

Overview

In recent years, the costs for pharmaceuticals rose more rapidly than any other type of medical cost. Pharmaceutical costs now represent a larger percentage of the total medical costs for workers compensation claims as well as for commercial health insurance. In 2001, the cost of prescription drugs rose an alarming 15.7% over 2000.¹ Nationally, spending on prescription drugs comprises roughly 10% of total spending on health care and total drug spending may reach \$200 billion this year.² Based on The Centers for Medicare and Medicaid Services prediction that drug expenditure growth rates will be maintained, it can be expected that prescription drugs will comprise nearly **15%** of total national health care spending by the year 2011.

Medications play an important role in health care—for example, they can replace expensive surgeries or other invasive procedures. However, increasing prices, increased utilization, and the availability of newer, higher-priced drugs have contributed to the concerns over rising costs.

Compared to other industries, pharmaceuticals earn the highest rate of profit. For example, profits as a percent of revenue for pharmaceutical manufacturers compared to all Fortune 500 firms were four times the median rate in the late 1990s, rose to 18.6% compared to 4.5% in 2000, and totaled 19% compared to 3% in 2001.^{3,4}

However, manufacturers are one of many stakeholders at play in the prescription drug arena—including workers, employers, insurance carriers, policy makers, pharmacies, and Pharmacy Benefits Managers (PBMs). Finding a solution to the problem of rising drug costs that will satisfy **all** stakeholders is a significant challenge.

NCCI examined the cost and use of prescription drugs in workers compensation in order to answer the following key questions:

- What share of workers' compensation medical costs are from prescription drugs and how has that share changed over time?
- What factors affect the cost of prescription drugs?
- What types of prescription drugs are being used and what are their relative costs?

- Do strategies used by commercial health plans offer savings opportunities for workers compensation claims?

This study utilized samples of medical bill data from workers compensation claims and compared them to group health claims data for the year 2001.

Key Findings

- Prescription drug share of medical costs by accident year in Workers Compensation (WC) grew from 6.5% in 1997 to 9.6% in 2001.
- Utilization has a greater impact on WC drug costs than price.
- WC pays roughly 125% of the Average Wholesale Price (AWP) of prescription drugs; Group Health (GH) pays only 72%. Therefore, WC paid 74% more than GH for the same drugs.
- Generic equivalents are prescribed when available 79% of the time for WC claims. A total of 56% of WC costs are associated with drugs that have no generic equivalent. Therefore, savings opportunities from using generic equivalents are only available for approximately 8% of total WC drug costs.
- Painkillers represent 55% of the cost of prescriptions in WC.

Discussion

- Prescription drug share of medical costs by accident year in WC continued to grow from 6.5% in 1997. For 2001, it was estimated that prescription drugs represented approximately 10% of total medical costs. WC looks at costs by accident year (the year of injury) because insurance coverage continues (potentially for many years) following the date of injury in WC. This “long-tail” feature of WC is distinct from insurance coverage in GH, which is confined to the 12-month calendar year (or service year) for which premium is charged. As a result, GH is much more sensitive to short-term increases in health care costs, while WC is subject to substantial long-term cost pressures.

The “long tail” nature of WC is critical and underscores the need for further research. Substantial quantities of medical service are routinely delivered for many years following the occurrence of a WC claim. As a result, estimates of the annual costs and reserves on serious claims must fully account for the compounding effect of medical inflation. For example, if the annual cost of a fixed regimen of medical treatment is \$10,000 in the first year following a claim and annual medical cost inflation is at 10%, the cost for these services in the eighth year following the claim will be nearly double the first year’s cost.

The table below is carried out to the 8th report (defined as a point that is eight years from the start of the accident year), which gives a more complete picture of ultimate costs reflecting more mature, and therefore, more credible information for WC. There is some evidence of substantial tail development beyond an 8th report for WC that suggests an even higher share than the current estimates.

**Accident Year Drug Costs/Total Medical
(Developed Through 8th Report)**

Injury Year	Accident Year (Developed) % Rx
1997	6.5
1998	7.7
1999	8.6
2000	9.5
2001	9.6

- Utilization has a greater impact on WC drug costs than does price. Utilization includes movement toward new or more powerful drugs and an increase in the number of prescriptions. Price impact represents the unit price change for a fixed-market basket of prescriptions.

Factors Affecting Change in Workers Compensation Drug Costs

Years	Price Impact	Utilization Impact	Total Impact
1997–1998	1.06	1.05	1.11
1998–1999	1.13	1.20	1.36
1999–2000	1.07	1.21	1.29
2000–2001	1.06	1.14	1.21

Increased utilization can be attributed to a number of factors:

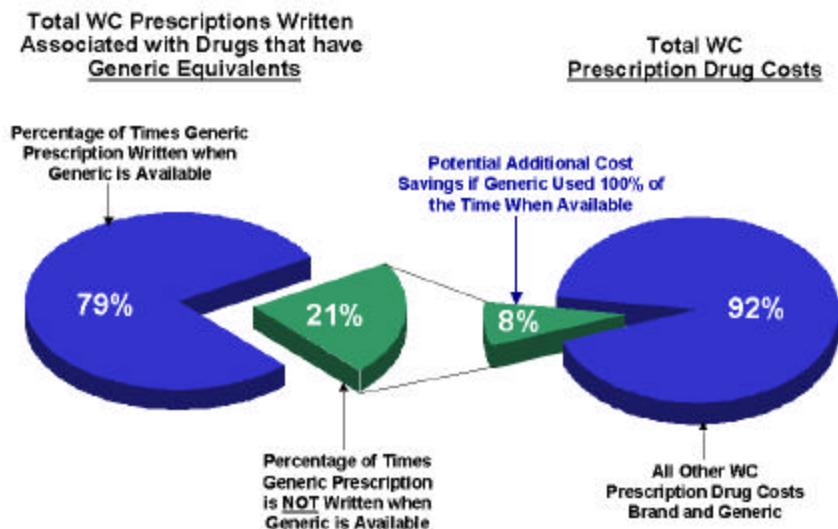
- Greater availability and dependence on medications for treatments
- Aggressive marketing—major pharmaceutical manufacturers spend more than twice as much on marketing and administration than on research and development⁵
- The aging workforce, which requires greater support from prescription drugs
- Increased access through insurance coverage

Expenditures on drug promotions reached nearly \$19.1 billion in 2001. In addition to the costs of detailing (face-to-face meetings with physicians) and sampling (providing physicians with free samples), there was increased spending on direct-to-consumer advertising. Two heavily promoted drugs, Celebrex[®] and Vioxx[®], are good examples of what aggressive marketing can accomplish. In their first full year on the market, these drugs provided nearly 10% of the growth in total prescription sales

in 2000. Overall, spending on direct-to-consumer advertising grew from \$12 million in 1989 to \$1.1 billion in 1997, and to \$2.7 billion in 2001.^{6,7}

- Average wholesale price (AWP), the most commonly used price benchmark for ingredient cost, is used in this study. The total price of a prescription is: Ingredient Cost (which includes the costs of R&D, marketing and profit) + Dispensing Fee + Tax.
- Trends in prescribing patterns for WC show that where there are generic equivalents available, they are prescribed 79% of the time. Drugs that have no generic equivalent account for 56% of WC pharmaceutical costs. Therefore, savings opportunities in WC from using generic equivalents are only present for approximately 8% of total drug costs.

Generic Prescriptions Written When Generics are Available in WC and Associated Costs



- The most prescribed drugs by total paid in the workers compensation industry were painkillers (55%), muscle relaxants (20%) and antidepressants (14%). The top drugs in group health plans were cardiovascular agents (18%), antidepressants (15%), and anti-infective agents (13%). This difference is further reflected in the proportion, by cost, of generics prescribed as noted above—WC has both a much lower proportion of drugs with no generic equivalent and a higher proportion of generics prescribed than group health, primarily due to the nature of the drugs used.

Workers Comp	% Total Paid	Group Health	% Total Paid
Painkillers	55	Cardiovascular	18
Muscle relaxants	20	Antidepressants	15
Antidepressants	14	Anti-infectives	13

Top 10 Prescribed Drugs by Total Paid in WC	Brand vs. Generic
Celebrex [®] (anti-inflammatory)	Brand (generic not available)
Oxycontin [®] (painkiller)	Brand (generic not available)
Vioxx [®] (anti-inflammatory)	Brand (generic not available)
Hydrocodone (painkiller)	Generic
Neurontin [®] (painkiller)	Brand (generic not available)
Ultram [®] (painkiller)	Brand (generic available)
Carisoprodol (muscle relaxant)	Generic (same as Soma [®])
Cyclobenzaprine (muscle relaxant)	Generic
Soma [®] (muscle relaxant)	Brand (same as carisoprodol)
Ambien [®] (sedative)	Brand (generic not available)

Potential Cost Containment Strategies

Given the evidence on rising costs for pharmaceuticals in WC, how can public policymakers pursue strategies to control those costs? In this section, we examine three approaches to see what the potential impact may be in WC.

Using Pharmaceutical Benefits Managers (PBMs): Often, prescription drug claims are processed and monitored by a PBM that provides several services to the employer.

Utilization Control: Some “lifestyle” drugs that aren’t medically necessary may be excluded from coverage altogether, but medically necessary drugs cannot be denied. Utilization control therefore means “control of the kinds of drugs prescribed”.

GH controls the kinds of drugs prescribed using complex systems that involve the use of one or more formularies and applies rules determining allowable substitutions. These rules involve both the diagnosis and the drug itself. Other rules determine the amount that must be paid by the patient— different levels of copayments are applied for generics and brand-name drugs with and without generic equivalents. Increasingly, payment schemes also include coinsurance, so that the patient pays a percentage of the actual cost of the drug and is therefore aware of this cost. Formularies are often supplied by the PBM.

Obtaining Best Price: Large employers' GH plans generally include at least two drug programs—retail and mail order. Retail or card plans give each covered person an insurance card that can be presented to any retail pharmacist. Mail order is the least expensive way for the patient to buy fairly large quantities of drugs taken over long periods.

Using Negotiation to Control Costs: A major value delivered by PBMs in GH is their ability to negotiate discounts and rebates from suppliers. A standard metric for checking on this is tracking the ratio of actual price to a price benchmark. Average Wholesale Price (AWP) is the most commonly used price benchmark. For group health plans, drugs are usually obtained at a discount from the AWP.

Most PBMs do not have WC-specific contracts, however, and pharmacies may be reluctant to surrender the current profits reaped from WC prescriptions. In addition, price discounts do not necessarily translate into cost reductions, since there is little control over the level of AWP. Moreover, the availability of such discounts may require annual negotiations.

It's important to recognize that WC represents a relatively small market share when compared to total drug spending (\$2 billion vs. \$200 billion).⁸ Thus, WC may lack the purchasing power to receive significant discounts. More importantly, utilization is driving costs more than unit prices and discounts don't affect utilization.

Using Legislation to Establish Pharmacy Fee Schedules: A number of state legislatures have considered legislation to establish pharmacy fee schedules. Fee schedules can be part of an effective cost containment strategy addressing controls over the unit prices of prescription drugs (distinct from the more critical question of utilization controls). In 2001, 23 states had WC fee schedules for prescription drug payments.⁹ While establishing fee schedules is important, setting the appropriate fee levels is probably the most critical aspect. Setting fees too high will unnecessarily increase costs—setting fees too low may result in restricted access or increased utilization. Linking the fee levels to AWP may result in illusory savings, as AWP is uncontrolled and subject to significant upward pricing pressures (much like the “sticker prices” on automobiles).

Using Legislation to Mandate Use of Generics: Another approach to managing the cost of prescription drugs has arisen in connection with calls to introduce legislation mandating the use of generic drugs where appropriate. This study showed that in 2001, brand-name drugs cost an average of 107% more than generics. Not only would direct cost savings be achieved through legislating the increased use of generics, but also the expense that many states incur by offering incentives, such as higher dispensing fees and/or percent of AWP paid to encourage pharmacists to dispense generic drugs would be eliminated.

This approach could be effective for reducing GH costs, however, given that generics, when available, are currently widely prescribed in WC, the potential savings from increased use of generics in WC is very limited.

Conclusion

In this report, we examined three approaches to reducing rising pharmaceutical costs and what the potential impact could be for WC. While some of these strategies could be applied to WC, none offer a perfect or complete solution. Savings opportunities for using generics in WC are only present for approximately 8% of drug costs, limiting the potential for substantial cost reduction as has been possible in GH. Discounts, a key perceived value delivered by PBMs in GH, do not necessarily translate into cost reductions for WC due to lack of control over AWP. WC's relatively small market share results in an associated lack of purchasing power to negotiate discounts—and discounts do little to control utilization. It seems, then, that utilization control is key in controlling costs. The use of formularies along with rules determining allowable substitutions has been successful in GH. It may be appropriate to consider a formulary for WC or some preapproval process beyond FDA approval for drugs such as Oxycontin®.

Using PBMs might be another step toward cost containment for prescription drugs in WC. In GH, most PBMs offer services to control utilization and obtain the best price for drugs—two of the primary cost drivers in prescription drug cost identified in this study. However, there are many more challenges typically associated with affecting change in WC as compared to GH. Group health arrangements usually involve a private contractual agreement between employer and insurer; WC is a state-specific, statutorily mandated system. Any change affecting WC such as mandating use of generics or establishing pharmacy fee schedules involves introducing new legislation, amending a statute, and/or promulgation of rules by government agencies. Any successful attempt to contain the rising costs of prescription drugs in WC must involve cooperation and compromise from all stakeholders.

Areas for Future Study

Steady increases in utilization, combined with the introduction of newer, higher-priced drugs will continue to exert pressure on policymakers and insurers to address cost issues and maintain the stability of the workers compensation system. A key question to be addressed, as we watch the growing use of prescription drugs over time, is whether these drugs merely add to total health care costs, or if they will yield savings by replacing expensive surgeries or other treatments or procedures.

NCCI believes that further research opportunities exist in the following areas:

- Further analysis of drug-cost share, including changes in the drug mix
- Tail analysis to determine whether the ratio of prescription drug costs to total medical costs increases beyond the 8th valuation
- Cost and utilization differences by state, as more data becomes available
- Identifying the types of drugs prescribed in long duration claims to assess the possibility for mail order discounts on bulk purchases
- Impact of various other cost containment mechanisms in WC

Credits

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¹ National Health Expenditures Aggregate Amounts and Average Annual Percent Change, Centers for Medicare and Medicaid Services.

² National Institute for Health Care Management's Prescription Drug Expenditures Report, May 2002.

³ Prescription Drug Trends, A Chartbook Update, Kaiser Family Foundation, November 2001.

⁴ *Fortune Magazine*, April 15, 2002.

⁵ Prescription Drug Trends, A Chartbook Update, Kaiser Family Foundation, November 2001.

⁶ Palumbo FB and Mullins CD, The Development of Direct-to-Consumer Prescription Drug Advertising Regulation, Food and Drug Law Journal, Vol. 57, No. 3, 2002.

⁷ Prescription Drugs: FDA Oversight of Direct-to-Consumer Advertising Has Limitations, GA O-03-177, October 2002.

⁸ National Underwriter, Property and Casualty/Risk and Benefits Management Edition, May 12, 2003.

⁹ Workers Compensation Research Institute: Managed Care and Medical Cost Containment in Workers' Compensation: A National Inventory 2001–2002.