

## STATISTICAL BRIEF #356

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### Trends in Dermatological Agents Utilization and Expenditures for the U.S. Civilian Noninstitutionalized Population, 1999 and 2008

Marie N. Stagnitti, MPA

#### Introduction

Rising health care costs in general and prescribed medicine costs in particular continue to be a concern for U.S. policymakers and consumers of care. Breaking down total prescription drug costs into therapeutic classes and subclasses provides decision makers and the public with an understanding of the costs and extent to which specific therapeutic classes and subclasses of drugs are contributing to the upturn in total costs. This Brief provides trends for one therapeutic subclass of prescribed drugs—dermatological agents.

This Brief presents trends in utilization and expenditures for outpatient prescription dermatological agents for the years 1999 and 2008. The estimates are for the U.S. civilian noninstitutionalized population and are derived from the 1999 and 2008 Household Component of the Medical Expenditure Panel Survey (MEPS-HC). For outpatient prescription dermatological agents, the Brief compares for 1999 and 2008 the number of persons obtaining at least one prescription, total expenditures, and total number of prescriptions, as well as average annual cost per person and average drug cost. The Brief also compares average cost per drug purchase and average annual cost per person for common sub subclasses of drugs within the subclass dermatological agents for 1999 and 2008.

Only prescribed medicine prescriptions in an outpatient setting are included in these estimates. Prescription medicines administered in an inpatient setting or in a clinic or physician's office are excluded. Expenditure estimates are presented in real dollars; estimates for 1999 were inflated to 2008 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)). All differences discussed in the text are statistically significant at the 0.05 level.

#### Findings

When comparing 1999 with 2008, MEPS estimates showed a decrease in the total number of people in the U.S. civilian noninstitutionalized population obtaining at least one dermatological agent (from 40.1 million to 19.9 million) and a decrease in total prescriptions for dermatological agents (from 75.8 million to 45.0 million prescriptions). However, even with decreases in utilization and the number of people obtaining prescriptions, there was no significant change in total inflation adjusted expenditures for dermatological agents when comparing the years 1999 (\$3.3 billion) and 2008 (\$3.0 billion) (figures 1, 2, and 3).

From 1999 to 2008, MEPS estimates showed an increase of 83 percent in the inflation adjusted annual mean expense per person obtaining one or dermatological agent, from \$83 to \$152. There was also an increase of 52 percent in the inflation adjusted average drug expense per purchase for a dermatological agent, from \$44 to \$67 (figures 4 and 5).

#### Highlights

- From 1999 to 2008, the number of people in the U.S. civilian noninstitutionalized population obtaining at least one outpatient prescription dermatological agent decreased from 40.1 million people to 19.9 million people, and utilization of outpatient prescription dermatological agents decreased from 75.8 million prescriptions to 45.0 million prescriptions. However, inflation adjusted total expenses were similar in both years (\$3.3 billion and \$3.0 billion).
- Between 1999 and 2008, the inflation adjusted average annual dermatological drug expense for persons in the U.S. civilian noninstitutionalized population obtaining at least one outpatient prescription dermatological agent increased from \$83 to \$152.
- From 1999 and 2008, the inflation adjusted average cost per purchase of a prescription dermatological agent rose from \$44 to \$67.
- Comparing 1999 and 2008, the average drug price and average annual expense per person with a purchase in the following common sub therapeutic subclasses within the therapeutic subclass of dermatological agents increased: topical anti-infectives, topical acne agents, and miscellaneous topical agents while both means decreased for topical steroids and topical steroids with anti-infectives.

From 1999 to 2008, the average annual expense per person for each common sub therapeutic subclasses within the therapeutic subclass of dermatological agents increased for topical anti-infectives (from \$47 to \$264), miscellaneous topical agents (from \$39 to \$140), and topical acne agents (from \$120 to \$180), and decreased for topical steroids (from \$132 to \$75) and topical steroids with anti-infectives (from \$66 to \$24). There was no significant change for topical emollients (figure 6).

Comparing 1999 with 2008, the average price per drug purchase for each common sub therapeutic subclasses within the therapeutic subclass of dermatological agents increased for topical anti-infectives (from \$32 to \$198), topical anesthetics (from \$29 to \$225), miscellaneous topical agents (from \$24 to \$99), and topical acne agents (from \$60 to \$83), and decreased for topical steroids (from \$63 to \$37) and topical steroids with anti-infectives (from \$51 to \$16). There was no significant change for topical emollients (figure 6).

## Data Source

The estimates shown in this Statistical Brief are based on data from MEPS: HC-068: Multum Lexicon Addendum Files to Prescribed Medicines Files 1996–2001; HC-038: 1999 Full Year Consolidated Data File; HC-033A: 1999 Prescribed Medicines File, and HC-118A: 2008 Prescribed Medicines File.

## Definitions

### *Purchases and expenditures*

Utilization was defined as purchasing or obtaining dermatological agents prescribed in the year of interest. Refills as well as original prescriptions are included in expenditure and utilization estimates. 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 1999 were adjusted to 2008 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)).

### *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 first choice in the linking algorithm was chosen when assigning therapeutic classes and subclasses. The following was used to define dermatological agents: therapeutic class: hormones; subclass: dermatological agents. In 1999 and 2008 common sub subclasses for dermatological agents included: topical anti-infectives, topical steroids, topical anesthetics, miscellaneous topical agents, topical steroids with anti-infectives, topical acne agents, topical antipsoriatics, and topical emollients (topical antipsoriatics estimates are not included in this Brief due to small sample size and the unreliability of the estimates). In 2008, the subclass dermatological agents also included the following sub therapeutic subclasses: topical antibiotics, topical antivirals, topical antifungals, topical debriding agents, topical depigmenting agents, topical antihistamines, topical astringents, and topical keratolytics. For additional information on these and other Multum Lexicon variables, please refer to the Multum Web site.

## 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.

MEPS expenditure data are derived from both the Medical Provider Component (MPC) and Household Component (HC). MPC data are generally used for hospital-based events (e.g., inpatient stays, emergency room visits, and outpatient department visits), prescribed medicine purchases, and home health agency care. Office-based physician care estimates use a mix of HC and MPC data while estimates for non-physician office visits, dental and vision services, other medical equipment and services, and

independent provider home health care services are based on HC provided data. Details on the estimation process can be found in Machlin, S. R. and Dougherty, D. D. *Overview of Methodology for Imputing Missing Expenditure Data in the Medical Expenditure Panel Survey*. Methodology Report No. 19. March 2007. Agency for Healthcare Research and Quality, Rockville, MD. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr19/mr19.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr19/mr19.pdf)

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, 2001. [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, 2001. [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, 1998-2008*. 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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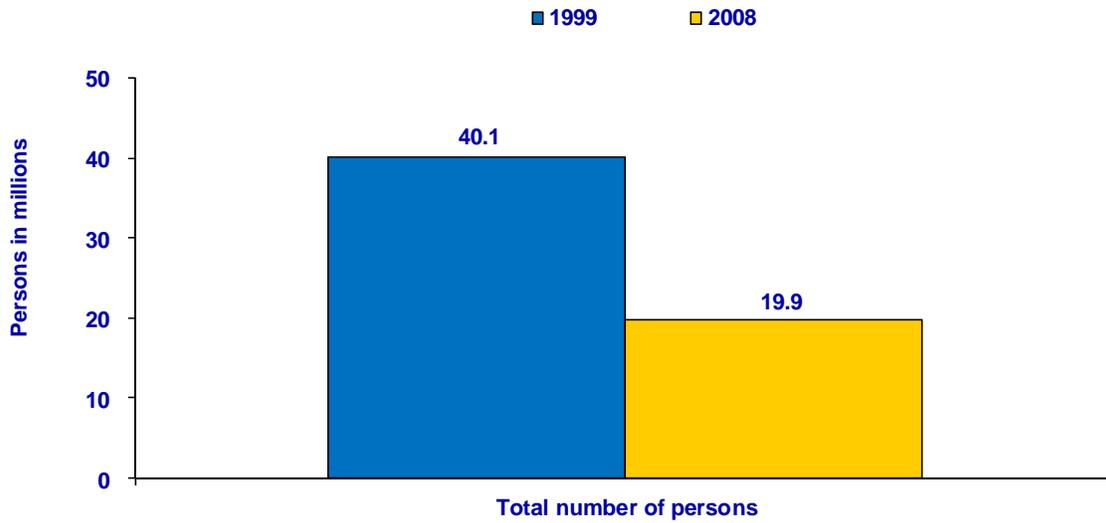
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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using 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 [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  
Rockville, MD 20850



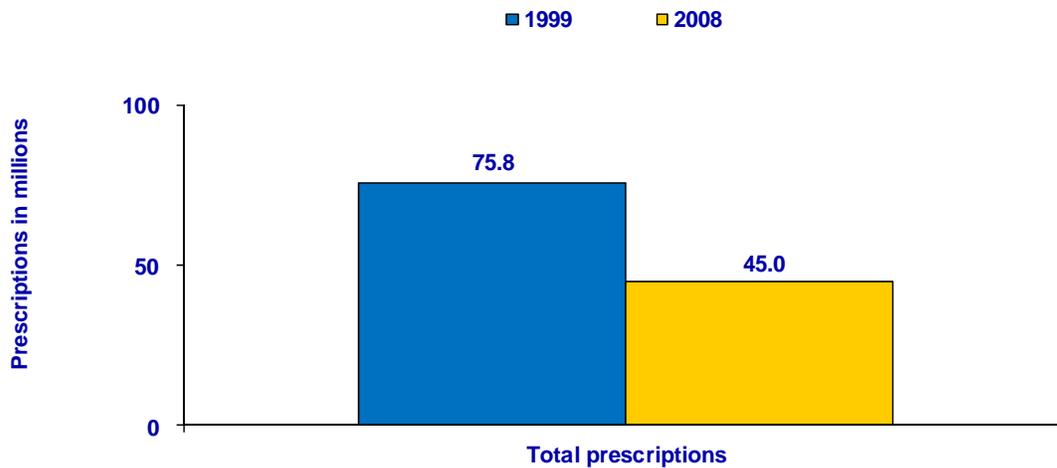
**Figure 1. Total number of people obtaining at least one prescribed dermatological agent, 1999 and 2008**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1999 and 2008



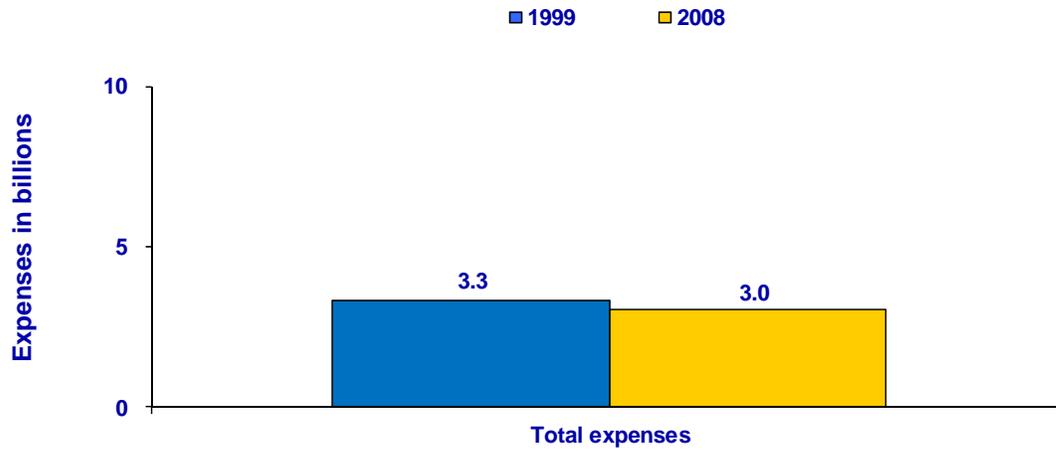
**Figure 2. Total number of prescriptions purchased or obtained for prescribed dermatological agents, 1999 and 2008**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1999 and 2008



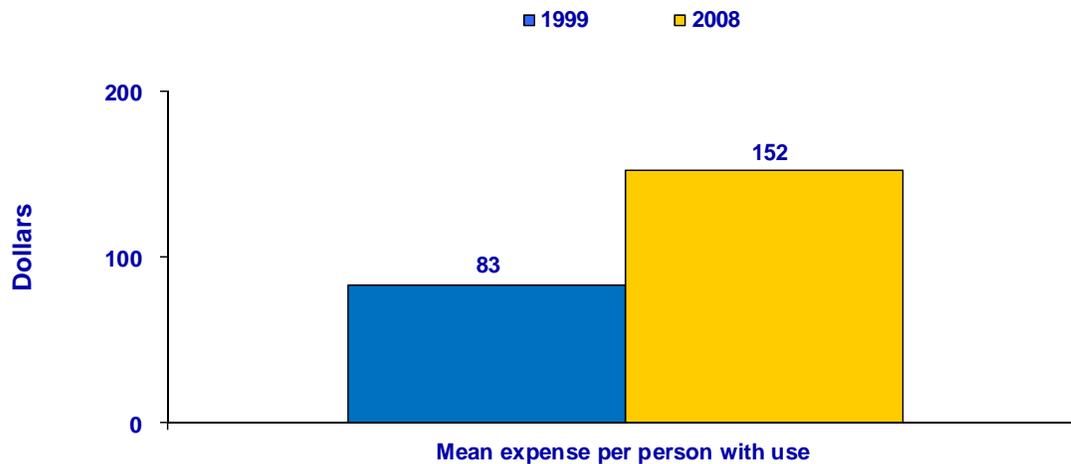
**Figure 3. Total expenses for prescribed dermatological agents subclasses, 1999 and 2008 (adjusted to 2008 dollars)**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1999 and 2008



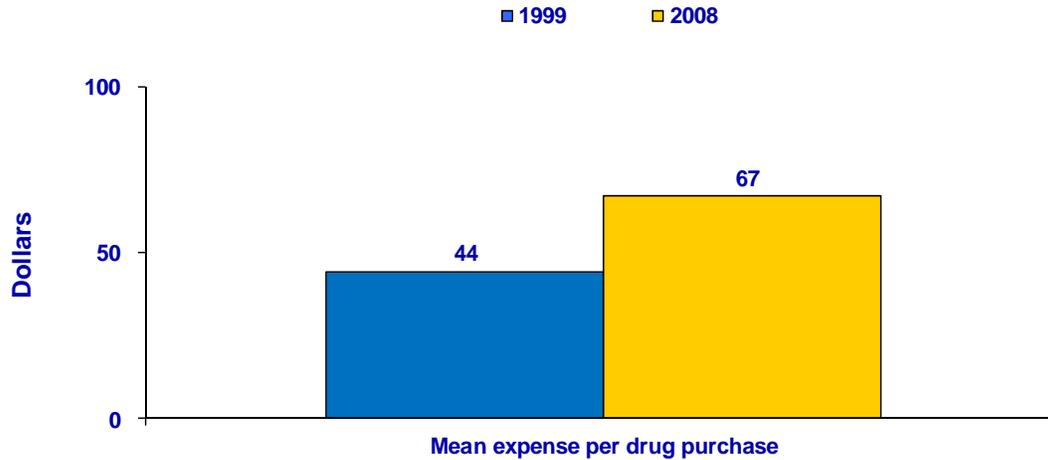
**Figure 4. Mean dermatological drug expense per person for persons obtaining one or more prescribed dermatological agents, 1999 and 2008 (adjusted to 2008 dollars)**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1999 and 2008



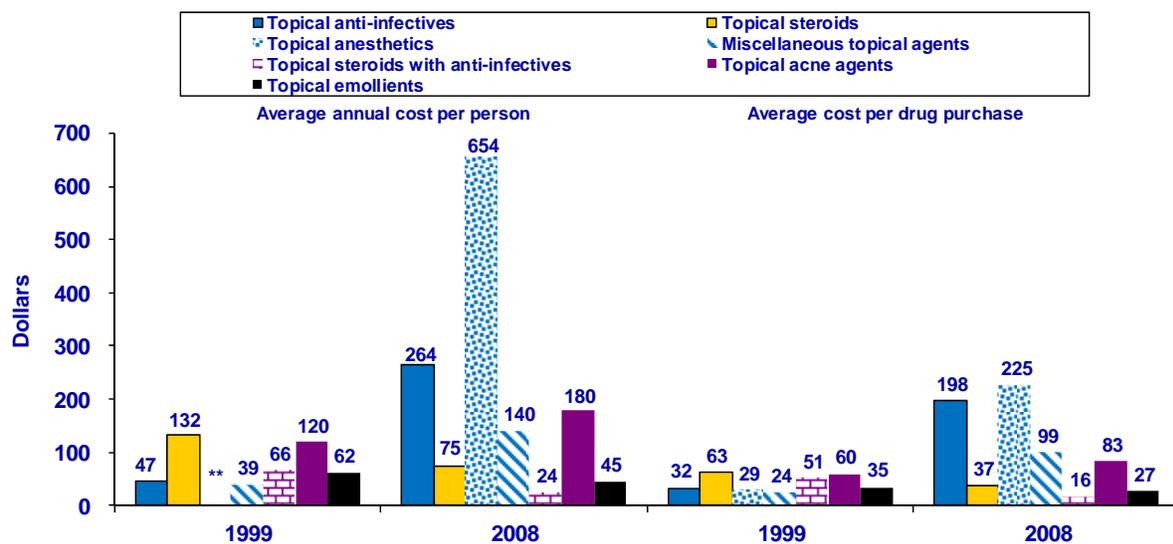
**Figure 5. Mean expense per drug purchase for prescribed dermatological agents, 1999 and 2008 (adjusted to 2008 dollars)**



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1999 and 2008



**Figure 6. Mean expense per person with a purchase and mean drug expense for common sub therapeutic subclasses of prescribed dermatological agents, 1999 and 2008 (adjusted to 2008 dollars)**



\* Topical antipsoriatics not included in figure due to small sample size

\*\* Estimate cannot be provided due to small sample size

Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 1999 and 2008