

STATISTICAL BRIEF #280

February 2010

Expenditures for the Top Five Therapeutic Classes of Outpatient Prescription Drugs, Medicare Beneficiaries, Age 65 and Older, 2007

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Introduction

This Statistical Brief provides descriptive statistics on expenditures for the top five therapeutic classes of outpatient prescription drugs in 2007 (ranked by total expenses) for Medicare beneficiaries age 65 and older in the U.S. civilian noninstitutionalized population. MEPS uses prescription drugs therapeutic classes as defined by the Multum Lexicon (see Definitions). In 2007, 17 broad therapeutic classifications were identified.

The estimates presented are derived from the Household and Pharmacy Components of the 2007 Medical Expenditure Panel Survey. Expenditures include payments for Medicare beneficiaries age 65 and older, from all sources (e.g., out of pocket, private and public insurance sources) for outpatient prescription drug purchases during 2007. 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 2007, the top five therapeutic classes of prescribed drugs purchased by Medicare beneficiaries age 65 and older (ranked by total expense) were metabolic agents, cardiovascular agents, central nervous system agents, gastrointestinal agents, and hormones. These classes together accounted for 66.2 percent of the \$81.7 billion total prescription drug expenses by these adults (figure 1).

Metabolic agents had the highest total expenses (\$18.6 billion) among the top five therapeutic classes for Medicare beneficiaries age 65 and older (figure 2). This was more than three times the expense for hormones (\$5.4 billion), the fifth highest therapeutic class. Expenditures on cardiovascular agents (\$14.7 billion), the second highest class, were also notably higher than the other three classes. When expressed as percentages of all prescribed medicine expenses for Medicare beneficiaries, these classes ranged from 6.6 percent for hormones to 22.7 for metabolic agents (figure 3).

Among Medicare beneficiaries age 65 and older with a prescribed drug expense, just over three-quarters (77.3 percent) purchased cardiovascular agents, more than half (57.9 percent) purchased metabolic agents, and nearly half (48.5 percent) purchased central nervous system agents (figure 4). Smaller proportions of persons purchased hormones (36.2 percent) or gastrointestinal agents (29.8 percent).

In terms of average expense per prescription, gastrointestinal agents had the highest average (\$114) followed by metabolic agents (\$94) (figure 5). Among the other three classes, the averages for central nervous system agents (\$65) and hormones (\$62) were both higher than for cardiovascular agents (\$40).

Data Source

The estimates shown in this Statistical Brief are based on data from the MEPS HC-113: 2007 Full Year Consolidated Data File and the MEPS HC-110A: 2007 Prescribed Medicines.

Highlights

- In 2007, the top five therapeutic classes ranked by total expense on Medicare beneficiaries, age 65 and older for prescription drugs were metabolic agents, cardiovascular agents, central nervous system agents, gastrointestinal agents, and hormones.
- Expenditures for the top five therapeutic classes totaled \$54.1 billion and represented two-thirds (66.2 percent) of annual expenditures spent for prescription drugs by the Medicare population age 65 and older in 2007.
- Prescription medicine expenses on metabolic agents accounted for nearly one-fourth of total prescription drug expenses for the Medicare population age 65 and older in 2007.
- More than three-fourths of the Medicare population age 65 and older with a prescribed drug expense in 2007 purchased a cardiovascular agent.
- In 2007, of the top five therapeutic classes, gastrointestinal agents had the highest average expense per prescription, which was almost three times the average expense of the therapeutic class with the lowest average (cardiovascular agents).

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 metabolic agents include the subclasses of antihyperlipidemic agents and antidiabetic agents. Therapeutic class of cardiovascular agents include calcium channel blockers and diuretics; and central nervous system agents include the analgesics, anticonvulsants, and antiparkinson agents. The therapeutic class of gastrointestinal agents include the H2-receptor antagonists, antacids, antidiarrheals, and proton pump inhibitors; and the therapeutic class of hormones include thyroid drugs, adrenal cortical steroids, and bisphosphonates.

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, TM, 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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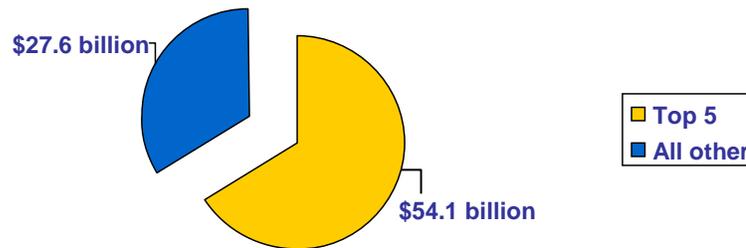
AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools and to share suggestions on how MEPS products might be enhanced to further meet your needs. Please e-mail us at mepsdpd@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
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Figure 1. Expenditures for top five therapeutic classifications of prescribed drugs relative to total prescription medication expenses, Medicare beneficiaries age 65 and older, 2007

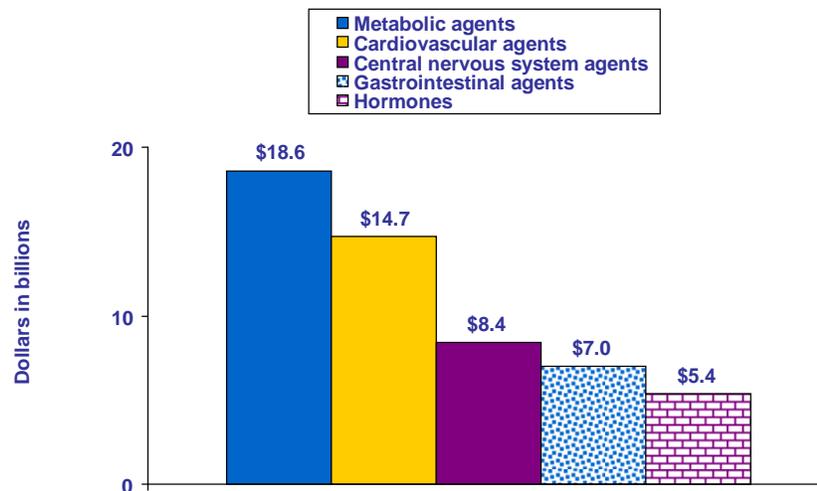
Total RX Expenditures = \$81.7 billion



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2007



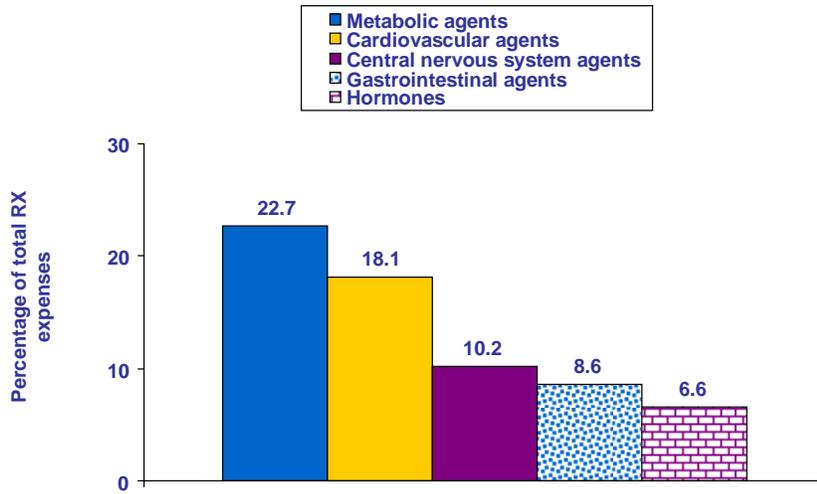
Figure 2. Total expenses for prescribed drugs by therapeutic classification (top five), Medicare beneficiaries age 65 and older, 2007



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2007



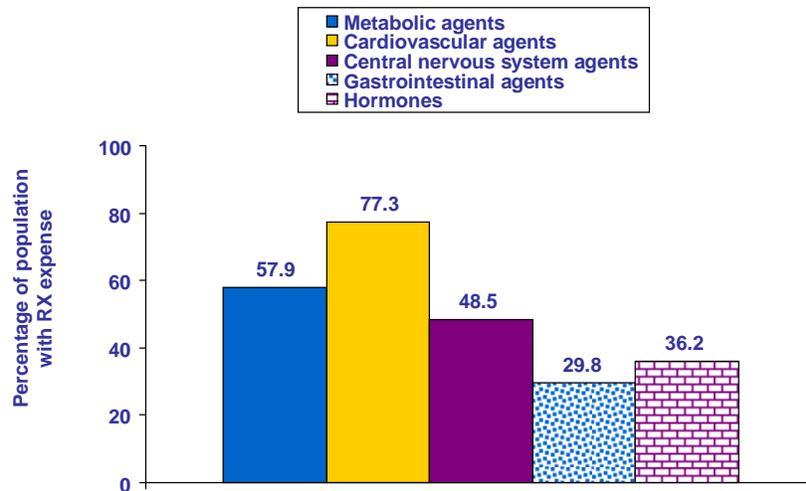
Figure 3. Expenditures for top five therapeutic classifications as percentages of total prescribed medication expenses, Medicare beneficiaries age 65 and older, 2007



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2007



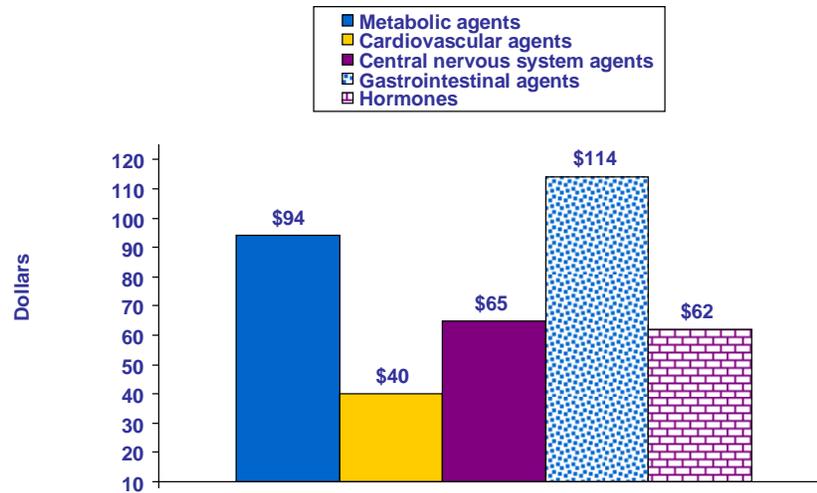
Figure 4. Percentage with prescribed drug expenses by therapeutic classification (top 5), Medicare beneficiaries age 65 and older with prescribed medication expenses, 2007



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2007



Figure 5. Average expense per prescription by therapeutic classification (top 5), Medicare beneficiaries age 65 and older, 2007



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2007