Medical Expenditure Panel Survey

Agency for Healthcare Research and Quality

STATISTICAL BRIEF #472

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Top Five Most Costly Conditions among Children, Ages 0-17, 2012: Estimates for the U.S. Civilian Noninstitutionalized Population

Anita Soni, PhD, MBA

Introduction

This Statistical Brief presents data from the Household Component of the Medical Expenditure Panel Survey (MEPS-HC) regarding medical expenditures associated with the five most costly conditions for children ages 0–17 in 2012. The five most costly conditions among children (mental disorders, chronic obstructive pulmonary disease (COPD) and asthma, trauma-related disorders, acute bronchitis and upper respiratory infections, and infectious diseases) were determined by totaling and ranking the expenses by condition for all medical care provided in 2012. Expenditures may be associated with more than one condition and are not unduplicated in the condition totals. Only differences between estimates that are statistically significant at the 0.05 level are discussed in the text.

Findings

In 2012, a total of $117.5 billion was spent on care and treatment of children. The top five conditions among children in terms of expenditures were mental disorders, chronic obstructive pulmonary disease (COPD) and asthma, trauma-related disorders, acute bronchitis and upper respiratory infections, and infectious diseases.

The highest expenditures among children were for the treatment of mental disorders (figure 1). A total of $13.9 billion was spent to treat mental disorders among those ages 0–17. Treatment of chronic obstructive pulmonary disease (COPD) and asthma ($8.3 billion) ranked second, followed by trauma-related disorders ($7.8 billion). Acute bronchitis and upper respiratory infections ($3.2 billion) and infectious diseases ($2.5 billion) were lowest in terms of expenditures for the top five most expensive conditions among children.

More than 12 million (12.1 million) children incurred expenses for treatment of chronic obstructive pulmonary disease (COPD) and asthma in 2012 (figure 2). This was followed by 15 percent (11.1 million) of children with expenses for acute bronchitis and upper respiratory infections, more than double the children who had expenses for infectious diseases (5.0 million). A total of 6.8 million children had expenses for the treatment of trauma-related disorders and 6.3 million for the treatment of mental disorders.

Among children ages 0–17 with expenditures, the average expenditure per child was highest for the treatment of mental disorders ($2,195) (figure 3). This was nearly twice the per child expense for treatment of trauma-related disorders among children ($1,142). The average per child expenditure on treatment for chronic obstructive pulmonary disease (COPD) and asthma was $690, and $499 for infectious diseases. The average per child expense for the treatment of acute bronchitis and upper respiratory infections was $290 per child.

Highlights

- For children under 18 years of age, mental disorders, chronic obstructive pulmonary disease (COPD) and asthma, trauma-related disorders, acute bronchitis and upper respiratory infections; and infectious diseases ranked highest in terms of direct medical spending in 2012.
- The highest total expense ($13.9 billion) was for the treatment of mental disorders.
- Among the top five most expensive conditions, 12.1 million children received care and treatment for chronic obstructive pulmonary disease (COPD) and asthma.
- The highest average per child expense was for the treatment of mental disorders ($2,195).
- Two-thirds (64.3 percent) of expenditures for trauma-related disorders were paid by private insurance.
- Three-fourths (73.0 percent) of expenditures for acute bronchitis and upper respiratory infections were in the form of outpatient and office-based visits.

Two-thirds (64.3 percent) of the expenditures for trauma-related disorders were paid by private insurance (figure 4). Almost 45 (44.6) percent of the expenditures for the treatment of mental disorders among children were paid by Medicaid. For the treatment of acute bronchitis and upper respiratory infections, 16 percent of expenses were paid out of pocket, almost double the out-of-pocket payments made for the treatment of infectious diseases (8.7 percent).

Expenditures on outpatient and office-based visits accounted for 73 percent of the total expenditures for the treatment of acute bronchitis and upper respiratory infections among children ages 0–17 (figure 5). This was higher than the other four conditions among the top five conditions, mental disorders (33.8 percent), 22.8 percent for chronic obstructive pulmonary disease (COPD) and asthma, 36.3 percent for trauma-related disorders, and 29.7 percent for infectious diseases. About half (49.2 percent) of the expenditures for the treatment of chronic obstructive pulmonary disease (COPD) and asthma were on purchases of prescribed medicines. In comparison, less than 10 percent of spending for the treatment of acute bronchitis and upper respiratory infections (8.7 percent) and infectious diseases (7.1 percent) was for prescribed medicines.

Data Source

The estimates shown in this Statistical Brief are based on data from the MEPS 2012 Full Year Consolidated Data File (HC-155), Medical Conditions File (HC-154), Office-Based Medical Provider Visits File (HC-152G), Outpatient Visits File (HC-152F), Hospital Inpatient Stays File (HC-152D), Home Health File (HC-152H), Emergency Room Visits File (HC-152E), and Prescribed Medicines File (HC-152A).

Definitions

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.

Expenditures

Expenditures in MEPS are defined as payments from all sources for hospital inpatient care, ambulatory care provided in offices and hospital outpatient departments, care provided in emergency departments, paid care provided in the patient's home (home health), and the purchase of prescribed medicines. Sources include direct payments from individuals, private insurance, Medicare, Medicaid, Workers' Compensation, and miscellaneous 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 were classified as being associated with a condition if a visit, stay, or medication purchase was cited as being related to the specific condition. 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.

Sources of payment

- Private insurance: This category includes payments made by insurance plans covering hospital and other medical care (excluding payments from Medicare, Medicaid, and other public sources), Medigap plans, and TRICARE (Armed Forces-related coverage).
- Medicaid/CHIP: This category includes payments made by the Medicaid and CHIP programs which are means-tested government programs financed jointly by federal and state funds that provide health care to those who are eligible. Medicaid is designed to provide health coverage to families and individuals who are unable to afford necessary medical care while CHIP provides coverage to additional low-income children not eligible for Medicaid. Eligibility criteria for both programs vary significantly by state.
- Out of pocket: This category includes expenses paid by the user or other family member.
- Other sources: This category includes payments from other federal sources such as Indian Health Service, military treatment facilities, and other care provided by the federal government; various state and local sources (community and neighborhood clinics, state and local health departments, and state programs other than Medicaid/CHIP); various unclassified sources (e.g., automobile, homeowner's, or other liability insurance, and other miscellaneous or unknown sources); Medicaid/CHIP payments reported for persons who were not reported as enrolled in the Medicaid or CHIP programs at any time during the year; and private insurance payments reported for persons without any reported private health insurance coverage during the year.

About MEPS-HC

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.pdf

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.pdf

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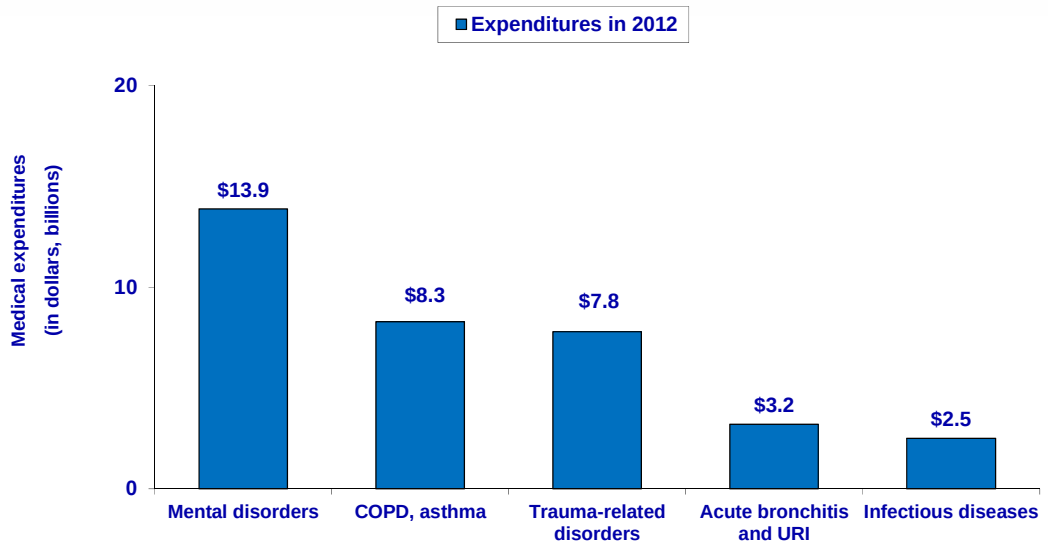
AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools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

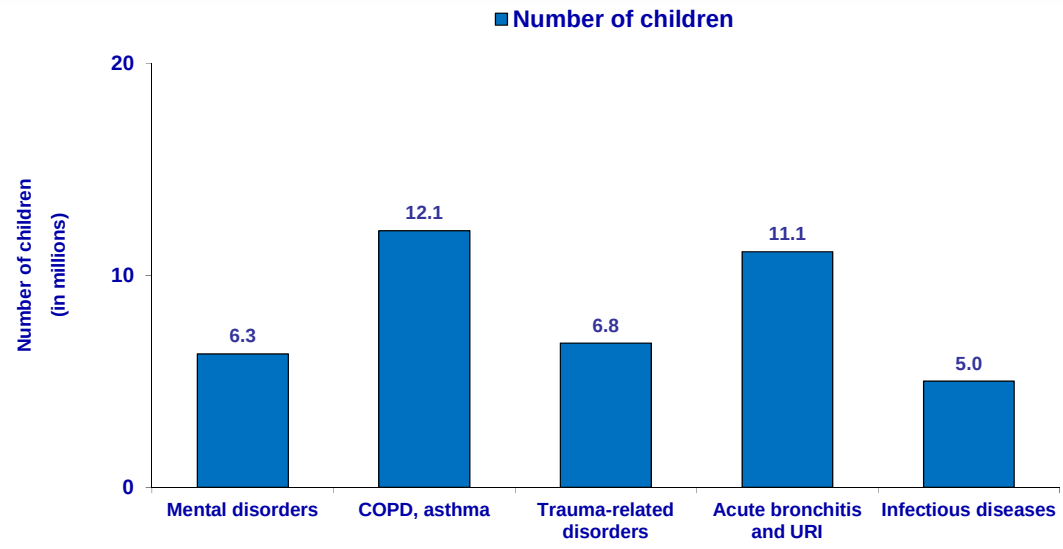
Steven B. Cohen, PhD, Director
Center for Financing, Access, and Cost Trends
Agency for Healthcare Research and Quality
540 Gaither Road
Rockville, MD 20850

Figure 1. Expenditures for the five most costly conditions among children, ages 0–17, 2012



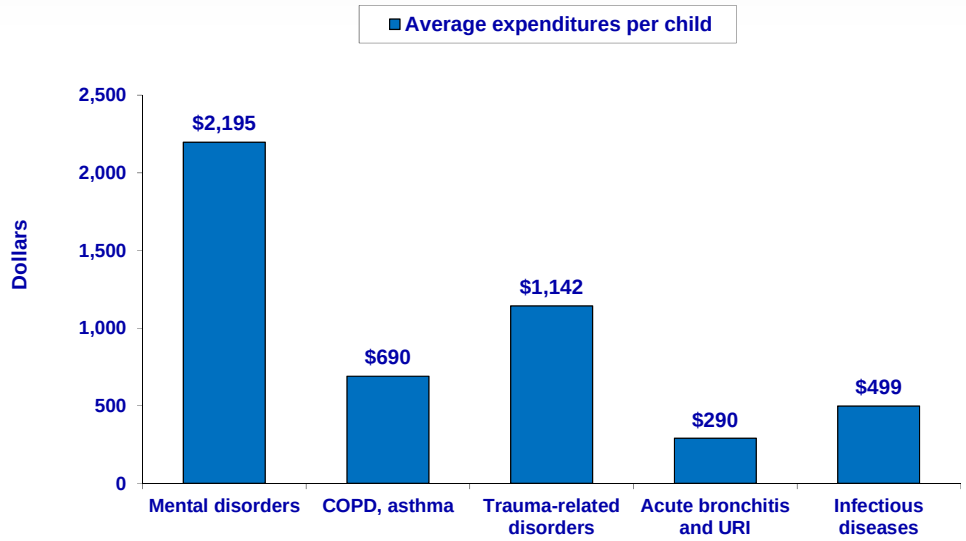
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2012

Figure 2. Number of children with expenses for the top five most costly conditions, ages 0–17, 2012



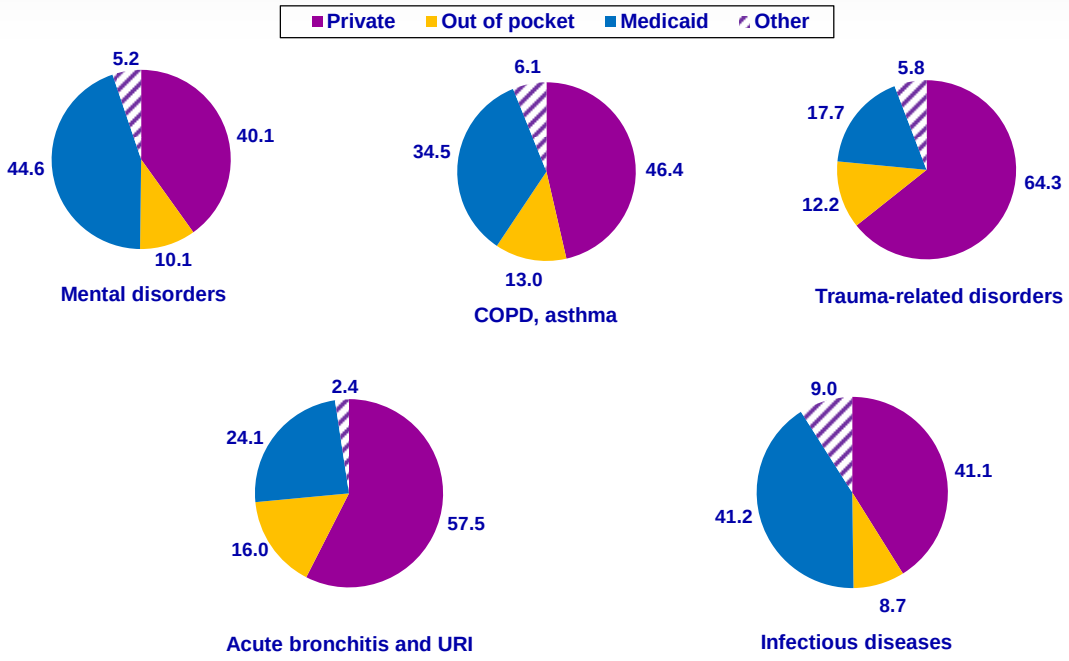
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2012

Figure 3. Average expenditures per child with expenses for the top five most costly conditions, ages 0–17, 2012



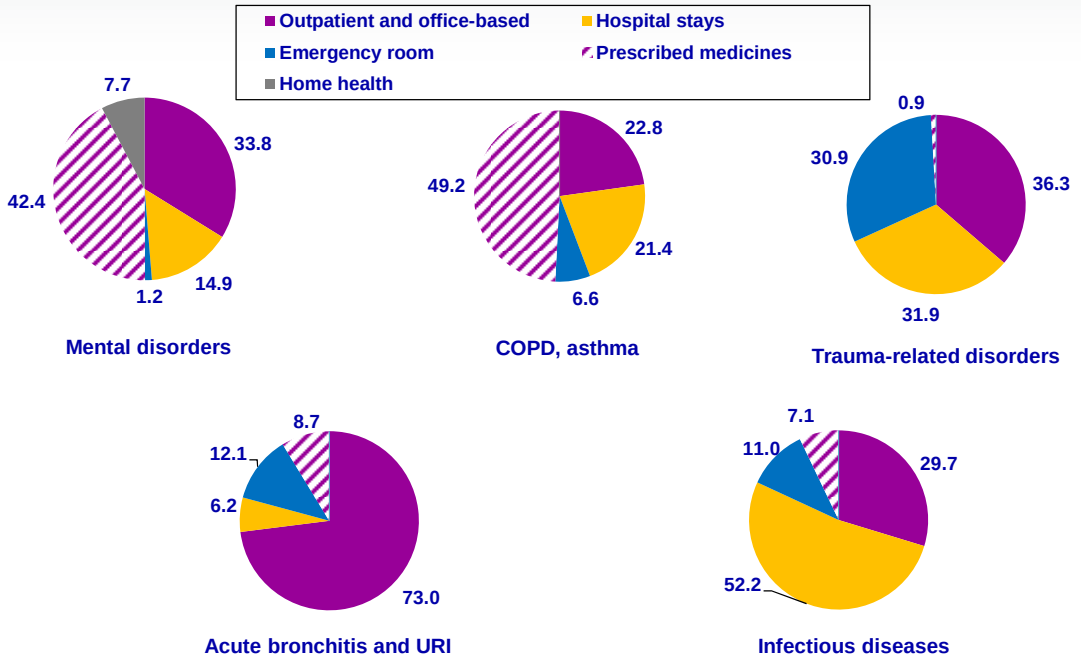
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2012

Figure 4. Percentage distribution of annual expenditures for the five most costly conditions in children, ages 0–17, by source of payment, 2012



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2012

Figure 5. Percentage distribution of annual expenditures for the five most costly conditions in children, ages 0–17, by site of service, 2012



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2012