STATISTICAL BRIEF #313

February 2011

Expenditures for the Top Five Therapeutic Classes of Outpatient Prescription Drugs, Adults Age 18 and Older, U.S. Civilian Noninstitutionalized Population, 2008

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Introduction

This Statistical Brief provides descriptive statistics on expenditures for the top five (ranked by total expense) therapeutic classes of outpatient prescription drugs in 2008 for adults age 18 and older in the U.S. civilian noninstitutionalized population. MEPS uses prescription drugs therapeutic classes as defined by the Multum Lexicon (see Definitions). In 2008, 18 broad therapeutic classes were identified.

The estimates presented are derived from the Household and Pharmacy Components of the 2008 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 2008. 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 2008, the top five therapeutic classes of prescribed drugs purchased by adults age 18 and older (ranked by total expense) accounted for 67 percent ($155.7 billion) of the $232.6 billion total prescription drug expenses by adults (figure 1).

Metabolic agents had the highest total expenses ($52.2 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 ($35.1 billion), cardiovascular agents ($28.6 billion), gastrointestinal agents ($20.2 billion), and psychotherapeutic agents ($19.6 billion). When expressed as percentages of all prescribed medicine expenses for adults, these classes ranged from 22.5 percent for metabolic agents to 8.4 percent for psychotherapeutic agents (figure 3).

Highlights

- In 2008, the top five therapeutic classes ranked by total expense among adults for prescription drugs were: metabolic agents, central nervous system agents, cardiovascular agents, gastrointestinal agents, and psychotherapeutic agents.

- Expenditures for the top five therapeutic classes totaled $155.7 billion and accounted for two-thirds of total expenditures spent on prescription drugs by the adult population in 2008.

- Prescription medicine expenses on metabolic agents accounted for more than one-fifth of total prescription drug expenses for adults in 2008.

- Forty-six percent of the adult population with a prescribed drug expense in 2008 purchased a central nervous system agent.

- In 2008, of the top five therapeutic classes, gastrointestinal agents had the highest average expense per prescription, which was more than three times the average expense of the therapeutic class with the lowest average (cardiovascular agents).

Two-thirds (67.4 percent) of the adult population had a prescription drug expenditure in 2008. Among these adults with a prescribed drug expense, 46.0 percent purchased central nervous system agents and 41.4 percent purchased cardiovascular agents (figure 4). About one-third (33.8 percent) purchased metabolic agents, which was double the percentage who purchased gastrointestinal agents (17.7 percent) or psychotherapeutic agents (17.1 percent).

In terms of average expense per prescription, gastrointestinal agents had the highest average ($133), which was more than three times the average of the cardiovascular agents which had the lowest average ($39) among the top five therapeutic classes (figure 5). Among the other three classes, average expenses

per prescription for metabolic agents ($101) and for psychotherapeutic agents ($99) were both higher than for central nervous system agents ($72).

Data Source

The estimates shown in this Statistical Brief are based on data from the MEPS HC-121 2008 Full Year Consolidated File and HC-118A 2008 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. The therapeutic class cardiovascular agents includes 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. These types of changes effect comparisons of the types of estimates presented in this Brief across years.

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

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.

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

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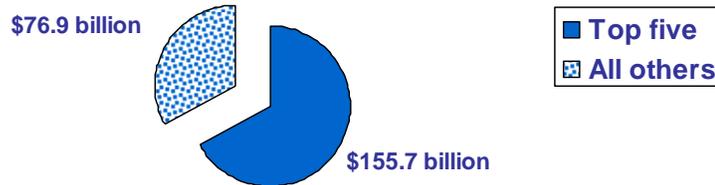
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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using 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:

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 top five therapeutic classifications of prescribed drugs relative to total prescription medication expenses for adults age 18 and older, 2008
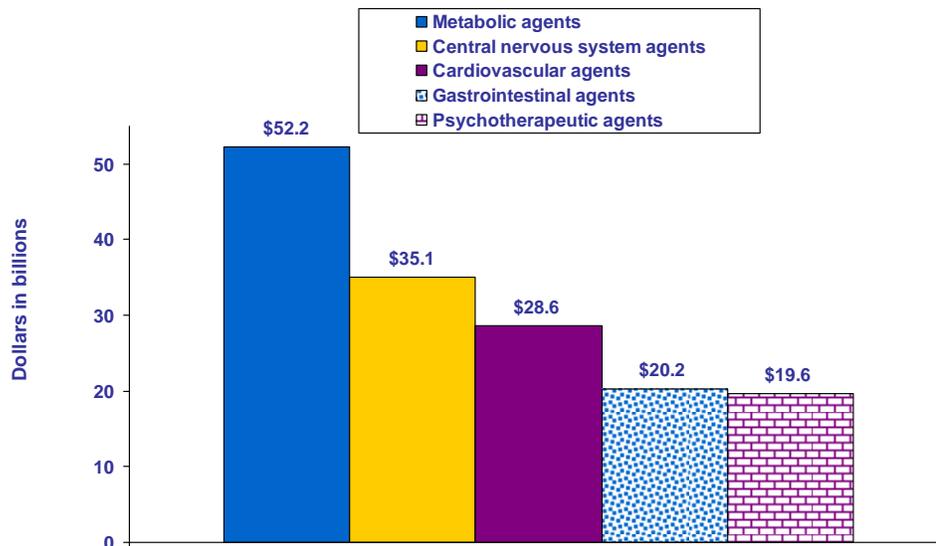
Total RX expenditures = $232.6 billion

$76.9 billion

$155.7 billion

- Top five
- All others

Figure 2. Top five therapeutic classifications of prescribed drugs ranked by total expenses for adults age 18 and older, 2008

- Metabolic agents
- Central nervous system agents
- Cardiovascular agents
- Gastrointestinal agents
- Psychotherapeutic agents

Dollars in billions

$52.2

$35.1

$28.6

$20.2

$19.6

50

40

30

20

10

0

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Figure 3. Top five therapeutic classifications as percentages of total prescribed drug expenses for adults age 18 and older, 2008

Legend:
- Metabolic agents
- Central nervous system agents
- Cardiovascular agents
- Gastrointestinal agents
- Psychotherapeutic agents

Percentage of total RX expenses:
- 22.5
- 15.1
- 12.3
- 8.7
- 8.4

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2008
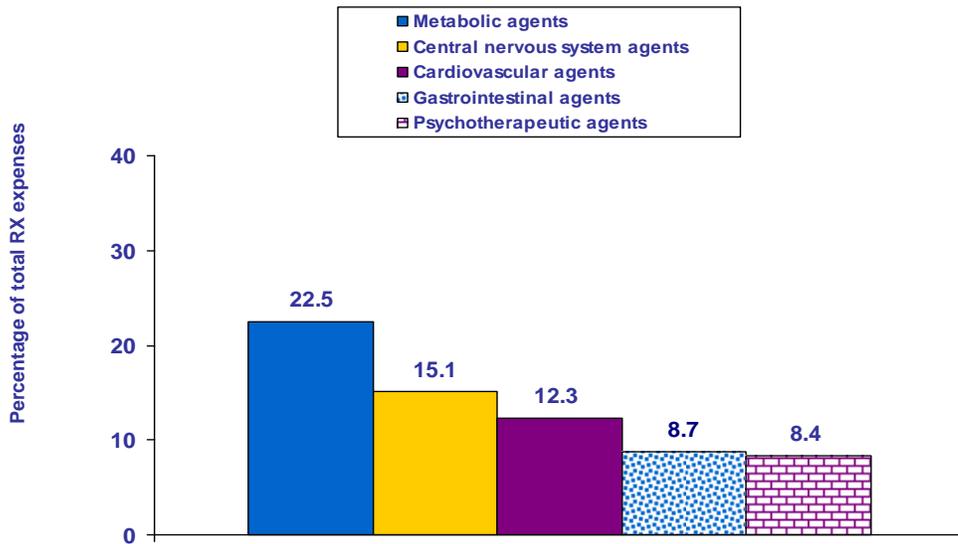

Figure 4. Percentage of adults with prescribed drug expenses and expenses in the top five therapeutic classes, adults age 18 and older, 2008

Legend:
- Metabolic agents
- Central nervous system agents
- Cardiovascular agents
- Gastrointestinal agents
- Psychotherapeutic agents

Percentage of adults with RX expense:
- 33.8
- 46.0
- 41.4
- 17.7
- 17.1

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2008
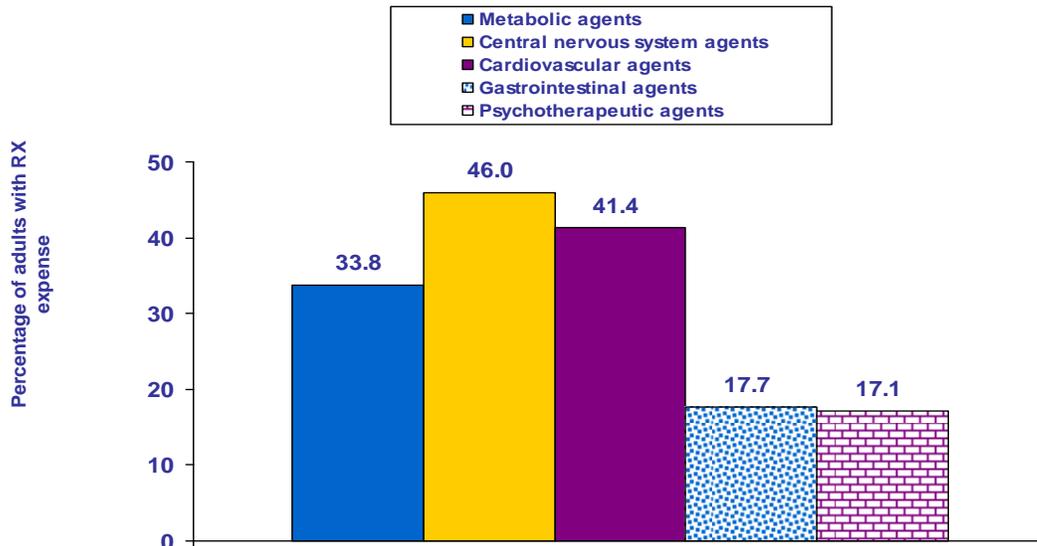
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Figure 5. Average expense per prescription for adults age 18 and older, by therapeutic class, 2008

Legend:
- ■ Metabolic agents
- ■ Central nervous system agents
- ■ Cardiovascular agents
- ⊞ Gastrointestinal agents
- ⊞ Psychotherapeutic agents

Chart (Dollars):
- Metabolic agents: $101
- Central nervous system agents: $72
- Cardiovascular agents: $39
- Gastrointestinal agents: $133
- Psychotherapeutic agents: $99

Y-axis: 0, 15, 30, 45, 60, 75, 90, 105, 120, 135

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2008

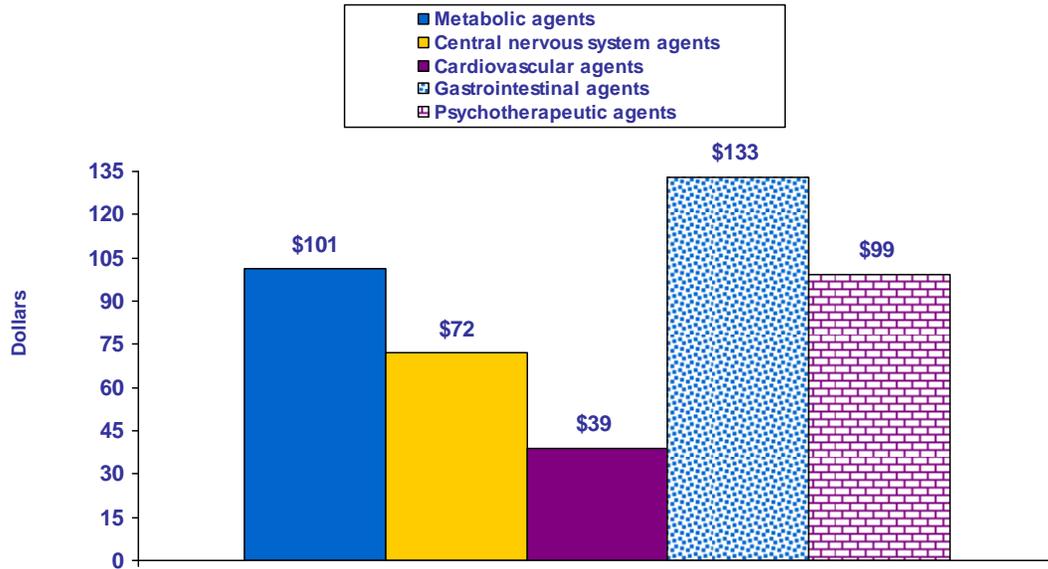Statistical Brief #313: Expenditures for the Top Five Therapeutic Classes of Outpatient Prescription Drugs, Adults Age 18 and Older, U.S. Civilian Noninstitutionalized Population, 2008