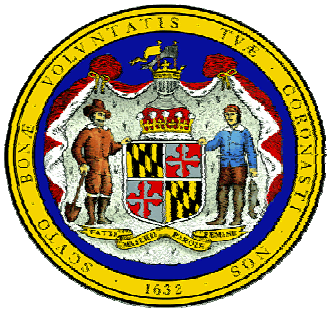
Required Under SB 885 (2005)
Maintenance Drug Prescriptions – Mail-Order Purchase – Study

Mail-Order Purchase of Maintenance Drugs: Impact on Consumers, Payers, and Retail Pharmacies

The Maryland Health Care Commission

and

The Maryland Insurance Administration



December 23, 2005

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Executive Summary

Maryland consumers and plan sponsors spent over $4.1 billion on prescription drugs in 2004. Over the last decade, spending on prescription drugs has increased more rapidly than any other health care sector. A host of new drugs have flowed out of the drug development pipeline, and these improved drug therapies have lead to advances in the treatment of many acute and chronic conditions. However, the rapid growth in prescription drug spending, unless offset by slower spending elsewhere, inevitably leads to higher health care premiums for privately insured individuals, greater costs for government, and increased expenses for consumers.

Private payers, including health plans and self-insured employers, account for nearly 80 percent of total drug spending in Maryland. Rapid growth in prescription drug spending has prompted these payers to adopt strategies to reduce the costs of prescription drugs. Many payers incorporate provisions intended to increase mail-order pharmacy use, including lowering co-payments for 90-day prescriptions filled by mail, limiting the days' supply of medication available at a retail pharmacy, or mandating that 90-day supplies of maintenance medications be filled via mail order. Third-party payers are limited in their ability to use these strategies due to Maryland law that prohibits the offering of more favorable cost-sharing arrangements for use of a mail-order pharmacy than for use of a retail pharmacy. These protections are important to retail pharmacies, particularly independent drugstores. Nationally, prescription drug sales account for 95 percent of independent pharmacies' total sales. In chain drugstores, where prescription drugs constitute a smaller share of sales, the need to fill a prescription induces a very high share of store visits.

Several bills have been offered in the past several years that would change the protections afforded to retail pharmacies. These bills have not passed, but many private payers believe greater flexibility in administering the drug benefit would lower costs. This report was prepared in response to legislation (Senate Bill 885 – Mail-Order Pharmacy – Study) that requires the Maryland Health Care Commission (MHCC) and the Maryland Insurance Administration, in consultation with the Maryland Board of Pharmacy, to examine the impact of mail-order pharmacies on consumers and retail pharmacies.

This study finds that the retail pharmacy protections have contributed to a lower use of mail order in the State. Approximately 14 percent of prescription drug spending ($600 million) is spent at mail-order pharmacies. Nationally, the share is over 18 percent. Mail

order accounts for about 7 percent of prescription drug payments for benefits covered by fully insured products. By contrast, mail order accounts for about 22 percent of payments when the plan sponsor is a self-insured employer that is exempt from the Maryland insurance law.

Most insurance carriers and all PBMs can support mail-order programs, including mandatory mail order for 90-day supplies of maintenance drugs when permitted by law. The majority of insurance carriers believe mail order offers potential savings to plans sponsors. Several insurance carriers are ambivalent about the savings offered by mail order or point to equivalent or better savings that can be achieved from filling 90-day supplies in preferred retail chains. These payers contend that enrollees benefit from face-to-face contact with a pharmacist. This contention is echoed by the retail pharmacy industry. The retail industry is quick to note that absent incentives for mail order, such as reduced co-payments, consumers prefer retail pharmacies. Results from this study support the contention that incentives are important in fueling the migration to mail order. MHCC did not assess if consumers find use of mail-order pharmacies convenient, however the evidence gathered in this report indicates that absent incentive, many consumers will fill 90-day supply prescriptions through traditional retail channels. Some consumers find mail-order convenient, even without incentives 7 percent of 90-day prescription sales occur through mail-order pharmacies.

SAVINGS TO CONSUMERS AND PAYERS

MHCC conducted simulations to estimate the impact of increased mail order. The first approach assumed all 90-day supplies migrated to mail order. This approach constitutes an upper limit on possible savings that could be achieved. The second approach aligns the fully insured population mail-order share with the mail-order share of the self-insured population for each insurance carrier. This approach allows MHCC to reflect carrier and payer preferences in the estimate. Both approaches implicitly assume that the current protections under Maryland law do not exist.

MHCC estimates that Maryland consumers, insured through products governed by Maryland law, would save from $7 million (under Approach 2) to $16 million (under Approach 1). These savings would be achieved through reduced co-payments for use of mail order, a practice already common in the self-insured market. This change would reduce consumer spending on prescription drugs by between 2 and 6 percent. Moving all maintenance drugs to mail-order would produce a mail-order share in the State that is well above the national average. Given some carriers' ambivalence about the value of mail order, MHCC has assumed that the first option, while illustrative of a possible long-

run outcome, is not realistic for the short- and mid-term.

Savings to third-party carriers are driven by the additional discounting offered through mail order. The research literature is not consistent on the level of savings that a carrier or employer can achieve in migrating drugs to mail order. Using the relatively cautious Government Accountability Office estimates, MHCC assumed that carriers could achieve from a 5 to 10 percent aggregate reduction in their prescription costs under both scenarios. Assuming a 5 percent discount, carriers would achieve total savings of from $3 to $8 million. If more aggressive discounting occurred, in the range of 10 percent, savings would approximately double to from $7 to $16 million. Third-party payers would realize a 0.4 to 2 percent reduction in prescription drug spending as a result of the migration to mail order under the two approaches.

IMPACT ON RETAIL PHARMACIES

The impact of a change in mail-order use on retail pharmacy revenue is estimated to range from $88 million, when shares in the insured market are aligned with the mail-order share in the self-insured market, to a high of $210 million when all 90-day supply prescriptions are moved. The lower estimate represents about 10 percent of current retail prescription drug revenue from fully insured prescriptions, while the higher estimate constitutes just under 23 percent of revenue. The distributional impact of the revenue loss is similar to the current distribution of revenue by type of pharmacy. Independent pharmacies appear to bear slightly less impact and supermarket and mass merchandiser pharmacies would bear a slightly higher impact than their shares of the current market would predict. Independent pharmacies bear less impact, and mass merchandisers more, because consumers are currently more likely to fill maintenance drugs at mass merchandisers and grocery stores. Using these estimates, the reduction in revenue to retail pharmacies would range from 1 to 3 percent. Table ES-1 summarizes the MHCC estimates on savings to consumers and payers and losses to retail pharmacies.

It should be emphasized that the financial impact on retail pharmacies described here will be dampened, and possibly substantially so, by the overall growth in sales of prescription drugs. While an empirical analysis of growth in spending on prescription drugs is beyond the scope of the study, projections from the National Health Accounts indicate a more than doubling of prescription drug spending between 2005 and 2014, from $223.5 to $521.3 billion. Thus, depending on the overall growth of expenditures on prescription drugs, revenue impacts described here may be substantially mitigated.

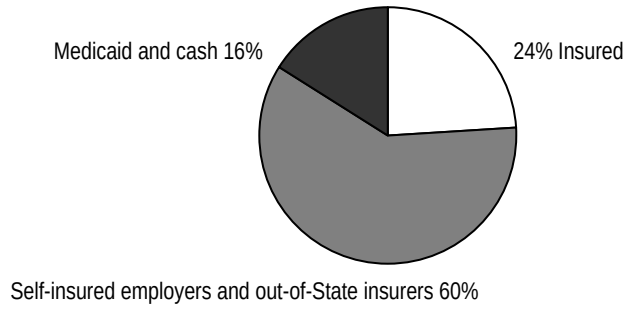
Table ES-1: Summary of Savings and Losses

	Increase in Number of Prescriptions	Consumers	Third-Party Payer		Loss To Retailers
			Low (5% Saving)	High (10% Saving)	
Approach 1 — Move All Maintenance Drugs To Mail Order	1,569,236	$15,964,936	$8,129,328	$16,258,655	$210,481,360
Approach 2 — Align Mail Order Share with Self-Insured Market	511,993	6,650,430	3,340,900	6,681,800	$87,769,295

Note: Estimates of potential increase in mail-order use are based on analyses of the Maryland Medical Care Database, fully insured and unidentified claims only. Note the total fully insured retail revenue base for this analysis is $928,680,790.

Third-party payers are the principal purchasers in the retail market, but most of their purchasing decisions are beyond the reach of State law. As shown in Figures ES-1, third party payers accounted for 84 percent of all Maryland retail pharmacy prescriptions (in dollars) in 2004. Self-insured employers, and to a lesser degree, out-of-state insurers, are dominant forces in the third-party market with 60 percent of the State's drug spending. Maryland-based, fully insured plans that are subject to Maryland law are the source of payment for about 24 percent of total prescription sales in Maryland. Cash purchases and the Medicaid program are the source of payment for the remaining 16 percent of spending. The current law and any changes to it have limited impact on retail pharmacies relative to the broader market. Use of mail order by insurers/employers beyond the reach of State law is likely to continue its upward trend, but the limit on mail-order growth is probably dictated by the number of maintenance drug prescriptions in the patient population; it is not clear that a model exists for profitably filling non-maintenance drugs via mail order.

Figure ES-1: Distribution of Prescription Drug Sales by Type of Payer



1. Introduction

In 2005, the General Assembly passed Senate Bill 885, "Maintenance Drug Prescriptions – Mail Order Purchase – Study" that requires the Maryland Health Care Commission (MHCC) and the Maryland Insurance Administration, in consultation with the Board of Pharmacy, to study: (1) utilization of mail-order service for purchasing a 90-day supply of maintenance drugs; (2) cost savings to consumers who elect to use mail-order service for purchasing a 90-day supply of maintenance drugs; (3) financial impact of any increased utilization of mail-order service for purchases of a 90-day supply of maintenance drugs on retail pharmacies in the State; and (4) consumer preference on the use of mail-order service for the purchase of maintenance prescription drugs.

This report has been created to the requirements of SB 885. It is organized into five sections. This section provides an overview on prescription drug spending, reviews existing Maryland law governing the use of mail-order pharmacies, outlines the retail pharmacy industry's concerns about mail order, and describes how other private and public payers not covered by the Maryland Insurance Article implement pharmacy benefits. Section 2 examines retail and mail-order pharmacy use among the privately insured population in 2004 using data collected from all major insurance carriers. Section 3 estimates the potential impact of increased use of mail order on consumers and insurance carriers. Section 4 examines the impact of increased use of mail order on the retail pharmacy industry. Section 5 presents MHCC's conclusions from this report.

The key analyses conducted in Sections 3 and 4 of this report are based on MHCC's analysis of prescription drug claims submitted by private insurance carriers to MHCC as required under the Code of Maryland Regulations (COMAR) 10.25.06. These regulations require insurance carriers with premiums of $1 million or more to submit detailed information on health care utilization to MHCC. A full description of this information source is included in Appendix A.

A significant body of research has been completed on the questions identified in SB 885. As part of its work, MHCC reviewed recently completed studies conducted by the Federal Trade Commission (FTC), the Congressional Budget Office, and the Government Accountability Office (GAO). [1] The retail pharmacy industry, pharmacy

[1] Federal Trade Commission. *Pharmacy Benefit Managers: Ownership of Mail-Order Pharmacies*. August 2005. http://ftc.gov/reports/pharmbenefit05/050906pharmbenefitrpt.pdf.
Congressional Budget Office. *Prices For Brand-Name Drugs Under Selected Federal Programs: A CBO Paper*. June 2005. http://www.cbo.gov/ftpdocs/64xx/doc6481/06-16-PrescriptDrug.pdf.
Government Accountability Office, *Federal Employees' Health Benefits: Effects of Using Pharmacy Benefit Managers on Health Plans, Enrollees, and Pharmacies*, GAO-03-196, January 2003. http://www.gao.gov/new.items/d03196.pdf.

benefit managers (PBMs), and insurance carriers provided to MHCC numerous studies conducted under their auspices over the past several years. MHCC also reviewed information on pharmacy drug utilization that was provided by the Board of Pharmacy, the Maryland Insurance Administration, and the Department of Budget and Management.

Two subsections of the Maryland Insurance Article directly affect use of mail-order prescribing under insurance contracts written in Maryland. Insurance Article Section §15-805(d)(2) is the most important provision in regulating the mail-order prescription drug benefit. It prohibits insurance carriers from establishing varied co-payment levels based on whether the enrollee fills a prescription at a community versus a mail-order pharmacy. This subsection, sometimes called the retail pharmacy parity provision, prevents insurance carriers and PBMs from mandating the use of mail order or offering enrollees reduced co-payments as an incentive to use mail order. Insurance Article Section §15-824 requires that insurance carriers allow enrollees to obtain a 90-day supply of a maintenance drug, after the initial prescription. The two subsections allow enrollees to obtain a 90-day supply at the enrollee's choice of retail or mail pharmacy with the same co-payment, deductible, or co-insurance.[2]

The protections afforded retail pharmacies and consumers under Maryland law have been a source of legislative debate for the past two sessions of the Maryland legislature with most attention focusing on prohibitions against offering enrollees incentives for using mail-order pharmacies.[3] Many insurance carriers and PBMs (organizations that administer the prescription drug benefit on behalf of carriers and employers) contend that current Maryland law limits cost-saving innovations in the design of pharmacy benefits.

Between 2003 and 2005, three States signed into law legislation regarding retail pharmacy alternatives to mail-order pharmacies and incentives to using mail-order pharmacies. Maine mandated there be a local retail pharmacy alternative to mail-order pharmacies (2005); Vermont required PBMs and health insurers to allow retail pharmacies to charge the same amount and distribute the same quantity as do mail-order pharmacies (2004); and New Jersey allowed the establishment of mail-order pharmacies with flexible co-payment and drug quantity polices (2003). Legislation prohibiting co-payment or drug quantity discrepancies between retail and mail-order pharmacies and requiring retail

[2] Maryland law is specific that a carrier must allow enrollees a 90-day supply of a maintenance drug, but that a physician must write the prescription ordering a 90-day supply.
[3] See SB 885 as introduced, "Health Insurance - Maintenance Drug Prescriptions - Mail Order Purchase," HB 1058, "Pharmacy Benefits Managers Regulation Act of 2005." In the 2004 session, see HB 344, "Health Insurance - Maintenance Drug Prescriptions - Mail Order Purchase," cross filed as SB 798.

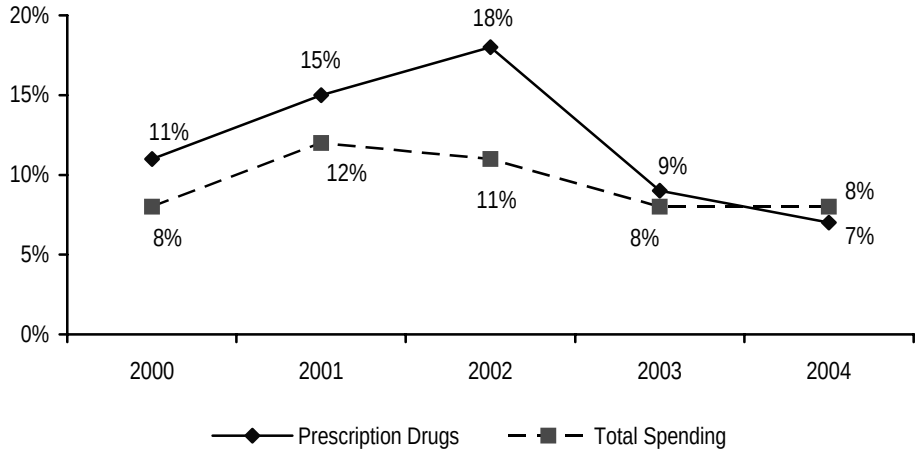
pharmacy options to beneficiaries is pending in one State (New York), died in three States (New Mexico, Colorado, and Nebraska), and did not pass committees by the end of their regular sessions in four States (Connecticut, Indiana, Michigan, and Texas).[4] Among neighboring States, Delaware has enacted a prohibition against insurance carriers offering more favorable treatment to mail pharmacies.[5]

BACKGROUND

Since the mid-1990s, national expenditures on prescription drugs have grown at a faster rate than most other health care services. While there has been some recent slowdown in prescription drug spending, government actuaries project annual rates of growth above 10 percent through 2006 with prescription drugs accounting for close to 15 percent of overall health care spending by 2014.[6]

Spending on prescription drugs in Maryland has increased at or near double-digit rates for the last 5 years. In 2004, spending on prescription drugs will total $4.1 billion, up over 7 percent from the previous year. Private payers and consumers account for over 80 percent of the total spending.[7] As shown in Figure 1-1, prescription drug spending in Maryland has grown more rapidly than total health spending growth in 4 of the past 5 years.

Figure 1-1: Percent Change in Health Care Spending, Maryland, 2000-2004



Source: Maryland Health Care Commission (MHCC), *State Health Care Expenditures: Experience from 2004*, forthcoming.

[4] http://www.ncsl.org/programs/health/drugdisc05.htm.
http://www.ncsl.org/programs/health/drugdisc04.htm.
http://www.ncsl.org/programs/health/drugdisc03.htm.
[5] Delaware Insurance Title 18 Chapter 73, §7303.
[6] S. Heffler et al., "U.S. Health Spending Projections for 2004-2014," *Health Affairs* 23 (2005).
[7] Maryland Health Care Commission (MHCC), *State Health Care Expenditures: Experience From 2004*, forthcoming.

Spending growth over the past decade has prompted health plan sponsors to engage in a variety of strategies to reduce the costs of providing prescription drugs to their beneficiaries, frequently carving out prescription drug benefits from other health benefits, and turning to PBMs to administer drug benefits. PBMs use a range of management tools including tiered co-payments, generic and/or therapeutic substitution, step therapy, and, of particular relevance here, mail-order pharmacies. Mail-order pharmacies are used primarily to fill prescriptions for maintenance drugs, defined by their relatively long-term use and application in treating chronic conditions (see text box on page 10). By relying on mail-order pharmacies, plans and PBMs claim that they can reduce costs by utilizing efficiencies of large-scale operations — including greater efficiency in dispensing, lower bulk ingredient costs, and better formulary management.[8] In an effort to realize potential savings, many plans include a variety of provisions intended to increase mail-order pharmacy use. Among the most common are lower co-payments for 90-day prescriptions filled by mail, limits on the days' supply of medication available at a retail pharmacy, or mandates that maintenance medications be filled via mail order. Table 1-1 shows that mail-order operations of the three major PBMs grew rapidly from 2003 to 2004, continuing trends first observed in the late 1990s. Mail-order pharmacy operations accounted for about 34 percent of revenue and about 11 percent of claims during 2004.[9]

Table 1-1: Distribution of Revenue and Claims between Mail-Order and Retail for the Leading Pharmacy Benefit Managers in 2004

Pharmacy Benefit Manager	Total Revenue		Mail Order		Retail Operations	
	Revenue ($ billions)	Percent Change from 2003-2004	Revenue ($ billions)	Percent Change from 2003-2004	Revenue ($ billions)	Percent Change from 2003-2004
Caremark	$30.4	8.7	$8.7	22.1	$21.4	3.5
Express-Scripts	14.9	13.6	5.4	35.2	9.4	3.9
Medco	35.0	3.3	13.4	19.0	21.6	3.3
				% Share		% Share
Total Revenue	$80.3		$27.5	34.2	$52.4	65.3
Total Claim Volume (non-normalized in millions)	1,532.7		173.8	11.3	1,358.9	88.7

Source: 2004 Annual Reports; Caremark revenue reflects consolidated operations of Caremark and AdvancePCS.

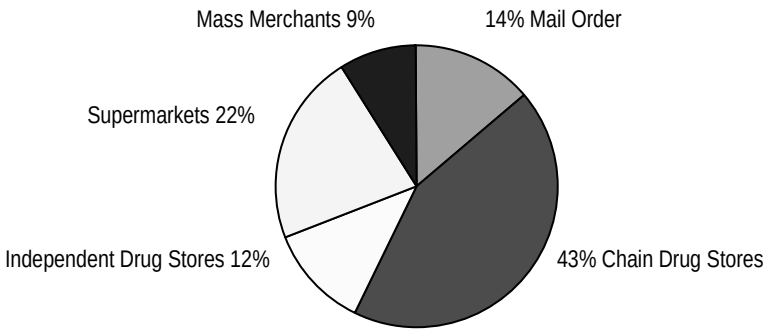
[8] See for example Medco, *2004 Annual Report*, 2005, p. 18.

[9] A typical mail-order claim covers about three times the duration of a retail claim. If mail-order claims were 'normalized,' that is, multiplied by three to reflect the longer duration, the mail share grows to 27 percent.

Nationally, the trend is toward increased use of mail-order pharmacies. According to IMS Health, mail-order purchases accounted for 17.3 percent of outpatient prescription drug expenditures in 2003.[10] Growth in mail order among plans administered by PBMs is particularly strong — the annual number of mail-order prescriptions increased by about 7 percent during a 6-month period in 2005, and mail order now accounts for approximately one-fifth of adjusted (30-day) prescriptions among all PBMs.[11] A recent study by the FTC found that mail-order pharmacies accounted for about 17.2 percent of drug spending (and approximately 5 percent of total prescriptions) in 2003, growing from 12.7 percent in 1997.[12] A study conducted for the national association representing PBMs estimated that, if current trends continue, total mail-order use would grow to 18.5 percent in 2006, totaling about $46.1 billion in prescription drug sales.[13]

Mail-order pharmacies account for a small share of sales in the Maryland market. Chain drugstores account for 43 percent of prescription drug sales in Maryland. Grocery stores, mail-order pharmacies, independent drugstores, and mass merchants account for the remainder of sales. The distribution of prescription drug sales in Maryland is shown in Figure 1-2. The share of prescription drugs (in terms of expenditures) purchased through mail-order pharmacies is 14 percent, about 4 percentage points lower than was estimated for the United States overall. Some analysts point to retail pharmacy parity

Figure 1-2: Distribution of Retail Prescription Drug Sales by Store Type, Maryland, 2004



Note: MHCC analysis of National Chain Drug Stores (NACDS) data for Maryland in 2004, with mail order sales estimated using MCDB data and data supplied by PBMs.

[10] IMS Health maintains a prescription database representing a set of prescriptions drawn from a sample of over 35,000 retail pharmacies in the U.S. including chain pharmacies, food stores and mass merchandisers, and independent pharmacies.
[11] *Drug Benefit News,* October 14, 2005.
[12] Federal Trade Commission, *Pharmacy Benefit Managers: Ownership of Mail Order Pharmacies,* August 2005.
[13] The Lewin Group, *Mail-Service Pharmacy Savings: A Ten-Year Outlook for Public and Private Purchasers,* prepared for the Pharmaceutical Care Management Association, August 2, 2005.

provisions in the Maryland Insurance Article as a major factor for the lower mail-order pharmacy share.

Prescription drug revenue as a share of overall business varies by store type. Drug stores, both chain and independent, are highly dependent on prescription drug revenue. For the United States overall, over 95 percent of independent drug store revenue is attributed to drug sales; for chains, the share is about 68 percent.[14] Prescription drug revenue accounts for a smaller share in chains, but representatives from the chain industry point out that the need to fill a prescription accounts for a very high share of all visits.

What are…

Maintenance drugs are generally defined as medications that are taken on a regular and long-term basis for treatment of a chronic condition. Examples of some of the more common conditions that may require long-term medication use are high blood pressure, high cholesterol, and diabetes. In general, each carrier defines a list of maintenance drugs that are eligible for mail-order dispensing and subject to mail-order incentives or requirements. While the specific medications included on these lists may vary across carriers, because maintenance drugs are typically used for chronic or long-term medical conditions, they are usually dispensed in quantities to cover 90 days of therapy or 100 unit-doses, whichever is larger. Some plans define the maintenance list according to broad therapeutic classes rather than individual medications.

Mandated mail-order requirements: A plan sponsor requires that all prescriptions for more than a specific period (usually 30 days) be filled through a mail-order facility. Some plan sponsors further stipulate that any prescription for a maintenance drug after the initial order must be filled at a mail-order pharmacy.

Mail-order incentives: The plan sponsor reduces the co-payments for the enrollee, if a mail-order pharmacy is used. Typically a 90-day supply is offered for two co-payments.

Opposition to mail-order pharmacies has prompted State law that limits the use of the incentives for mail-order use, particularly provisions that mandate the use of mail order. Retail pharmacies are concerned about the effects of a mass patient migration to mail-order prescriptions on their economic livelihood, a particularly big concern for independents where drugs sales account for nearly all revenue. Retail pharmacy

[14] National Association of Chain Drug Sores, internal communications, August 2005. Note the industry does not release estimates on the share of revenue attributable to prescription drugs by State.

representatives argue that mail order is substandard when compared to retail due to less pharmacist interaction, the fact that many mail-order operations are unlicensed, and because there are potentially dangerous effects of temperature on drugs as they travel through the postal system.

Insurance products offered by insurance carriers operating in the State must include the retail pharmacy parity provision and a right to a 90-day supply of a maintenance drug with one exception. The Comprehensive Standard Health Benefit Plan (CSHBP) is a small group insurance offered to employers in the two though 50-employee market. MHCC, in consultation with the Maryland Insurance Administration, is responsible for defining the benefits under the program. As the product must meet an affordability test, MHCC has the authority to exclude mandated benefits that would otherwise be included. Although some mandated benefits have not been included, the parity for retail pharmacies and maintenance drug supply provisions have been included in the core CSHBP benefit package.[15] A 2004 MHCC study that used data from 2002 estimated that the two mandates — retail pharmacy parity and 90-day supplies — together increased a typical group health insurance policy by about $15 per policy or about 0.3 percent.[16]

Carriers that operate in the Maryland market place differing importance on mail-order prescribing. All carriers have the capability of building a mail-order feature into a benefit plan, depending on the preferences of the plan sponsor and whether Maryland law governs the benefit plan. The degree to which carriers endorse mail order as a cost-saving option varies. One large carrier indicated that they do not view mail order as offering significant cost savings. This carrier pointed out that it could achieve similar savings from 90-day retail programs now being offered by some of the large retail chains.[17] That study, conducted on behalf of Walgreen's, showed that plan sponsors saved on average $15 more per 90-day prescription when the drug was filled retail. Several other large carriers take an opposing view and point to possible savings that a plan sponsor can achieve if the benefit includes incentives for using mail-order pharmacies. Enthusiasm for mail order also varies depending on whether the carrier owns an internal PBM. Among major carriers that operate in Maryland, Aetna, CIGNA, and Kaiser have internal pharmacy benefit programs. United HealthGroup, which includes the MAMSI family of companies, has a long-term contract with Medco.[18] Carefirst contracts with Argus Health Systems and Walgreen's Health Care Initiatives.

Carriers with captive internal PBMs tend to be more optimistic about the savings offered by mail order. An in-house PBM has an attractive return profile for traditional carriers

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[15] See CSHBP benefits at http://mhcc.maryland.gov/smallgroup/cshbp_brochure.htm.
[16] Maryland Health Care Commission (MHCC). *Study of Mandated Health Insurance Services: A Comparative Evaluation (Required Under Section 15-1502 of the Insurance Article)*. Baltimore, MD: MHCC, January 2004, p. 50-53.
[17] Walgreens Health Initiatives, "Outcomes Briefing, Benefits of a 90-Day Retail Prescription Program," see also http://www.walgreens.com/about/press/othernews/021505.jsp.
[18] MAMSI ended its relationship with Express-Scripts on December 31, 2005.

as developing and operating a pharmacy network has become more straightforward.[19] One major focus for health insurers' captive PBMs is to cross-sell services to existing medical insurance customers that have carved out pharmacy functions to stand-alone PBMs. These efforts to have pharmacy benefit management moved to the insurer handling the medical insurance are more attractive to employers interested in offering a consumer-directed insurance product. Consumer-directed products require that the carrier manage all of the patients' out-of-pocket spending, including the co-payments, co-insurance, and deductibles for prescriptions. Like standalone PBMs, internal PBMs place importance on growing the mail-pharmacy business component. Aetna reported that its mail-order pharmacy operation grew by 165 percent in 2004.[20]

TREATMENT OF MAIL-ORDER UNDER INSURANCE PRODUCTS NOT SUBJECT TO THE MARYLAND INSURANCE ARTICLE

The Maryland Insurance Article does not govern health care benefits offered by many larger private employers and some local governments. These employers self-insure their health benefits and are exempt from State health insurance regulation due to the federal Employee Retirement Income Security Act (ERISA).[21] The preemption applies whether an employer self-administers the insurance benefits or pays an insurance company an administrative fee to administer the benefit on behalf of the employer. PBMs that contract directly with employers typically do so using administrative fee arrangements. Self-insured private employers have greater flexibility in their benefit designs and craft prescription drug programs that may not conform to the requirements in the Maryland Insurance Article due to the ERISA pre-emption. PBMs report that over 50 percent of their business is with private and government employers that self-insure the pharmacy benefit.[22]

Pharmacy benefit packages offered by self-insured employers show considerable variation. Many choose to include some requirements from the State in which they operate, although they are not required to do so. Previous MHCC analyses documented that about 50 percent of self-insured employers comply with the protections for retail pharmacies, but most of these employers comply with the 90-day supply requirements.[23]

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[19] Managed Care Week, "Health Insurers' Captive PBMs Generate Revenue, Membership Growth for Parents," November 21, 2005.
[20] Aetna, *Challenge of Leadership: Aetna Annual Report for 2004*, 2005, p 15.
[21] ERISA is codified in volume 29 of the *U.S. Code*, starting with section 1001. Regulations of the Department of Labor are published in volume 29 of the *Code of Federal Regulations*, starting at section 2509.
[22] Caremark Rx, Inc., Investor Presentation, November 10, 2004.
[23] Maryland Health Care Commission (MHCC). *Study of Mandated Health Insurance Services: A Comparative Evaluation (Required Under Section 15-1502 of the Insurance Article).* Baltimore, MD: MHCC, January 2004.

Surveys of large multi-State employers conducted by Hewitt Associates in 2003 and 2004 found that about 21 percent of employers nationwide mandated mail order for maintenance drugs.[24]

Policies on the use of mail order vary among public employers that self-insure their pharmacy benefit program. The State of Maryland, which insures over 200,000 employees, retirees, and dependents in its prescription drug program, implemented a voluntary mail-order program in July 2005 that is consistent with the protections for retail pharmacies.[25] Employees, retirees, and their dependents can obtain a 90-day supply for two co-payments, the same arrangement that is available at a retail pharmacy. Montgomery and Prince George's Counties, and Baltimore City have established mandatory mail-order programs that require use of a mail-order pharmacy if the insured wishes to obtain a drug supply over 34 days.[26] Baltimore County offers enrollees incentives for using mail order which vary according to the plan selected by the employee.[27] Smaller Maryland counties are less likely to offer incentives for mail order as the drug benefit is part of a fully insured health benefit program governed by the Maryland Insurance Article.

Federal employee plans employ differing approaches to their pharmacy benefit, as is permitted under federal regulations. Several plans offer the typical incentive of two co-payments for a 90-day supply for using mail order. Several HMO products mandate mail order if a patient wishes to receive a 90-day drug supply. Other plans offer no incentives for mail order, but offer a mail-order option. Some, including the BlueCross BlueShield Basic option, do not offer a mail-order option.

Several factors influence whether a private or public employer will implement a mail-order plan. Large multi-state employers are more likely to implement aggressive mail-order plans than mid-size single-state firms. Large multi-state employers that self-insured for many years seldom use requirements in one state as sole basis for guiding health benefit design. Employers based in a single state may prefer to follow requirements of that state, especially if the employer moves back and forth between self-insured and fully insured products; to maintain a consistent benefit design it may be more convenient to follow state mandates. The demographics of the enrolled population may dictate whether a self-insured employer wishes to implement a more

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[24] Hewitt Associates, LLC, "Survey Findings Future Strategy and Directions," January 2004.
[25] Department of Budget and Management, *Summary of Benefits for Active and Retired Employees: July 2005 to June 2006*, May 2005, p 26.
[26] See Montgomery county benefits at http://www.montgomerycountymd.gov/content/ohr/ResourceLibrary/RLMain1.cfm?m=2&c=13, Prince George's at http://ww.goprincegeorgescounty.com/government/agency/index/personnel/prescription.asp.
[27] Baltimore County Government. *Benefit Enrollment Guide September 1, 2005 - August 31, 2006*. July 2004, p 11-13.

aggressive pharmacy benefit which includes a mail-order program. If retirees and older workers represent a significant share of an employer's insured population, implementing a mail-order program may be attractive as those populations are more apt to have chronic conditions that require the use of maintenance drugs.

MEDICARE AND MEDICAID'S POLICIES TOWARD MAIL-ORDER PRESCRIBING

Section 101 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) established a new voluntary prescription drug benefit program (Medicare part D) for Medicare beneficiaries.[28] Section 101 struck a balance by recognizing the cost savings offered by mail-order programs in providing a cost-effective alternative for chronic, recurring medication with the recognized role of local pharmacies in dispensing drugs, as well as in medication counseling and answering questions on the proper use of medications. The law and subsequent regulations require prescription drug plans (PDPs), the private entities that administer the benefit, to allow beneficiaries to receive prescriptions, which may include a 90-day supply of covered drugs, at any of the PDP's network pharmacies, including both community and mail-order pharmacies. However, the law stipulates that the government will pay only the lowest network price. When prices differ between retail and mail-order pharmacy, the Medicare beneficiary must pay the difference, forcing the consumer to weigh cost versus convenience.

Subsequent Centers for Medicare and Medicaid Services (CMS) regulations give retail pharmacies the opportunity to compete with mail-order pharmacies in a network.[29] PDPs can establish network mail-order pharmacy rates for their mail-order pharmacies, and retail pharmacies may accept these rates. A plan may allow retail pharmacies to dispense an extended supply of drugs for a higher contracted reimbursement rate (including dispensing fee, if any) than the plan's network mail-order pharmacy rate, but any differential in the charge between the network mail-order pharmacy rate and the higher contract reimbursement rate for the extended supply dispensed at the retail pharmacy would have to be reflected in higher cost sharing paid by the beneficiary.

MHCC reviewed market material and conducted an informal survey of PDPs that operate in the Maryland market to determine the incentives offered for use of mail order

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[28] Medicare Modernization Act of 2003, Public Law No. 108-1 tit. XI, 117 Stat. 2066 (2003).
[29] *Federal Register*, Medicare Program; Medicare Prescription Drug Benefit / Vol. 70, No. 18 / Friday, January 28, 2005.

(Table 1-2). Only five plans had no mail-order feature. Many PDPs were offering enrollees mail-order services at reduced co-payments as is commonly done in the private sector. Others, including AARP MedicareRx Plan, offer a mail-order feature but provide the same incentives for mail or retail purchase.

Table 1-2: Medicare Prescription Drug Programs in Maryland Offering a Mail-Order Option

	Total Plans
Medicare standalone prescription drug programs in Maryland	48
Plans offering a mail-order option	43
Reduced co-payments for mail order	23
No incentives, same incentives are available at retail	10
Information not available	10
Note: Some plans that allow patients to receive the same incentives at mail-order and retail pharmacies require that the retail pharmacy meet the mail-order rate.	

The Medical Assistance Administration does not allow use of mail-order pharmacies for the Medicaid population. Shorter periods of eligibility for some Medicaid participants coupled with the greater vulnerability of this population make administration of a mail-order benefit more difficult, although parts of the Medicaid population suffer from a higher incidence of chronic conditions.[30] Medicaid recipients that are dually eligible for Medicare will have the option of obtaining prescriptions through mail order beginning in January 2006 as a result of the establishment of Medicare Part D and the elimination of Medicaid pharmacies programs.

Aggregate prescription utilization in Maryland does not track precisely with the national patterns. The protections for retail pharmacies in the State contribute to these utilization differences, although the mandates directly affect less than half of the privately insured. Equally important are the decisions of employers and carriers in the self-insured market, who have considerable freedom in setting incentives for patients and in defining the conditions under which a prescription can be filled. Recent industry experience suggests a growing interest in direct incentives to consumers for using mail order; or disincentives, in the case of Medicare, by requiring the patient to pay the difference between lowest price and the price offered at the pharmacy where the prescription is filled. Some employers mandate mail order for obtaining a 90-day supply, but the percent that follow this approach does not appear to be growing. The following sections explore current utilization patterns among patients and examine the impact of changes in Maryland law.

[30] *Survey of Mail Order in State Medicaid Programs*, September 2005.

2. Use of Mail-Order Pharmacies in the Privately Insured Population

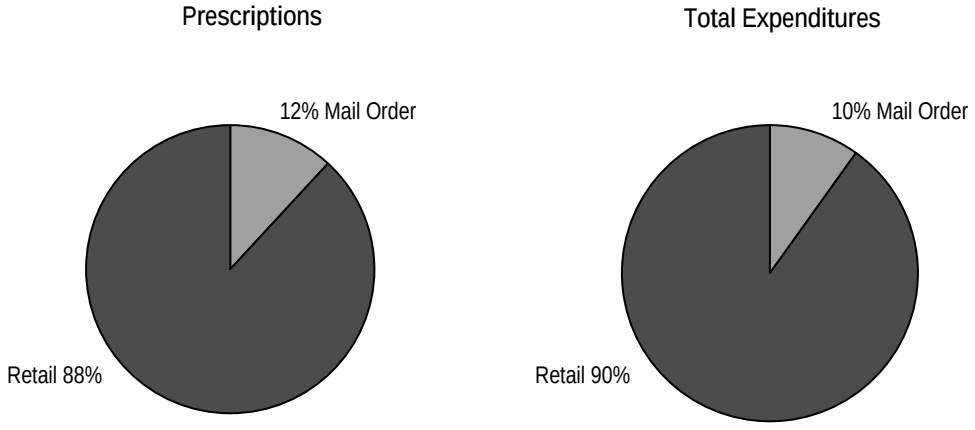
This section of the report describes the use of mail-order pharmacies among the privately insured population in Maryland. The estimates presented in this section are for private, third-party drug claims submitted by major private insurers to MHCC.[31] Data are presented on the use of and expenditures for mail-order purchases, both consumer out-of-pocket spending and reimbursements by insurers, for 2004. Throughout this section, use is measured in 'adjusted' or 30-day prescriptions in order to make meaningful comparisons between mail order and retail. Where appropriate, changes from 2003 are noted.

In 2004, total spending on prescription drugs for Maryland residents with private insurance coverage — including both fully insured and self-insured contracts in the Maryland Medical Care Data Base (MCDB) — was approximately $1.3 billion. Prescription drugs obtained via mail order accounted for approximately 11 percent of this total dollar amount (Figure 2-1), virtually unchanged from 2003. Looking at mail-order use in terms of the number of prescriptions rather than the level of expenditures, mail order accounted for 12 percent of prescriptions, a similar though slightly higher proportion.

It is well-established that spending on prescriptions drugs for the typical individual increases with age. As shown in Table 2-1, because mail-order drugs are generally those used to treat chronic conditions, the use of mail-order service in the privately insured population rises markedly with age — mail order accounts for 5 to 6 percent of drug spending for persons less than 45 years of age, just over 11 percent for persons 45 to 64 years of age, and 18 percent of spending for those 65 years of age and over. With respect to adjusted prescriptions, mail-order use rises even more dramatically with age, accounting for 28 percent of drug use by persons 65 years of age and older.

[31] As noted previously, the key analyses are based on MHCC's analysis of prescription drug claims submitted by private insurance carriers to MHCC as required under COMAR 10.25.06. These regulations require insurance carriers with premiums of $1 million or more to submit detailed information on health care utilization to MHCC. A full description of this information source is included in Appendix A.

Figure 2-1: Percent of Adjusted* Prescriptions and Total Expenditures that are Mail Order and Retail, Privately Insured Maryland Residents, 2004



Note: *Prescriptions have been 'normalized' or adjusted so that they are counted in terms of a 30-day-supply of medication. Therefore, each 90-day prescription is counted as three 30-day prescriptions. Estimates are based on data submitted to MHCC by private insurance carriers; see Appendix A for a complete description.

Table 2-1: Median Prescription Drug Expenditures and Percent Mail Order, Privately Insured Maryland Residents, 2004

	Median Spending	Mail Order Share of Spending	Mail Order Share of Adjusted* Prescriptions
Total	$253	10%	12%
Age			
Less than 18	88	5	3
18–44	193	6	5
45–64	567	11	12
65 and over	1,296	18	28
Number of Prescriptions			
Less than 5	32	5	5
5-9	235	14	16
10 or more	393	17	18

Note: *Prescriptions have been 'normalized' or adjusted so that they are counted in terms of a 30-day supply of medication. Therefore, each 90-day prescription is counted as three 30-day prescriptions. Estimates are based on data submitted to MHCC by private insurance carriers; see Appendix A for a complete description.

Persons who are heavier users of prescription drugs are also more likely to obtain drugs through mail-order purchases. In 2004, persons who used fewer than five prescriptions annually spent only 5 percent, on average, of their prescription drug dollars at mail-order

pharmacies compared to 17 percent of spending for those with 10 or more prescriptions annually. This increase in mail-order use among heavier users is not surprising, as mail order is generally intended for maintenance drugs used on a long-term basis and those with more prescriptions are more likely to be using at least some of their medications over an extended period.

From 2003 to 2004, total spending per prescription increased more for mail order than for retail, with the largest difference in the out-of-pocket portion (Table 2-2). In order to compare expenditures for retail and mail-order prescription drug purchases, the amount paid for each prescription is adjusted to represent a 30-day supply.[32] Using this approach, for 2004, the mean cost of a 30-day supply for a prescription filled in a retail pharmacy was $69 compared to $57 for a mail-order purchase. While the total charge was 21 percent higher for the retail purchase, there was a difference of 79 percent in the amount consumers paid out-of-pocket (on average, $18 for retail and $10 for mail order) but only 9 percent in the insurer portion ($51 versus $47). It should be noted that these comparisons do not control for differences in the mix of drugs used across retail and mail-order pharmacies; thus, for example, some drugs included may be purchased on a retail basis but never or rarely purchased via mail order (e.g., an antibiotic or a drug that requires refrigeration).

Table 2-2: Mean Spending per 30-Day Prescription Drug Supply* and Percent Change in Spending for Privately Insured Maryland Residents, 2003-2004

	2003	2004	Change (%)
Mail Order			
Total spending	$52	$57	10%
Out-of-pocket costs	8	10	22
Insurer costs	43	47	8
Retail			
Total spending	$65	$69	7%
Out-of-pocket costs	17	18	5
Insurer costs	48	51	7

Note: Out-of-pocket and insurer costs may not add up to total cost due to rounding. *The cost for a 30 day supply is calculated by dividing total cost by number of days supplied and multiplying by 30. Estimates are based on data submitted to MHCC by private insurance carriers; see Appendix A for a complete description.

One of the purported advantages of mail-order service is the increased ability to substitute generic equivalents for brand name drugs; this is said to be due at least in part

[32] The total cost for each prescription was divided by the number of days supplied to get a cost per 1-day supply, and then multiplied by 30 to represent cost per 30-day supply.

to the time lag in filling prescriptions that allows more effective use of utilization management techniques including contacting the prescribing physician to suggest changes. In 2004 in Maryland, however, the proportion of both mail-order and retail expenditures accounted for by generic drugs was quite similar — 13 percent for mail-order and 15 percent for retail (Table 2-3). In terms of prescriptions, generic drugs accounted for a slightly higher proportion of retail than of mail order — 45 percent for the former and 39 percent of the latter. There was no change from 2003 with respect to the proportion of generic expenditures for either mail-order or retail purchases, and only a slight (and comparable) increase in the generic proportion of prescriptions for both mail order and retail.

While the proportion of generics used by the Maryland privately insured population does not differ for mail-order and retail pharmacies, there is some evidence from other sources that savings may be more substantial for generic mail-order purchases compared to branded drugs. Price comparisons in Table 2-3 show that retail prices are higher for both branded and generic drugs, but there is a larger gap between the cost of retail and mail order for generics (30 percent) than there is for brand names (20 percent).

Table 2-3: Use of Generic and Branded Drugs, Mail-Order and Retail Pharmacy Comparisons, Privately Insured Maryland Residents, 2004

	Mail-Order Pharmacies	Retail Pharmacies	Ratio of Retail to Mail-Order
Generics			
Percent of expenditures	13%	15%	--
Percent of prescriptions	39	45	--
Total cost, 30-day supply	$19	$26	1.3
Out-of-pocket costs	5	10	2.2
Insurer costs	15	15	1.0
Branded			
Percent of expenditures	83%	81%	--
Percent of prescriptions	56	51	--
Total cost, 30-day supply	$84	$102	1.2
Out-of pocket costs	14	23	1.7
Insurer costs	71	78	1.1

Note: Out-of-pocket and insurer costs may not add up to total cost due to rounding. The cost for a 30-day supply is calculated by dividing total cost by number of days supplied and multiplying by 30. Percents may not sum to 100 because we are unable to identify generic/branded status for some drugs claims (accounting for approximately 4 percent of mail-order expenditures and 3 percent of retail expenditures). Estimates are based on data submitted to MHCC by private insurance carriers; see Appendix A for a complete description.

The extent of mail-order penetration of the prescription drug market varies in Maryland across self-insured payers and those that are fully insured.[33] Twenty-one percent of adjusted, self-insured claims are mail order, compared to 7 percent of adjusted, fully insured claims.[34] This difference is likely a result of the exemption of self-insured payers from the Maryland law requiring carriers to allow retail pharmacies to offer the same incentives to consumers as are available for mail-order use.

In addition, the use of mail order varies by type of private coverage (Figure 2-2). Prescriptions for persons with private, large-group insurance account for a very sizeable slice — 58 percent — of mail-order purchases. The next highest portion of mail-order purchases is for public employees (17 percent), followed by Medicare which accounts for 12 percent of mail-order prescriptions and 6 percent of retail prescriptions. For retail prescriptions, the private, large-group market accounts for a significant but somewhat lower proportion — 44 percent of prescriptions. The small-group market is next with 24 percent of prescriptions, and coverage for public-sector employees follows with 20 percent of retail prescriptions.

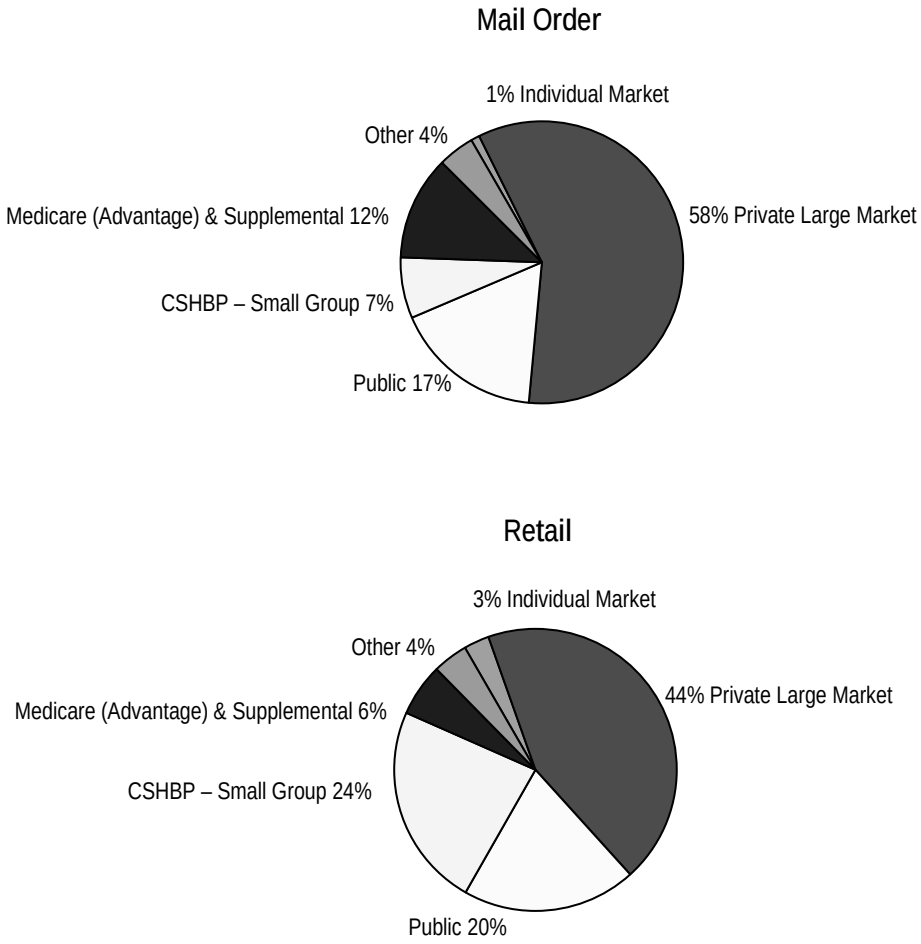
Viewed instead in terms of the penetration of mail-order pharmacies with respect to each coverage type, the mail-order share of total privately insured prescriptions is greatest (22 percent) in the Medicare market, among those either in Medicare Advantage plans that include drug coverage or those with private drug coverage supplemental to regular Medicare. This is not surprising given that the elderly have more chronic conditions and are more likely to use maintenance medications. Mail-order prescriptions account for 15 percent of private, large-market prescriptions and 10 percent of public-coverage prescriptions.

As discussed earlier, mail-order service is intended primarily for maintenance drugs used on a long-term basis to treat chronic health conditions. In order to examine more closely the types of drugs and related applications for which mail order is most frequently used, the top 20 drugs with the highest mail-order volume were identified. Among the drugs with the largest number of adjusted mail-order prescriptions in 2004, the majority were either cardiovascular agents (antihypertensives, accounting for seven of the top 20), or lipid-lowering medications (six of the top 20). The remaining seven spots in the top 20 were occupied by drugs in the following therapeutic classes: gastrointestinal agents, hormones, respiratory agents, and coagulation modifiers. Among these top 20 in terms of the number of mail-order prescriptions, nine are generic drugs

[33] Approximately 7 percent of claims cannot be classified by self- or fully insured status.
[34] As previously indicated, these prescriptions are "adjusted" so that each 30-day supply counts as one prescription. Without this adjustment, mail-order claims represent 10 percent of the self-insured market and 4 percent of the fully insured market.

and 11 are branded drugs. Interestingly, 10 of the top mail-order drugs are also in the top 20 drugs for overall volume of prescriptions — retail and mail order combined.

Figure 2-2: Distribution of Adjusted* Prescriptions, Mail-Order and Retail Pharmacy, by Type of Private Coverage, 2004



Note: *Prescriptions have been 'normalized' or adjusted so that they are counted in terms of a 30-day supply of medication. Therefore, each 90-day prescription is counted as three 30-day prescriptions. Estimates are based on data submitted to MHCC by private insurance carriers; see Appendix A for a complete description.

3. Impact of Increased Mail-Order Use on Consumers and Insurers

The use of mail-order pharmacies has been widely touted by PBMs as reducing health care costs, though the estimates of savings from the studies reviewed varies in a number of dimensions. A study by a major investment firm estimated that use of mail order results in savings of 5 to 10 percent, compared to retail, even after considering lower co-payments provided to consumers.[35] A comparison of costs between community and mail-service pharmacy for a health plan in the northeastern United States showed that use of mail order resulted in savings of 7.3 percent, but that costs to the health plan were actually higher when lower patient co-payments were taken into account.[36] The study found that savings for generic drugs were almost four times that for branded drugs. Some pharmacy benefits experts have argued that part of the potential savings from mail order over retail is offset by consumer co-pays as well as by larger prescriptions that result in wasted drug supplies.[37] A 2003 study by the GAO compared prices on a sample of commonly prescribed medications in the Federal Employee Health Benefits Program (FEHBP) and found an average difference of 11.5 percent for branded drugs and 9.9 percent for generic drugs.[38] While the GAO report finds that savings from generics are less than those from branded drugs, a Merrill Lynch pharmaceutical analyst noted that PBM "Medco generates up to four times as much profit on mail-order generics as it does on prescriptions in general."[39] A recent study by the FTC found that PBM-owned mail-order pharmacies provide lower drug prices than either retail pharmacies or mail-order pharmacies owned by retail drugstore chains.[40] The extent of savings to be realized will depend on a number of factors, including the extent to which other utilization management techniques are already in place. For example, if there are already high rates of generic substitution at the retail level, then additional savings from mail order will be smaller than they would be if generic substitution had not already been in use.

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[35] T. Gallucci, "Mail Trends Bode Well for PBMs," Merrill Lynch, September 7, 2004.
[36] NV Carroll et al., "Comparison of Costs of Community and Mail Service Pharmacy," *Journal of the American Pharmacists Association,* 2005; 45(3):336-343.
[37] K. McDonough and C. Chandor, *Employee Benefit News,* May 1, 2001.
[38] Government Accountability Office, *Federal Employees' Health Benefits: Effects of Using Pharmacy Benefit Managers on Health Plans, Enrollees, and Pharmacies*, GAO-03-196, January 2003. http://www.gao.gov/new.items/d03196.pdf.
[39] http://www.thestreet.com/pf/stocks/melissadavid/10241717.html.
[40] Federal Trade Commission. *Pharmacy Benefit Managers: Ownership of Mail-Order Pharmacies.* August 2005. http://ftc.gov/reports/pharmbenefit05/050906pharmbenefitrpt.pdf.

The remainder of this section of the report explores the potential impact of increased mail-order use on consumers and insurers. Savings that accrue to third-party payers and to consumers are quantified by (1) estimating the potential increase in the volume of mail-order prescriptions and (2) multiplying by the appropriate per-prescription cost savings as described below. For the purposes of this report and analysis, we estimate the potential change in mail-order volume using two different strategies. The first approach is essentially an upper bound and assumes that roughly all maintenance drugs in the fully insured market go to mail order. The second approach is more grounded in current practice (i.e., based on current mail-order shares of self-insured plans in Maryland). All estimates are based on 2004 and are not inflated either in terms of dollars or prescriptions.

ESTIMATING THE POTENTIAL INCREASE IN MAIL-ORDER VOLUME

Approach 1: Assume all maintenance drugs filled under fully insured plans become mail order.[41] For the purposes of estimating the potential increase in mail-order volume, maintenance drugs with the potential to be moved to mail order are defined as existing retail prescriptions providing a 90-day supply.[42] It is assumed that an individual purchasing a 90-day supply of a prescription drug is using a maintenance medication and, with the appropriate incentives, could potentially be induced to switch that prescription from retail to mail order. No self-insured claims were selected since it is assumed that the self-insured segment of the market will not be affected by any changes, though under this scenario, 90-day fully insured prescriptions from all insurers covered by the database may be identified as potential mail order. It should be emphasized that this approach is considered to be a somewhat high estimate — it is not the presumption that all of these prescriptions would necessarily be moved to mail order, but that they reasonably could be under the appropriate scenario.

Using this approach, the potential increase in mail-order volume is estimated to be 1.6 million prescriptions (Table 3-1).[43] This scenario results in a mail-order share of 27 percent (in terms of dollars) for fully insured prescriptions, which exceeds the existing mail-order share for self-insured prescriptions of 22 percent.

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[41] In all analyses that use fully insured claims, we also include those claims that can not be identified as either fully insured or self-insured.
[42] One could also flag prescriptions for individuals obtaining three consecutive prescriptions for the same medication, each for a 30-day supply, and assume that these sets of prescriptions could also be converted to mail order under certain circumstances.
[43] Prescription counts in this section are not adjusted or normalized as in the previous section.

Approach 2: Assume that mail order for fully insured claims rises to the level for self-insured claims, for each payer. This second approach to estimating the potential increase in mail-order volume relies on the assumption that the current mail-order penetration in the self insured market predicts the potential mail-order penetration for the fully insured market. Here then, for each payer, the mail-order share for self-insured claims was applied to fully insured prescriptions.[44] To illustrate, if a payer had 10,000 self-insured claims, 10 percent of which were mail order, and 10,000 fully insured claims, 5 percent of which were mail order, it was assumed that the potential for new mail-order prescriptions was an additional 5 percent of the fully insured claims or 500 prescriptions. To implement this change, claims to be "moved" to mail order were randomly selected from all fully insured, retail 90-day prescriptions.[45] If the mail-order share for self-insured claims was equal to or less than that for fully insured claims, it was assumed that there would be no change in mail order. Similarly, if a payer had no self-insured claims at all, no change was estimated to take place. Thus, this approach 'moves' prescriptions to mail order only for selected insurers (those with both fully insured and self-insured claims where the self-insured mail-order share is higher than the fully insured mail-order share), in contrast to Approach 1 which targeted all insurers for mail order.

Using this approach, the potential increase in mail-order prescriptions was estimated to be approximately 0.5 million. The resulting mail-order share of expenditures for fully insured prescriptions is 15 percent.

SAVINGS THAT ACCRUE TO CONSUMERS

The potential change in the use of mail-order pharmacies described in the previous section is assumed to come about based on the use of incentives that encourage consumers to substitute mail-order use for retail purchases. It should be emphasized that no behavioral assumptions are made, in the sense that we do not specifically estimate how consumers would respond to a given change in co-payments. Instead, a volume change is estimated based on the assumptions described above and a change in co-payments is assigned. For the purposes of this analysis, it is assumed that, on average, payers charge consumers the equivalent of two co-payments for a 90-day mail-order supply, rather than the three co-payments that would normally be charged for three 30-day-supply retail prescriptions.

[44] Claims that could not be identified as either self- or fully insured were included with fully insured claims.
[45] Because there were not a sufficient number of 90-day prescriptions to move to mail order, we also identified the balance using sets of three consecutive 30-day claims for the same person and same drug.

Savings using Approach 1: As described above, this set of assumptions leads to a potential increase in mail order of 1.6 million prescriptions. Based on this change in volume, the savings that would accrue to consumers are estimated to be $16 million (Table 3-1). This comes to just under 2 percent of fully insured spending on prescription drugs for those with private coverage in Maryland.

Savings using Approach 2: Using the alternative assumption of a potential increase of 0.5 million prescriptions, the savings that would accrue to consumers are estimated to be $6.7 million, approximately two-fifths of the savings estimated using Approach 1.

The potential savings to consumers represent between 2 and 6 percent of current out-of-pocket spending on Maryland retail prescription drugs represented in the database (including fully insured and self-insured).

SAVINGS THAT ACCRUE TO THIRD-PARTY PAYERS

As with estimating the savings for consumers, estimating savings that accrue to third-party payers (e.g., PBMs, employers) relies on the same volume assumptions of potential changes in mail-order use. In the case of third parties, moving from a change in volume to a dollar value, it is assumed that between 5 and 10 percent of the portion reimbursed by insurers is saved per prescription, with each prescription representing a 90-day supply of medication. The savings estimate of 5 to 10 percent per prescription is based on a range of studies employing a variety of approaches to comparing retail and mail-order prices. For example, the studies cover different populations and time periods, some control for differences in drug mix between mail order and retail and some do not, and some of the studies distinguish between generics and branded drugs while others do not.[46]

[46] The GAO report cited earlier is one of the more detailed studies (though data are from 2002). Comparing retail to mail order, the GAO study finds savings of 9.9 percent for generic drugs and 11.5 percent for branded drugs. In a review of prescription drug cost-containment strategies prepared for the Kaiser Family Foundation (*Cost Containment Strategies for Prescription Drugs*, prepared for KFF by Jack Hoadley, March 2005), three different savings estimates are cited: a study by the Pharmacy Benefit Management Institute indicates savings of 6.9 percent for branded drugs (Pharmacy Benefit Management Institute, *The Prescription Drug Benefit Cost and Plan Design Survey Report*, provided by Takeda, 2004 edition, PBMI, 2004); Medco Health reported savings of up to 10 percent (Medco Health, *Drug Trend Report,* 4(1), September 2002); and an AARP report suggests savings between 5 and 10 percent (Fox, Peter D., "Prescription Drug Benefits: Cost Management Issues for Medicare," AARP Public Policy Institute, #2000-09, August 2000).

Based on these assumptions, savings estimates for third parties range from $8.1 million to $16.3 million using Approach 1 and from $3.3 million to $6.7 million with Approach 2 (Table 3-1).

Table 3-1: Potential Increase in Mail-Order Use and Estimated Savings Accruing to Consumers and Third-Party Payers, Fully Insured Private Insurance, 2004

	Increase in Number of Prescriptions	Consumers	Third-Party Payers	
			Low (5%)	High (10%)
Approach 1—high estimate	1,569,236	$15,964,936	$8,129,328	$16,258,655
Approach 2—low estimate	511,993	6,650,430	3,340,900	6,681,800

Note: Estimates of potential increase in mail-order use are based on analyses of the Maryland Medical Care Database, fully insured and unidentified claims only.

The estimated savings that would accrue to third-party payers from an increase in mail order represent between 0.4 and 2 percent of the insurer portion of spending in the fully and self-insured retail markets.

4. Impact of Increased Mail-Order Volume on Retail Pharmacies

This section of the report assesses the impact of potential changes in mail-order volume on retail pharmacies. The volume estimates are the same as those used in the previous section and, again, are restricted to potential changes within the fully insured market. The impact is shown within two different contexts — Table 4-1 focuses on the fully insured market only, while Table 4-2 presents the broader impact across all market segments. In order to estimate the loss in revenue that these volume changes entail, the current spending total (both the co-payment and insurer portions) from each prescription drug claim is assigned and summed over all prescriptions that are identified as having the potential to become mail order.

Table 4-1: Potential Increase in Mail-Order Use and Estimated Loss to Retail Pharmacies, Fully Insured Market Only, by Pharmacy Characteristics, 2004

	Current Retail Pharmacy Revenue	Impact on Pharmacy Revenue: Approach 1— High Estimate of Increase in Mail-Order Prescriptions	Impact on Pharmacy Revenue: Approach 2— Low Estimate of Increase in Mail-Order Prescriptions
Revenue Loss to Retail Pharmacies	$928,680,790	$210,481,360	$87,769,295
By Type			
Chains	38%	37%	41%
Independents	28	25	17
Supermarket/Mass merchandiser	34	38	42
Size (annual prescriptions)			
< 5,000 scripts	4%	4%	4%
5,000 -- 9,999	11	11	11
10,000 -- 9,999	28	29	31
20,000 or more	57	56	55
Location			
Metro area	88%	84%	89%
Non-metro area	12	16	11

Note: Estimates of potential increase in mail-order use are based on analyses of the Maryland Medical Care Database, fully insured and unidentified claims only. "Metro area" is defined as pharmacy location in a county within a large metro area. In addition to Baltimore City, the following counties are defined as metro area: Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, Prince George's, and Queen Anne's.

The impact on different types of pharmacies from the potential increase in mail-order use is estimated based on the proportion of existing 90-day prescriptions and examined across different types of pharmacies (chain drugstores, independent pharmacies, and supermarkets/mass merchandisers); by size as measured by annual prescription volume; and by location (metro versus non-metro area).[47] In addition, the statewide impact on across-market segments is shown in Table 4-2, which includes the share of prescriptions and revenues that are accounted for by national PBMs and non-Maryland insurers as well as public payers and cash customers.

In order to place these potential revenue changes in context, the level of current retail pharmacy revenue for Maryland-based pharmacies that is derived from prescriptions for fully insured, privately insured Maryland residents is estimated. Based on the specific set of prescriptions as noted here and including both the co-payment and insurer portions, total revenue for 2004 is estimated to be $928.7 million (Table 4-1), representing about 25 percent of total Maryland retail pharmacy sales as presented in Table 4-2.

As shown in Table 4-1, which is limited to prescriptions for fully insured, private coverage, 38 percent of the revenue goes to chain drugstores, 28 percent to independent pharmacies, and 34 percent to pharmacies located in supermarkets or mass merchandisers. As would be expected, the share of revenue rises markedly with size, measured here by the annual number of fully insured, private-coverage prescriptions. Pharmacies with fewer than 5,000 prescriptions annually together receive only 4 percent of total revenue, while pharmacies with 20,000 or more annual prescriptions obtain almost 60 percent of total revenue from this source. The vast majority of revenue (88 percent) accrues to pharmacies located in metropolitan counties.

The impact on pharmacy revenue of a potential change in mail-order use is estimated to be between $88 (Approach 2 — low estimate) and $210 million (Approach 1 — high estimate). The lower estimate would reduce *total* Maryland retail pharmacy sales in 2004 by 2 percent, while the upper estimate would reduce this total by 6 percent (Table 4-2). The lower estimate represents almost 10 percent of current pharmacy revenue from fully insured prescriptions, while the higher estimate accounts for just over 20 percent of revenue. As shown in Table 4-1, the distributional impact by pharmacy characteristics is quite similar to the current distribution of revenue, with a few exceptions. Independent pharmacies appear to bear slightly less impact — they would bear between 17 and 25 percent of the revenue loss, while receiving 28 percent of current revenue. The higher revenue impact is absorbed by supermarket and mass merchandiser pharmacies which

[47] Metro area pharmacies are defined as those located in a county within a *large* metro area. In addition to Baltimore City, the following counties are defined as "metro area": Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, Prince George's, and Queen Anne's.

bear 38 to 42 percent of the loss compared to 34 percent of existing revenue. The distribution of current revenue versus the distribution of the revenue impact is almost identical by annual prescription volume, while the effect on metro-area versus non-metro-area pharmacies varies between the low and high estimates. Differences in the impact between Approaches 1 and 2 derive from the fact that the former strategy selects claims from all insurers while the latter focuses on specific payers only.[48] The corresponding reductions in retail pharmacy prescription volumes are 1 percent and 3 percent, respectively (Appendix B).

Table 4-2: Changes in Maryland Retail Pharmacy Prescription Drug Revenue under Two Scenarios for Expanding Mail-Order Use

	Private Third-Party Payers			Medicaid & Cash Payers	Total
	Retail Scripts in MCDB		Other Retail Scripts		
	Fully Insured	Self Insured	Residual from NACDS: national PBMs & non-MD insurers		
Retail pharmacy prescription revenue	$928,680,790	$180,256,575	$1,920,541,606	$715,894,808	$3,745,373,779
Share of total revenue	25%	5%	51%	19%	100%
Full migration of all fully insured 90-day scripts to mail order					
Volume of fully insured retail revenue that is projected to "migrate" to mail order	$210,481,360	----- *	----- *	----- *	----- *
Share of total prescription revenue that is estimated to be lost	6%	----- *	----- *	----- *	----- *
Partial Migration: Align fully insured mail order share with self-insured mail-order share by payer					
Volume of fully insured retail revenue that is projected to "migrate" to mail order	$86,769,296	----- *	----- *	----- *	----- *
Share of total prescription revenue that is estimated to be lost	2%	----- *	----- *	----- *	----- *

Note: *It is assumed that there is no change in mail order for these payers. Total prescription revenues and revenues for Medicaid, cash, and all private third-party payers are from NACDS for Maryland in 2004.

[48] Approach 2 'moves' prescriptions to mail order only for selected insurers (those with both fully insured and self-insured claims where the self-insured mail-order share is higher than the fully insured mail-order share), in contrast to Approach 1 which targeted all insurers with fully insured 90-day prescriptions for mail order.

It should be emphasized that the financial impact on retail pharmacies described here will be dampened, and possibly substantially so, by the overall growth in sales of prescription drugs. While an empirical analysis of growth in spending on prescription drugs is beyond the scope of the study, projections from the National Health Accounts indicate that prescription-drug spending will double between 2005 and 2014, from $223.5 to $521.3 billion. Though growth is expected to soften over this period, prescription-drug spending is projected to be the fastest-growing sector of health expenditures. Annual rates of growth are predicted to slow somewhat from a recent high of 11.9 percent in 2004 to 10.2 percent in 2009 falling to 8.7 percent by 2014.[49] CMS actuaries attribute this deceleration to a softening in the growth of drug prices, the scheduled expiration of patent protection for several top-selling drugs, and increased use of multi-tiered co-payments that have slowed demand. Any positive impacts on utilization from the new Medicare Part D benefit are predicted to be almost offset by price discounts. Thus, depending on the overall growth of expenditures on prescription drugs, revenue impacts described here may be substantially mitigated.

[49] http://www.cms.hhs.gov/statistics/nhe/projections-2004/

5. Conclusions

- In 2004, Maryland residents used over $4.1 billion worth of prescription drugs with purchases through mail-order pharmacies accounting for 14 percent of these expenditures about 4 percentage points below the national average. The mail-order share for self-insured companies handled by in-state insurers was 22 percent. However, Maryland law restricts how in-state insurers can utilize mail order in their (fully insured) prescription drug plans. Consequently, the mail order share in this segment of the prescription drug market is constrained, and was about 7 percent in 2004. Without any change in Maryland law, the fully insured mail-order rate is likely to remain unchanged while the statewide rate will reflect national trends but will continue to lag behind the nation as a whole.

- If the law were changed to at least permit use of consumer incentives for mail-order prescriptions, several insurers in the State would likely do so, resulting in an increase in the mail-order rate for fully insured coverage written by in-state insurers. If all in-state insurers increased their fully insured rate to match the rate in their self-insured business ("limited migration" as described in Approach 2 in Section 3), their combined fully insured mail-order rate would be projected to climb to 15 percent, with a resulting statewide rate of 16 percent. Alternatively, if *all* fully insured 90-day retail prescriptions were moved to mail-order pharmacies ("full migration" as described in Approach 1 in Section 3), the fully insured mail-order rate would be 27 percent, with a resulting statewide rate of 19 percent. This latter scenario, although theoretically possible, would make the in-state insurers' combined rate for fully insured products exceed their rate under self-insured coverage (27 percent versus 22 percent).

- The possible impact on Maryland retail pharmacies of a change in law to permit incentivizing mail-order prescriptions — a reduction in retail prescription sales ranging from 2.3 percent to an upper limit of 5.6 percent — will be dampened by the anticipated growth in prescription drug sales. For example, if prescription sales in the State grow by 10 percent annually (the estimated growth rate for prescription-drug spending in Maryland in 2004), the net change in Maryland retail prescription drug sales after movement of retail

prescriptions to mail order under the limited migration and full migration scenarios would 7 percent and 4 percent increases, respectively.

- Whatever the level of the projected impact on retail pharmacies in the State, the independent pharmacies are expected to be somewhat less affected by a shift to mail order than other types of retail stores. Independents account for 28 percent of fully insured prescription sales in the State, but are projected to lose relatively less (17–25 percent) of the fully insured prescription sales that might move to mail order. All other types of retail pharmacies are projected to have disproportionately higher losses to mail order, relative to their shares of fully insured retail prescription drug sales.

- There are likely to be savings in prescription drug expenditures for the fully insured market as result of greater mail-order use, but they are difficult to estimate. Efficiencies in mail order can produce savings, but the level of savings depends on the extent to which other utilization management tools are already being employed by the insurer/PBM. The published studies of savings that can be achieved using mail order have focused on limited populations and/or limited numbers of drugs, and there is considerable variation in their savings estimates. We have elected to be relatively conservative in projecting savings under the two scenarios (limited migration and full migration) described above. Savings to consumers are predicted to be a one-third reduction in co-payments, and savings to insurers are predicted to be either 5 percent or 10 percent of their contribution. Under the limited migration scenario, the savings amount to less than 2 percent of fully insured prescription drug expenditures, regardless of whether 5 or 10 percent savings are assumed, with an overall reduction of less than 1 percent in State drug spending. Consumers would receive one-half to two-thirds of the total saved. Under the full migration scenario, the savings would amount to between 2 and 4 percent of fully insured prescription drug expenditures, with an overall reduction of less than 1 percent in State drug spending. Consumers would again receive between one-half and two-thirds of the total saved.

- Although private, third-party payers accounted for 81 percent of all Maryland retail pharmacy prescription sales (in dollars) in 2004, self-insured employers and national PBMs are the dominant forces in the third-party market segment with 56 percent of the State's retail sales. The Maryland-based, fully insured plans that are subject to Maryland law account for just 25 percent of total retail prescription sales in Maryland, which limits the impact that changes in

Maryland law can have on Maryland retail pharmacies. Use of mail order by insurers/employers beyond the reach of State law is likely to continue its upward trend, but the limit on mail order growth is probably dictated by the number of maintenance drugs scripts in the patient population; it is not clear that a model exists for profitably filling non-maintenance drugs via mail order.

- An informal survey of Maryland insurers indicated little interest in implementing *mandatory* mail-order provisions, which seems to be echoed in national trends (see below). Most Maryland insurers contacted expressed an interest in being able to use consumer incentives for mail-order purchases by making these prescriptions less expensive to their covered populations than retail prescriptions. These insurers assert that the price differentials between mail order and retail are great enough to provide savings for both insurers and consumers.

- Nationally, the industry trend seems to be moving away from mandating use of mail order to greater use of incentives. The perception is that consumers want to have choice and should be allowed to choose between mail order (with a lower co-payment) or retail. This is in keeping with the Medicare prescription drug model, in which prices are more transparent and consumers have a choice, but have to pay for it. If the retail price faced by the insurer is higher than the corresponding mail-order price, then the consumer pays the difference in the form of a higher co-payment. This option recognizes that some consumers may find retail pharmacies more convenient and retail pharmacists more helpful, and permits consumers to use them as long as they are willing to bear a higher out-of-pocket cost for the convenience or added value.

- An examination of the mail-order versus non-mail-order claims in the MCDB prescription drug database revealed no obvious data anomalies that would, by themselves, bias the results presented here.

Appendix A

Payers Contributing Data to This Report

Table A-1: Payers Contributing Data to This Report

PAYER NAME
Aetna Life & Health Insurance Co.
Aetna U.S. Healthcare
CareFirst DC
CareFirst MD
CIGNA Healthcare Mid-Atlantic, Inc.
Graphic Arts Benefit Corporation
Unicare Life & Health Insurance Co.
Kaiser Foundation Health Plan of Mid-Atlantic
MAMSI Life Insurance Co.
Maryland Fidelity Insurance Co.
MD-Individual Practice Association, Inc.
MEGA Life & Health Insurance Co.
Optimum Choice, Inc.
Coventry Healthcare of Delaware, Inc.
State Farm Mutual Automobile Insurance Co.
United Healthcare Insurance Co.
Trustmark Insurance Co.
Union Labor Life Insurance Co.
United Healthcare of the Mid-Atlantic, Inc.

Appendix B

Changes in Maryland Retail Pharmacy Prescription Drug Volume under Two Scenarios for Expanding Mail-Order Use

Table B-1: Changes in Maryland Retail Pharmacy Prescription Drug Volume under Two Scenarios for Expanding Mail-Order Use

	Private Third-Party Payers			Medicaid & Cash Payers	Total
	Retail Scripts in MCDB		Other Retail Scripts		
	Fully Insured	Self Insured	Residual from NACDS: national PBMs & non-MD insurers		
Retail pharmacy prescription volume	13,104,161	2,699,442	25,310,710	10,130,858	51,245,171
Share of total volume	26%	5%	49%	20%	100%
Full migration of all fully insured 90-day scripts to mail order					
Volume of fully insured retail scripts projected to "migrate" to mail order	1,569,236	----- *	----- *	----- *	----- *
Share of total prescription volume that is estimated to be lost	3%	----- *	----- *	----- *	----- *
Partial Migration: Align fully insured mail order share with self-insured mail-order share by payer					
Volume of fully insured retail scripts projected to "migrate" to mail order	511,993	----- *	----- *	----- *	----- *
Share of total prescription volume that is estimated to be lost	1%	----- *	----- *	----- *	----- *

Note: *It is assumed that there is no change in mail order for these payers. Total prescription volume and volumes for Medicaid, cash, and all private third-party payers are from NACDS for Maryland in 2004.

Appendix C

Comments on the Report from The Maryland Board of Pharmacy

STATE OF MARYLAND
DHMH
Department of Health and Mental Hygiene
Robert L. Ehrlich, Governor – Michael S. Steele, Lt. Governor – S. Anthony McCann, Secretary

MARYLAND BOARD OF PHARMACY
4201 Patterson Avenue • Baltimore, Maryland 21215-2299
John H. Balch, Board President – LaVerne G. Naesea, Executive Director

December 21, 2005

Ben Steffen, Deputy Director
Maryland Health Care Commission
4160 Patterson Avenue
Baltimore, Maryland 21215

Dear Mr. Steffen:

Thank you for your presentation today regarding the SB 885 (2005) Maintenance Drug Prescriptions – Mail-Order Purchase – Study. SB 885 required that the Maryland Health Care Commission (MHCC) and the Maryland Insurance Administration (MIA), in consultation with the Maryland Board of Pharmacy (Board), study the utilization impact, cost savings and the financial impact on retail pharmacies, and convenience of mail order service for purchasing certain maintenance drugs. Your presentation, accompanied by your draft final report, gave the Board of Pharmacy a substantial overview of your carefully prepared study.

The Board would also like to acknowledge that the MHCC made an initial presentation of the scope of the Mail-Order Purchase Study at the Board's August 2005 Practice Committee Meeting. This meeting provided the Practice Committee with the opportunity to express their concerns and make comments regarding the focus of the study and how it impacts pharmacists and pharmacies in Maryland. The Board also provided background information regarding how mail order actually works and the financial pitfalls that may be involved for pharmacies and consumers.

The Board would like to acknowledge the outstanding work of the MHCC and the MIA in preparing such a thorough study of this issue. Thank you for keeping the Board apprised of your progress.

Sincerely,

LaVerne G. Naesea,
Executive Director

cc: Members of the Maryland Board of Pharmacy
Anna Jeffers, Acting Legislative and Regulations Manager

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