

## TRENDS IN MANUFACTURER PRICES OF BRAND NAME PRESCRIPTION DRUGS USED BY OLDER AMERICANS— FIRST QUARTER 2004 UPDATE

### INTRODUCTION

This Issue Brief reports on changes in manufacturers' prescription drug prices during the first three months of 2004 (January through March) for the brand name prescription drugs most widely used by Americans age 50 and over. This report is the first quarterly update in an ongoing study of changes in drug manufacturer prices—that is, manufacturers' prices charged for drugs they sold to wholesalers. A baseline study published in May 2004 by the AARP Public Policy Institute identified steady increases in the average annual manufacturer price from calendar year 2000 through calendar year 2003.<sup>i</sup>

This report's focus is on changes in the prices that brand name drug manufacturers charge to wholesalers for sales to retail pharmacies. The manufacturer's charge to wholesalers is the most substantial component of a prescription drug's retail price. When there is an increase in the manufacturer price to wholesalers for a brand name drug, this added cost is generally passed on as a similar percent change in the retail price to most prescription purchasers.<sup>ii</sup>

The report presents three measures of price change (see methodological appendix). The first set of findings are *annual* rates of change in manufacturers' prices 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, 2003 through March 31, 2004); the distribution of percentage price changes is shown, as well as differences in average percentage price changes by manufacturer and by therapeutic category.

### FINDINGS

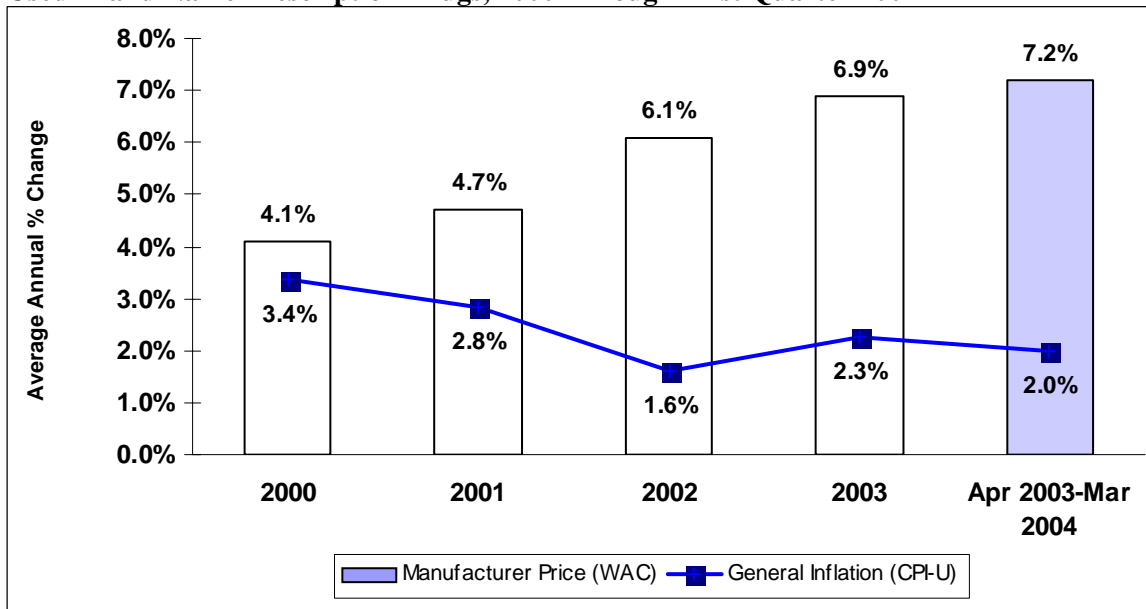
#### **I. Annual Trends in Manufacturer Price Changes for Most Widely Used Brand Name Prescription Drugs**

Manufacturers' prices for the 197 brand name prescription drugs most widely used by older Americans rose faster, on average, in the 12-month period ending in March 2004 than in any of the four calendar years prior to the passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Figure 1).<sup>iii</sup> This means that brand name drug price increases accelerated in the first three months (January through March 2004) after enactment of the MMA. Also, the average annual rate of price increases for the 12-month period ending in March 2004 far exceeded the rate of general inflation for the same period (2.0 percent).

## Annual percent change in manufacturer prices

- Manufacturer prices for brand name drugs rose 7.2 percent in the 12 months ending with the first quarter (March) of 2004, when measured as a 12-month rolling average and weighted by actual 2003 sales to Americans age 50 and over.
- The increase for this more recent time period represents an acceleration from the 12 months ending in December 2003, during which time the average annual rate of increase in manufacturer price for the most widely used brand name prescription drugs was 6.9 percent. By comparison, the average annual rate of general inflation<sup>iv</sup> fell from 2.3 percent (for the 12 months ending in December 2003) to 2.0 percent (for the 12 months ending with the first quarter of 2004).
- The average annual price increase for brand name prescription drugs most widely used by older Americans was more than three and one-half times the rate of general inflation for the 12 months ending with the first quarter of 2004, compared to three times the rate of inflation in 2003.

**Figure 1: Average Annual Percentage Change in Manufacturer Prices for Most Widely Used Brand Name Prescription Drugs, 2000 Through First Quarter 2004**

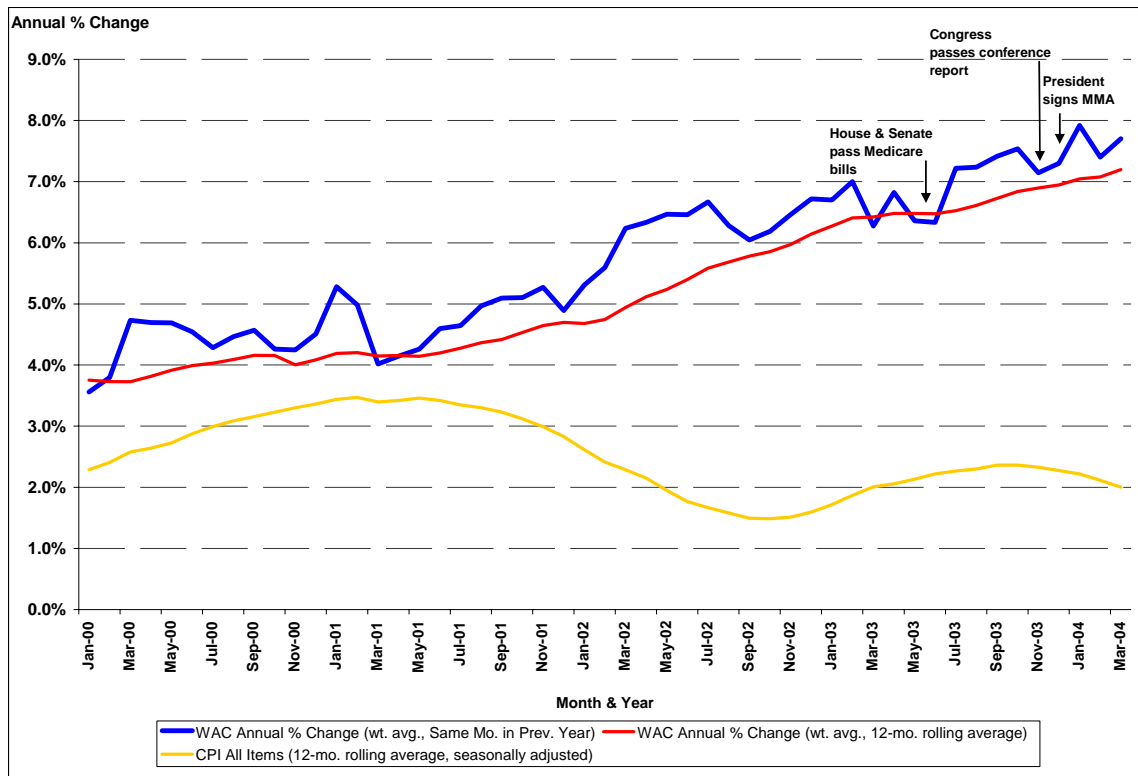


Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2004).

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).

- The average annual price increases for November 2003 (the month in which the final version of the MMA passed both houses of Congress) and December 2003 (the month in which President Bush signed the bill into law) were 7.1 percent and 7.3 percent, respectively (compared to the same months in the previous year). The average price increases for each of the next three months, January to March 2004, jumped considerably (i.e., 7.9 percent, 7.4 percent, and 7.7 percent, compared to the same months in the previous year). The rate of general inflation during this same period ranged from 1.7 to 2.0 percent using the single point-to-point comparison with the corresponding month in the previous year.
- Figure 2 also shows that substantial price increases for brand name prescription drugs widely used by older Americans occurred after both the Senate and the House of Representatives passed bills in June of 2003 that eventually led to the MMA. The average annual rate of price increase (compared to the same month in the previous year) rose from 6.3 percent for June (the month in which the bills were passed) to 7.2 percent for July (the first month subsequent to the passage of the bills).

**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 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 2004).

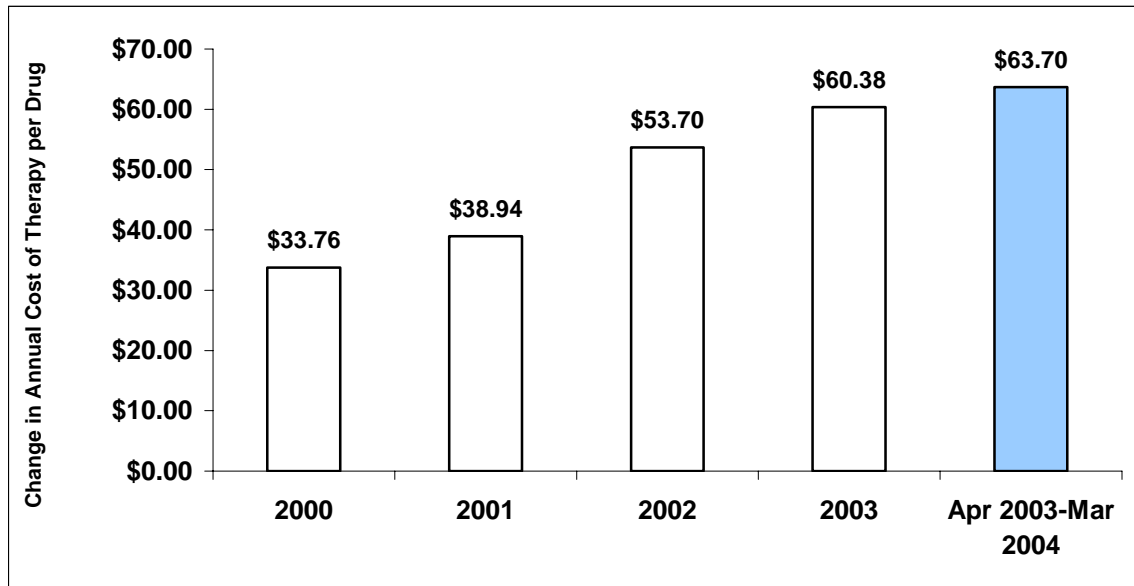
- The average annual point-to-point price changes in manufacturer prices for widely used brand name drugs for the three months in the first quarter of 2004 (7.7 percent) were substantially higher than the price increases for the corresponding three months of 2000 (4.0 percent), 2001 (4.8 percent), 2002 (5.7 percent), or 2003 (6.7 percent).

Change in annual cost of therapy

The average annual increase in the cost of therapy due to manufacturer price increases for the 191 widely used brand name drugs used to treat chronic conditions (out of the total sample of 197 drugs) also continued to rise through March 2004 (Figure 3).

- The average annual increase was \$63.70 for the 12 months ending with the first quarter of 2004, compared to \$60.38 in 2003.
- A typical older American (who takes three prescription drugs) is likely to have experienced an annual increase, on average, in the cost of therapy of \$191.10 for the 12 months ending with the first quarter of 2004, compared to \$181.14 in 2003, 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 2004**

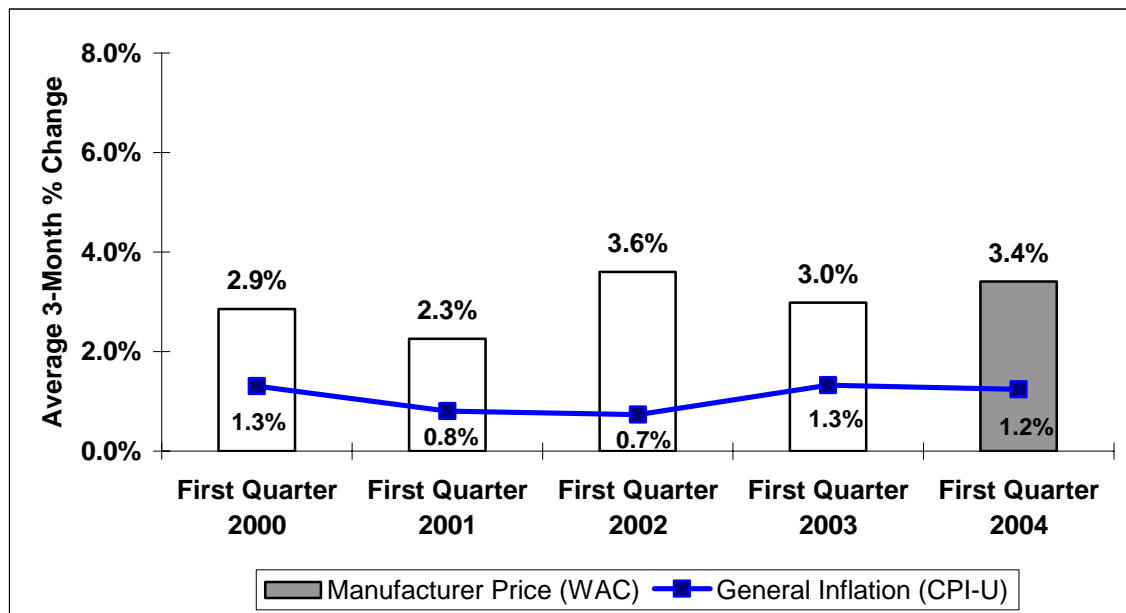


Does not include six drugs used primarily for treatment of acute conditions.  
 Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2004).

## **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 after the December 2003 enactment of the MMA, the three-month percentage change in price from December 31, 2003 through March 31, 2004 was analyzed for the 197 widely used brand name drugs in the sample. On average, manufacturer prices for widely used brand name prescription drugs increased 3.4 percent during the first quarter of 2004, or nearly three times the general inflation rate during the same three-month period (1.2 percent). The average percentage increase for the first quarter of 2004 exceeded the average increases during the first quarters of 2000, 2001, and 2003, but was slightly lower than the 2002 first quarter average price increase of 3.6 percent (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 2004**



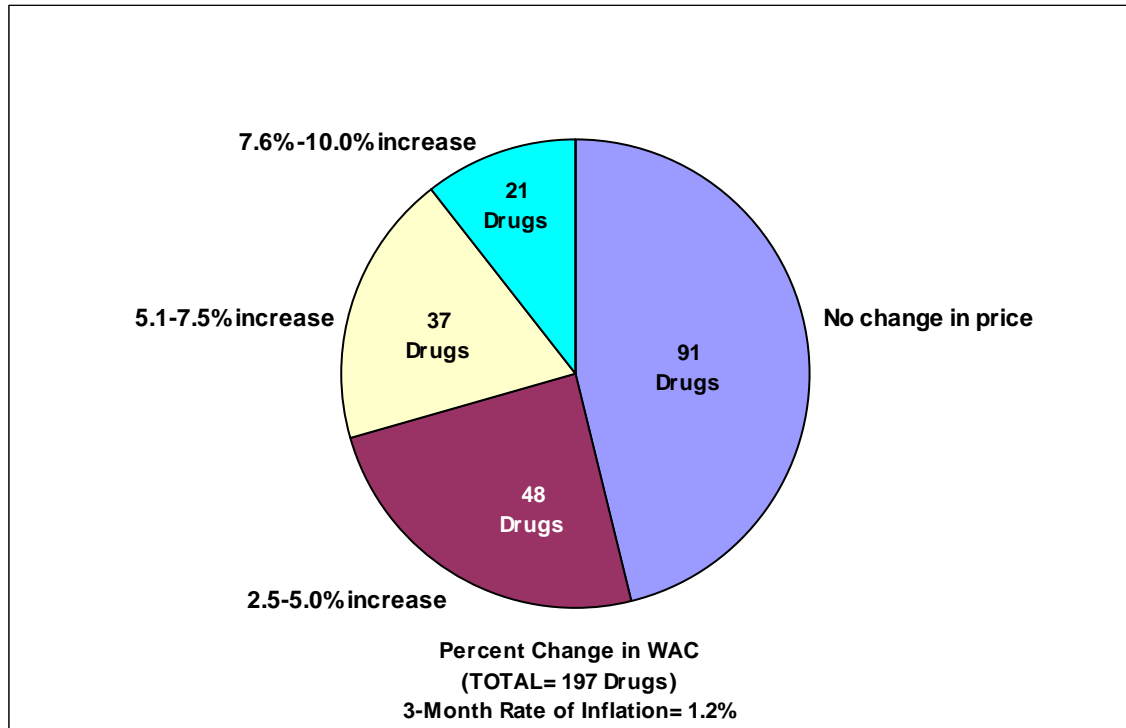
Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2004).

### **Distribution of three-month manufacturer price changes**

Manufacturer prices for 106 of the 197 most widely used brand name prescription drug products increased during the first quarter of 2004 (i.e., from December 31, 2003 through March 31, 2004). Manufacturer prices for the remaining 91 brand name prescription drugs did not change in the first quarter of 2004 (Figure 5).

- Among those brand name drugs with price increases during the first quarter of 2004, all increases were more than double the rate of inflation for the same period (1.2 percent).
- Fifty-eight drugs widely used by older Americans had three-month increases of more than 5 percent during the first quarter of 2004, including 21 drugs with three-month price increases of more than 7.5 percent.

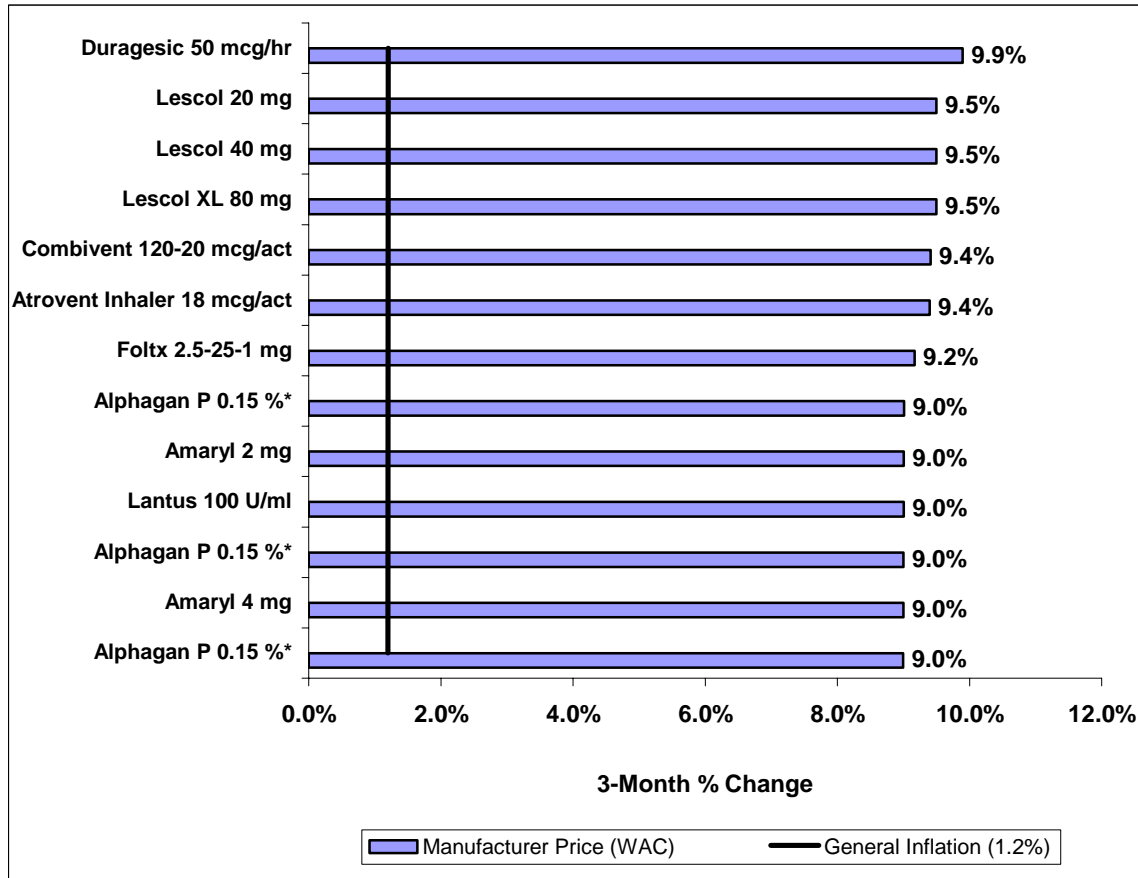
**Figure 5: Distribution of Three-Month Percentage Changes in Manufacturer Prices for Most Widely Used Brand Name Prescription Drugs, First Quarter 2004**



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 2004).

The 13 brand name drug products with the highest three-month manufacturer price increases (i.e., the change from December 31, 2003 through March 31, 2004) among the 197 drug products most widely used by older Americans had price increases ranging from 9.0 percent to 9.9 percent (Figure 6).

**Figure 6: Brand Name Prescription Drug Products with Highest Three-Month Percentage Change in Manufacturer Price, First Quarter 2004**



\*Multiple listing is due to different package sizes.

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 2004).

Sixteen of the 25 brand name drugs with the greatest sales in 2003 had price increases during the first quarter of 2004; these increases all exceeded the rate of general inflation during the same period (1.2 percent). Nine of the 25 drugs had no price changes during the first quarter of 2004 (Table 1).

- The highest percentage price change during the first quarter of 2004 (i.e., from December 31, 2003 through March 31, 2004) among the 25 brand name drugs with the greatest sales in 2003 was for Plavix 75 mg (7.9 percent.).
- All eight Pfizer drugs among the top 25 brand name drug products had price increases during the first quarter of 2004, ranging from 2.9 percent (for Lipitor 20 mg and Lipitor 40 mg) to 6.4 percent (for Neurontin 300 mg).
- All four Bristol-Myers Squibb (BMS) drugs among the top 25 brand name drug products had price increases during first quarter of 2004, ranging from 7.0 percent (for Pravachol 20 mg and Pravachol 40 mg) to 7.9 percent (for Plavix 75 mg).

- Only one of the three 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 2004 (4.9 percent). The other Merck drugs (Vioxx 25 mg and Zocor 20 mg) had no change in manufacturer price during the first quarter of 2004.

**Table 1: Three-Month Percentage Change in Manufacturer Prices for Top 25 Brand Name Prescription Drug Products, First Quarter 2004**

Rank by Sales Among Study Sample*	Product Name, Strength, and Dosage Form	Package Size	Manufacturer	Therapeutic Class	% Change in WAC, December 31, 2003-March 31, 2004
1	Fosamax 70 mg	4	Merck	Calcium Regulators	4.9%
2	Lipitor 10 mg	90	Pfizer	HMG CoA Reductase Inhibitors	4.6%
3	Plavix 75 mg	90	Bristol-Myers Squibb	Platelet Aggregation Inhibitors	7.9%
4	Lipitor 20 mg	90	Pfizer	HMG CoA Reductase Inhibitors	2.9%
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	4.3%
9	Plavix 75 mg	30	Bristol-Myers Squibb	Platelet Aggregation Inhibitors	7.9%
10	Norvasc 10 mg	90	Pfizer	Amlodipine Besylate	4.2%
11	Nexium 40 mg	30	AstraZeneca	Proton Pump Inhibitors	3.9%
12	Flomax 0.4 mg	100	Abbott	Prostatic Hypertrophy Agents	0.0%
13	Actonel 35 mg	4	Proctor & Gamble	Calcium Regulators	0.0%
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	0.0%
17	Ambien 10 mg	100	Sanofi Pharm	Non-Barbiturate Hypnotics	0.0%
18	Pravachol 40 mg	90	Bristol-Myers Squibb	HMG CoA Reductase Inhibitors	7.0%
19	Pravachol 20 mg	90	Bristol-Myers Squibb	HMG CoA Reductase Inhibitors	7.0%
20	Evista 60 mg	30	Lilly	Hormone Receptor Modulators	0.0%
21	Lipitor 40 mg	90	Pfizer	HMG CoA Reductase Inhibitors	2.9%
22	Toprol Xl 50 mg	100	AstraZeneca	Beta Blockers Cardio-Selective	5.9%
23	Levaquin 500 mg	50	McNeil	Anti-Infective Agents	0.0%
24	Zocor 20 mg	30	Merck	HMG CoA Reductase Inhibitors	0.0%
25	Neurontin 300 mg	100	Pfizer	Misc. Anticonvulsants	6.4%
<b>General inflation rate (as measured by growth in CPI-U), December 2003-March 2004</b>					<b>1.2%</b>

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

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 2004).

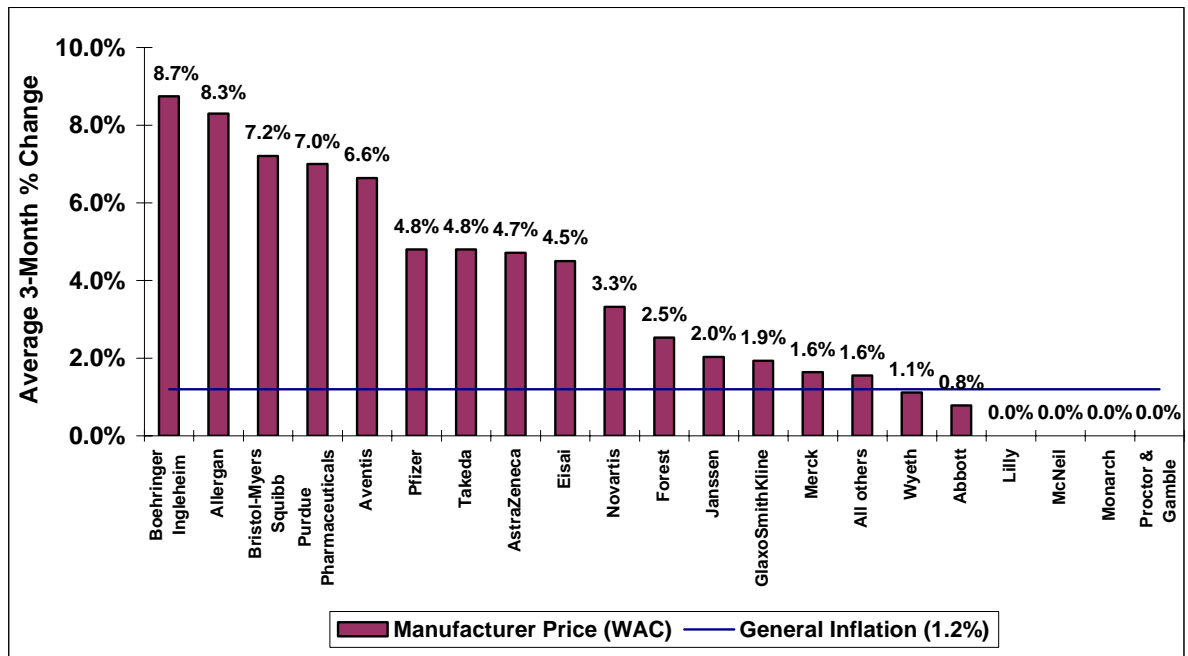


Three-month manufacturer price changes for most widely used brand name prescription drugs, by manufacturer

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 2004 (i.e., from December 31, 2003 through March 31, 2004) (Figure 7).

- Five manufacturers—Boehringer Ingelheim, Allergan, Bristol-Myers Squibb, Purdue Pharmaceuticals, and Aventis—had average three-month price increases that exceeded five times the rate of general inflation (1.2 percent) during the first quarter of 2004.
- Including the manufacturers with the highest price increases, more than one-half (11 of 20) had average three-month price increases that exceeded twice the rate of general inflation during the first quarter of 2004.

**Figure 7: Average Three-Month Percentage Change in Manufacturer Price for Brand Name Prescription Drugs, by Manufacturer, First Quarter 2004**



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.

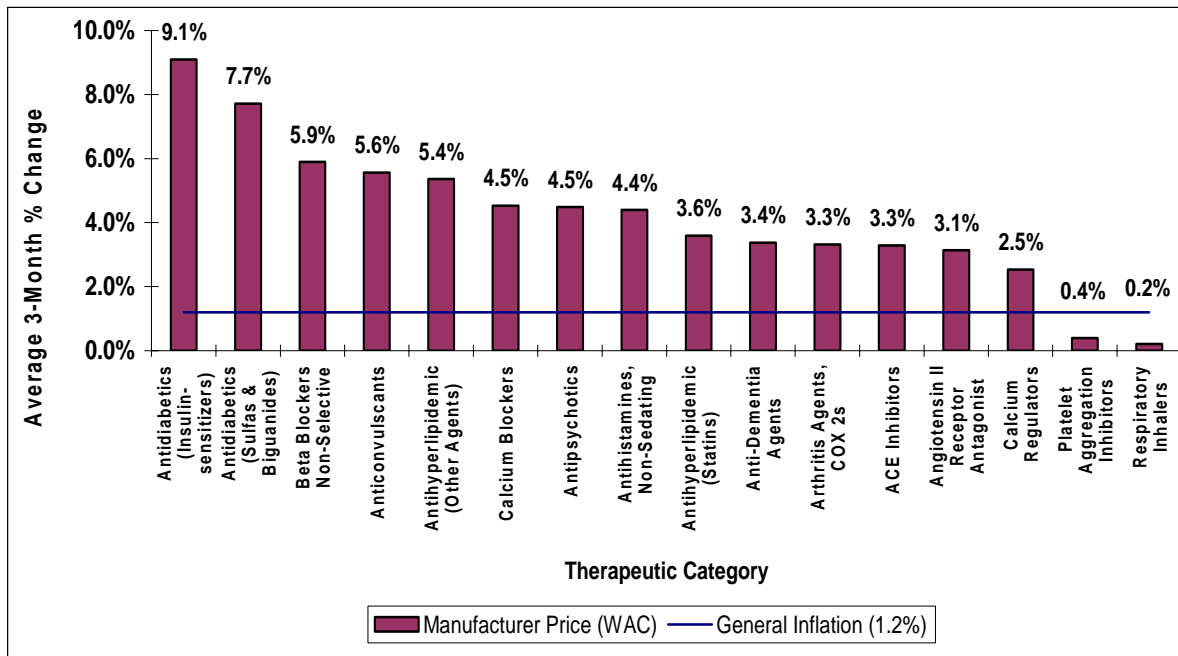
Prepared by the AARP Public Policy Institute and the *PRIME* Institute, University of Minnesota, based on data found in Medi-Span Price-Chek PC (Indianapolis, IN: Wolters Kluwer Health Inc., May 2004).

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

Fourteen of the 30 therapeutic categories of brand name drugs had average manufacturer price increases that exceeded the rate of general inflation (1.2 percent) during the first quarter of 2004 (i.e., from December 31, 2003 through March 31, 2004) (Figures 8a and 8b).

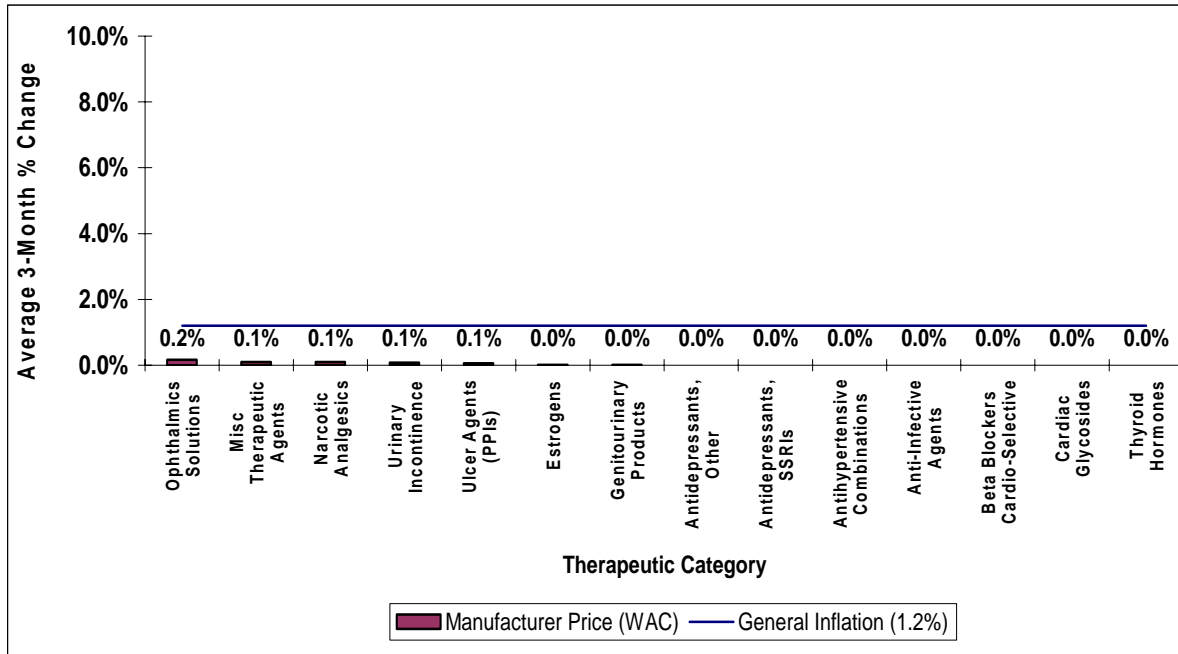
- Eight of these therapeutic categories had average three-month manufacturer price increases that exceeded three times the rate of general inflation during the first quarter of 2004.
- Including the therapeutic categories with the highest price increases, 14 therapeutic categories had average three-month 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 2004**



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 2004).

**Figure 8b: Part 2— Average Three-Month Percentage Change in Manufacturer Price for Brand Name Prescription Drugs, by Therapeutic Category, First Quarter 2004**



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 2004).

## CONCLUDING OBSERVATIONS

Through the end of the first quarter of 2004, 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. The average annual rate of price increase rose (from 6.9 percent in 2003 to 7.2 percent for the 12-month period ending in March 2004) even though the rate of general inflation fell (from 2.3 percent to 2.0 percent).

More than one-half of the drugs in the sample—106 of 197—had increases in manufacturer price during the period from December 31, 2003 through March 31, 2004, and all of these increases were at least twice the rate of general inflation during the same three-month period. Average three-month price increases were substantial for two-thirds of the manufacturers with at least three drugs in the sample and for nearly 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 2004.

The average change in manufacturer prices of widely used brand name prescription drugs during the first quarter of 2004, which corresponds with the first three months following the signing of the MMA—3.4 percent—exceeded average increases for the first quarters of 2000, 2001, and 2003, and was only slightly below the average price increase for the first quarter of 2002. Furthermore, similar patterns of accelerated price increases were observed

after other political and policy actions that were intended to extend drug coverage or provide drug discounts, including passage of the House and Senate versions of the MMA earlier in 2003.

Future reports will be issued on a quarterly basis to monitor the average change in manufacturer drug prices during the period of operation of the Medicare drug discount cards as well as both prior to and during the implementation of the Medicare Part D drug benefit.

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<sup>i</sup> 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.

<sup>ii</sup> Rebates paid by manufacturers, if any, have not been taken into account in this analysis since they generally do benefit neither retail pharmacies and their “cash pay” customers—that is, people who pay up front for their prescriptions because they have no drug coverage or they have indemnity insurance.

<sup>iii</sup> 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.

<sup>iv</sup> 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.

## METHODOLOGICAL APPENDIX

The 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).

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.<sup>a</sup> 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 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 provide only a modest decrease in drug price—about 2 to 5 percent of total drug spending by a drug benefit plan.<sup>b</sup>

This report calculates average drug price changes in three different ways:

- The 12-month *rolling average* percentage price change is calculated by first comparing each month’s price with the same month in the previous year (that is, January 2003 vs. January 2002, February 2003 vs. February 2002, etc.), and then by taking the average of these point-to-point changes was calculated over the preceding 12 months. Thus, for example, the average annual price changes for the first quarter of 2004 refer to the average of the price changes for each of the 12 months from April 2003 through March 2004 versus the same months in the prior year.
- The *annual point-to-point* percentage price change is calculated as the percentage change in price for a given month compared to the same month in the previous year.

- The *three-month* percentage price change is calculated as the percentage change in price from December 31 of one year to March 31 of the subsequent year.

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 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 those 20 manufacturers with at least three drug products, covering 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.

*David J. Gross, AARP Public Policy Institute, Stephen W. Schondelmeyer, PRIME Institute, University of Minnesota, and Susan O. Raetzman, AARP Public Policy Institute, June 2004. The authors acknowledge the valuable technical assistance provided by Molly Melvin in the preparation of this Issue Brief.*

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<sup>a</sup> Medi-Span is a private organization that collects price data directly from drug manufacturers and wholesalers.

<sup>b</sup> 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.