Medical Expenditure Panel Survey

Agency for Healthcare Research and Quality

STATISTICAL BRIEF #411

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Expenditures for the Top Five Therapeutic Classes of Outpatient Prescription Drugs, Medicare Beneficiaries, Age 65 and Older, U.S. Civilian Noninstitutionalized Population, 2010

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Introduction

This Statistical Brief provides descriptive statistics on expenditures for the top five most costly therapeutic classes of outpatient prescription drugs, ranked by total expenses in 2010 for Medicare beneficiaries age 65 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 2010, 18 broad therapeutic classifications were delineated.

The estimates presented are derived from the Household and Pharmacy Components of the 2010 Medical Expenditure Panel Survey (MEPS). 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 2010. Insulin and diabetic supplies and equipment are also included in the 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.

Findings

Ranked by total expense, the top five most costly therapeutic classes of prescribed drugs purchased by Medicare beneficiaries age 65 and older in 2010 were metabolic agents, cardiovascular agents, central nervous system agents, respiratory agents, and gastrointestinal agents. These classes together totaled $63.4 billion and accounted for 68.3 percent of this population's $92.8 billion total prescription drug expenses (figure 1).

Metabolic agents had the highest total expenses ($22.5 billion) among the top five therapeutic classes for Medicare beneficiaries age 65 and older (figure 2). This was three times the total for gastrointestinal agents ($7.5 billion), the fifth most costly therapeutic class. Total expenditures on cardiovascular agents were $14.6 billion and for central nervous system agents, $11.1 billion.

Metabolic agents accounted for 24.2 percent of all medical expenses for elderly Medicare beneficiaries (figure 3).

Among Medicare beneficiaries age 65 and older, over two-thirds (70.8 percent) purchased cardiovascular agents (figure 4). Metabolic agents were purchased by more than half (58.8 percent) of the Medicare

Highlights

- In 2010, the top five most costly therapeutic classes of prescription drugs ranked by total expense among Medicare beneficiaries age 65 and older were: metabolic agents, cardiovascular agents, central nervous system agents, respiratory agents, and gastro-intestinal agents.
- Among the Medicare population age 65 and older in 2010, expenditures for the top five therapeutic classes totaled $63.4 billion and represented more than two-thirds (68.3 percent) of annual expenditures for prescription drugs.
- Expenses for metabolic agents accounted for nearly one-quarter of total prescription drug expenses for the Medi-care population age 65 and older in 2010.
- More than two-thirds of the Medicare population age 65 and older purchased a cardio-vascular agent in 2010.
- In 2010, among the top five therapeutic classes of prescription drugs; respiratory agents had the highest average expense per prescription, more than three times the average expense for cardiovascular agents.

beneficiaries while less than half (42.7 percent) of the Medicare beneficiaries purchased central nervous system agents. Smallerproportions of Medicare beneficiaries purchased gastrointestinal agents (26.2 percent)and respiratory agents (17.9 percent).

In terms of average expense per prescription, respiratory agents had the highest average ($139) followed by gastrointestinal agents ($111), metabolic agents ($98), central nervous system agents ($80), and cardiovascular agents ($40) (figure 5).

Data Source

The estimates shown in this Statistical Brief are based on data from the MEPS-HC 2010 Full Year Consolidated Data File and MEPS-HC 2010 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 were linked to the Multum Lexicon database to obtain therapeutic class and subclass variables. The therapeutic class of metabolic agents includes the subclasses of antihyperlipidemic agents and antidiabetic agents. The therapeutic class of cardiovascular agents includes calcium channel blockers and diuretics; central nervous system agents include analgesics, anticonvulsants, and antiparkinson agents. The therapeutic class of gastrointestinal agents includes the H2-receptor antagonists, antacids, antidiarrheals, and proton pump inhibitors; and the therapeutic class of respiratory agents includes decongestants, antihistamines, respiratory inhalants, and antiasthmatic products.

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 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

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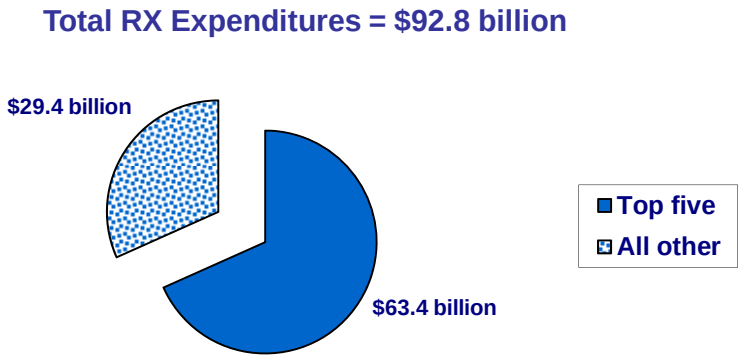
AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools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

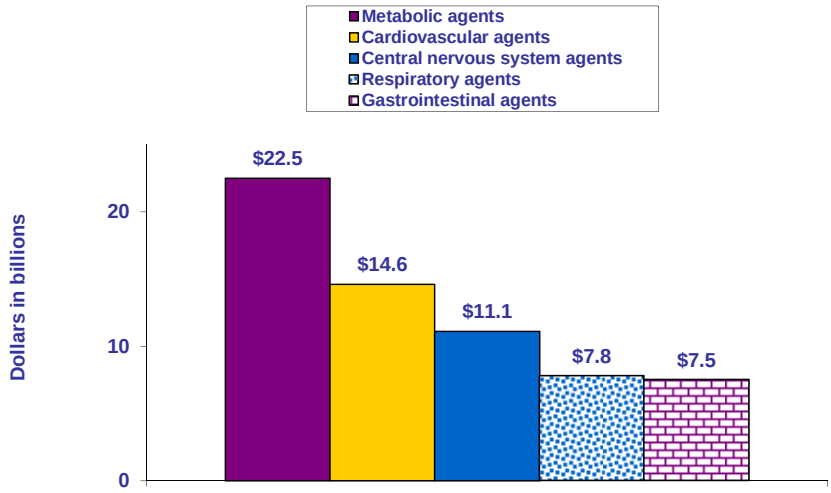
Steven B. Cohen, PhD, Director
Center for Financing, Access, and Cost Trends
Agency for Healthcare Research and Quality
540 Gaither Road
Rockville, MD 20850

Figure 1. Expenditures for top five therapeutic classifications of prescribed drugs relative to total prescription medication expenses, Medicare beneficiaries age 65 and older, 2010



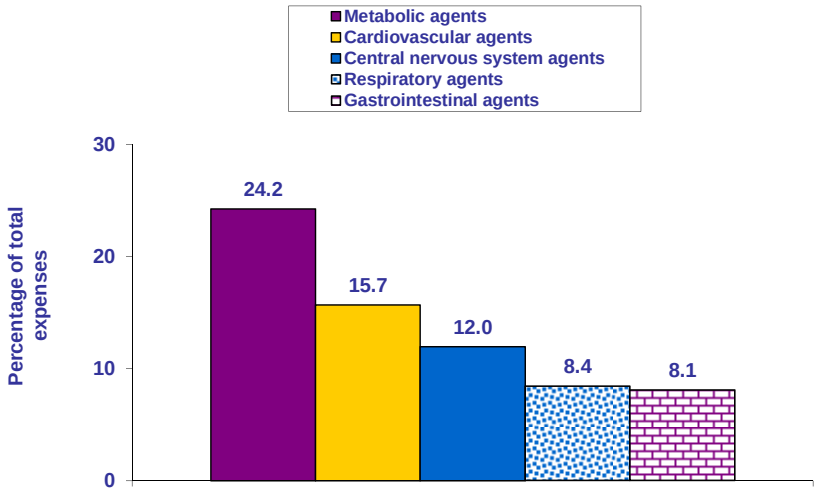
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2010

Figure 2. Total expenses for prescribed drugs by therapeutic classification (top five), Medicare beneficiaries age 65 and older, 2010



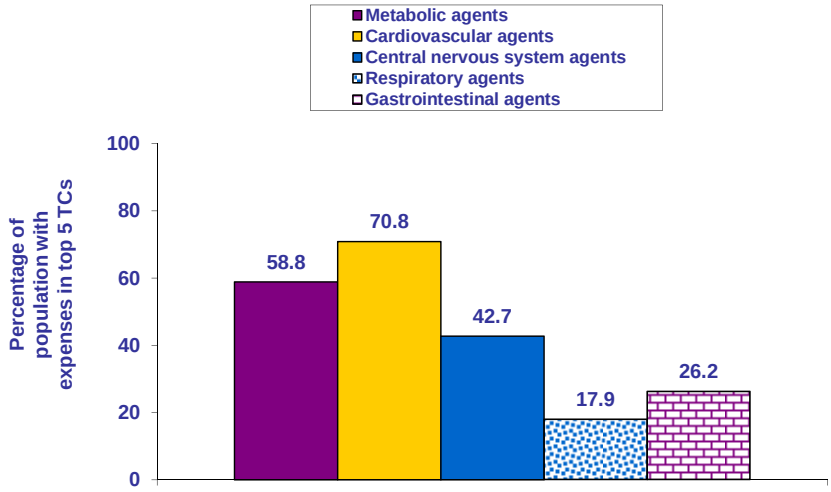
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2010

Figure 3. Percentage of the total medical expenses for the top five therapeutic classifications of drugs for Medicare beneficiaries age 65 and older, 2010



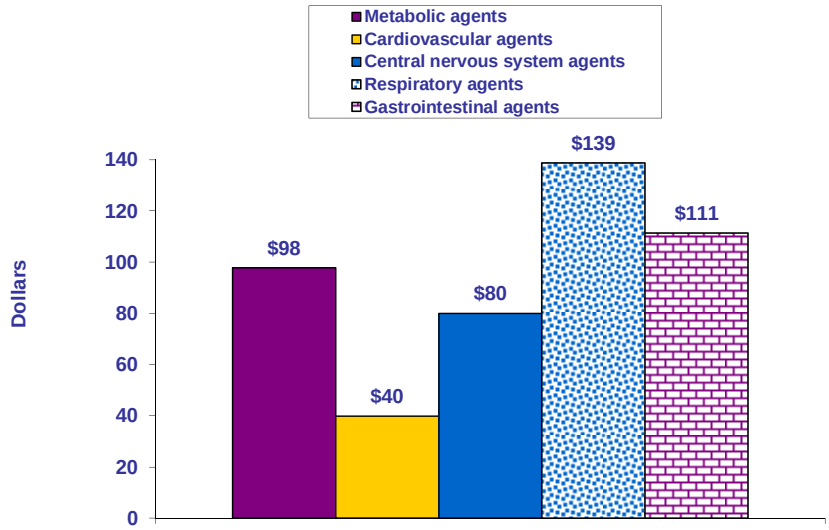
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2010

Figure 4. Percentage of Medicare beneficiaries with expenses in the top five therapeutic classifications, age 65 and older, 2010



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2010

Figure 5. Average expense per prescription by therapeutic classification (top five), Medicare beneficiaries age 65 and older, 2010



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household and Pharmacy Components of the Medical Expenditure Panel Survey, 2010