

TRENDS IN MANUFACTURER PRICES OF BRAND NAME PRESCRIPTION DRUGS USED BY OLDER AMERICANS— FIRST QUARTER 2005 UPDATE

INTRODUCTION

This Data Digest reports on changes in manufacturer prescription drug prices during the first three months of 2005 (January through March) for the 195 brand name prescription drugs most widely used by Americans age 50 and over; these changes are measured on both an annual basis and a three-month basis. This report is part of a series of ongoing studies of changes in drug manufacturer prices—that is, the prices manufacturers charged for drugs they sold to wholesalers. Previous studies by the AARP Public Policy Institute identified steady increases in the average annual manufacturer price from calendar year 2000 through calendar year 2004.ⁱ

These reports focus on changes in the prices that brand name drug manufacturers charge to wholesalers and other direct purchasers for their sales to retail pharmacies. The manufacturer's charge to wholesalers is the most substantial component of a brand name prescription drug's retail price. When manufacturers increase their price to wholesalers for a brand name drug, the added cost is generally passed on in the retail price to most prescription purchasers.ⁱⁱ Changes in drug manufacturer prices are measured by changes in the wholesale acquisition cost (WAC) published in the Medi-Span Price-Chek PC database.ⁱⁱⁱ

This report presents two measures of price change (see methodological appendix). The first set of findings are *annual* rates of change in manufacturer prices (i.e., changes from April 1, 2004 through March 31, 2005) for widely used brand name drugs, using both rolling average and point-to-point estimates; information is presented on percentage change in manufacturer price and on potential dollar changes in consumer spending. The second set of findings are *three-month* percentage changes in prices (i.e., changes from December 31, 2004 through March 31, 2005); the distribution of percentage price changes is shown, as well as differences in average percentage price changes by manufacturer and by therapeutic category.

FINDINGS

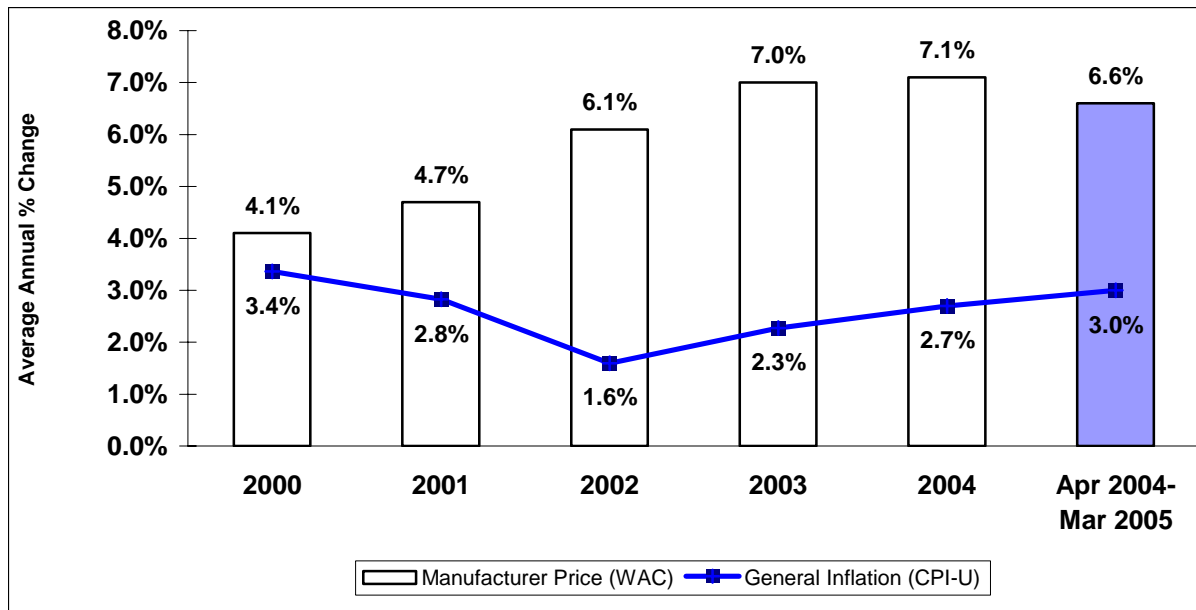
I. Annual Trends in Manufacturer Price Changes for Most Widely Used Brand Name Prescription Drugs

In order to compare recent changes in prices charged by manufacturers with changes reported for previous years, an annual rate of price change was calculated. The average annual rate of increase in manufacturer prices for the 195 brand name prescription drugs most widely used by older Americans for the 12 months ending with the first quarter of 2005 continued to exceed the rate of inflation (as measured by the Consumer Price Index-All Urban Consumers, or CPI-U).^{iv} However, the rate of price increase for this time period slowed relative to both 2003 and 2004 (Figure 1).^v

Annual percent change in manufacturer prices

- Manufacturer prices for brand name drugs rose 6.6 percent in the 12 months ending with the first quarter (March) of 2005, when measured as a 12-month rolling average and weighted by actual 2003 sales to Americans age 50 and over.
- The manufacturer price increase for this most recent time period was more than twice the 3.0 percent rate of general inflation, compared to 2004 when the average manufacturer price increase was more than two-and-a-half times the rate of inflation.
- The average annual manufacturer price increase through the first quarter of 2005 represents a deceleration from both the 7.1 percent average increase for the 12 months ending in December 2004 and the 7.0 percent average increase for the 12 months ending in December 2003.

Figure 1: Average Annual Percentage Change in Manufacturer Prices for Most Widely Used Brand Name Prescription Drugs, 2000 Through First Quarter 2005



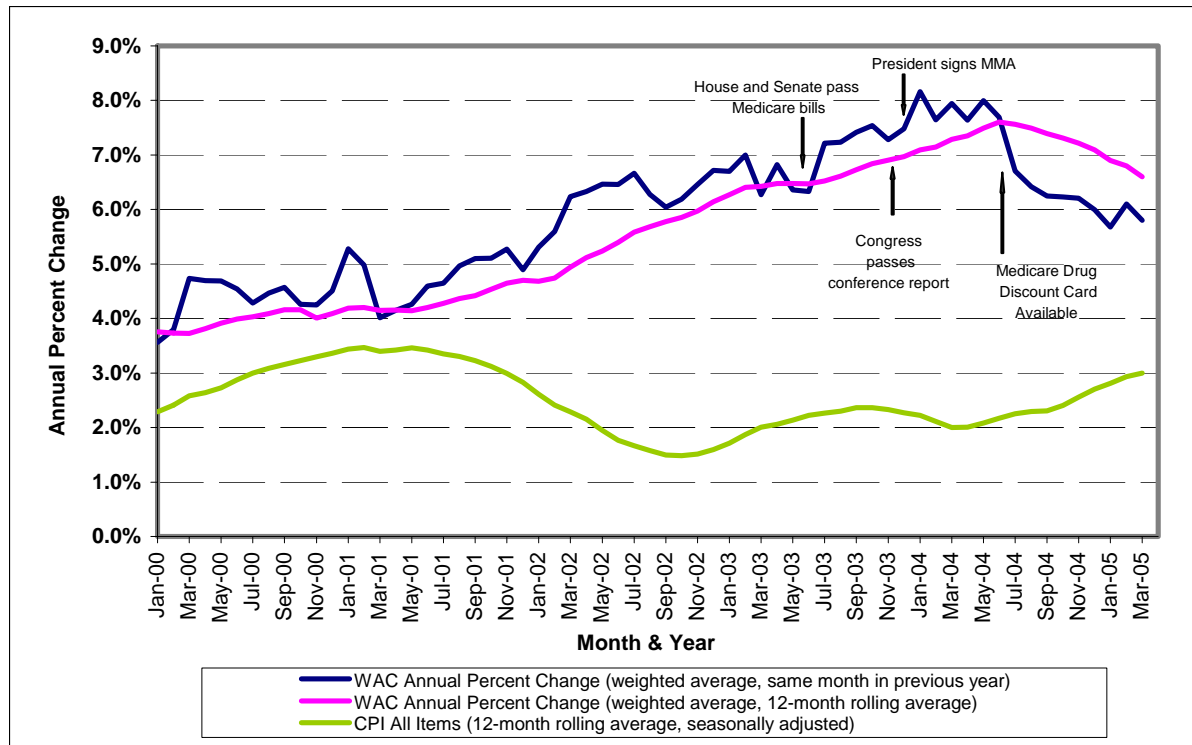
Average increases for 2004 and first quarter of 2005 exclude Vioxx 12.5 mg and 25 mg tablets, which were withdrawn from the market in September 2004.

Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

The average annual price change reported in Figure 1 is a conservative measure that, by averaging annual point-to-point price changes over a 12-month period (referred to as a *rolling average* change), masks the annual amount of change in price that occurs for a given month (referred to as an annual *point-to-point* change). The percentage change in price compared to the same month in the previous year has been plotted along with the 12-month rolling average to allow more detailed examination of the rate and timing of price changes over the entire study period (Figure 2).

- Figure 2 shows that manufacturer prices continued to rise rapidly in 2004 compared with the same months in 2003, but that the rate of price increase, which peaked in January 2004, has declined consistently in the months since the June 2004 introduction of Medicare prescription drug discount cards, with the exception of a slight jump in February 2005.

Figure 2: Comparison of Rolling Average and Point-to-Point Changes in Manufacturer Prices for Most Widely Used Brand Name Prescription Drugs, 2000 Through First Quarter 2005



Average increases for 2004 and first quarter of 2005 exclude Vioxx 12.5 mg and 25 mg tablets, which were withdrawn from the market in September 2004.

Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

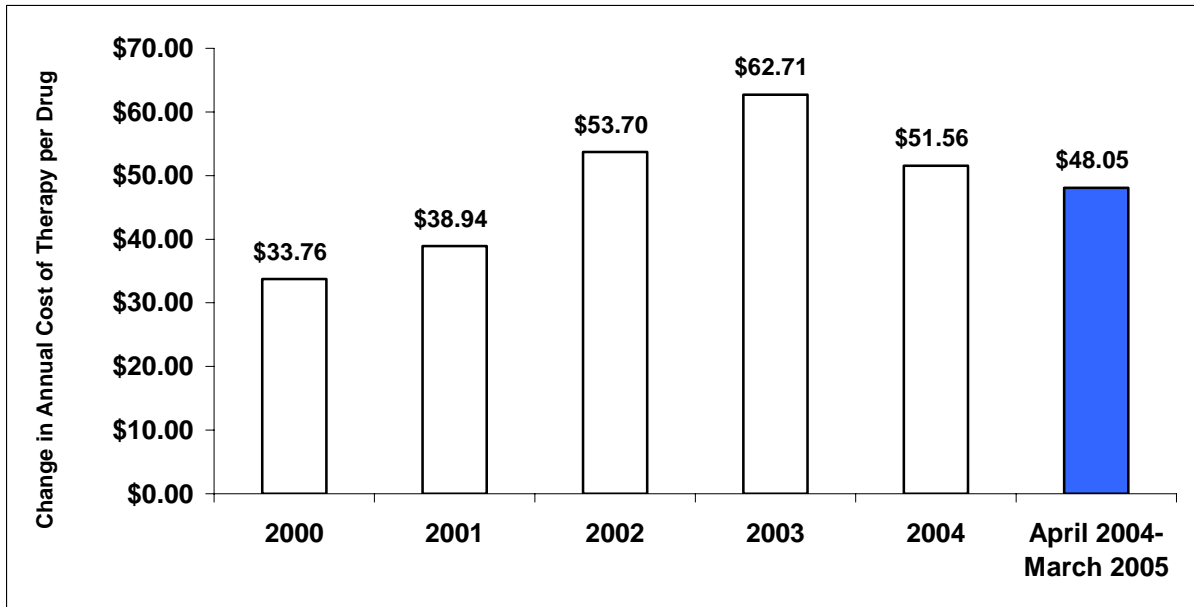
- The average annual point-to-point changes in manufacturer prices for widely used brand name drugs for the first three months of 2005 (5.9 percent) was the lowest first quarter average price increase since 2002 (5.7 percent). The first quarter 2005 change was far lower than the average increases in the first quarters of 2003 and 2004 (6.7 percent and 7.7 percent, respectively), but higher than the first quarter changes in 2000 (4.0 percent) and 2001 (4.8 percent).

Change in annual cost of therapy

The average annual cost of therapy due to manufacturer price increases for the 189 widely used brand name drugs used to treat chronic conditions (out of the total sample of 195 drugs) also continued to rise through March 2005, albeit at a slower pace than in recent years (Figure 3).

- The average annual increase was \$48.05 for the 12 months ending with the first quarter of 2005, compared to \$51.56 in 2004.
- A typical older American (who takes three prescription drugs per day) is likely to have experienced an annual increase, on average, in the cost of therapy of \$144.15 for the 12 months ending with the first quarter of 2005, compared to \$154.68 in 2004, if the drugs are brand name products and the full price increases were passed along to the consumer.

Figure 3: Average Change in Annual Cost of Therapy Due to Manufacturer Price Changes for Most Widely Used Brand Name Prescription Drugs in the Treatment of Chronic Conditions, 2000 Through First Quarter 2005



Does not include six drugs used primarily for treatment of acute conditions.

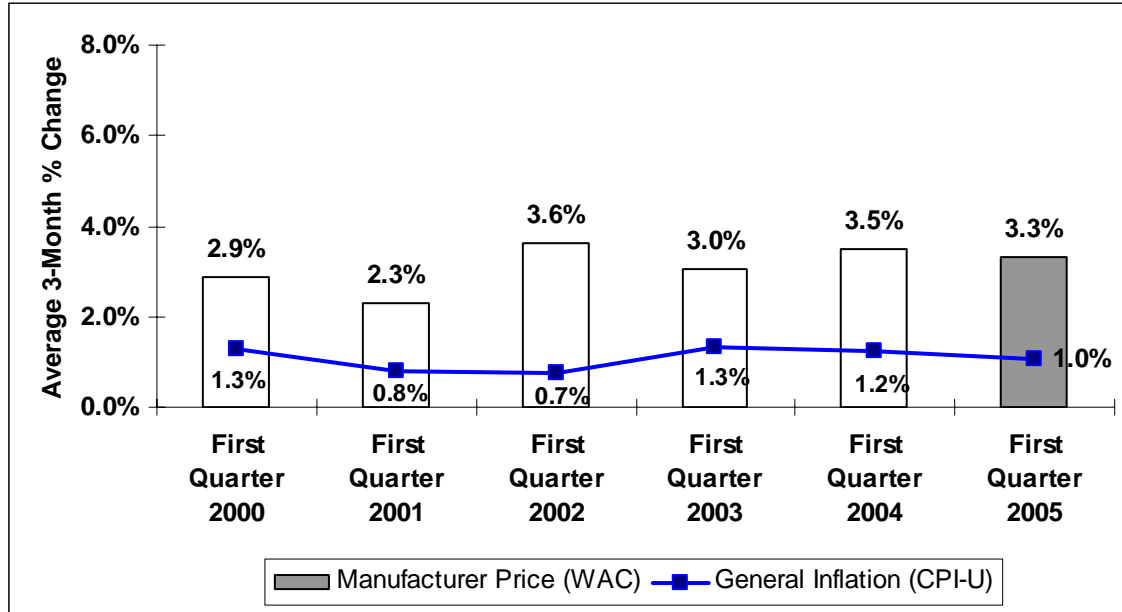
Average increases for 2004 and first quarter of 2005 exclude Vioxx 12.5 mg and 25 mg tablets, which were withdrawn from the market in September 2004.

Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

II. Three-Month Trends in Manufacturer Price Changes for Most Widely Used Brand Name Prescription Drugs

In order to track changes in prices charged by manufacturers for brand name drugs during shorter periods of time, the three-month percentage change in price was analyzed for the 195 widely used brand name drugs in the sample. On average, manufacturer prices for widely used brand name prescription drugs increased 3.3 percent during the first quarter of 2005 (i.e., December 31, 2004 through March 31, 2005), or more than three times the general inflation rate during the same three-month period (1.0 percent). The average percentage increase for the first quarter of 2005 exceeded the average increases during the first quarters of 2000, 2001, and 2003, but was slightly lower than the 2002 and 2004 first quarter average price increases of 3.6 percent and 3.5 percent, respectively (Figure 4).

Figure 4: Comparison of Average Three-Month Percentage Changes in Manufacturer Prices for Most Widely Used Brand Name Prescription Drugs, First Quarter 2000 - First Quarter 2005



Average increases for 2004 and first quarter of 2005 exclude Vioxx 12.5 mg and 25 mg tablets, which were withdrawn from the market in September 2004.

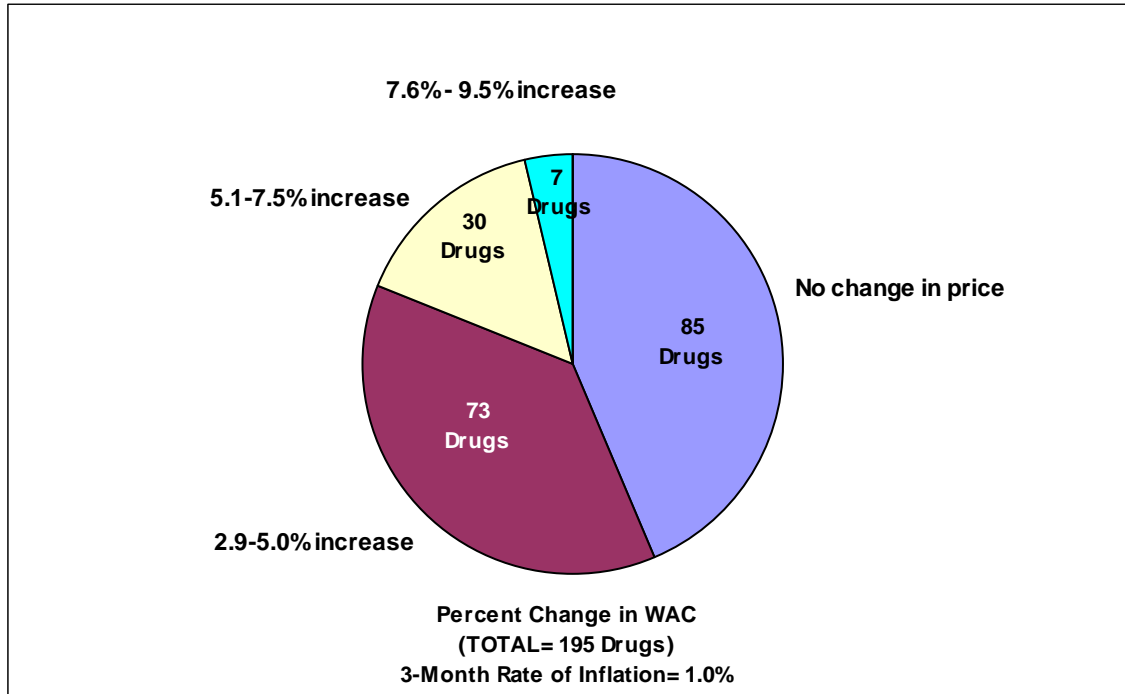
Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

Distribution of three-month manufacturer price changes

Manufacturer prices for 110 of the 195 most widely used brand name prescription drug products increased during the first quarter of 2005 (i.e., from December 31, 2004 through March 31, 2005). Manufacturer prices for the remaining 85 brand name prescription drugs did not change in the first quarter of 2005 (Figure 5).

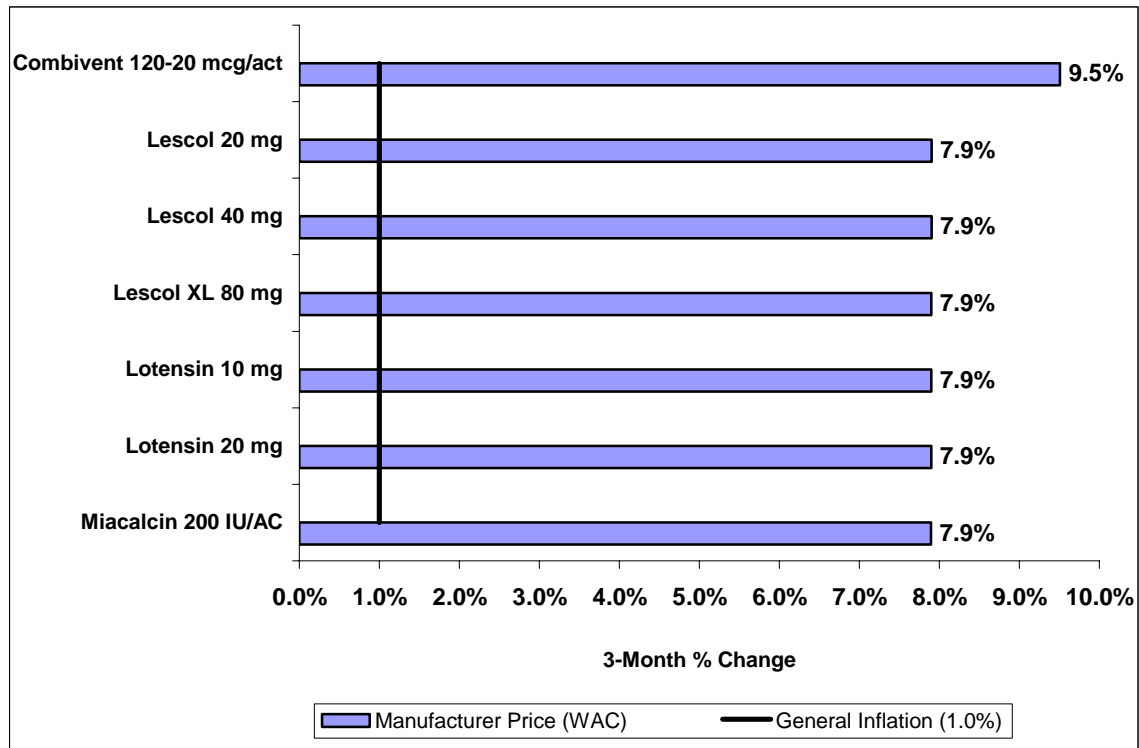
- Among those brand name drugs with price increases during the first quarter of 2005, all increases were 2.9 percent or more, at least triple the rate of inflation for the same period (1.0 percent).
- Thirty-seven drugs widely used by older Americans had three-month increases of more than 5 percent during the first quarter of 2005, including 7 drugs with three-month price increases of more than 7.5 percent.

Figure 5: Distribution of Three-Month Percentage Changes in Manufacturer Prices for Most Widely Used Brand Name Prescription Drugs, First Quarter 2005



Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

Figure 6: Brand Name Prescription Drug Products with Highest Three-Month Percentage Change in Manufacturer Price, First Quarter 2005



General inflation is based on CPI-U.

Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

The 7 brand name drug products with the highest three-month manufacturer price increases (i.e., the change from December 31, 2004 through March 31, 2005) in this study had price increases ranging from 7.9 percent to 9.5 percent (Figure 6).

Twenty-one of the 25 brand name drugs with the greatest sales in 2003 had price increases during the first quarter of 2005; these increases all exceeded the rate of general inflation during the same period (1.0 percent). Three of the 25 drugs had no price changes during the first quarter of 2005 (Table 1). (The remaining drug, Vioxx 25 mg, was removed from the market in September 2004.)

- The highest percentage price change during the first quarter of 2005 (i.e., from December 31, 2004 through March 31, 2005) among the 25 brand name drugs with the greatest sales in 2003 was for AstraZeneca's Toprol XL 50 mg (6.0 percent).
- All eight Pfizer drugs among the top 25 brand name drug products had price increases of 5.0 percent during the first quarter of 2005.
- All four Bristol-Myers Squibb (BMS) drugs among the top 25 brand name drug products had price increases during first quarter of 2005, ranging from 2.9 percent (for Plavix 75 mg) to 5.9 percent (for Pravachol 20 mg and Pravachol 40 mg).

- Only one of the two Merck drugs among the top 25 brand name drug products—Fosamax 70 mg, which ranked first in sales among the drugs in the sample—had a price increase during the first quarter of 2005 (4.5 percent). The other Merck drug (Zocor 20 mg) had no change in manufacturer price during the first quarter of 2005.

Table 1: Three-Month Percentage Change in Manufacturer Prices for Top 25 Brand Name Prescription Drug Products, First Quarter 2005

Rank by Sales Among Study Sample*	Product Name, Strength, and Dosage Form	Package Size	Manufacturer	Therapeutic Class	% Change in WAC, December 31, 2004-March 31, 2005
1	Fosamax 70 mg	4	Merck	Calcium Regulators	4.5%
2	Lipitor 10 mg	90	Pfizer	HMG CoA Reductase Inhibitors	5.0%
3	Plavix 75 mg	90	Bristol-Myers Squibb	Platelet Aggregation Inhibitors	2.9%
4	Lipitor 20 mg	90	Pfizer	HMG CoA Reductase Inhibitors	5.0%
5	Prevacid 30 mg Dr	100	TAP	Proton Pump Inhibitors	0.0%
6	Celebrex 200 mg	100	Pfizer	NSAIDs	5.0%
7	Protonix 40 mg	90	Wyeth	Proton Pump Inhibitors	0.0%
8	Norvasc 5 mg	90	Pfizer	Amlodipine Besylate	5.0%
9	Plavix 75 mg	30	Bristol-Myers Squibb	Platelet Aggregation Inhibitors	2.9%
10	Norvasc 10 mg	90	Pfizer	Amlodipine Besylate	5.0%
11	Nexium 40 mg	30	AstraZeneca	Proton Pump Inhibitors	3.0%
12	Flomax 0.4 mg	100	Abbott	Prostatic Hypertrophy Agents	3.0%
13	Actonel 35 mg	4	Proctor & Gamble	Calcium Regulators	2.9%
14	Xalatan Sol 0.005%	2.5	Pfizer	Prostaglandins - Ophthalmic	5.0%
15	Aricept 10 mg	30	Eisai	Antidementia	4.5%
16	Vioxx 25 mg	100	Merck	NSAIDs	N/A**
17	Ambien 10 mg	100	Sanofi Pharm	Non-Barbiturate Hypnotics	5.0%
18	Pravachol 40 mg	90	Bristol-Myers Squibb	HMG CoA Reductase Inhibitors	5.9%
19	Pravachol 20 mg	90	Bristol-Myers Squibb	HMG CoA Reductase Inhibitors	5.9%
20	Evista 60 mg	30	Lilly	Hormone Receptor Modulators	0.0%
21	Lipitor 40 mg	90	Pfizer	HMG CoA Reductase Inhibitors	5.0%
22	Toprol XL 50 mg	100	AstraZeneca	Beta Blockers Cardio-Selective	6.0%
23	Levaquin 500 mg	50	McNeil	Anti-Infective Agents	5.6%
24	Zocor 20 mg	30	Merck	HMG CoA Reductase Inhibitors	0.0%
25	Neurontin 300 mg	100	Pfizer	Misc. Anticonvulsants	5.0%
General inflation rate (as measured by growth in CPI-U), December 2004-March 2005					1.0%

*Ranking based on dollar value of prescriptions processed by the AARP Pharmacy Service during 2003.

**Vioxx 25 mg tablets were removed from the market in September 2004.

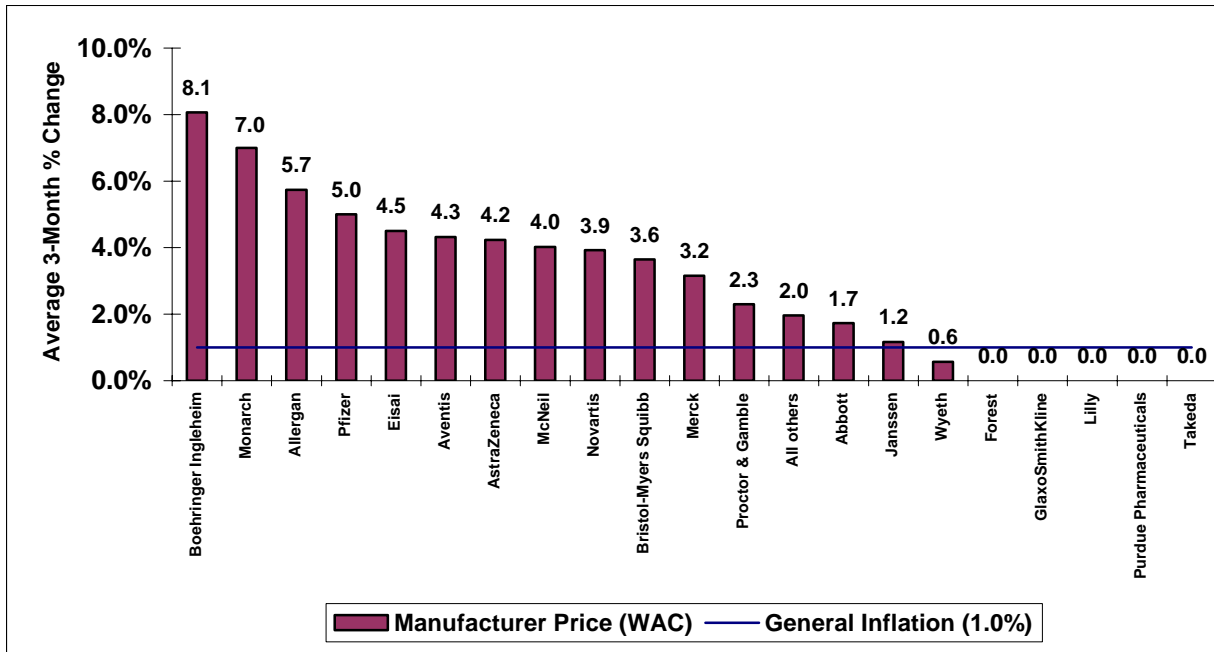
Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

Three-month manufacturer price changes for most widely used brand name prescription drugs, by manufacturer

Fourteen of the 20 drug manufacturers with at least three drugs in the study of widely used brand name drugs had price increases exceeding the rate of inflation during the first quarter of 2005 (i.e., from December 31, 2004 through March 31, 2005) (Figure 7).

- Four manufacturers—Boehringer Ingleheim, Monarch, Allergan, and Pfizer—had average three-month price increases that were at least five times the rate of general inflation (1.0 percent) during the first quarter of 2005.
- Including the manufacturers with the highest price increases, more than one-half (12 of 20) had average three-month price increases that were at least twice the rate of general inflation during the first quarter of 2005.

Figure 7: Average Three-Month Percentage Change in Manufacturer Price for Brand Name Prescription Drugs, by Manufacturer, First Quarter 2005



Manufacturers with fewer than three drugs in the 2003 sample of most widely used brand name prescription drugs are included in the “All Others” category. General inflation is based on CPI-U.

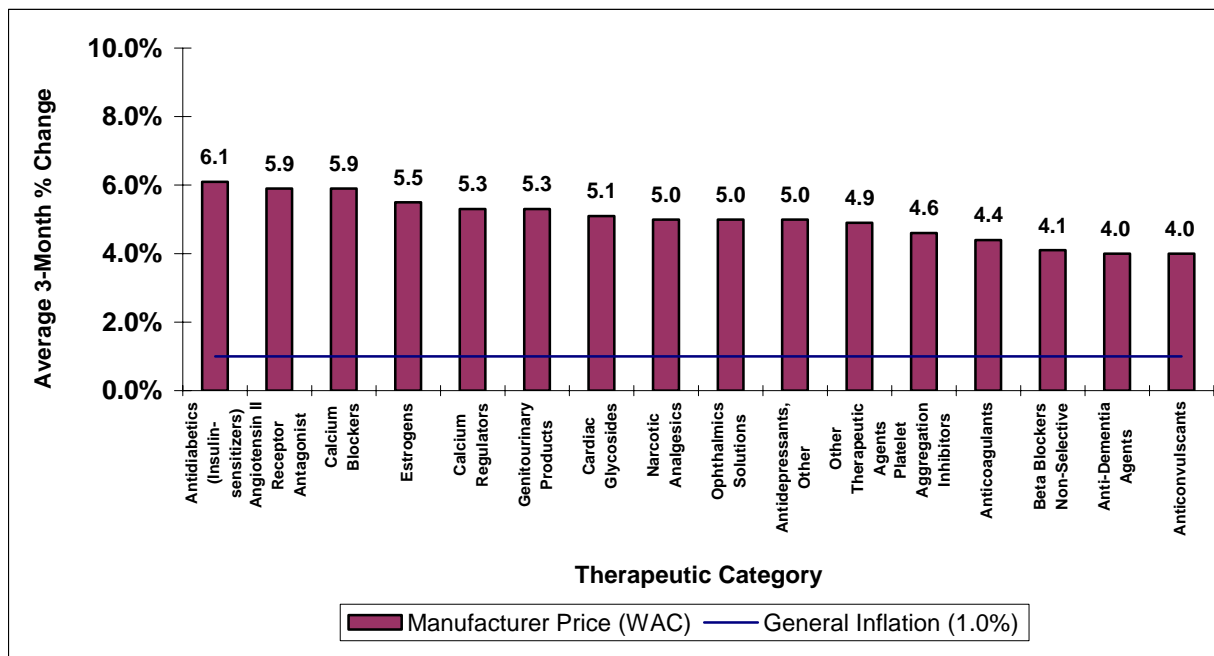
Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

Three-month manufacturer price changes for most widely used brand name prescription drugs, by therapeutic category

Twenty-four of the 30 therapeutic categories of brand name drugs had average manufacturer price increases that exceeded the rate of general inflation (1.0 percent) during the first quarter of 2005 (i.e., from December 31, 2004 through March 31, 2005) (Figures 8a and 8b).

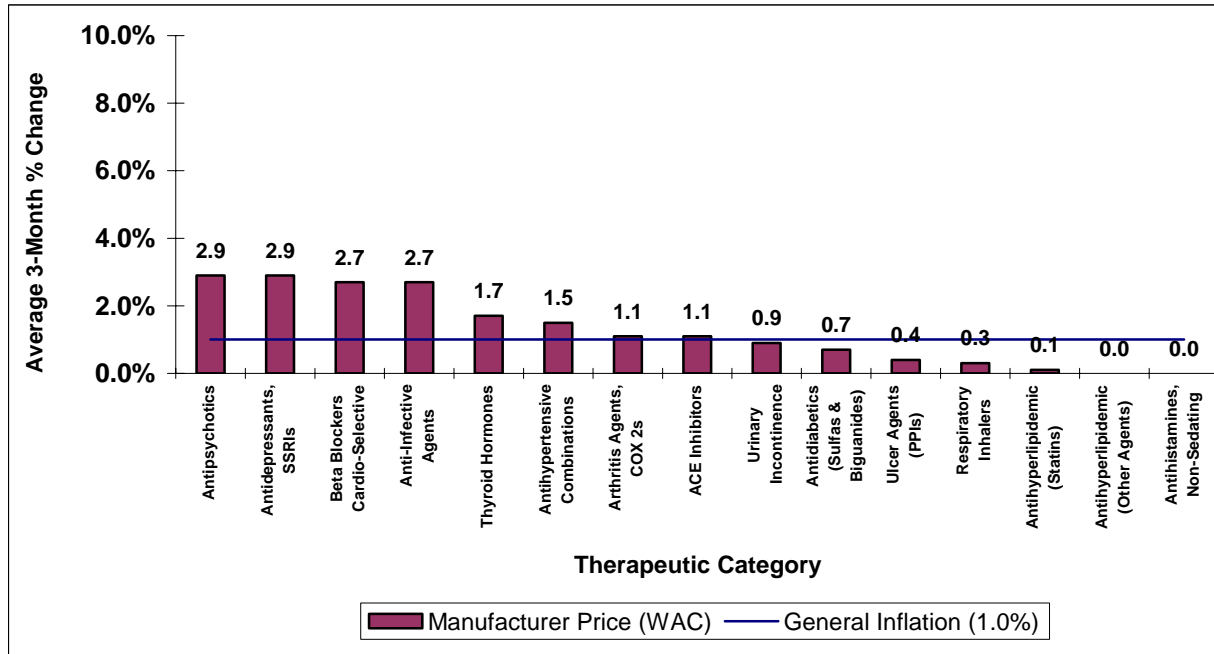
- Fifteen of these therapeutic categories had average three-month manufacturer price increases that were four or more times the rate of general inflation during the first quarter of 2005.
- Including the therapeutic categories with the highest price increases, 19 therapeutic categories had average three-month manufacturer price increases that exceeded twice the rate of general inflation during this most recent time period.

Figure 8a: Part 1—Average Three-Month Percentage Change in Manufacturer Price for Brand Name Prescription Drugs, by Therapeutic Category, First Quarter 2005



Therapeutic categories with fewer than three drugs in the 2003 sample of most widely used brand name prescription drugs are included in the “Other Therapeutic Agents” category. General inflation is based on CPI-U. Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

Figure 8b: Part 2— Average Three-Month Percentage Change in Manufacturer Price for Brand Name Prescription Drugs, by Therapeutic Category, First Quarter 2005



Therapeutic categories with fewer than three drugs in the 2003 sample of most widely used brand name prescription drugs are included in the “Other Therapeutic Agents” category. General inflation is based on CPI-U. Prepared by *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2005).

CONCLUDING OBSERVATIONS

Through the end of the first quarter of 2005, annual increases in manufacturer prices charged to wholesalers for widely used brand name prescription drugs, on average, continued to substantially exceed the rate of general inflation. However, the average annual rate of price increase for the 12-month period ending in March 2005 (6.6 percent) was lower than for the 12-month period ending in December 2004 (7.1 percent), even as the rate of general inflation increased (from 2.7 percent to 3.0 percent).

More than one-half of the drugs in the sample—110 of 195—had increases in manufacturer price during the period from December 31, 2004 through March 31, 2005, and all of these increases were nearly three times the rate of general inflation or more during the same three-month period. Average three-month price increases were substantial (i.e., at least twice the rate of general inflation) for more than one-half of the manufacturers with at least three drugs in the sample and for more than one-half of the therapeutic categories. However, some manufacturers and some therapeutic categories had little or no changes in manufacturer price during the first quarter of 2005.

METHODOLOGICAL APPENDIX

This analysis is based on a sample of 197 brand name drugs that are among the 200 most widely dispensed drugs (including both generic and brand name drugs) or the 200 drugs with the highest sales levels among retail and mail-order prescriptions adjudicated by the AARP Pharmacy Service for 2003. Each product represents a unique combination of active chemical ingredient, strength, dosage form, package size, and manufacturer (for example, Prevacid 30 mg capsule, package of 100, TAP Pharmaceuticals). Products are identified by a unique 11-digit National Drug Code (NDC) identifier. In this analysis, when a manufacturer discontinues a NDC code for a particular product but assigns a new NDC to a product with the same chemical ingredient, strength, dosage form, and similar or identical package size as the product with the discontinued NDC, the products are considered the same for the purposes of tracking price per unit (i.e., tablet, capsules, etc.). Products are included in the analysis only for the time period that they were on the market.

Although the drugs studied were identified using AARP Pharmacy Service data, changes in prices charged by drug manufacturers to wholesalers were measured using changes in the wholesale acquisition cost (WAC) as published in the Medi-Span Price-Chek PC database.^{vi} WACs are the prices typically reported on invoices between the manufacturer and the drug wholesaler.

WACs do not routinely capture the absolute level of prices paid (for example, they do not capture rebates that manufacturers pay to some third-party payers). Changes in the WAC, however, are the most consistent estimate available for change in both prices paid to manufacturers for brand name drugs and the ingredient cost component of prices paid for those drugs by retail pharmacies. This is because manufacturers typically reference WAC or average wholesale price (AWP) as the basis for charging wholesalers and pharmacies that buy directly from drug manufacturers. In addition, nearly all third-party contracts (including both private programs and public programs such as Medicaid and Medicare) specifically reference WAC or AWP as the basis for determining prescription payment amounts. Furthermore, because Americans who must pay out-of-pocket for their own prescriptions (that is, “cash pay” consumers) typically do not have access to such rebates or discounts, the consideration of rebates is not relevant to an assessment of changes in drug prices for sales to the retail market segment. Finally, even if drug manufacturer rebates to third-party payers were to be considered, they typically resulted in only a modest decrease in drug price—about 2.0 to 5.0 percent of total drug spending by a drug benefit plan.^{vii}

This report calculates average drug price changes in the following ways:

- The 12-month *rolling average* percentage price change is calculated by first comparing each month’s price with the price in the same month of the previous year (e.g., January 2003 vs. January 2002, February 2003 vs. February 2002, etc.), and then taking the average of these point-to-point changes over the preceding 12 months. Thus, for example, the average

annual price changes for 2004 refer to the average of the price changes for each of the 12 months from January 2004 through December 2004 compared with the same months in the previous year.

- The *annual point-to-point* percentage price change is calculated as the percentage change in price for a given month compared with the same month in the previous year.
- The *three-month* percentage price change (*point-to-point*) is calculated as the percentage change in price from the last day of the previous quarter (e.g., June 30 for the third quarter price change) to the last day of the quarter (e.g., September 30).

When aggregate estimates of price or change in drug prices were calculated for this study, each drug product's value was weighted by the 2003 sales for that drug in the AARP Pharmacy Service. The AARP Pharmacy Service weights were used as a proxy for average drug use for all older Americans.

To assess the impact of price changes on dollars spent, an annual cost of therapy was calculated for each drug product. This analysis excludes the six products in the sample that are used primarily for treatment of acute conditions and typically taken for a limited period of time. The amount of a drug that an average adult person would take on a daily basis was determined using the "usual daily dose" reported in the Medi-Span Price-Chek PC database or, when this information was not available from Medi-Span, using dosing information in the U.S. Food and Drug Administration (FDA)-approved labeling for the drug product.

Analyses of manufacturer price changes are presented by drug manufacturer and by therapeutic category as well. The analysis of drug manufacturers reported separately on the 20 manufacturers with at least three drug products, accounting for 183 of the drug products among the 197 most widely used brand name drugs. The analysis by therapeutic category reported separately on groupings of three or more drugs with a similar use or mechanism of action in treating patients. There were 30 therapeutic categories covering 183 of the drug products in the overall study sample.

ⁱ David J. Gross, Stephen W. Schondelmeyer, and Susan O. Raetzman, *Trends in Manufacturer Prices of Brand Name Prescription Drugs Used by Older Americans, 2000 Through 2003*, AARP Public Policy Institute Issue Paper #2004-06 (Washington, DC: AARP), May 2004 (revised June 2004); *Trends in Manufacturer Prices of Brand Name Prescription Drugs Used by Older Americans—2004 Year-End Update*, AARP Public Policy Institute Data Digest #DD112 (Washington, DC: AARP), April 2005.

ⁱⁱ Rebates paid by brand name drug manufacturers, if any, have not been taken into account in this analysis because they generally do not benefit retail pharmacies or their "cash pay" customers—that is, people who pay up front for their prescriptions—as a result of their having no drug coverage or having indemnity insurance.

ⁱⁱⁱ Medi-Span is a private organization that collects price data directly from drug manufacturers and wholesalers.

^{iv} Specifically, the general inflation rate reported is based on the average annual rate of change in the Consumer Price Index-All Urban Consumers for All Items (seasonally adjusted), Bureau of Labor Statistics series CUSR0000SA0.

^v A brief description of the methodology used to produce these findings is provided in the methodological appendix. For a more detailed description of the methodology for the baseline study, including the rolling average approach, see Gross et al., *Trends in Manufacturer Prices of Brand Name Prescription Drugs Used by Older Americans, 2000 Through 2003*, AARP Public Policy Institute Issue Paper #2004-06 (Washington, DC: AARP), May 2004 (revised June 2004).

^{vi} Medi-Span is a private organization that collects price data directly from drug manufacturers and wholesalers.

^{vii} See PriceWaterhouseCoopers, *Study of Pharmaceutical Benefit Management*, HCFA Contract No. 500-97-0399/0097, June 2001, p. 131; Patrick Holjo and Matthew Kamm, *Pharmacy Benefit Managers: Keeping a Lid on Drug Costs*, Banc of America Securities, February 20, 2002, p. 29.

David J. Gross, AARP Public Policy Institute, Stephen W. Schondelmeyer, PRIME Institute, University of Minnesota, and Susan O. Raetzman, AARP Public Policy Institute, July 2005.
The authors acknowledge the valuable technical assistance provided by Leigh Gross in the preparation of this Data Digest.

©2005, AARP. Reprinting with permission only.
AARP, 601 E Street, NW, Washington, DC 20049
<http://www.aarp.org/ppi>