



EXPRESS SCRIPTS®

Workers' Compensation

2010

DRUG TREND REPORT

A Market and Behavioral Analysis

Authors

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2010 HIGHLIGHTS

Overall trend was down in 2010, resulting largely from a decrease in utilization even while cost per prescription increased.

Trend was up significantly in both dermatological and antipsychotic therapy classes due to high brand utilization.

Dermatological and NSAID therapy classes rose to numbers four and five respectively in per-user-per-year costs, while skeletal muscle relaxants fell to number six.

Regardless of the direction of trend, a significant amount of prescription spend in Workers' Compensation is waste: the additional amount spent with no additional gain in health.

Very specific behaviors contribute significantly to this waste (e.g., use of more expensive medications when lower-cost, equally effective options are available; use of more expensive distribution channels when lower-cost, clinically superior options are available).

Operational and system inefficiencies also contribute to waste.

Express Scripts offers practical, effective solutions to drive out waste.

Express Scripts is committed to reducing behavioral waste and improving clinical outcomes.

INTRODUCTION

Every year, **about 130 million U.S. workers are covered under a workers' compensation program.** As of the last full year of industry data, total awarded workers' compensation benefits amounted to \$57.6 billion per year.¹ Of that, more than half is devoted to healthcare treatment costs, with the remainder granted as lost wages. Of the \$29.1 billion spent on treatment, approximately 18%, or **\$5.2 billion annually is spent on prescription drugs.**²

Industry Challenge: Waste

Workers' Compensation prescription-drug costs are increasing at a faster rate than both wages and inflation,³ presenting a serious problem for the entities that provide coverage. A major but avoidable factor leading to the increase in pharmacy costs is waste. Waste occurs when an extra amount is spent with no incremental gain in health outcomes (e.g., a more expensive medication is dispensed when a cost-effective generic or other lower-cost alternative therapy is available, or when a medication is dispensed through a less clinically appropriate and more expensive channel than necessary). The challenge for government, payers and pharmacy benefit managers, such as Express Scripts, is to identify and address waste by offering practical solutions that eliminate it while maintaining high-quality care.

Express Scripts has identified two major forces that cause waste in pharmacy spend within workers' compensation benefits:

Behavioral Waste — suboptimal channel selection (e.g., retail versus home delivery, third party-biller involvement, etc.) or drug mix (higher-cost brands instead of lower-cost brands and generics) resulting from both active and passive decisions of injured workers, prescribing clinicians and employers or payers

Market Influences — inherent within the system and due to changes in legislation or accepted industry standards, which result in operational inefficiencies

Along with a review of pharmacy-cost trends in 2010 for Express Scripts Workers' Compensation clients, this report offers insights into the identification of waste and mitigation of costs. It explains how change might be effected within the workers' compensation pharmacy landscape, and provides examples of how Express Scripts' clinical expertise and advanced analytical capabilities help clients manage pharmacy trend.

METHODOLOGY

Drug trend was calculated across the entire Book of Business using all Express Scripts Workers' Compensation clients with stable membership (less than 50% change in user volume between 2009 and 2010). For this report we included all prescriptions processed by Express Scripts, including paper bills for prescriptions filled through a third-party biller or at a nonparticipating pharmacy.

Prescription counts were adjusted to 30-day supplies and utilization was determined on a per-user-per-year basis — calculated by dividing the total number of 30-day adjusted prescriptions by the total number of users. Costs shown in this report include ingredient cost, taxes and administrative and dispensing fees.

OVERVIEW OF 2010 WORKERS' COMPENSATION TREND

Trend represents the change in overall costs from year to year, and includes both cost/Rx and utilization as influencing factors. In 2010, overall trend for Express Scripts Workers' Compensation clients was -1.6%. The primary driver in this decrease was lower utilization, due in part to the performance of our legacy MSC clients. Following our acquisition of MSC Pharmacy Services in 2008, these clients gained access to our full suite of clinical programs. In addition, the Express Scripts *2010 Workers' Compensation Drug Trend Report* is the first edition for which we had two full years of comparative data for clients who used MSC prior to the Express Scripts acquisition. Our analysis shows that MSC clients, as well as clients new to Express Scripts in 2008, have an overall trend of -6.1%, demonstrating that Express Scripts trend management programs produce significant results. For legacy Express Scripts clients, trend was essentially flat, at 0.1%.

Our programs are enhanced through a rigorous product development process, which incorporates insights from Consumerology® — the advanced application of the behavioral sciences to healthcare. While Express Scripts programs successfully manage utilization, costs continue to rise as a result of behavioral waste and market influences, and must, when possible, be addressed.

Exhibit 1

Workers' Compensation Drug Trend 2010 Compared to 2009

Year	TREND*			
	Cost/Rx	Utilization	New Drugs	Overall
2009	2.0%	6.0%	0.3%	8.4%
2010	2.4%	-4.4%	0.5%	-1.6%

*Although the ingredient cost per prescription (cost/Rx) and number of prescriptions per user per month (utilization) components of trend may not be exactly additive, their magnitude and direction are indicative of their impact on overall trend. Also, an increasing pattern of physician dispensing may contribute to lower utilization.

Medications included in the top 10 therapeutic classes for 2010 accounted for 82% of utilization and almost 90% of the total cost for Express Scripts Workers' Compensation clients. In general, trend in these therapy classes decreased slightly as a result of reductions in utilization as shown in Exhibit 2. Dermatologicals and antipsychotics showed growth in trend with a 5.9% and 12.7% increase respectively, bucking the downward momentum of the other classes. The growth in these classes is due primarily to the prevalence of brand-name drugs. Lidoderm® (lidocaine patch), a topical pain medication, led the trend in the dermatological class primarily because per-user-per-year cost is nearly four times that of the next most costly medication in its class. Meanwhile, the upward trend in the antipsychotics class was led by the increase in cost of the top three individual medications — Abilify® (aripiprazole), Seroquel® (quetiapine) and Zyprexa® (olanzapine) — which are all brand names.

¹ Sengupta I, Reno V, Burton JF. Workers' Compensation: Benefits, Coverage, and Costs, 2008. 2010. National Academy of Social Insurance Report. Available at: http://www.nasi.org/sites/default/files/research/Workers_Comp_Report_2008.pdf. Accessed Jan. 18, 2011.

² Lipton B, Laws C, Li L. Workers Compensation Prescription Drug Study: 2010 Update. 2011. National Council on Compensation Insurance Research Brief. Available at: https://www.ncci.com/documents/2010_ncci_research_rxdrug_study.pdf. Accessed Jan. 17, 2011.

³ Henry J. Kaiser Family Foundation/Health Research & Educational Trust. Survey of Employer-Sponsored Health Benefits, 2010. 2010. Available at: <http://ehbs.kff.org/pdf/2010/8085.pdf>. Accessed Jan. 19, 2011.

THERAPY CLASS REVIEW

Exhibit 2 | Components of Trend for the Top 10 Therapy Classes Ranked by 2010 Per-User-Per-Year Cost

Therapy Class	COST/RX		UTILIZATION		NEW DRUGS		TREND	
	Average	Trend	Avg. Rx/User	Trend	Cost*	Trend	Cost*	Overall
NARCOTIC ANALGESICS	\$126.75	2.9%	4.23	-4.4%	\$2.11	0.4%	\$535.77	-1.2%
ANTICONSULTANTS	\$127.74	-5.9%	0.98	-3.5%	\$0.02	0.0%	\$124.86	-9.2%
ANTIDEPRESSANTS	\$102.08	4.7%	0.97	-6.6%	\$0.03	0.0%	\$98.89	-2.2%
NSAIDS	\$71.86	1.7%	1.37	-1.8%	\$0.24	0.2%	\$98.43	0.1%
DERMATOLOGICALS	\$232.12	2.4%	0.41	2.7%	\$0.70	0.7%	\$94.77	5.9%
SKELETAL MUSCLE RELAXANTS	\$77.54	-1.9%	1.22	-5.6%	\$0.01	0.0%	\$94.38	-7.3%
ULCER DRUGS	\$130.28	-4.8%	0.36	-6.3%	\$0.47	1.0%	\$47.51	-9.8%
HYPNOTICS	\$105.44	6.7%	0.44	-9.0%	\$0.04	0.1%	\$46.43	-2.9%
ANTI-PSYCHOTICS	\$335.93	11.1%	0.09	1.2%	\$0.08	0.3%	\$28.96	12.7%
ANTI-ASTHMATICS	\$152.37	7.6%	0.16	-10.0%	\$0.01	0.0%	\$24.27	-3.1%

*Costs for new drugs and overall trend calculated per user per year.

Narcotic Analgesics

TREND			
Cost/Rx	Utilization	New Drugs	Overall
2.9%	-4.4%	0.4%	-1.2%

As in previous years, the most expensive and most utilized therapy class was narcotic analgesics. Despite continuing to account for roughly 34% of the utilization and 39% of the cost of all prescription-drug claims, overall trend for the class was down slightly in 2010. Narcotics are used primarily to control moderate-to-severe acute and chronic pain typically stemming from musculoskeletal (i.e., lower back) or other serious injuries.⁴ Unfortunately, side effects of these medications can include constipation, drowsiness and nausea. These side effects often are managed by taking additional medications. Additionally, tolerance to the effects of narcotic analgesics may develop over time, requiring higher doses, stronger medications or both.

Investigation of the individual prescription drugs used in this therapy class reveals interesting patterns. The trend of most medications in this primarily generic-based class decreased with a notable outlier, the generic tramadol. Trend for tramadol increased by 41%, driven by increases in both cost and utilization following the removal of medications containing propoxyphene from the market. After a review of data that revealed that propoxyphene can cause toxicity to the heart, the U.S. Food and Drug Administration (FDA) recommended against continued prescribing and use, and asked manufacturers to voluntarily remove these medications from the market.

The average cost per prescription of the number one brand-name drug in this class, OxyContin[®] (oxycodone controlled release), was more than \$550. Although generics for OxyContin have been available intermittently over the past few years, settlements of several lawsuits have delayed the general release of generics until at least April 2013. In April 2010, a new, abuse-resistant form of OxyContin was approved by the FDA, which is

likely to extend its use. Abuse-resistant forms of narcotics are a pattern likely to continue. For example, Embeda[®] (morphine and naltrexone) was approved by the FDA in August 2009. Although this particular medication had little impact on 2010 utilization and costs, it is clear that many manufacturers are developing similar forms of narcotics that are harder to misuse.

Medications containing fentanyl, while a small portion of utilized medications within the class, represent a large cost on a per-prescription basis. Indicated only for the treatment of cancer pain, they often are prescribed off-label for pain management. At \$5,090 per prescription, Actiq[®] (fentanyl lozenge), can cost almost 10 times as much as OxyContin, the traditional class leader in per-user-per-year cost. While medications containing fentanyl on the whole showed a decrease in utilization, they still remain a significant cost concern for many payers. Express Scripts is especially vigilant with these medications, given that two new formulations are expected to enter the market in 2011. Proactively addressing this challenge, Express Scripts is introducing a new physician communication program that specifically addresses off-label prescribing of fentanyl in brand-name and generic forms.

One major concern with narcotics is their diversion to individuals who misuse them for non-medical purposes. To help overcome diversion, the FDA now requires manufacturers of frequently abused or possibly unsafe prescription drugs to establish a Risk Evaluation and Mitigation Strategy (REMS). Some REMS require only that information on how to use the medication safely be given to users each time it is dispensed. Other REMS may include additional safety measures, such as limited distribution, special training for prescribers or dispensers, tracking of prescription use, or detailed reporting by the manufacturer.

Over the next few years, a constellation of factors may drive up spend in this class: the introduction of new brand-name drugs; the extra costs associated with their development and monitoring; and the subsequent possible removal from the

⁴ Lipton B, Laws C, Li L. Narcotics in workers compensation. National Council on Compensation Insurance Research Brief. 2009. Available at: https://www.ncci.com/documents/Narcotics_in_WC_1209.pdf. Accessed Jan. 24, 2011.

Narcotic Analgesics *(continued)*

market of older, more easily-abused generics as abuse-resistant variants are introduced. These costs can be managed through clinical programs which can minimize waste — and reduce the likelihood of fraud and abuse — by providing a review of patient drug history and identifying potential problems that could impact care. An additional layer of safety is offered through programs such as ScriptAlert, which provides early identification of inappropriate patterns of medication use, such as duplication of therapy, excessive duration of therapy, overlapping prescribers and questionable relevance to injury. Monitoring helps isolate the need for such interventions as case management, independent medical examinations, and peer-to-peer conversations. The benefits of these programs are twofold: better patient care while reducing waste.

Anticonvulsants

TREND			
Cost/Rx	Utilization	New Drugs	Overall
-5.9%	-3.5%	0.0%	-9.2%

Although anticonvulsants are primarily indicated for controlling seizures, many have additional indications for treating other conditions — such as Tegretol® (carbamazepine) and Lyrica®(pregabalin) for neuropathic pain, Lyrica for fibromyalgia, and Depakote® ER (divalproex extended release) and Topamax® (topiramate) for migraine headaches. They are frequently prescribed in combination with pain medications. Overall trend for this therapy class decreased by 9.2%, driven partly by the introduction of new generic alternatives to several widely used brand medications, such as Topamax, Lamictal® (lamotrigine), Depakote ER and Keppra® (levetiracetam).

In 2010, the most utilized medication was gabapentin (the generic for Neurontin®). Although utilization increased by almost 7%, total trend was negative, at -4.4% due to price reductions. Trend for Neurontin also fell by 3.9% due to a 10.3% drop in utilization.

Lyrica, which had the highest per-user-per-year cost in this class, is the only brand-name drug in the top three. It is the first FDA-approved drug to treat fibromyalgia, a poorly understood condition that causes generalized pain and stiffness. Lyrica also treats nerve pain associated with diabetes and shingles. Trend for this medication was also negative at -3.8%, as utilization fell by almost 10% even with a price increase of 6.2%.

Lyrica's decrease in utilization may have been affected by the Express Scripts Step Therapy module which suggests the use of gabapentin as a first-line medication prior to “stepping up” to Lyrica. In addition, Express Scripts Physician Outreach Program (POP) supports negative trend through communications with physicians about existing generic alternatives that can be dispensed at a lower cost when they prescribe brand-name drugs, such as Neurontin, as “dispense as written.”

Antidepressants

TREND			
Cost/Rx	Utilization	New Drugs	Overall
4.7%	-6.6%	0.0%	-2.2%

Antidepressants usually are prescribed to treat depressive and other mood disorders. Because they affect the central nervous system, many of these medications have additional indications for conditions that often accompany depression. Specific medications are also prescribed to manage various neuropathic pain conditions (mainly tricyclic antidepressants and serotonin norepinephrine re-uptake inhibitors), and thus may be prescribed in lieu of an analgesic drug if depression is also present.

Although a number of antidepressants are available in a generic formulation, two of the five most frequently used medications — Cymbalta® (duloxetine) and Lexapro® (escitalopram) — in 2010 were brand drugs. The three prescription drugs with the greatest per-user-per-year cost — Cymbalta, Effexor XR® (venlafaxine) and Lexapro — accounted for a 66% of costs in this therapy class. Overall cost for this class rose by 4.7%, while utilization declined by 6.6%.

A generic formulation of Effexor XR was introduced in July 2010. Looking ahead, the patent for Lexapro, a brand similar to the generics sertraline and fluoxetine (generics for Zoloft® and Prozac®, respectively), is scheduled to expire in March 2012, with the patent for Cymbalta being slated for expiration in December 2013.

NSAIDs

TREND			
Cost/Rx	Utilization	New Drugs	Overall
1.7%	-1.8%	0.2%	0.1%

The non-steroidal anti-inflammatory (NSAID) class relieves pain, inflammation, and in many cases, fever. Generic drugs dominate this therapy class and many NSAIDs also have over-the-counter (OTC) alternatives. Typically, a prescription-strength NSAID is the first medication prescribed to control pain. If it fails, progression to a stronger medication, usually a narcotic, often follows. Taking NSAIDs, especially for long periods, can result in side effects for the stomach (such as heartburn, nausea or ulcers) and the kidneys, which could lead to high blood pressure or even kidney failure. Cost for this class rose by 1.7% and utilization decreased by 1.8%.

The only branded drug among the most-used NSAIDs is Celebrex® (celecoxib), the remaining COX-2 inhibitor still on the market. The average cost per prescription for this medication increased 2.6% but overall trend was reduced by over 6.2% mainly due to an 8.6% decrease in utilization. While no generic currently exists for Celebrex, Express Scripts Workers' Compensation clients have the opportunity to leverage our Step Therapy module which targets the use of this medication and encourages the use of therapeutic alternatives (often generics), such as ibuprofen.

Dermatologicals

TREND			
Cost/Rx	Utilization	New Drugs	Overall
2.4%	2.7%	0.7%	5.9%

The dermatological (topical) class is very large, and includes many different types of medications that are applied to the skin in different ways. Some of these medications are used locally to treat skin conditions such as acne, psoriasis and certain skin cancers. Other dermatological medications treat systemic conditions including pain. Frequently, a dermatological medication is used at the same time as an oral medication to reduce pain. One advantage of using a topical medication is that it delivers the active ingredient(s) more directly to the injury, reducing the risk of system-wide side effects.

Both cost and utilization increased in this class. Costs increased by 2.4% and utilization by 2.7%.

The top three dermatological drugs accounted for 83% of the utilization and 93% of the costs in this therapy class.

- Lidoderm is a brand-name, topical anesthetic patch. Used to treat many different kinds of pain, it is especially targeted to

treat nerve pain that has not been controlled by other pain medications. The patches are easier to apply than traditional topical ointments or creams. Lidoderm is also much more expensive than most oral pain medications. It accounted for more than half of the utilization and more than two-thirds of the total cost in this therapy class. The first patent on Lidoderm is set to expire in May 2012.

- Flector® (diclofenac patch) is an NSAID patch indicated for the treatment of acute pain from sprains, bruises and similar soft-tissue injuries. Like Lidoderm, Flector is convenient to use, and each patch may provide relief for as long as 12 hours. The FDA approved Flector in January 2007 and its utilization has been increasing, including a 17% increase between 2009 and 2010.
- Voltaren® (diclofenac gel) is a topical NSAID gel approved for the joint pain of osteoarthritis in areas such as the knees and hands. It is also used for the treatment of tendonitis. Voltaren gel saw a strong increase in per-user-per-year cost driven largely by increased utilization. Both Voltaren and Flector, significant cost drivers of the dermatological therapy class, are expected to remain so for the immediate future.

Exhibit 3 | Top Five Medications Ranked by 2010 Per-User-Per-Year Cost

Medication	Class	Cost	Average Cost/Rx	Trend
OXYCONTIN	Narcotic analgesics	\$150.60	\$564.90	4.8%
LIDODERM	Dermatologicals	\$66.76	\$322.28	-0.4%
LYRICA	Anticonvulsants	\$58.50	\$182.21	-3.8%
CELEBREX	NSAIDs	\$51.26	\$156.16	-6.2%
HYDROCODONE AND ACETAMINOPHEN	Narcotic analgesics	\$50.94	\$29.46	-5.9%

FACTORS CAUSING WASTE

BEHAVIORAL WASTE

What often stands between excellent clinical practice and clinical outcomes is the behavior of the patient. These behavioral missteps lead to suboptimal outcomes and unnecessary costs, generating significant amounts of waste: additional spend that does not deliver additional health benefit. In addition, physicians themselves can inadvertently contribute to waste through their own behaviors.

Express Scripts is committed to driving out waste by providing tools that help all constituents in this process engage in behaviors that improve care and reduce waste. Details on these solutions are spelled out further in this report. First, however, it must be noted that behavioral waste can manifest itself in multiple forms.

Channel Waste

Prescription drugs can be administered to injured workers through a number of different channels: home delivery, retail pharmacies, physician offices. A clinically safe and cost-effective channel is home delivery from the Express Scripts Pharmacy. With a higher dispensing accuracy rating (exceeding 99.99% accuracy) than retail pharmacies, the Express Scripts

Pharmacy provides safety for patients while reducing costs through purchasing power and automation. Home delivery also improves adherence to prescribed treatment according to physician's orders which reduces the potential for, and costs associated with, secondary complications. Injured workers often do not realize the importance of the channel by which

their medications are delivered. Our Home Delivery Education program, including our Select Choice communications, helps educate injured workers on the benefits of home delivery and encourages them to choose the advantages of this channel.

Medications for short-term acute conditions or injuries requiring less than a 90-day supply of prescription drugs are generally filled at a retail pharmacy. In this situation, using a network pharmacy can reduce waste. Prescriptions filled out of network, such as those filled through a third-party biller or at a nonparticipating pharmacy, can be a significant cost driver. We address this need through our ExpressComp® National Network, which covers all 50 states and includes more than 61,000 pharmacies nationwide. Express Scripts actively works with our clients and injured workers to ensure that they reduce waste by filling prescriptions in network. Per Express Scripts Workers' Compensation claim data, 93.1% of all prescriptions were filled at a participating network pharmacy without third-party biller involvement.

Drug Mix

Of particular concern is the use of a more expensive prescription drug than necessary. Behaviors of prescribing physicians can increase costs. They might prescribe a more expensive medication out of habit, lack of knowledge of new generics entering the market, or other issues, such as off-label prescribing. Injured workers can increase costs by requesting brand-name medications when generics exist. Drug-mix waste can also be unintentionally created by workers' compensation payers when a conservative approach to managing the drug mix is taken for the purpose of limiting potential disruption, with opportunities to manage costs being missed as a result.

Express Scripts works with our clients to reduce waste through clinical solutions that are designed to maximize savings with the patient's care in mind. We actively promote the use of safe, cost-effective generic drugs whenever possible, and highlight therapeutic alternatives when generics are unavailable through programs such as Step Therapy, the Physician Outreach Program, and Pharmacist Drug Review. These clinical programs encourage changes in prescribing behaviors, which lead to greater cost savings.

Behavioral missteps lead to suboptimal outcomes and unnecessary costs, generating significant amounts of waste: additional spend that does not deliver additional health benefit. Express Scripts is committed to driving out waste by providing tools that help all constituents in this process engage in behaviors that improve care and reduce waste. Behavioral waste can manifest itself in multiple forms.

Choosing home delivery from the Express Scripts Pharmacy for long-term medication needs and participating pharmacies for acute medication needs helps eliminate unnecessary costs. Drug-mix waste can be unintentionally created when injured workers request brand names or when physicians prescribe more expensive medications when more cost-effective therapy is available. Another driver of waste occurs when workers' compensation payers choose a conservative approach to managing drug mix.

93.1% of all prescriptions were filled at a network pharmacy without third-party biller involvement.*

* Express Scripts Workers' Compensation claim data

MARKET INFLUENCES

Several other non-behavioral factors directly influence the cost and utilization of prescription drugs, including the differences in jurisdictional prescribing and reimbursement laws, pricing structure, increases in repackaging and physician dispensing, and injury treatment trend over time. **All of these contribute significantly to drug trend but are often difficult to address directly.**

Jurisdiction Regulations

All jurisdictions have the ability, through regulation, to affect the cost and mix of prescription drugs that are dispensed. Most often, these regulations include generic mandates, treatment guidelines and pharmacy fee schedules.

Seven jurisdictions had an increase in drug spend of greater than 7%. Of those, the District of Columbia has no generic mandates or pharmacy fee schedules. Other jurisdictions have fee schedules that provide identical reimbursement for brands and generics, an approach that does not tip the scales in favor of lower-cost options.

Seven out of ten jurisdictions with the highest average cost per prescription are concentrated in the northeastern U.S. Most of these states do not have either generic mandates or fee schedules. Of the other three jurisdictions, Alaska and Hawaii are likely influenced by logistical issues, and Utah has neither a generic mandate nor an established fee schedule.

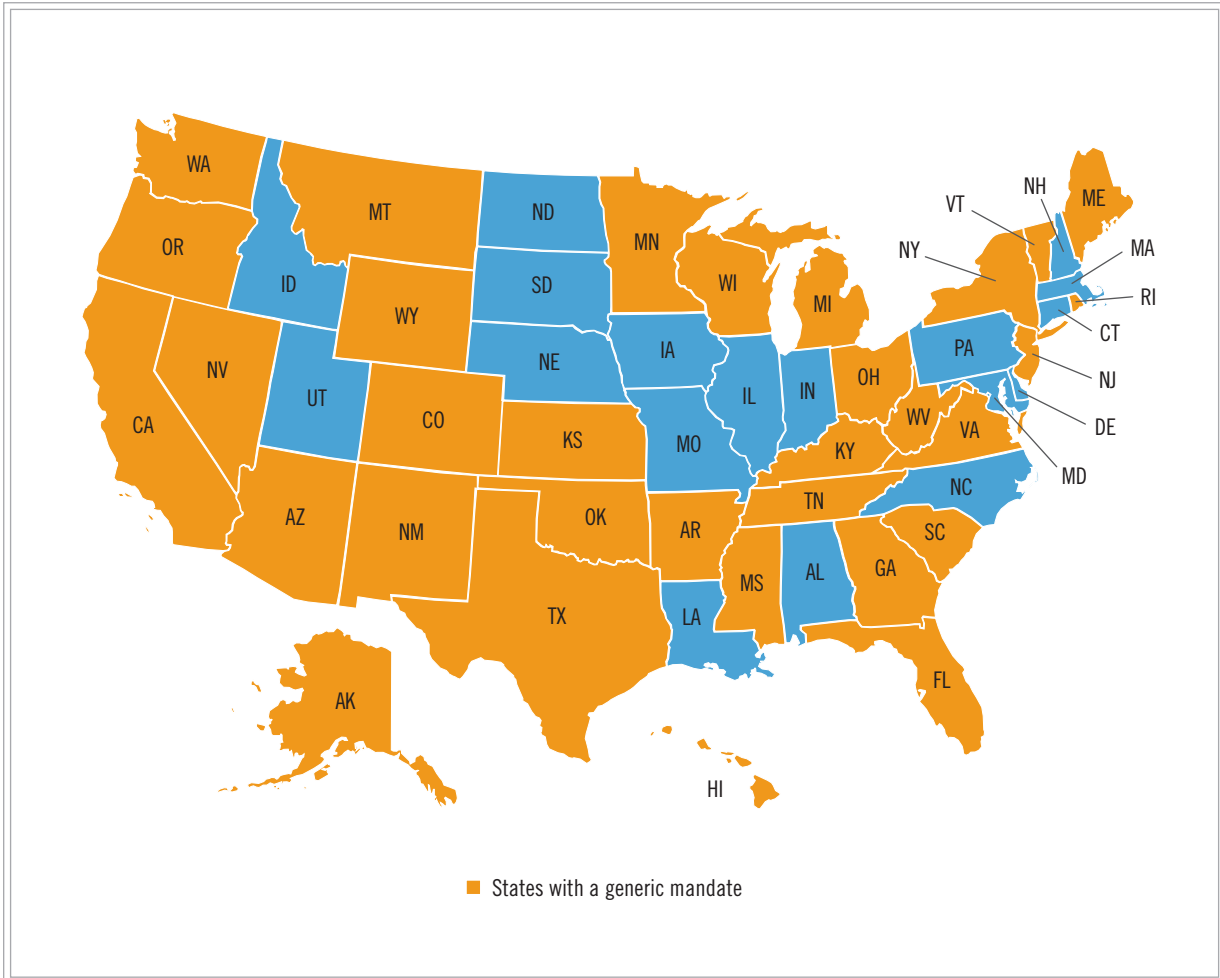
Following the settlement of lawsuits regarding average wholesale price (AWP), the publishers were required to decrease markups to their previous percentages. Express Scripts revised

its pricing to meet the adjusted pricing formula and insure price neutrality for our clients. All states, however, did not, resulting in inefficiencies between the state fee schedules and the market that continue to this day.

After the settlements, the major publishers communicated that they will cease to publish AWP by September 2011. Wolters Kluwer Health, the parent company of the Medi-Span Drug Information Database, has since changed course and committed to continue publishing AWP until a viable alternative is determined and widely accepted in the industry.

Around half of states currently use AWP as a model for their state fee schedules, and while there are many possible successors to AWP, none has yet emerged as a probable leader. Each has advantages for at least some providers, but all have significant drawbacks. Many of the potential alternatives, for example, are based on unconfirmed data supplied by drug manufacturers, which is a drawback with AWP that led to the lawsuits. Express Scripts is actively engaged in industry discussions, but recognizes that there is currently no ideal successor to AWP.

Exhibit 4 | Jurisdictions With a Generic Mandate



Of the 51 jurisdictions (including the District of Columbia), 32 have a generic mandate, which requires that a generic medication be dispensed when one is available. A generic mandate is one method of positively affecting prescribing and dispensing behaviors regarding drug mix — leading to additional cost savings.

⁵ NCCI Research Brief: Workers Compensation Prescription Drug Study, January 2011. Accessed Jan. 17, 2011.

2010 in review:

- Alaska introduced:
 - > A generic mandate
 - > A requirement for physicians to explain to the pharmacist or insurer how prior treatment efforts failed if they write a prescription as “dispense as written” (DAW1)
 - > A requirement that injured workers pay the difference if they insist on receiving a brand-name drug when a generic is available (DAW2)
- Georgia and Nevada both increased their reimbursement rates for both brand drugs and generics
- Washington introduced a steep cut in the reimbursement rate of generics, while increasing the reimbursement rate for brand drugs

2011 look ahead:

- Nevada and Alabama will increase their reimbursement rates for both brands and generics
- Texas will introduce a closed formulary
- Florida is expected to begin enforcing Explanation of Bill Review (EOBR) in audits of insurance carriers
- California, Oregon, and New York are expected to make changes to their fee schedules, treatment guidelines, or reporting requirements

Almost 25% of national drug spend in worker’s compensation was a result of physician dispensing.⁵

Physician Dispensing of Repackaged Drugs

Any medication that is dispensed within the U.S. is assigned a National Drug Code (NDC). This code details not only the chemical compound that forms the medication, but also the delivery form as well as the dosage. This requirement provides a very uniform method of tracking medications and their costs. However, when a package of medication is opened and repackaged to be sold with a different quantity, it necessitates the assignment of an entirely new NDC. Because a unique price can be assigned to each NDC, repackaging can be used to dramatically alter the price of a medication.

Repackaged drugs are often dispensed from physicians’ offices. A 2010 report from the National Council on Compensation Insurance (NCCI) noted that as of 2008, almost 25% of national drug spend in workers’ compensation was a result of physician dispensing.⁵ When a medication is repackaged and dispensed at a physician’s office, it generally costs two to three times more per unit than prior to repackaging (i.e., dispensed at a retail pharmacy). The NCCI report found that costs can be even higher. For example, in North Carolina, repackaged carisoprodol cost upwards of nine times the cost it would have from a retail pharmacy in the same state.⁵

In 2007 and 2008 respectively, reforms were undertaken by both California and Oregon to rein in the cost of physician dispensing of repackaged drugs. Prior to California’s reform, physician-dispensed drugs were reimbursed either at the rate for that product in the Medi-Cal database (if one existed) or at a multiple of the AWP plus a dispensing fee otherwise. Under changes introduced in this reform, if a medication is not in the Medi-Cal database, it will be reimbursed according to that database’s entry for the NDC from the original manufacturer, or at 83% of the AWP for the least expensive therapeutic alternative. Oregon’s reform, on the other hand, resulted in a reduction of state fee schedules that was composed of a slight reduction in percentage of AWP reimbursed and a large reduction in the dispensing fee.⁵ Both reforms brought about a substantial drop in physician dispensing of repackaged drugs and made a strong impact on the overall drug trend for workers’ compensation claims within the respective states. These reforms serve as a model for other states to incorporate to help drive down the waste inherent in physician dispensing of repackaged drugs.

Age of Injury Effect

The longer the worker has prescriptions for a given injury, the more costs rise. An analysis of prescription claims from Express Scripts Workers' Compensation clients found that the average cost per prescription during the first year of treatment is approximately \$45. By year 3 the cost per prescription doubles and by year 9 it triples. Our data set shows the cost leveling off at around 11 years post injury at an average cost per prescription of \$145. Exhibit 5 details this effect.

Concurrent with (and contributing to) the rising cost of treatment over time is the drop in generic fill rate (GFR) as shown in Exhibit 6. In the first year of injury, the GFR is almost 90%. By year 3 it is below 75% and by year 9 it levels off at about 65%.

Reasons for the above noted trends include, but may not be limited to the following:

- As a claim ages, the potential grows for an injured worker to be prescribed increased dosages.
- If first-line treatments, usually generic drugs, prove inadequate for the injured worker, the prescribing physician will likely move to more costly treatments.

- As further complications from the injury become apparent over time, additional medications may be prescribed.
- When a new brand-name drug enters the market, an injured worker may be switched from a proven generic to the new brand if the physician feels it will provide additional benefit.
- Treatment of chronic pain resulting from severe or catastrophic injury will generally make use of more expensive prescription drugs like anticonvulsants and sustained-release narcotics.

Payers who struggle with containing costs of aging claims can benefit from programs such as our Pharmacist Drug Review (PDRx). PDRx represents the most in-depth analysis of an individual injured worker's therapy and offers a formal, written report detailing drug therapy problems, proposed alternative drug therapies, and desired clinical outcomes. This report is based on our clinical pharmacist's professional review of an injured worker's entire medication file and conforms to established medical practice guidelines. The report also includes a complete financial analysis of all existing drug therapy and potential cost savings associated with any recommended treatment alternatives.

Exhibit 5 | Average Billed Ingredient Cost Compared to Age of Injury

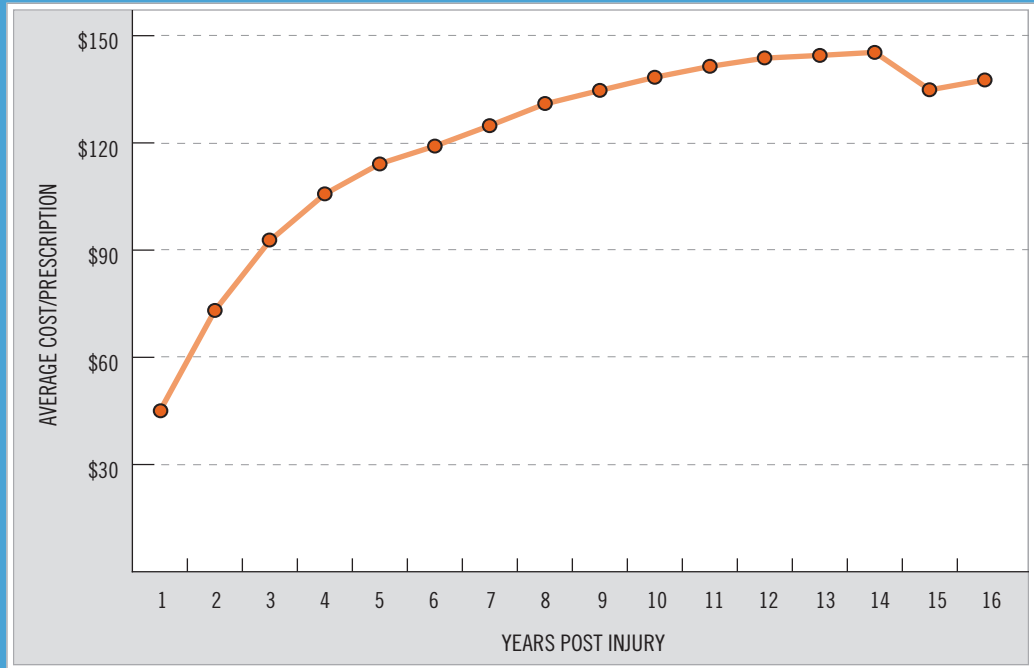
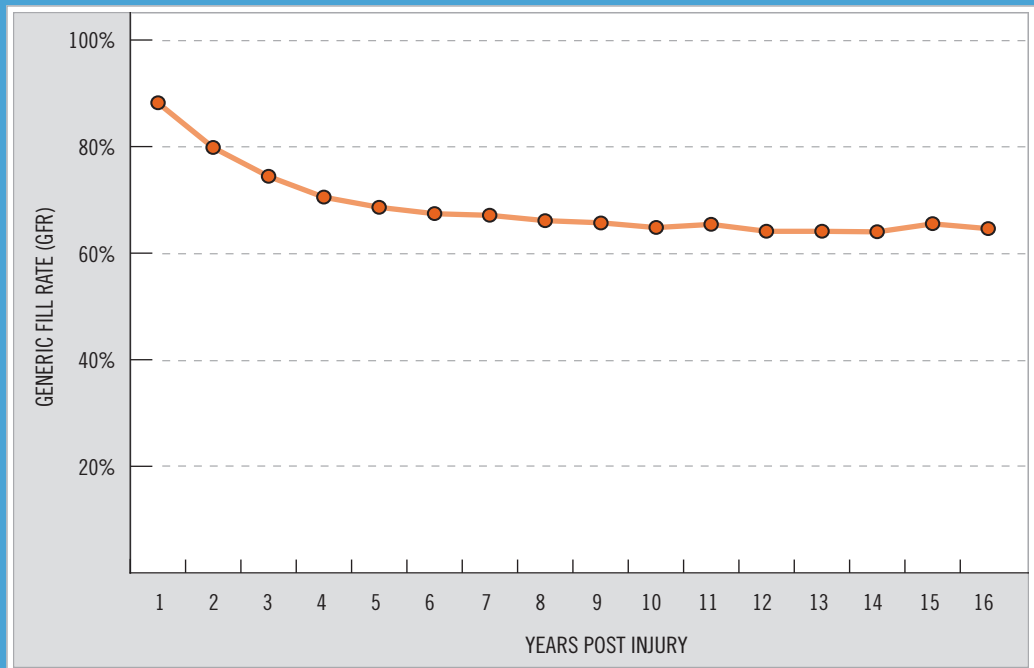


Exhibit 6 | Adjusted Generic Fill Rate Compared to Age of Injury



OUR SOLUTIONS

Addressing the issue of waste is at the forefront of Express Scripts' drive to improve outcomes. Our formulary options, as well as our extensive suite of clinical programs and channel management tools, enable injured workers, prescribing physicians and our clients to make clinically sound and cost-effective decisions with regard to the course of therapy.

Express Scripts recently completed a new home delivery pilot, Select Choice, which incorporates the insights of Consumerology. This pilot has changed the way that Express Scripts communicates with injured workers, stressing the important decisions of channel management and proactively putting the decision to enroll in home delivery in the hands of those injured workers. This pilot was an extraordinary success, improving the conversion rate to home delivery by 53% within the pilot group. After the conclusion of the pilot, Express Scripts Workers' Compensation adopted the new Select Choice letter as the standard communication for home delivery candidates. By stressing the importance of behavior in channel selection, Express Scripts continues to eliminate waste and promote clinically safe outcomes.

Express Scripts is constantly researching and developing new solutions to tackle the challenges presented by wasteful pharmacy spend. In addition to the insights provided by Consumerology, we are refining our approach with injured

workers, physicians, and our clients using The Express Scripts Research & New Solutions Lab. This premier facility is where Express Scripts brings together the brightest minds in behavioral sciences and healthcare to incubate ideas, use our test-and-learn approach, and apply solutions to the pharmacy benefit — all to improve health outcomes and drive down costs.

LOOKING AHEAD

Express Scripts Workers' Compensation continues to develop new and innovative solutions to tackle waste and positively affect the behavior of all decision-making constituencies with regards to the care of injured workers. Our proven expertise helps clients navigate the pharmacy aspect of their overall medical costs, while ensuring a smooth process for injured workers. We challenge ourselves to continue striving to reduce costs and improve clinical outcomes, and we challenge clients, physicians, and injured workers to join us in that process by taking part in the programs we offer.

Exhibit 7 | Express Scripts Workers' Compensation Programs and Services

	Program	Description	Result
Formulary Management	STANDARD FORMULARY	Includes medications that focus on short-term management of acute care complaints, trauma, and complications such as infections as well as drugs that manage long-term pain and address long-term complications associated with permanent disability cases	Safety, efficacy, and cost control
	INJURY-SPECIFIC FORMULARY	Limits formulary status to those medications that are more appropriate to an injured worker's specific injury, such as burns, eye trauma, etc.	Safety, efficacy, and controlling inappropriate prescription costs
Clinical Safety and Savings Programs	CONCURRENT DRUG UTILIZATION REVIEW (DUR)	Identifies potential problems with the injured worker's prescription that could impact care, potentially resulting in an adverse drug event	Increase safety for injured workers and deter fraud and abuse at point of service
	RETROSPECTIVE DUR	Communication to prescribers that includes an analysis of potential problems or fraud and abuse after a prescription has been filled	Increase safety for injured workers and deter fraud and abuse
	PRIOR AUTHORIZATION	Process to determine whether prescribed drugs not on the formulary should be covered	Express Scripts proprietary, automated, web-based authorization tool, OASIS, controls costs with minimal disruptions
	STEP THERAPY	Point-of-sale edit designed to encourage physicians to prescribe a front-line medication (usually a generic) before a higher cost brand-name drug	Increase in Generic Fill Rate (GFR)
	PHYSICIAN OUTREACH PROGRAM	Letters sent to physicians prescribing multi-source brands as dispense as written (DAW1) and select single-source brands when effective generic alternatives are available	Increase in GFR
	SCRIPTALERT	Identifies potentially inappropriate patterns of medication use and evaluates the need for interventions like case management, independent or physician medical examinations, and peer-to-peer conversations	Safety and efficacy of treatment
	PHARMACIST DRUG REVIEW (PDRX)	Formal, written report that details drug therapy problems, proposed alternative drug therapies, and desired clinical outcomes based on our clinical pharmacist's professional review of an injured worker's entire medication file and conforms to established medical practice guidelines	Safety and efficacy of treatment, cost control
Channel	HOME DELIVERY	Injured workers receive a 90-day drug supply, can set up automatic refills, and benefit from the accuracy of Express Scripts Pharmacy	Increased adherence, safety, cost control
	EXPRESSCOMP NETWORK	Our network includes more than 61,000 pharmacies in all 50 states and is fully integrated with Express Scripts Pharmacy, giving access to our clinical programs	Ensure safety, deter fraud and abuse, cost control
	PAPER BILL CONVERSION	Pays pharmacies and third-party billers on behalf of our clients to ensure greatest savings and provides outreach to all parties to convert future prescriptions to online submission to Express Scripts when permissible.	Increases network penetration and client savings



Express Scripts is committed to following, promoting and implementing sustainable practices. We apply global sustainability principles to the way we do business and the way we fulfill the needs of clients, patients and employees. Express Scripts is committed to proactively balancing economic development with environmental stewardship and social development, and operates its business in a manner that respects the environment and conserves natural resources.

We uphold our commitment to environmental stewardship by printing this report using solvent-free inks on recycled stocks that are certified by the Forest Stewardship Council™ (FSC®). The book is printed on paper stock that has 30% post-consumer waste content. It was produced in a certified Sustainable Green Printing (SGP) facility. This printer was only the 26th facility world-wide to earn this certification. The electricity used to produce this book has been offset 100% with Missouri wind energy credits procured from the Ameren Missouri Pure Power program.

