

## STATISTICAL BRIEF #362

March 2012

### **Expenditures for the Top Five Therapeutic Classes of Outpatient Prescription Drugs, Adults Age 18 and Older, U.S. Civilian Noninstitutionalized Population, 2009**

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#### **Introduction**

This Statistical Brief provides descriptive statistics on expenditures for the top five therapeutic classes of outpatient prescription drugs, ranked by total expenses in 2009 for adults age 18 and older in the U.S. civilian noninstitutionalized population. Prescription drug therapeutic classes are defined according to the Multum Lexicon therapeutic classification system (see "Definitions"). In 2009, 18 broad therapeutic classifications were identified.

The estimates presented are derived from the Household and Pharmacy Components of the 2009 Medical Expenditure Panel Survey (MEPS). Expenditures include payments from all sources (e.g., out of pocket, private, and public insurance sources) for outpatient prescription drug purchases during 2009. Insulin and diabetic supplies and equipment are also included in MEPS prescribed medicines estimates. Over-the-counter medicines are excluded from these estimates as are prescription medicines administered in an inpatient setting or in a clinic or physician's office. All differences discussed in the text are statistically significant at the 0.05 level or better.

#### **Findings**

In 2009, the top five therapeutic classes of prescribed drugs purchased by adults age 18 and older (ranked by total expense) accounted for 61 percent (\$146.9 billion) of the \$239.8 billion total prescription drug expenses by adults (figure 1).

Metabolic agents had the highest total expenses (\$44.8 billion) among the top five therapeutic classes for adults age 18 and over (figure 2). The second through fifth highest therapeutic classes respectively in terms of total expenditures were central nervous system agents (\$34.3 billion), cardiovascular agents (\$28.0 billion), psychotherapeutic agents (\$20.9 billion), and gastrointestinal agents (\$18.9 billion). When expressed as percentages of all prescribed medicine expenses for adults, these classes ranged from 18.7 percent for metabolic agents to 7.9 percent for gastrointestinal agents (figure 3).

Two-thirds (67.1 percent) of the adult population had a prescription drug expenditure in 2009 (figure not shown). Among these adults with a prescribed drug expense, 46.0 percent purchased central nervous system agents and 41.6 percent purchased cardiovascular agents (figure 4). About one-third (33.6 percent) purchased metabolic agents, which was approximately double the percentage who purchased psychotherapeutic agents (17.9 percent) or gastrointestinal agents (17.4 percent).

In terms of average expense per prescription (figure 5), psychotherapeutic agents were the highest, with an average (\$119) approximately three times the average for cardiovascular agents (\$39). Among the other three of the top five therapeutic classes, average expenses per prescription for gastrointestinal agents (\$102) were higher than the average for both metabolic agents (\$90) and for central nervous system agents (\$68).

#### **Highlights**

- In 2009, the top five therapeutic classes of prescription drugs ranked by total expense among adults were: metabolic agents, central nervous system agents, cardiovascular agents, psychotherapeutic agents, and gastrointestinal agents.
- Expenditures for the top five therapeutic classes totaled \$146.9 billion and accounted for about 60 percent of total expenditures on prescription drugs purchased for the adult population in 2009.
- Expenses for metabolic agents accounted for a little less than one-fifth of total prescription drug expenses for adults in 2009.
- Forty-six percent of the adult population with a prescribed drug expense in 2009 purchased a central nervous system agent.
- In 2009, among the top five therapeutic classes of drugs, psychotherapeutic agents had the highest average expense per prescription, with three times the average expense of cardiovascular agents.

## Data Source

The estimates shown in this Statistical Brief are based on data from the MEPS HC-129: 2009 Full Year Consolidated Data File and MEPS HC-126A: 2009 Prescribed Medicines File.

## Definitions

### *Therapeutic classifications*

Therapeutic class and subclass were assigned to MEPS prescribed medicines using Multum Lexicon variables from Cerner Multum, Inc. MEPS prescribed medicines files were linked to the Multum Lexicon database to obtain therapeutic class and subclass variables.

Therapeutic class cardiovascular agents include calcium channel blockers and diuretics; central nervous system agents include the analgesics, anticonvulsants, and antiparkinson agents. The therapeutic class of gastrointestinal agents includes the H2-receptor antagonists, antacids, antidiarrheals, and proton pump inhibitors; metabolic agents include the subclasses of antihyperlipidemic agents and antidiabetic agents; and psychotherapeutic agents include the subclass of antidepressants and antipsychotics.

Cerner Multum occasionally makes changes to the Multum Lexicon therapeutic classification system. For example, antihyperlipidemic agents was its own therapeutic class in the 2003 and 2004 data, but was reclassified as a therapeutic subclass of the new therapeutic class, metabolic agents in 2005.

## 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.

For more information about MEPS, call the MEPS information coordinator at AHRQ (301) 427-1656 or visit the MEPS Web site at <http://www.meps.ahrq.gov/>.

## References

For a detailed description of the MEPS-HC survey design, sample design, and methods used to minimize sources of nonsampling error, 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](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](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.

Ezzati-Rice, T. M., Rohde, F., Greenblatt, J. *Sample Design of the Medical Expenditure Panel Survey Household Component, 1998-2007*. Methodology Report No. 22. March 2008. Agency for Healthcare Research and Quality, Rockville, MD. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr22/mr22.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr22/mr22.pdf)

## Suggested Citation

Soni, A. *Expenditures for the Top Five Therapeutic Classes of Outpatient Prescription Drugs, Adults Age 18 and Older, U.S. Civilian Noninstitutionalized Population, 2009*. Statistical Brief #362. March 2012. Agency for Healthcare Research and Quality, Rockville, MD.  
[http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/st362/stat362.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/st362/stat362.pdf)

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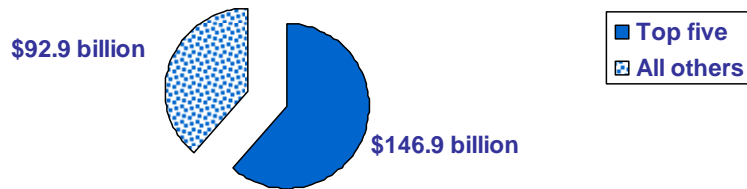
AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools and to share suggestions on how MEPS products might be enhanced to further meet your needs. Please e-mail us at [MEPSProjectDirector@ahrq.hhs.gov](mailto: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  
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**Figure 1. Expenditures for top five therapeutic classifications of prescribed drugs relative to total prescription medication expenses for adults age 18 and older, 2009**

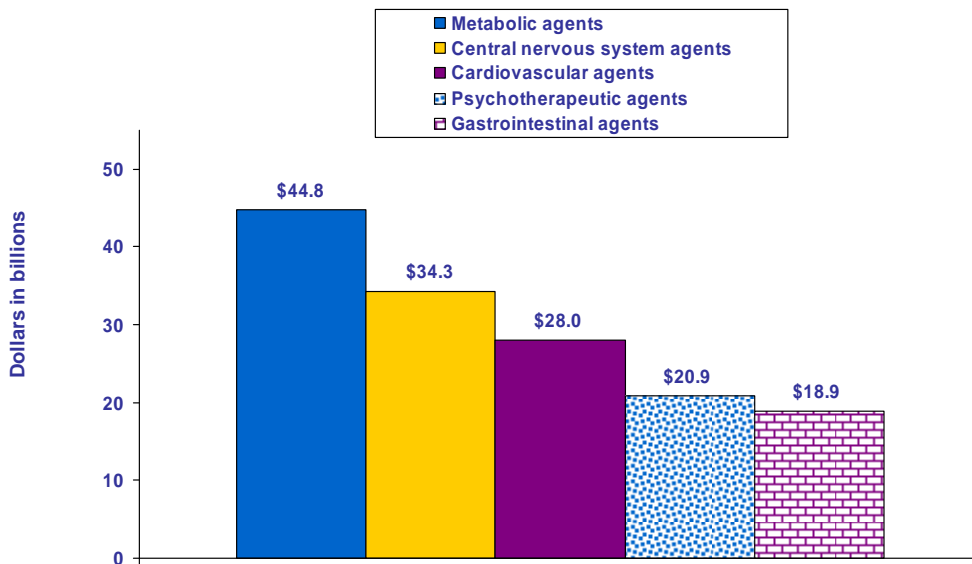
Total RX expenditures = \$239.8 billion



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2009



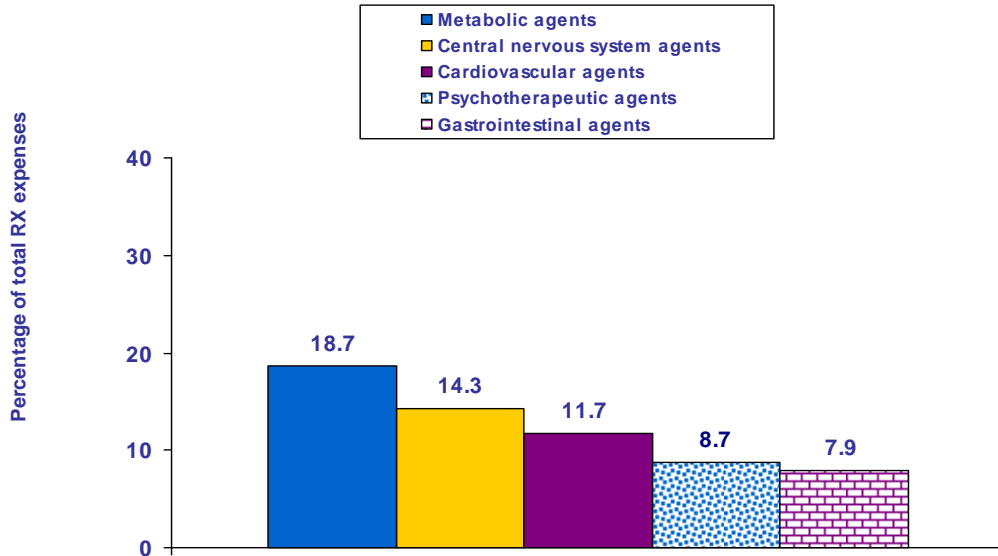
**Figure 2. Top five therapeutic classifications of prescribed drugs ranked by total expenses for adults age 18 and older, 2009**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2009



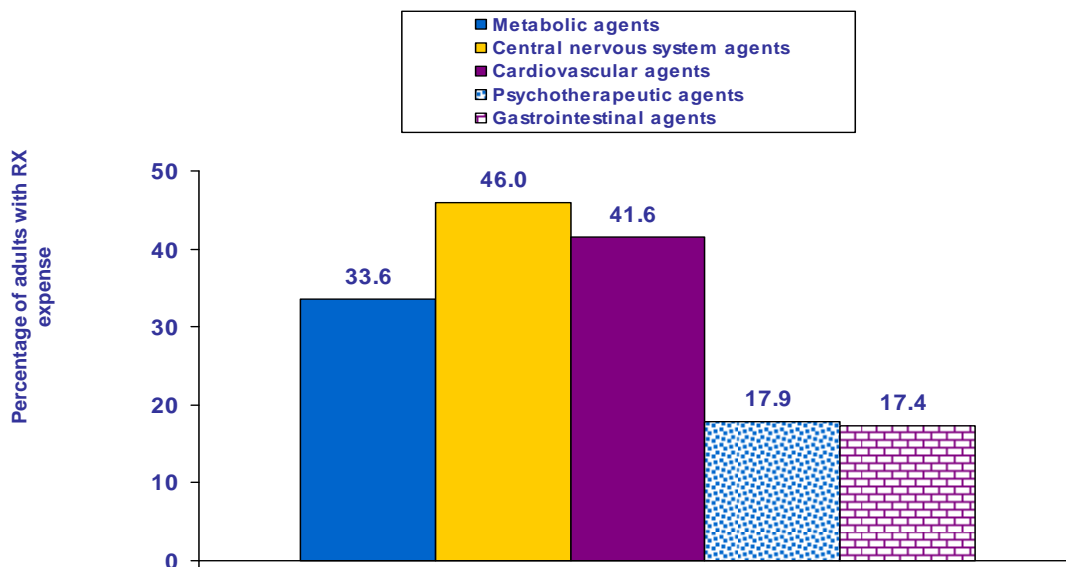
**Figure 3. Percentage of the total medical expenses for the top five therapeutic classifications of drugs for adults age 18 and older, 2009**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2009



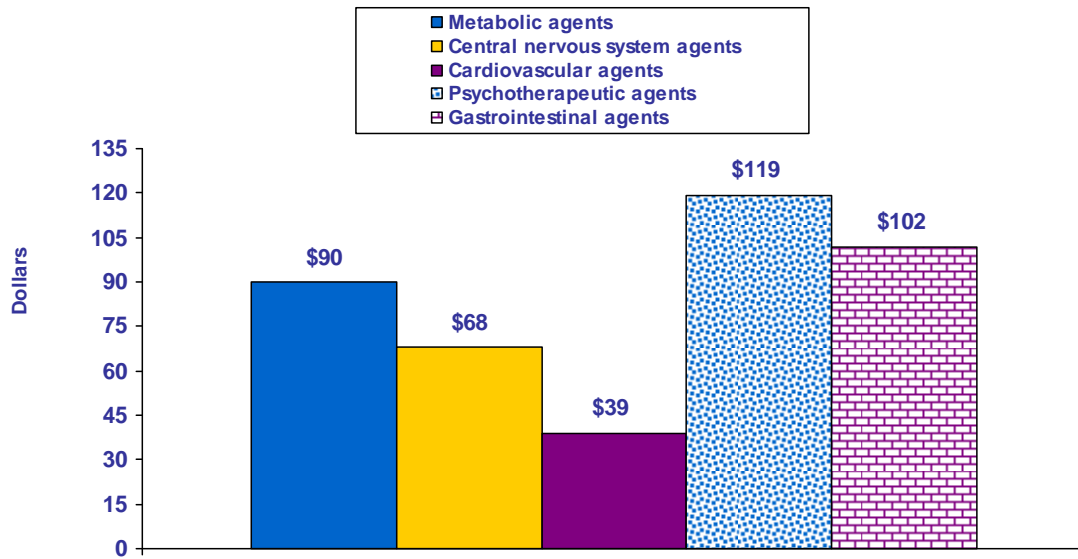
**Figure 4. Percentage of adults with prescribed drug expenses in the top five therapeutic classes, adults age 18 and older, 2009**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2009



**Figure 5. Average expense per prescription for adults age 18 and older, by therapeutic class, 2009**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2009