What Strategies Can States Use to Control Costs and How Effective are They?

By David Kreling

This chapter reviews the effectiveness of nine different strategies for controlling costs in prescription drug programs. For example, the potential savings of encouraging the use of generic over brand name drugs is large even after taking into account consumer cost sharing incentives or higher dispensing fees. Cost sharing in prescription drug programs can drive drug costs down. Coinsurance is more apt to alert consumers to differences in drug costs than copayments. Drug utilization review can improve the quality of drug use and cut costs. The chapter also discusses formularies, disease management programs, mail service prescriptions, negotiated prices from pharmacies, and rebates from manufacturers.

Along with increased attention to prescription drug costs and growth in prescription expenditures has come interest in cost control measures. Of particular interest have been strategies to control costs through prescription drug program administrators, known as PBMs (pharmacy benefit managers).

PBMs usually are private firms that contract with health plans and specialize in claims processing and administrative issues involved in operating a prescription drug program. Health Maintenance Organizations (HMOs), state governments, and others also may perform similar functions and use similar strategies to control costs.

This report examines nine different PBM cost control methods for prescription drug costs including negotiated prices with pharmacies, generic substitution, rebates, copayments, coinsurance, formularies, disease management programs, mail service prescriptions, and drug utilization review. Cost control strategies in prescription drug programs are usually targeted at pharmacies, drug manufacturers, or consumers but also can reach prescribers. Evidence of the potential effectiveness of each of these strategies is described below and summarized in Table 1.

Pharmacy payments/reimbursement—Negotiated prices

The standard approach used to determine the price or reimbursable amount for a dispensed prescription is to provide an ingredient cost for the drug dispensed, plus a dispensing fee. Determining the ingredient cost and the amount of the dispensing fee often varies depending on whether the drug is a brand name or generic.

Since PBMs make large purchases representing everyone in a drug coverage program, their reimbursement formulas are established to get volume discounts from pharmacies. Levels of prices paid by PBMs generally are among the lowest accepted by pharmacies.

In 1996, a study commissioned by the Health Care Financing Administration (HCFA) reported that typical dispensing fees for PBMs in the study ranged from $1.85 to $4, usually with $2 to $3 fees for brand name drug prescriptions and $3 to $3.50 for generics. These fees were lower than the average $4.12 average dispensing fee for state Medicaid programs. PBM ingredient cost payments commonly were the average wholesale price (AWP) less 13% and ranged from AWP less 10% to 15%; Medicaid programs commonly paid AWP less 10%.

Similarly, the 1999 Novartis Pharmacy Benefit Report showed an average discount of 14.3% off the average wholesale price (AWP) among 108 Health Maintenance Organizations (HMOs) surveyed in 1998. For pharmacies in the HMO provider networks, the dispensing fees averaged $1.98 for brand name drug prescriptions and $2.06 for generics.

Restricting sales to selected pharmacies allows for additional discounts in ingredient cost payments of between one and a few percent, and dispensing fee reductions between 50 cents and $1 (HCFA, 1996). Because PBM reimbursement rates generally are low, additional rate cuts for restricting the pharmacy network tend to be small. Also, many states have laws that PBM's cannot exclude pharmacies willing to accept the payment terms offered. Thus, the choice of restricting networks becomes a decision for the pharmacies as much as a choice for the PBM.

The research on the effect of negotiated prices is limited and dated. Studies have shown different revenues and/or cost shifting between payers (Kotzan & Carroll, 1991; McMillan et al. 1990). Anecdotal reports of downward pressure on margins because of decreased payments appear in pharmacy trade journals and in chain drugstore annual reports (Walgreen, 1999). Continuing to decrease prices to control costs could have quality implications. To ensure economic survival, pharmacies focus on dispensing high volumes of prescriptions. As the rate of prescriptions dispensed each hour increases, however, professional contact time with patients decreases. The rushed pace can also result in dispensing errors.

Generic Substitution

The goal of generic substitution is to increase the use of generic drugs and have them dispensed whenever possible. Generic substitution cost control measures can involve or be directed to the consumer, pharmacist, or prescriber.

Measures to increase the use of generic drugs can be directed toward the consumer, pharmacist, or prescriber.

Consumer use of generic drugs can be encouraged by decreasing their cost for prescriptions dispensed with generics through a lower copayment or coinsurance rate. Or, consumers may have to pay the difference in cost between a generic and a brand name if the generic is not accepted. Pharmacists can receive higher dispensing fees for generics. With maximum allowable cost (MAC) programs, the pharmacy receives reimbursement only in the amount of costs of the generic. If the brand name is dispensed, the pharmacy would have to absorb the difference in cost between the brand name drug and the generic. Prescribing profiles on physicians can evaluate whether they prescribe generics. This identifies physicians who do not prescribe generics so they can receive educational intervention and/or sanctions.

The potential savings on generics compared with brand names is large even after taking into account lower consumer cost sharing requirements or higher pharmacy dispensing fees. In one report (Wyeth-Ayerst, 1999), efforts aimed at pharmacists (such as increased dispensing fees for generic drugs) were less successful than incentives aimed at consumers (such as requiring consumers to absorb cost differences between brand and generic drugs). The percentage of generic prescriptions has grown from 33% in 1993 to 45% in 1998 (Kaiser, 2000a).

The potential savings on generics compared with brand names is large.

Using generics to control costs has possibilities. However, potential savings from generic drug use when patents expire and generics become available are offset by adoption of new drugs. New drugs typically cost more, and may offer improvements over older drugs. To the extent that generic drug use can be increased without compromising patient health, generics can be an effective cost control measure.

Manufacturer Price Concessions—Rebates

Rebates are money returned by a seller to a purchaser and can be considered a negotiated price discounting strategy targeted to drug manufacturers. Manufacturers pay a rebate based on the amount of the firm's products that are dispensed by pharmacies providing prescription service to beneficiaries or enrollees. The rebates are usually a percent of the value (at the manufacturer transaction price) of a drug dispensed. They occur separately from the claims submission/payment cycle as an after-market arrangement. The rebate is paid to the PBM and then passed on to the drug program sponsor (e.g., HMO, employer, or health plan) or paid directly to the sponsor.

Rebates may occur because the PBM is a volume purchaser. Rebate arrangements also may have some purchase volume or market share requirement, so the discount truly reflects a volume difference. Market share stipulations in rebate offers often are connected to incentives, such as formulary inclusion or pharmacist and patient incentives to influence market shares of rebated products.

A report for the Health Care Financing Administration in (HCFA) 1996 based on in-depth interviews with eight PBMs, reported rebates generally were lower and less universally available than within state Medicaid programs (HCFA, 1996). The amount of rebate per claim was about $1, representing an average of 5% of drug spending.

In response to the Medicaid rebate program, some new forms of rebates have begun. Health Care Financing Administration (HFCA) regulations require rebates on all products as a requirement for inclusion in Medicaid programs. Also, Medicaid must receive the best rebates available in the market. If a rebate better than the rate provided to HCFA is provided to another purchaser, the manufacturer must provide an equal level of rebate to HCFA for Medicaid. To avoid paying additional rebates, yet provide incentives, manufacturers may establish different arrangements that benefit PBMs or drug program sponsors, such as special project funds, incentives for information like claims data, or education programs for pharmacists (HCFA, 1996).

If rebates detract from the most cost-effective drug choices, they may lead to false economies.

Rebates are intended to reduce net drug program costs and their impact can be substantial (HCFA, 1995). However, instead of maximizing rebates, the emphasis should be on minimizing total costs (PBM News, 2000). Although a 20% rebate may seem attractive, that level of rebate applied to a brand name prescription that averages $50 yields a net price of $40, considerably more than the average price of a generic drug at approximately $17. If rebates detract from the most cost-effective drug choices, they may lead to false economies.

Since rebates are usually associated with newer, brand name drugs, they continue to foster a mind set that focuses on newer, typically more expensive brand name drugs and may lead to less emphasis on the most cost effective therapies.

Cost Sharing—Copayments

Cost sharing in prescription drug programs require consumers to pay a portion of the cost of each prescription. As a cost control effort, they are targeted toward consumers in an attempt to shift responsibility for the cost of use and raise consumer awareness about the costs of their drug use.

Copayments require consumers to pay a fixed dollar amount each time they get a prescription filled. Differential brand/generic copayments require higher copays on prescriptions for brand names and lower amounts on generics. Some plans include an additional third tier of copayment for non-formulary (non-preferred) drugs. The third tier copayments are the highest, often sizably more than the brand name copayment, since non-preferred drugs are typically brand names without rebates.

Research shows that copayments can reduce the number of prescriptions used, thus reducing expenditures. The effects vary, however, across different types of drugs (Nelson et al., 1984; Reeder & Nelson, 1985; Reeder et al., 1993). In one study of Medicaid beneficiaries, copayments were less effective in reducing drug use than limiting paid prescriptions to three per month (Soumerai et al., 1987). One study showed a $3 to $5 copayment was associated with a 5% reduction in the number of prescriptions, but the average ingredient cost increased, offsetting the decrease in use (Smith, 1993). In another study, when the consumer's copayment was the full cost difference between the brand name and the generic drug, the proportion of generic drugs dispensed increased (Ganther, 1996).

Copayments are currently the most common cost sharing requirement in prescription drug plans. In one report, the average copayment was $6.17 for generics, $9.65 for brand names, and $13.77 for non-formulary brand names (Novartis, 1999). About 70% of HMOs have a three-tiered system, with $5, $15, and $25 copayments respectively for generics, brand names, and non-formulary drugs (PBM News, 1999).

The effect of tiered copayments has been to increase the cost share paid by consumers and, thus, reduce program costs. One report suggested that moving from a $5/$10 copayment structure to a three-tiered $5/$10/$25 structure could save between 7% and 8% of a health plan's overall drug costs (Express Scripts, 2000).

However, as their costs rise, consumers may be discouraged from obtaining important prescriptions or refills, potentially increasing other health care use. Overall health costs may increase if higher copayments drive use to lower cost drugs when more costly drugs actually are more effective or cost effective.

Cost Sharing—Coinsurance

With coinsurance cost sharing, consumers pay a percentage of the cost of each prescription dispensed. The coinsurance percent typically is fixed and does not vary by the type of drug dispensed (brand name, generic, or non-formulary). As the cost of the prescription increases, the amount of cost share also increases. This direct correlation between the drug used and the amount the patient pays out-of-pocket, contrasts with a copayment where the out-of-pocket cost is constant for a given drug type, (e.g., generic) regardless of actual cost.

Coinsurance alerts consumers to differences in drug costs and can drive drug costs down.

Since the amount of cost sharing per prescription varies based on the cost of the drug, coinsurance can alert consumers to differences in drug costs, provided the coinsurance rate is high enough. Conceivably, this consumer awareness could drive drug use to lower cost (generic or older) drugs.

A 1998 survey of 375 employers using PBMs found about 30% of employers had a coinsurance requirement for their prescription drug coverage (Wyeth-Ayerst 1999). The coinsurance rate for most of those employers was 20%. About a quarter of these employers required different coinsurance rates for brand name and generic drugs.

Coinsurance allows consumers to be more aware of the differences in costs of drugs they use. As the cost of a prescription goes up, the amount paid by the consumer increases. People who use more expensive drugs pay more than those who use less expensive drugs, such as generics. However, not knowing what the cost share will be for each prescription can make cost sharing less appealing to consumers and benefit managers than the more familiar copayments. Also, if more costly drugs are more effective, coinsurance may drive use to less effective drugs which actually could result in higher overall health costs.

Formularies

A formulary is a list of covered or reimbursable drugs. An open formulary includes all drugs. A closed or restricted formulary only covers listed drugs. Closed formularies may vary in breadth, ranging from including only one select drug within a therapeutic category or drug group to including multiple drugs within a category or group. A preferred or partially restricted/closed formulary specifies the drugs covered, but allows exceptions to the list, usually with increased cost sharing or prior authorization.

A survey of employers found most (80%) have open formularies, with only 10% having either a closed or preferred formulary (Wyeth-Ayerst 1999). One possible explanation for the low use of closed formularies was that employers value rebates less than unrestricted access and the satisfaction of their beneficiaries.

Formularies can reduce program costs if high cost drugs are omitted from formularies, or if the formulary is associated with tiered copayments and/or rebates. At the same time, formularies may create unintended consequences. If changes are made in the drugs that are included or preferred on the formulary, switches in drug therapy can occur. Switches or interruptions in therapy have implications for therapeutic outcomes (both good and bad). Formulary changes also generate the possibility of disgruntled prescribers, patients, and pharmacists who have to deal with switching drugs and therapies. Formularies also may affect therapeutic outcomes by restricting access to drugs that might be optimum for some patients.

Disease Management (DM) Programs

Disease management is identifying patients with specific medical conditions and providing intensive care and monitoring of drug use and effects. The goal is to maximize drug therapy effectiveness and minimize total treatment costs of the disease. Appropriate drug use is emphasized by educating patients and encouraging their compliance with the prescribed dosage. The target of disease management programs is the consumer and pharmacists may be paid separate service fees to educate consumers, in attempts to improve their drug use.

Results from a survey of PBMs, HMOs, and employers found that 75% of PBMs offered disease management programs in 1998 (Novartis, 1998). Overall, 76% of HMOs reported having disease management programs in place, particularly in asthma, diabetes, congestive heart failure, gastrointestinal disorders, and high cholesterol.

Conceptually, the idea of combining enhanced health outcomes and better disease control for patients with reduced overall health care spending is appealing. However, drug costs can increase because patients who comply with the recommended dose may use more drugs. Because disease management programs focus on maximizing outcomes, the therapeutic enhancements offered by new drugs are emphasized, resulting in increased use of newer drugs. Critics of disease management programs say they merely are veiled efforts to increase use of manufacturers' products. Few evaluations of the effects of these programs are available.

Disease management programs can result in increased use of newer drugs.

Mail Service Prescriptions

Consumers may be encouraged or required to use mail service pharmacies, especially for prescriptions for long-term, chronic therapy. Mail service pharmacies generally offer deeper discounted pricing for prescription dispensing (Wertheimer & Andrews, 1995). Although a higher copayment is typically charged, larger quantities of drug are dispensed. This results in a lower overall consumer cost than the multiple monthly copayments required for the same quantity of drug.

The proportion of health plans and employers that include mail service in their drug benefit is increasing (Novartis, 1999; Wyeth-Ayerst, 1999). For HMOs, mail service prescriptions were 5.6% of prescriptions and 8.8% of the total drug budget in 1998 (Novartis, 1999).

Problems associated with mail service pharmacy include shortcomings in professional services available, lack of face-to-face communication and patient consultation, consumers forced into receiving medications by mail, delays in receipt of medications, and the stability and integrity of mailed drugs (Ghoshal, 1996-97; Hadzija & Shrewsbury, 1999). From a consumer perspective, research has found patrons of mail service pharmacies are satisfied with services and specifically with the financial aspects and technical quality of services (Birtcher & Shepherd, 1992; Johnson et al., 1997). An additional issue is ownership of mail service pharmacies by PBMs and the potential to steer prescription business to themselves through their mail subsidiaries.

Drug Utilization Review

Drug utilization review (DUR) is a process of evaluating drug use to identify and intervene to correct drug use problems. One goal can be to reduce costs associated with inappropriate prescribing and use of drugs. Another goal is to improve patient health through proper use of drugs. Retrospective DUR can review past claims and usage for patterns of misuse. When misuse is found, interventions can attempt to change future prescriptions or educate patients about compliance with the recommended dosage. DUR also can be used when drugs are dispensed to assess all the drugs in the pharmacy or PBM records. This concurrent DUR relies on computer programs which check for drug interactions, patient overuse or underuse, or drugs that may be inappropriate given the patient's condition, alerting the dispensing pharmacist if problems are found. Concurrent DUR generally is part of an on-line claims adjudication process.

Nearly all PBMs offer DUR. Concurrent DUR is more popular than retrospective DUR among both HMOs and employers. The percent of employers using PBM concurrent DUR increased from 65% in 1996 to 76% in 1998 (Wyeth-Ayerst, 1999). Among HMOs, the most common alerts were for early refills, use of nonformulary drugs, drug interactions, prior authorization notices, and inappropriate pharmacy reimbursement (Novartis, 1998).

Reviews of DUR studies in outpatient settings have shown both quality and cost improvements (Kreling & Mott, 1993; Kozma et al., 1993). To the extent that DUR can avoid interactions and duplication, it can save money. Concurrent DUR also can alert pharmacists to potential switches to formulary drugs, and thus steer drug use to preferred or less costly products. If under-utilization is corrected after DUR, drug program costs can increase, with potential paybacks in other areas if the disease is better controlled and other costs are avoided. In spite of concerns, most experts probably would agree that DUR has been a positive component of PBM drug programs.

Drug utilization review can improve the quality of drug use and cut costs.

Conclusion

PBMs would not use cost control strategies if there was not some belief they could be effective. Theory and logic suggest the techniques used should work, and some successes have been supported by research. However, prescription expenses continue to increase and have been the most rapidly growing component of health care in recent years. This suggests that cost control mechanisms have not been as successful as desired, or that successes have been overshadowed by other factors.

Table 1. Summary of PBM Cost Control Strategies and Effects

This table summarizes several containment techniques and their potential consequences. The effects column indicates whether the effects are positive (+) and/or negative (-) and the degree of effect is indicated by the number of +/- signs. Questionable or uncertain impacts are noted with a question mark (?).

Technique	Target	Effect(s)	Potential Consequences
Negotiated Prices			
Reduced reimbursement	Pharmacies	+/-	Price for a given prescription is reduced; May reduce access to pharmacies if discounts require restricting the pharmacy network; Increased efficiency (speed) in dispensing may reduce patient contact and de-emphasize evaluation of the prescription and drug use for appropriateness and cost savings.
Generic Substitution			
Increased dispensing fees for generic drugs, MAC programs, and/or dispensing rate incentives	Pharmacies	++/?	Decreased cost (increased dispensing of lower cost generic drugs generally exceeds amounts spent on higher dispensing fees and/or incentives); High rates of generic dispensing on suitable prescriptions (from MAC and incentives), but limited by the extent of prescribing for suitable (multisource) drugs; Differential fees or incentives too small to motivate serious pharmacist effort?
Differential copayments for generic and brand name drugs; generic copays lower	Consumers	+++/?	Increased acceptance and use of generic drugs; More program cost paid by consumers; Relatively low difference in copayments may limit response; Low difference in copayments can reduce consumer awareness of real cost of brand name vs. generic drug use.
Rebates			
Money returned by drug manufacturers based on volume of use or market share	Pharmaceutical Manufacturers	+/-	Ultimately lower program cost for rebated drug; When combined with other incentives, increased use of rebated drugs; May overlook total cost picture since brand name drugs are emphasized for rebates.

Technique	Target	Effect(s)	Potential Consequences
Copayments			
Increased copayment amounts overall - a fixed dollar amount for each prescription filled	Consumers	+/?	Increased consumer sensitivity to their drug use; Shifts additional cost to the consumer for each prescription; Increased out-of-pocket expenses can affect consumer perceptions of quality of their prescription benefit.
Three-tiered copayments - dollar amount paid by the consumer for generic vs. brand vs. non-formulary/non-preferred	Consumers	+++/-	Increased use of formulary or preferred drugs; More program cost paid by consumers; Increased consumer awareness of the cost of their drug use; Continues emphasis on brand name (rebated/formulary) drugs; Increased consumer cost can reduce use of high cost drugs; if they are more effective or cost-effective, overall health costs can increase.
Coinsurance			
Consumer pays a percentage of each drug use	Consumers	+++/-	Increased consumer awareness of the cost of their drug use because of the direct relationship between resource use and out-of-pocket cost; More program cost paid by consumer (depending on coinsurance rate); The unpredictability of consumer costs may be unacceptable; Consumers may avoid high cost drugs even when they are more effective or cost-effective.
Formularies			
A list of covered or reimbursable drugs	Consumers (and prescribers/ pharmacists)	+/-	Increased use of desired drugs (formulary/preferred); Decreased program costs are possible if combined with rebates or tiered cost sharing; Can retain a focus on brand name drugs which can divert attention from the total cost picture; If restrictiveness reduces access to cost effective drugs, can increase overall costs; Changes in formularies can cause therapy interruptions/switches and require extra efforts by pharmacists and prescribers.

Technique	Target	Effect(s)	Potential Consequences
Disease Management Programs			
Educating patients with specific medical conditions to improve their drug use	Pharmacists and Consumers (and prescribers)	+/-?	Increased appropriateness of drug use (and decreased overall health care costs?); Can increase drug use and drug program cost; Increased pharmacist effort (and patient time) and expense.
Mail Service Prescriptions			
Mail service prescriptions often for long-term chronic therapy	Consumers	+/-	Decreased cost for prescriptions (deeper discounts, but may be balanced by larger quantities dispensed and fewer copayments); Increased convenience for consumers; Delay in receipt of prescriptions can cause therapy interruptions; Decreased direct pharmacist interaction and patient consultation.
Drug Utilization Review (DUR)			
Evaluating drug use to correct drug use problems	Pharmacists, Prescribers, and Consumers	++/-?	Increased appropriateness of drug use (decreased duplications, interactions, increased formulary/preferred drugs); Can decrease access and interrupt therapy (if overutilization screens are too sensitive); Increased pharmacist time to respond to alerts and prescriber time for therapy changes.

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