPS-HC regarding medical expenditures associated with the five most costly conditions for children ages 0–17 in 2006. The five most costly conditions for children (mental disorders, asthma*, trauma-related disorders, acute bronchitis*, and infectious diseases) were determined by totaling and ranking the expenses by condition for all medical care provided in 2006. Only differences between estimates that are statistically significant at the 0.05 level are discussed in the text.

Highlights

- For those under 18 years of age, these five medical conditions—mental disorders, asthma, trauma-related disorders, acute bronchitis, and infectious diseases ranked highest in terms of direct medical spending in 2006.
- The highest expense was reported to treat mental disorders ($8.9 billion).
- An average of $658 per child was spent on treatment of infectious diseases.
- Medicaid paid for more than one third of the expenditures for mental disorders (35.2 percent) and asthma (34.1 percent).

Findings

In 2006, a total of $98.8 billion was spent for care and treatment of children. The top five conditions in terms of health care expenditures are: mental disorders, asthma, trauma-related disorders, acute bronchitis, and infectious diseases.

The highest expenditures were for care and treatment of mental disorders. Total expenditures to treat mental disorders were $8.9 billion. This was followed by expenditures for treating asthma, $8.0 billion and trauma-related disorders at $6.1 billion. In addition, $3.1 billion was spent on the treatment of acute bronchitis and $2.9 billion on the treatment of infectious diseases in children (figure 1).

In terms of number of children who were treated for any of these five conditions, asthma was highest. Almost 13 million children were reported to have been treated for asthma in 2006; 12.8 million children for acute bronchitis and almost 7 million children were treated for trauma-related disorders. The number of children treated for mental disorders and infectious diseases totaled 4.6 million and 4.5 million, respectively (figure 2).

In terms of mean expenditures per child with expenses, the mean expenditures were highest for mental disorders ($1,931). Trauma-related disorders averaged $910 per child. An average of $658 per child was spent on treatment of infectious diseases, followed by asthma at $621 per child. Of these five conditions, acute bronchitis had the lowest per child mean expenditures at $242 (figure 3).

Medicaid paid for more than one-third of the expenditures for mental disorders (35.2 percent) and asthma (34.1 percent). The largest percentage of expenditures for all of the top five most costly conditions for children was paid by private insurance. Private insurance had the highest payments for trauma-related disorders (59.8 percent) and infectious diseases (59.4 percent). Out-of-pocket payments were highest for mental disorders at 21.3 percent, asthma and acute bronchitis at 20.2 and 19.1, respectively (figure 4).

Data Source

The estimates in this brief were derived from the MEPS 2006 Full Year Consolidated Data (HC-105) and Medical Conditions (HC-104) files.

Definitions

*All references to asthma in this Statistical Brief include chronic obstructive pulmonary disorder (COPD). All references to acute bronchitis include upper respiratory infections (URI).

Medical conditions
Condition data were collected from household respondents during each round as verbatim text and coded by professional coders using the International Classification of Diseases, Ninth Revision (ICD-9). ICD-9-CM condition codes were then aggregated into clinically meaningful categories that group similar conditions using the Clinical Classification System (CCS) software. Categories were collapsed when appropriate. Note that the reported ICD-9-CM condition code values were mapped to the appropriate clinical classification category prior to being collapsed to 3-digit ICD-9-CM condition codes. The result is that every record which has an ICD-9-CM diagnosis code also has a clinical classification code. For this Statistical Brief, the following CCS codes were used: infectious diseases 1–9; chronic obstructive pulmonary disease (COPD), asthma 127–134; trauma-related disorders 225–236, 239, 240, 244; acute bronchitis and URI 125, 126; and mental disorders 650–663.

Expenditures
Expenditures refer to what is paid for health care services. More specifically, expenditures in MEPS are defined as the sum of direct payments for care provided during the year, including out-of-pocket payments and payments by private insurance, Medicaid, Medicare, and other sources. Payments for over-the-counter drugs are not included in MEPS total expenditures. Indirect payments not related to specific medical events, such as Medicaid Disproportionate Share and Medicare Direct Medical Education subsidies, are also excluded.

Expenditures may be associated with more than one condition and are not unduplicated in the condition totals; summing over conditions would double-count some expenses. Total spending does not include amounts for other medical expenses, such as durable and nondurable supplies, medical equipment, eyeglasses, ambulance services, and dental expenses, because these items could not be linked to specific conditions.

About MEPS

MEPS-HC is a nationally representative longitudinal survey that collects detailed information on health care utilization and expenditures, health insurance, and health status, as well as a wide variety of social, demographic, and economic characteristics for the U.S. civilian noninstitutionalized population. It is cosponsored by the Agency for Healthcare Research and Quality and the National Center for Health Statistics.

References

For a detailed description of the MEPS-HC survey design, sample design, and methods used to minimize sources on non-sampling errors, see the following publications:

Cohen, J. *Design and Methods of the Medical Expenditure Panel Survey Household Component*. MEPS Methodology Report No. 1. AHCPR Pub. No. 97-0026. Rockville, MD: Agency for Health Care Policy and Research, 1997. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr1/mr1.shtml

Cohen, S. *Sample Design of the 1996 Medical Expenditure Panel Survey Household Component. MEPS Methodology Report No. 2*. AHCPR Pub. No. 97-0027. Rockville, MD: Agency for Health Care Policy and Research, 1997. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr2/mr2.shtml

Cohen, S. Design Strategies and Innovations in the Medical Expenditure Panel Survey. *Medical Care*, July 2003: 41(7) Supplement: III-5–III-12.

Cohen, J. and Krauss, N. Spending and Service Use among People with the Fifteen Most Costly Medical Conditions, 1997. *Health Affairs*; 22(2):129–138, 2003.

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http://www.meps.ahrq.gov/mepsweb/data_files/publications/st242/stat242.pdf

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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools and to share suggestions on how MEPS products might be enhanced to further meet your needs. Please e-mail us at MEPSPD@ahrq.gov or send a letter to the address below:

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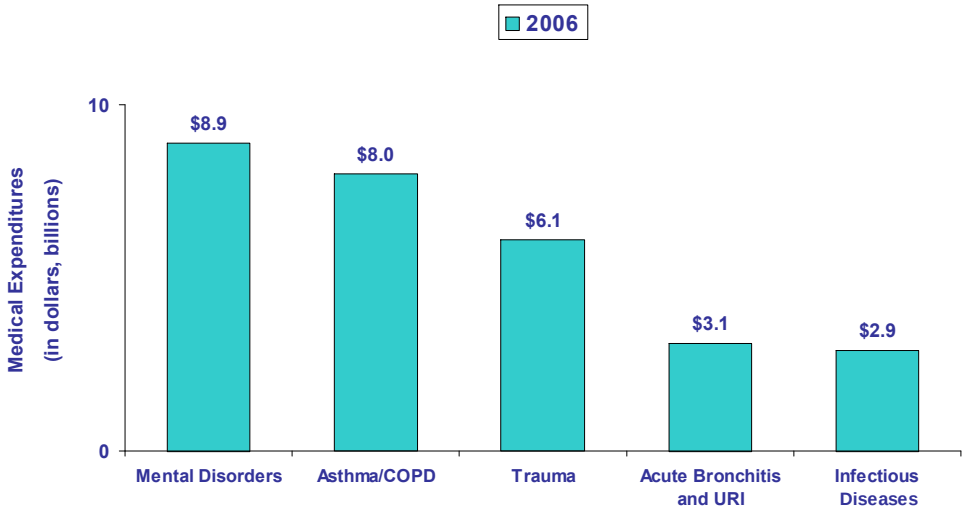
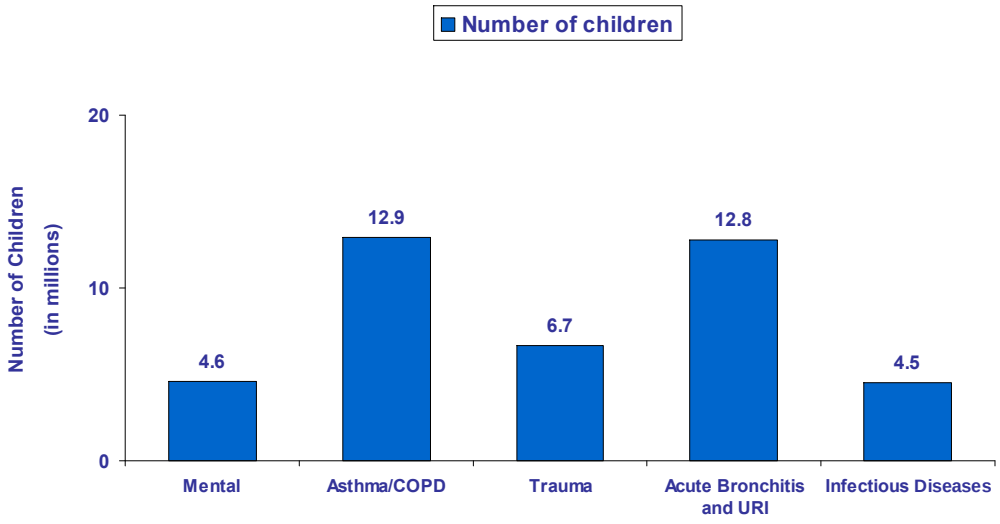
Figure 1. Expenditures for the five most costly conditions in children, 2006



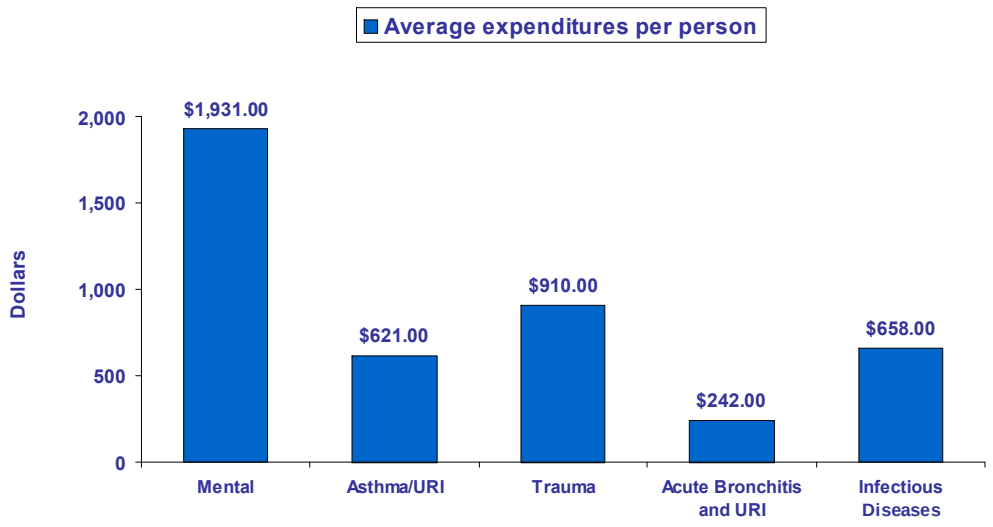
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey 2006

Figure 2. Number of children with expenses for the top five most costly conditions, 2006



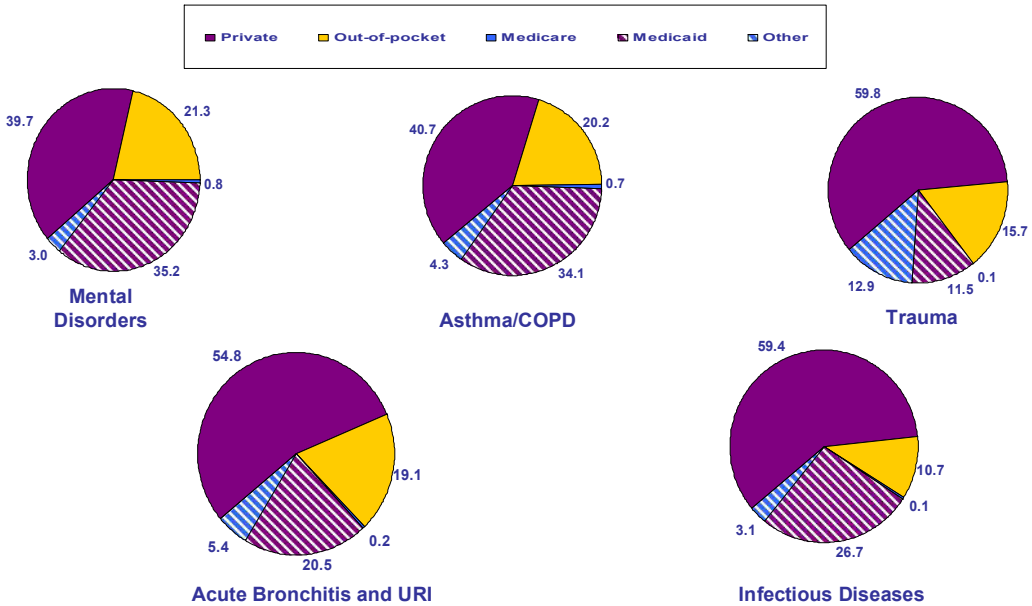
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey 2006

Figure 3. Average expenditures per child with expenses for the top five most costly conditions, 2006



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey 2006

Figure 4. Percentage distribution of annual expenditures on five most expensive conditions in children, by source of payment, 2006



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey 2006