



**Mail-Service and Specialty Pharmacies
Will Save More than \$300 Billion for Consumers,
Employers, and Other Payers
Over the Next 10 Years**

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I. Executive Summary

On healthcare issues, poll after poll shows that cost is the greatest concern for both consumers and employers. At the same time, the growth of Amazon.com and other online retailers highlights greater consumer demand for convenience and home delivery. With prescription drugs, these trends have led to greater use of high-tech mail-service pharmacies. While patients with short-term, acute needs continue to use drugstores, patients with chronic conditions like high blood pressure increasingly rely on mail-service pharmacies to save money and get prescriptions delivered directly to their homes.

Trends in pharmaceutical development have also led to the creation of specialty pharmacies. Specialty pharmacies are distinct from traditional pharmacies in that they coordinate many aspects of patient care and disease management for patients on complex, high-cost drug therapies for rare diseases. They efficiently deliver medications with special handling and storage or distribution requirements. They also coordinate care with other clinicians and health care professionals to improve clinical and economic outcomes for patients and payers. Conventional pharmacies are not equipped to fulfill this range of needed services, so payers and benefit managers turn to the unique expertise of specialty pharmacies.

Proposed state laws and regulations that restrict mail-service and specialty pharmacy options threaten to raise costs for both consumers and payers.

Major Findings

Compared to brick-and-mortar drugstores, mail-service and specialty pharmacies offer deeper discounts and enhanced services. Based on Visante's analysis, this generates substantial savings for the U.S. health care system:

- Mail-service pharmacies will save an estimated **\$5.1 billion** for consumers, employers, and other payers in 2015, and **\$59.6 billion** over the 10-year period 2015-24.
- Specialty pharmacies will save an estimated **\$13.5 billion** for consumers, employers, and other payers in 2015, and **\$251.5 billion** over the 10-year period 2015-24.
- Combined, mail-service and specialty pharmacies will save an estimated **\$18.6 billion** for consumers, employers, and other payers in 2015, and **\$311 billion** over the 10-year period 2015-24.

The major findings above are based on a recent analysis by the Centers for Medicare & Medicaid Services (CMS) that found that mail-service pharmacies save an average of 16% on prescription costs compared to retail pharmacies. Proposed legislation could threaten the ability of mail-service pharmacies to continue to provide such savings. Likewise, specialty pharmacies have demonstrated average savings of 10% on drug costs and substantial savings on non-drug medical costs compared to retail pharmacies. Legislation that restricts the use of specialty pharmacies could put these savings at risk.

II. Discussion

Use of Mail-Service Pharmacies for Chronic Care Prescriptions

Mail-service pharmacies typically provide 90-day prescriptions for medications that consumers need on an ongoing basis. Local drugstores are used for new therapy starts and acute-care prescriptions. Consumers use mail-service pharmacies once they are stabilized on a medication, after having finished several 30-day prescriptions from their local drugstores.

Mail-Service Pharmacies Encourage Generic Drug Use

Without patients waiting in line at the pharmacy counter, mail-service pharmacists have more “fill-to-receive” time that allows them to contact patients and physicians to seek approval for the substitution of generic drugs when brands are prescribed. As a result, the generic substitution rate (GSR), which measures how often generics are substituted for brands when a generic is available, is higher for mail-service pharmacies than drugstores.^{1,2} Another measure, the generic dispensing rate (GDR), measures the proportion of all dispensed prescriptions that are generic. Comparisons between mail-service pharmacy and drugstore GDRs must account for the different mix of drugs, prescription sizes, and copay incentives for each channel.³ When these differences are taken into account, GDRs are comparable for mail-service pharmacies and drugstores.

What Makes Mail-Service Pharmacies More Efficient

Mail-service pharmacies are able to generate savings for consumers and payers by being vastly more efficient than brick-and-mortar drugstores. Through the use of computer-controlled quality processes, robotic dispensing machinery, and advanced workflow practices, mail-service pharmacies are able to fill large quantities of prescriptions while enhancing quality and reducing costs. This technology allows pharmacists to focus on clinical and cost management functions, rather than counting pills, printing instructions, and assembling prescriptions by hand as is done in drugstores.

Superior Safety through Mail-Service Pharmacies

Technologically advanced mail-service pharmacies achieve dispensing accuracy rates up to 23 times better than drugstores. Studies have found an error rate of nearly one in every 50 prescriptions (1.72%) filled at drugstores, compared to less than one in every 1,000 prescriptions (0.075%) at mail-service pharmacies.⁴ By being more accurate, mail-service pharmacies help ensure that patients get the correct drugs, dosages, and dosage forms, and thus avoid costly adverse drug events that can result in hospitalization.

Patients Have Access to 24/7 Counseling and Support

Mail-service pharmacies provide patients convenient access to 24/7 confidential counseling and answers to questions on prescription medications over the phone or Internet. Pharmacists also

¹ Federal Trade Commission, “Pharmacy Benefit Managers: Ownership of Mail-Service Pharmacies,” August 2005.

² Wosinska, M., et al., “Generic Dispensing and Substitution in Mail and Retail Pharmacies,” *Health Affairs*, July 2004.

³ Federal Trade Commission, *op. cit.*

⁴ Teagarden, J.R., et al., “Dispensing Error Rate in a Highly Automated Mail-Service Pharmacy Practice,” *Pharmacotherapy*, November 2005.

counsel patients on affordable medication options and identify generic and therapeutic substitution opportunities.

Mail-Service Pharmacies Improve Patient Adherence

Patients receiving their prescriptions through mail-service pharmacies follow their doctors' prescribed drug regimens more often than drugstore users. This improves health outcomes and often reduces non-drug medical costs, such as hospitalizations. Part of the reason mail-service pharmacy improves adherence is that patients receive their prescriptions in 90-day supplies, rather than 30-day supplies, which tends to reduce adherence problems.⁵ Even after accounting for 90-day prescriptions, however, evidence suggests that mail-service pharmacy users achieve higher adherence rates than drugstore users.⁶ For patients with chronic conditions, such as diabetes, high cholesterol, and high blood pressure, studies find adherence is approximately eight percentage points higher for mail-service pharmacy users.^{7,8,9} Lower copays, home delivery, and refill reminder programs all likely play roles.

Less Waste at Mail-Service Pharmacies

Prescriptions obtained through mail-service pharmacies are associated with less waste than 90-day prescriptions obtained through drugstores. Waste occurs when patients stop taking their medication before using the entire supply of a prescription. This can be due to the need to discontinue therapy, switch to a different drug, or change dosage strengths. To minimize waste, mail-service pharmacies are typically used only once a patient is stable on a medication after having finished several 30-day prescriptions from their local drugstores. A 2011 study of patients taking statin medications found that on a yearly basis, four 90-day drug prescriptions through drugstores were associated with 4.04 days of waste, while four 90-day mail-service prescriptions were associated with 3.08 days of waste.¹⁰

Advantages of Specialty Pharmacies

Specialty pharmacies are also widely utilized by pharmacy benefit managers (PBMs), health insurance companies, and plan sponsors to help manage prescription drug costs and improve quality of care. Based on Visante's analysis, specialty pharmacy management delivers three major advantages:

- *Helps Patients Take Complex Medications Safely and Effectively:* Specialty pharmacies employ highly trained teams of patient care coordinators, pharmacists, nurses, and insurance specialists, all working toward helping patients take complex medications safely and effectively. Specialty pharmacy services significantly improve the quality of patient care relative to other distribution channels.

⁵ Hermes M., et al., "Adherence to Chronic Medication Therapy Associated with 90-Day Supplies Compared with 30-Day Supplies," *Journal of Managed Care Pharmacy*, 2010, 16:141-142.

⁶ Duru, K., et al., "Mail-Order Pharmacy Use and Adherence to Diabetes-Related Medications," *The American Journal of Managed Care*, January, 2010.

⁷ Ibid.

⁸ Zhang, L., et al., "Mail-Order Pharmacy Use and Medication Adherence among Medicare Part D Beneficiaries with Diabetes," *Journal of Medical Economics*, October 2011.

⁹ Devine, S., et al., "A Comparison of Diabetes Medication Adherence and Healthcare Costs in Patients Using Mail Order Pharmacy and Retail Pharmacy," *Journal of Medical Economics*, 2010.

¹⁰ Vuong, T., et al., "[Statin Waste Associated with 90-day Supplies Compared to 30-day Supplies](#)," Prime Therapeutics, 2011.

- *Decreases Drug Costs by 7-12%:* Specialty pharmacies and coordinated benefit management strategies provide a savings advantage of 7-12% relative to other distribution channels such as retail pharmacies and physician offices.
- *Decreases Non-Drug Medical Costs by 10-40%:* Specialty pharmacy services reduce expenditures on hospitalizations and other medical costs through a range of patient-centered services that enhance patient adherence to drug therapies, including patient education, training and monitoring, nursing and supportive care, case management, and 24/7 pharmacy support.

Specialty Pharmacies Must Meet Strict Requirements

Specialty pharmacies must meet many requirements to effectively handle injectable biologic medications that require refrigeration and can cost many thousands of dollars per dose. These requirements include:

- Providing round-the-clock access to pharmacists, nurses, and clinicians dedicated to and specially trained with respect to the disease state treated by the drug, the specialty drug itself, and the drug's potential side effects
- Adhering to rigorous storage, shipping, and handling standards to meet product-label shipping requirements, such as temperature control, and timely deliveries of the product in optimal condition
- Performing disease-specific and drug-specific patient care management services that meet the unique needs of each patient and that incorporate multiple safeguards when dispensing and delivering the drug to ensure patient safety
- Collecting data and tracking outcomes for specific patients as required
- Managing compliance and persistency of drug regimens for patients
- Managing care within manufacturer Risk Evaluation and Mitigation strategies (REMS) program requirements, including REMS reporting, Phase IV trials, the dispensing of FDA trial drugs under strict protocols, and related clinical and cognitive counseling

III. Savings from Mail-Service and Specialty Pharmacies

Visante projects 10-year savings (2015-24) for consumers, employers, and other payers of \$311 billion, based on mail-service savings of \$59.6 billion and specialty savings of \$251.5 billion. Estimated savings in 2015 will be \$5.1 billion for mail-service and \$13.5 billion for specialty.

Estimated mail-service pharmacy savings are based on a recent cost analysis conducted by CMS that compared prescription costs at mail-service pharmacies to costs at brick-and-mortar drug stores in Medicare Part D. The agency found that costs at mail-service pharmacies were 16% less than drug stores across all drugs examined.¹¹ Many studies have also shown improved patient adherence to prescription regimens with mail-service pharmacies.^{12,13,14,15}

Specialty pharmacies also deliver significant savings. For example, the Pennsylvania Medicaid program's use of specialty pharmacies helped save 21% on overall health expenditures for beneficiaries using specialty drugs, including 12% on specialty drug costs and 56% on inpatient hospital costs.¹⁶ Other studies have demonstrated that specialty pharmacies save 13-23% on drug costs.^{17, 18} In addition, specialty pharmacies have demonstrated significantly improved patient adherence and reduced medical costs for transplant patients, patients with HIV, hepatitis C, cancer and multiple sclerosis.^{19, 20, 21, 22, 23, 24, 25}

¹¹ Centers for Medicare & Medicaid Services, "Part D Claims Analysis: Negotiated Pricing Between General Mail Order and Retail Pharmacies," December 2013, available at <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/Negotiated-Pricing-Between-General-Mail-Order-and-Retail-PharmaciesDec92013.pdf>

¹² Schmittiel et al., "Safety and Effectiveness of Mail Order Pharmacy Use in Diabetes," *American Journal of Managed Care*, 2013; 19(11):882-887.

¹³ Zhang, L et al., "Mail-Order Pharmacy Use and Medication Adherence among Medicare Part D Beneficiaries with Diabetes," *Journal of Medical Economics*, October 2011.

¹⁴ Hermes M., et al., "Adherence to Chronic Medication Therapy Associated with 90-Day Supplies Compared with 30-Day Supplies," *Journal of Managed Care Pharmacy*, 2010, 16:141-142.

¹⁵ Duru, K., et al., "Mail-Order Pharmacy Use and Adherence to Diabetes-Related Medications," *The American Journal of Managed Care*, January, 2010.

¹⁶ Kaiser Commission on Medicaid and the Uninsured, "Managing Medicaid Pharmacy Benefits: Current Issues and Options," September 2011.

¹⁷ Medco Health Solutions, "Specialty Pharmacy: Future Evolution of Service and Value," Presented at PCMA Specialty Pharmacy Symposium, May 2008.

¹⁸ Baldini, C., and Culley, E., "Estimated Cost Savings Associated with the Transfer of Office-Administered Specialty Pharmaceuticals to a Specialty Pharmacy Provider in a Medical Injectable Drug Program," *Journal of Managed Care Pharmacy*, 2011;17(1):51-59.

¹⁹ Miller S., "Personalizing the Specialty Business," Presentation at the PCMA Specialty Pharmacy Business Forum," April 2012.

²⁰ Visaria, J., and Frazee, S., "Role of Pharmacy Channel in Adherence to Hepatitis C Regimens," *American Journal of Pharmacy Benefits*, 2013; 5(1):17-24.

²¹ Tang, J., and Faris, R., "Exploring the Impact of Dispensing Channel on Medication Adherence Among Multiple Sclerosis Patients," Presented at the 14th Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), May 2009.

²² Mitra, et al., "Treatment Patterns and Adherence among Patients with Chronic Hepatitis C Virus in a US Managed Care Population," *Value Health*, Jun-Jul, 2010; 13(4):479-86.

²³ Tan, et al., "Impact of Adherence to Disease-Modifying Therapies on Clinical and Economic Outcomes among Patients with Multiple Sclerosis," *Advances in Therapy*, Jan 2011; 28(1):51-61.

²⁴ Tschida, et al., "Outcomes of a Specialty Pharmacy Program for Oral Oncology Medications," *American Journal of Pharmacy Benefits*, 2012;4(4):165-174.

²⁵ Tschida, et al., "Managing Specialty Medication Services Through a Specialty Pharmacy Program: The Case of Oral Renal Transplant Immunosuppressant Medications," *Journal of Managed Care Pharmacy*, 2013; 19(1):26-41

Cost of Pharmacy Restrictions

Savings through mail-service and specialty pharmacies will only be available if the legal and regulatory environment remains neutral toward such pharmacies. When state or federal laws or regulations place restrictions or prohibitions on the use of these pharmacies, savings are threatened.

Health plans, insurers, and PBMs typically use a variety of incentives to encourage their enrollees to use mail-service pharmacies, especially for maintenance medications. Legislation that prohibits plans from using automatic home delivery of 90-day refills for chronic medications limits the use of the lowest-cost pharmacy channel option.

A study by the Maryland Health Care and Insurance Commissions found that anti-mail service legislation can lead to dramatically lower mail-service pharmacy use. In Maryland, mail-service pharmacies accounted for just 7% of prescription drug payments for employer plans subject to the legislation. This compares with mail-service accounting for 22% of payments for self-insured employer plans not subject to the legislation.²⁶ In short, anti-mail-service legislation cut the use of mail-service pharmacies by more than 50%, which means that any resulting savings was also cut by more than 50%.

Based on this experience, state or federal laws or regulations that place restrictions or prohibitions on the use of mail-service and/or specialty pharmacies could substantially increase prescription drug costs.

²⁶ Note that the Maryland study's finding that mail-service pharmacies accounted for 22% of prescription drug payments is consistent with the national mail-service penetration rate of approximately 7% of prescriptions, since mail-service prescriptions are typically three times larger than retail prescriptions (90-day vs. 30-day supply). In addition, the chronic care medications dispensed by mail-service pharmacies are not available generically as often as acute care medications dispensed by drugstores. This also makes mail-service pharmacies' share of payments marginally greater than their share of prescriptions.

IV. Methodology and Savings Estimates

The following important assumptions were incorporated into the analysis:

1. Total U.S. outpatient prescription drug expenditures for 2015-24 are projected to be \$3.9 trillion (\$295 billion in 2015),²⁷ with \$2.66 trillion for traditional (non-specialty) prescription drugs (\$227 billion in 2015) and \$1.26 trillion for specialty medications dispensed by pharmacies within prescription benefit plans (\$68 billion in 2015).²⁸
2. Projected expenditures for specialty medications above capture only the approximate 50% of specialty expenditures that flow through the pharmacy benefit (i.e., potentially available for pharmacies). The other 50% flow through the medical benefit (i.e., physician offices, clinics, hospitals).²⁹ For purposes of this analysis, our savings estimates include only the drug expenditures within prescription benefit plans.
3. 14% of traditional outpatient drug expenditures flows through mail-service pharmacies.³⁰
4. CMS found that mail-service pharmacies save 16% vs. retail pharmacies³¹
5. Visante estimates that specialty pharmacies save 10% of specialty drug costs vs. retail pharmacies, plus an equal amount of “non-drug medical/hospital cost savings.”³²
6. Appendix A estimates savings for each state.³³

Methodology: Mail-Service/Specialty Pharmacy Savings

| Projected Expenditures 2015-24 | | billions \$ | | | | | Source |
|--|---|------------------------|----------------------|-----------------------------|-----------------------|-----------------|--|
| | | Traditional Rx Benefit | Specialty Rx Benefit | Total Outpatient Rx Benefit | Specialty Med Benefit | Total Specialty | |
| 1 | Total US Spend for Outpatient Prescription Drugs Dispensed Under the Pharmacy Benefit | | | \$3,917 | | | CMS National Health Expenditures (NHE), Prescription Drugs, Projected |
| 2 | Specialty spend approx \$80b in 2011, plus approx 14% annual increases. | | | | | \$2,515 | Visante estimates based on published data from IMS Health and PBM Drug Trend Reports |
| 3 | 50% of specialty drug spend goes through Rx benefit (is incl in NHE Rx), plus 50% through medical benefit (is not incl in NHE Rx) | \$2,660 | \$1,258 | | \$1,258 | | EMD Serono Specialty Digest, 7th edition |
| 4 | 14% of traditional drug spend dispensed by mail-service pharmacies | \$372 | | | | | IMS Health, Channel Distribution by Non-Discounted Spending |
| Savings from Mail-Service and Specialty | | | | | | | |
| 5 | Mail-service pharmacy: Estimated savings of 16% | \$59.6 | | | | | CMS analysis 2013 |
| 6 | Specialty pharmacy: Estimated savings of 10% | | \$125.8 | | | | Visante estimates based on published studies |
| 7 | + equal amount non-drug medical/hospital savings | | \$125.8 | | | | |
| 8 | Total Savings | \$59.6 | \$251.5 | \$311.1 | | | |

²⁷ CMS National Health Expenditures (NHE), Prescription Drugs, Projected, available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>

²⁸ Visante estimate based on published data from IMS Health and PBM Drug Trend Reports.

²⁹ EMD Serono Specialty Digest™, 7th edition. <http://www.specialtydigest.emdserono.com/>

³⁰ IMS Health, Channel Distribution by Non-Discounted Spending (U.S.), available at http://www.imshealth.com/deployedfiles/imshealth/Global/Content/Corporate/Press%20Room/2012_U.S/Channel_Distribution_by_Non-Discounted_Spending_U.S.pdf

³¹ Centers for Medicare and Medicaid Services, “Part D Claims Analysis: Negotiated Pricing Between General Mail Order and Retail Pharmacies,” December 2013, available at <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/Negotiated-Pricing-Between-General-Mail-Order-and-Retail-PharmaciesDec92013.pdf>

³² Visante estimates based on evaluation of more than fifty published studies.

³³ Kaiser Family Foundation, Distribution of Health Care Expenditures by Service by State of Residence, available at <http://kff.org/other/state-indicator/health-spending-by-service-2/>

APPENDIX A: Estimated Savings from Mail-Service/Specialty Pharmacies

Based on projected drug expenditures 2015-24 (millions)

| State | Mail-Service Pharmacy Savings | Specialty Pharmacy Savings (Rx benefit) | Total Savings |
|----------------------|-------------------------------|---|------------------|
| Alabama | \$1,128 | \$4,762 | \$5,890 |
| Alaska | \$116 | \$491 | \$607 |
| Arizona | \$1,076 | \$4,544 | \$5,620 |
| Arkansas | \$563 | \$2,377 | \$2,940 |
| California | \$5,890 | \$24,867 | \$30,757 |
| Colorado | \$704 | \$2,970 | \$3,674 |
| Connecticut | \$907 | \$3,827 | \$4,734 |
| Delaware | \$219 | \$924 | \$1,143 |
| District of Columbia | \$110 | \$466 | \$576 |
| Florida | \$4,561 | \$19,256 | \$23,818 |
| Georgia | \$1,733 | \$7,316 | \$9,049 |
| Hawaii | \$262 | \$1,106 | \$1,368 |
| Idaho | \$232 | \$980 | \$1,212 |
| Illinois | \$2,251 | \$9,502 | \$11,753 |
| Indiana | \$1,198 | \$5,056 | \$6,254 |
| Iowa | \$594 | \$2,507 | \$3,101 |
| Kansas | \$471 | \$1,987 | \$2,458 |
| Kentucky | \$852 | \$3,597 | \$4,450 |
| Louisiana | \$996 | \$4,206 | \$5,202 |
| Maine | \$301 | \$1,272 | \$1,573 |
| Maryland | \$1,285 | \$5,424 | \$6,709 |
| Massachusetts | \$1,384 | \$5,841 | \$7,225 |
| Michigan | \$1,840 | \$7,769 | \$9,609 |
| Minnesota | \$969 | \$4,092 | \$5,061 |
| Mississippi | \$568 | \$2,397 | \$2,965 |
| Missouri | \$1,233 | \$5,204 | \$6,436 |
| Montana | \$145 | \$613 | \$758 |
| Nebraska | \$350 | \$1,478 | \$1,828 |
| Nevada | \$479 | \$2,022 | \$2,501 |
| New Hampshire | \$270 | \$1,141 | \$1,411 |
| New Jersey | \$2,069 | \$8,733 | \$10,802 |
| New Mexico | \$323 | \$1,362 | \$1,684 |
| New York | \$4,410 | \$18,619 | \$23,029 |
| North Carolina | \$1,944 | \$8,208 | \$10,153 |
| North Dakota | \$155 | \$656 | \$812 |
| Ohio | \$2,096 | \$8,847 | \$10,943 |
| Oklahoma | \$703 | \$2,969 | \$3,673 |
| Oregon | \$641 | \$2,707 | \$3,348 |
| Pennsylvania | \$2,850 | \$12,031 | \$14,880 |
| Rhode Island | \$264 | \$1,115 | \$1,380 |
| South Carolina | \$877 | \$3,703 | \$4,580 |
| South Dakota | \$126 | \$534 | \$660 |
| Tennessee | \$1,332 | \$5,623 | \$6,955 |
| Texas | \$4,456 | \$18,814 | \$23,270 |
| Utah | \$419 | \$1,768 | \$2,187 |
| Vermont | \$107 | \$453 | \$560 |
| Virginia | \$1,459 | \$6,159 | \$7,618 |
| Washington | \$1,095 | \$4,621 | \$5,716 |
| West Virginia | \$435 | \$1,836 | \$2,271 |
| Wisconsin | \$1,036 | \$4,372 | \$5,408 |
| Wyoming | \$95 | \$401 | \$496 |
| US Total | \$59,578 | \$251,527 | \$311,105 |