

## STATISTICAL BRIEF #270

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### Trends in Antiparkinson Agents Purchases and Expenditures for Adults in the U.S. Civilian Noninstitutionalized Population, 1996 and 2007

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#### Introduction

This Statistical Brief examines trends for antiparkinson agents for the years 1996 and 2007. The estimates included in this Brief are derived from 1996 and 2007 data for the U.S. civilian noninstitutionalized population from the Household Component of the Medical Expenditure Panel Survey (MEPS-HC). For prescription antiparkinson agents, the Brief compares 1996 and 2007 purchases and expenditure estimates for adults age 18 and older. For this Brief, the Multum Lexicon therapeutic classification system produced by Cerner Multum was used to determine the drugs included in the therapeutic subclass antiparkinson agents.

Parkinson's disease (PD) is a degenerative disorder of the central nervous system. Parkinson's disease belongs to a group of conditions called movement disorders. The four main symptoms are tremor, or trembling in hands, arms, legs, jaw, or head; rigidity, or stiffness of the limbs and trunk; bradykinesia, or slowness of movement; and postural instability, or impaired balance. These symptoms usually begin gradually and worsen with time so the risk of PD increases with age, and the financial and public health impact of this disease may increase as the population gets older.<sup>1</sup>

Only prescribed medicine purchases in an outpatient setting are included in the estimates presented in this Brief. Prescription medicines administered in an inpatient setting or in a clinic or physician's office are excluded from the estimates in this Brief. Expenditures are in real dollars; estimates for 1996 were adjusted to 2007 dollars based on the Gross Domestic Product (GDP) Price Index ([http://www.meps.ahrq.gov/mepsweb/about\\_meps/Price\\_Index.shtml](http://www.meps.ahrq.gov/mepsweb/about_meps/Price_Index.shtml)). All differences discussed in the text are statistically significant at the 0.05 level.

#### Findings

When comparing 1996 and 2007, MEPS estimates showed an increase over 350 percent, rising from \$0.4 billion in 1996 to \$1.9 billion in 2007 for total prescription expenditures for antiparkinson agents for adults age 18 and older (figure 1).

Total prescribed medicine purchases of antiparkinson agents for adults increased about 75 percent from 1996 to 2007, rising from 8.0 million prescription purchases to 14.0 million prescription purchases (figure 2).

The total number of adults purchasing antiparkinson agents increased approximately 73 percent when comparing 1996 and 2007, rising from 1.1 million adults to 1.9 million adults (figure 3). The proportion of the adult population that purchased one or more antiparkinson agents increased as well, rising from 0.6 percent to 0.8 percent.

When comparing 1996 and 2007, the average annual expenditure for antiparkinson agents per adult purchasing one or more antiparkinson agent increased over 175 percent (\$356 and \$991, respectively). Moreover, the average annual third party payment per adult increased over 500 percent, rising from \$131 to \$817. The average annual out of pocket expenditure per adult did not change significantly (figure 4).

There was no significant difference in average annual number of purchases for adults with one or more antiparkinson agent purchase when comparing the years 1996 and 2007 (7.1 purchases per adult and 7.4 purchases per adult, respectively) (figure 5).

#### Highlights

- From 1996 to 2007, total expenditures for antiparkinson agents for adults in an outpatient setting more than quadrupled rising from \$0.4 billion to \$1.9 billion.
- When comparing 1996 to 2007, the average annual expenditure per adult with a prescription medicine purchase of one or more antiparkinson agents more than doubled, rising from \$356 to \$991.
- The average annual third party payer expenditure per adult with one or more antiparkinson agent purchases rose more than five fold, rising from \$131 to \$817, when comparing 1996 and 2007.
- When comparing 1996 and 2007, the average total expenditure per purchase for an antiparkinson prescription medicine for adults more than doubled, rising from \$50 to \$135.
- The average third party expenditure per drug purchase for an antiparkinson agent for adults rose more than five times when comparing 1996 with 2007 (\$18 and \$111, respectively).

<sup>1</sup>National Institute of Neurological Disorders and Stroke, National Institutes of Health: [http://www.ninds.nih.gov/disorders/parkinsons\\_disease/detail\\_parkinsons\\_disease.htm](http://www.ninds.nih.gov/disorders/parkinsons_disease/detail_parkinsons_disease.htm)

When comparing 1996 and 2007, the average annual expenditure per drug purchase for an antiparkinson agent for adults increased approximately 170 percent (\$50 and \$135, respectively). Although the average out of pocket expenditure per drug purchase did not change significantly (\$32 and \$24, respectively), the average third party payment per drug purchase increased over 500 percent (\$18 and \$111, respectively) (figure 6).

## Data Source

The estimates shown in this Statistical Brief are based on data from MEPS HC-068: Multum Lexicon Addendum Files, MEPS HC-012: 1996 Full Year Consolidated Data File, MEPS HC-010A: 1996 Prescribed Medicines File, MEPS HC-113: 2007 Full Year Consolidated Data File, and MEPS HC-110A: 2007 Prescribed Medicines File.

## Definitions/Methodology

### *Purchases and expenditures*

Purchases were defined as antiparkinson agents prescribed and purchased in the year of interest. Refills as well as original prescriptions are included in expenditure and purchase estimates. Individuals were classified as purchasing a prescribed antiparkinson agent if they reported one or more such purchases during the year of interest. Expenditures include the total direct payments from all sources to pharmacies for prescriptions reported by respondents in the MEPS-HC. Expenditures are in real dollars; estimates for 1996 were adjusted to 2007 dollars based on the GDP Price Index ([http://www.meps.ahrq.gov/mepsweb/about\\_meps/Price\\_Index.shtml](http://www.meps.ahrq.gov/mepsweb/about_meps/Price_Index.shtml)).

### *Age*

Age is the last available age for the sampled person. For most persons, this was their age at the end of the year.

### *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. For both 1996 and 2007 data, the antiparkinson agents subclass was included in the central nervous system (CNS) agents therapeutic class of drugs. Moreover, in both years, the antiparkinson agents subclass included the subtherapeutic classes of anticholinergic agents and dopaminergic antiparkinsonism agents. For additional information on these and other Multum Lexicon variables, as well as the Multum Lexicon database itself, please refer to Multum's Web site.

### *Sources of Payment*

- Out of pocket: This category includes payments by the person or other family members.
- Third party payer: This category includes payments by Medicare, Medicaid, private insurance, Veterans Affairs, CHAMPVA, TRICARE, Other Federal Sources, Other State and Local Sources, Workers Compensation, and Other Unclassified Sources.

## 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, 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](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr22/mr22.pdf)

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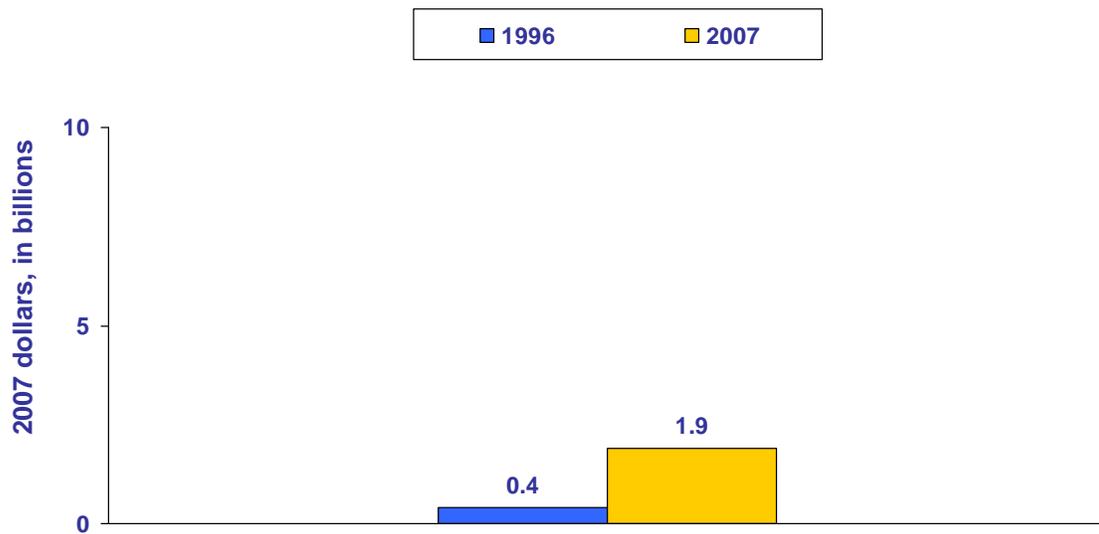
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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using 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 [mepsd@ahrq.gov](mailto:mepsd@ahrq.gov) or send a letter to the address below:

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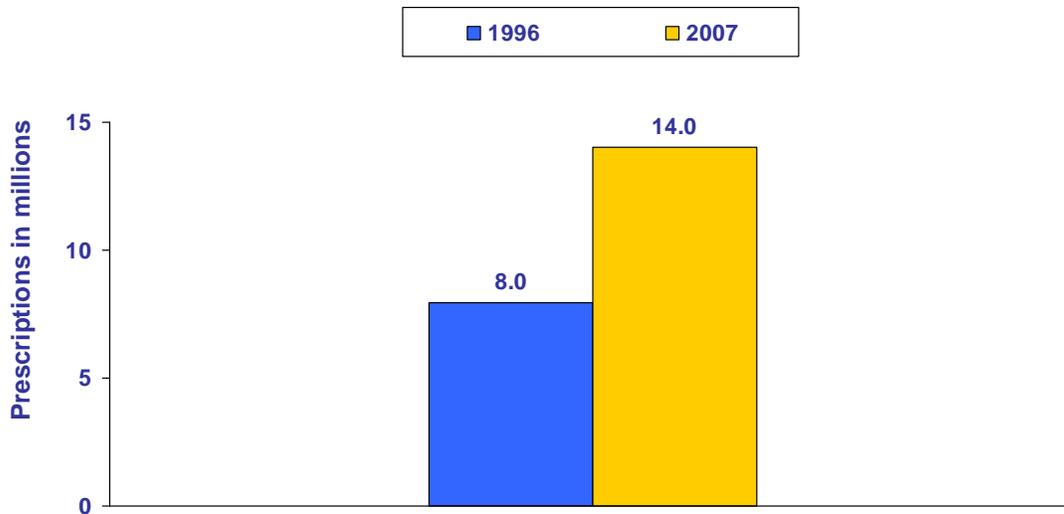
**Figure 1. Total annual expenditures for antiparkinson agents for adults age 18 and older, 1996 (adjusted to 2007 dollars) and 2007**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1996 and 2007



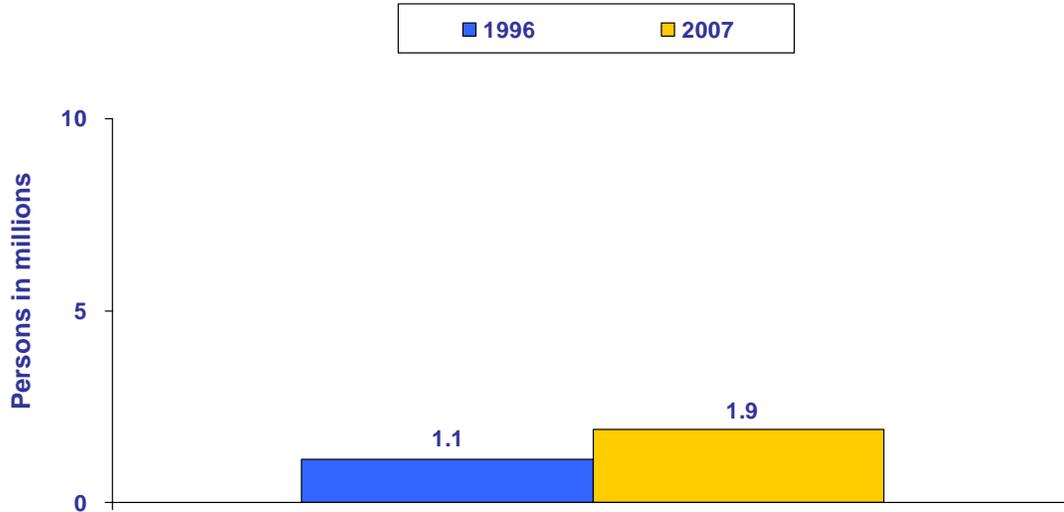
**Figure 2. Total number of antiparkinson agents purchases for adults age 18 and older, 1996 and 2007**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1996 and 2007



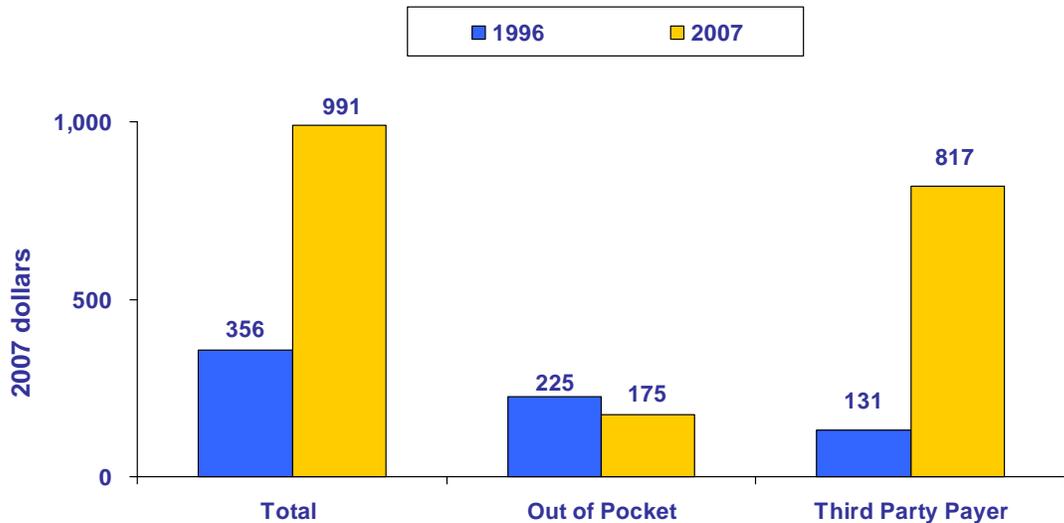
**Figure 3. Total number of adults age 18 and older purchasing antiparkinson agents, 1996 and 2007**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1996 and 2007



**Figure 4. Average total, out of pocket, and third party payer expenditure per adult age 18 and older for antiparkinson agents, 1996 (adjusted to 2007 dollars) and 2007**

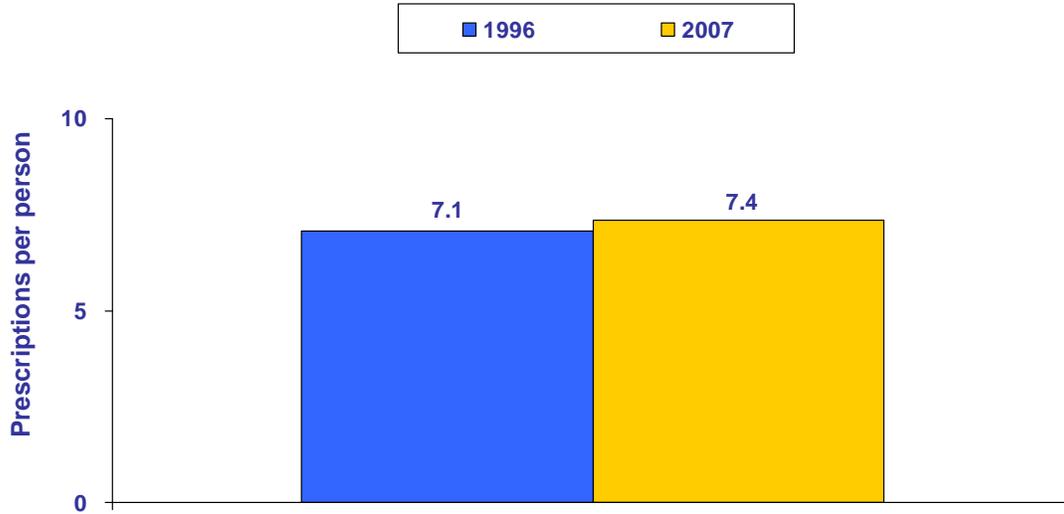


Note: Detail may not sum to total due to rounding.

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1996 and 2007



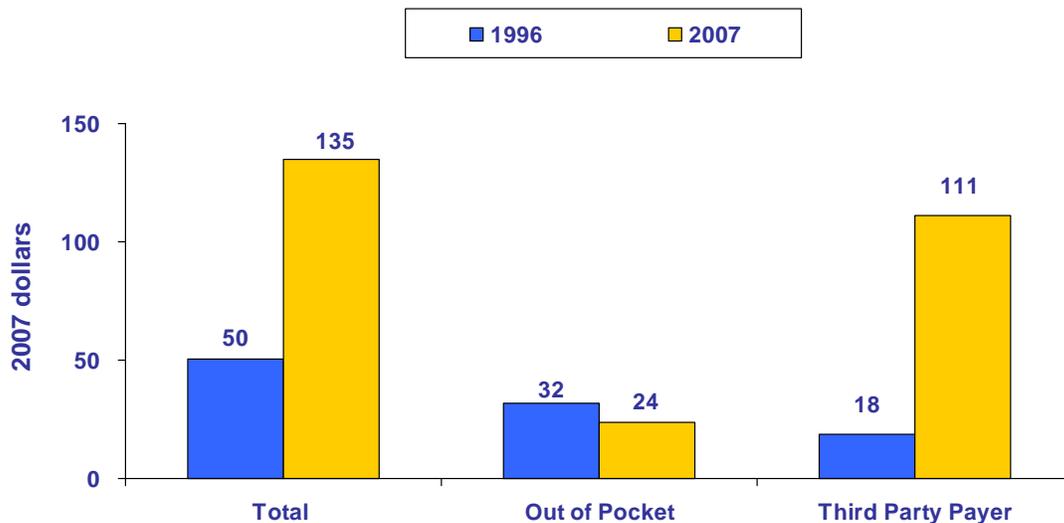
**Figure 5. Average number of purchases for antiparkinson agents for adults age 18 and older with a purchase, 1996 and 2007**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1996 and 2007



**Figure 6. Average total, out of pocket, and third party payment per drug purchase for adults age 18 and older for antiparkinson agents, 1996 (adjusted to 2007 dollars) and 2007**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1996 and 2007