Examining the value of pharmacy benefit management companies

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United States health care spending increased by 7% in 2001, the largest increase in 12 years.[1] A survey of 2800 employers indicated that expenditures on health care benefits increased by 11.2% in 2001 compared with the previous year, the largest increase in health costs for employers in nine years.[2,3] Prescription drugs have been the fastest-growing component of health care costs (Figure 1). In 2002, prescription drug expenditures grew approximately 14%, or twice the rate of hospital care and physician service costs.

Prescription drug costs are rising because of the availability of more expensive new drugs (accounting for 38% of the cost increase), greater overall utilization of prescription drugs (44%), and drug price inflation (18%).[4] The increase is further fueled by the aging of the baby boom generation, the largest U.S. population cohort. These persons, now 39–57 years old, are beginning to suffer the chronic illnesses of old age. Additionally, many drug manufacturers use direct-to-consumer advertising to stimulate demand for new and more expensive drug products.

Over the past decade, employers, HMOs, health care insurers, and various government entities have turned to pharmacy benefit management companies (PBMs) to help control their drug budgets. PBMs have responded with cost-cutting strategies that include discount pharmacy networks, incentives to use therapeutic alternatives, formulary management (including manufacturer rebates), mail-order pharmacies, drug-use reviews, and disease management.[5] However, even with these cost-cutting strategies in place, prescription drug spending continues to grow. Consequently, many payers (employers, HMOs, etc.) are starting to question the ability of PBMs to truly save money.

This article examines the role and value of PBMs in processing prescription drug claims. Unknown to many payers, the PBM industry has created complex multiple layers of prescription processing that include contractual arrangements with drug manufacturers designed to generate rebate dollars. Also, there can be contractual differences between the drug-ingredient cost paid to dispensing pharmacies and the cost charged to payers for the same prescription; such cost differences are often referred to as the spread.[6]

Health care payers

Employers, which have traditionally borne the largest portion of employee health care costs, are countering rising drug benefit costs with

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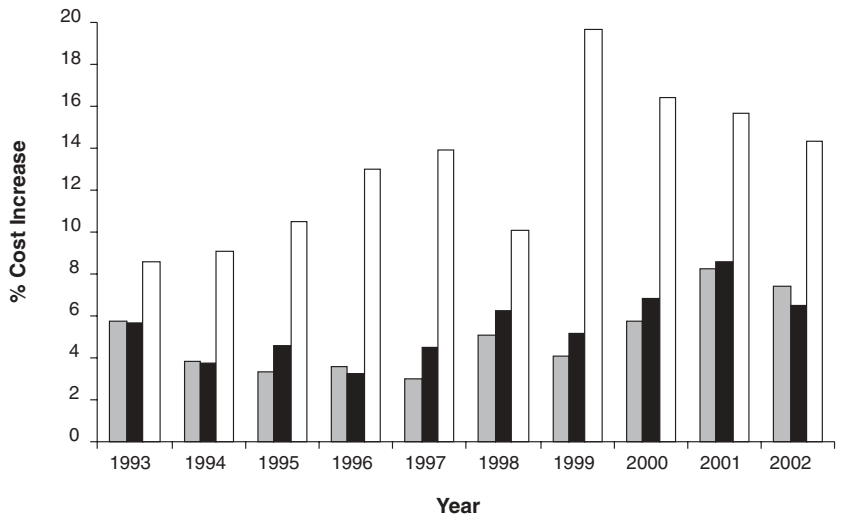
Figure 1. Annual percent increase in cost of hospital care (gray bars), physician services (black bars), and prescription drugs (white bars).



higher premiums and greater cost sharing by employees.[7] An employer may, for instance, choose to implement a three-tiered copayment structure that shifts costs from the employer to the employee.[8,9] The employee may have been paying only one copayment amount (e.g., $10) for all prescription types. Once the three-tiered structure is implemented, the employee may have to pay, for example, $10 for generic drugs, $15 for preferred (formulary) brand-name drugs, and $30 for nonpreferred brand-name drugs.[10,11] Other strategies include offering defined-contribution plans to employees. In a defined-contribution plan, the employee is allocated a sum of money, usually $1000–$3000 yearly, with which to purchase health care. The purpose is to provide an incentive for employees to shop for the best value for their health care dollars while eliminating the pharmacy claims processor entirely. When the defined contribution is spent, the employee is responsible for a deductible up to a specified stop-loss amount.[2,3]

As prescription drug costs have continued to rise, many pharmacy benefit payers that have relied for years on their PBM to design and administer drug benefits are becoming disenchanted.[12,13] Some payers believe that the PBM model is failing and that managed care can no longer control health care costs. The U.S. General Accounting Office has concluded that PBMs may not be able to lower medication costs for seniors with a Medicare prescription drug benefit, especially if PBMs choose not to pass manufacturer rebates along to the plan sponsor.[14] Some employer groups have contended that PBM-negotiated manufacturer rebates make PBMs more interested in maximizing their rebates than in minimizing a payer's drug costs.[12,15]

Dissatisfaction with the PBM model has been seen at the state government level as well. Several state governments have voiced their desire to move away from the traditional PBM model. Eight southern states calling themselves the Southern Coalition are considering forming their own PBM or not using a PBM at all.[15] Nine states and the District of Columbia recently formed the National Legislative Association of Prescription Drug Prices to take the place of for-profit PBMs that have been accused of receiving payments from drug companies in return for promoting their drugs.[16] The National Association of Boards of Pharmacy and the National Community Pharmacists Association jointly advocate PBM licensure by state boards of pharmacy.[17] In addition to operating mail-order pharmacies in many states, PBMs often sell aggregated data to drug companies. State pharmacy board oversight could prevent disclosure of confidential information in these data while increasing oversight of PBM drug-switching practices.

Whether PBMs will continue to attract such negative attention in the future is not known. PBMs do serve a valuable function by providing real-time processing of millions of prescription claims—often while the consumer waits at the pharmacy counter. Still, as useful as PBMs can be, close inspection of the claims-processing environment reveals many independent business entities within the industry, each of which takes its cut. The notion of a single claims processor transmitting information directly to pharmacies is oversimplified.

The PBM industry: Many participants

The system for processing prescription drug claims is reminiscent of the highly bureaucratic organizations of the mid-20th century.[18] As pharmacy claims pass through the multiple parties, each charges for its services, driving the cost of benefits ever higher. If system efficiency is the ultimate goal, it follows that the pharmacy benefit consumers of 2003 may be served better by a less complicated, less vertical, more efficient organization of industry components.

The PBM industry is divided into two major components, pharmacy and payer. Participants working closely with the pharmacy are the gate (discussed below), the claims editor (which is within the gate), the claims processor, and the PBM. For example, the pharmacy sends claims through an editor, on to a gate, and then to the claims processor. The claims processor then transmits ap-

proved claims back to the provider pharmacy. The industry participants that work closely with the payer are the consultant, the insurance company or third-party administrator (TPA), and the PBM. The PBM has a relationship with both the pharmacy and the payer.

The path of a prescription claim

The pharmacy. Although the entire transmission process for a prescription claim from the time a pharmacist transmits it to the time the pharmacy receives payment authorization from the PBM on behalf of the payer may take only 30 seconds, the process is not as straightforward as it appears.

The gate (sometimes called the switch) provides centralized telecommunications links between the pharmacy and the claims processor. Aside from providing an electronic connection, the gate also provides data formatting that is compliant with National Council for Prescription Drug Programs (NCPDP) standards and data manipulation that is compatible with the claims processor's software. If the pharmacy is running an old version of NCPDP software, or if the pharmacy's software is incompatible with the claims processor's, a gate is needed to adjust the data formatting so that the pharmacy and the claims processor can communicate. Otherwise, a gate may not be necessary.

Claims processors maintain computer connections with a network of pharmacies. Processors arrange with the payer to adjudicate and record claims according to the terms specified in the contract with the payer. Specific services include confirmation that the patient is covered by the plan, verification of the contract price for the prescription and service, and authentication of what copayment the patient should be charged. As with the gate, a fee is charged for every transmission and is usually incorporated into the administrative fee. This fee can be assessed for both paid and rejected claims. For example, if a pharmacist incorrectly enters the patient's date of birth, the claim is rejected, but the transmission fee is still charged. Upon recognizing the typographical error, the pharmacist corrects the problem and resubmits the claim, which is now positively adjudicated. The claims processor may charge a second fee for the accurate submission by the pharmacy.

The PBM. The PBM is the entity for which the entire prescription claims industry has been named. PBMs interface with pharmacies and the payers. In addition to adjudicating pharmacy charges, the PBM provides the payer with access to a nationwide network of pharmacy providers that are contracted with to provide services and drug products at negotiated prices. PBMs also provide drug-use reviews, instruments for deterring fraud, a benefit design tailored to the needs of the payer, and access to a formulary. The PBM charges the payer per transaction or levies a flat administrative fee per member per month (PMPM). The flat administrative fee gives the employer some predictability, because administrative charges do not change from month to month. The PBM may earn additional revenue through rebate contracting with pharmaceutical companies, spread pricing, owning a mail-order facility, repacking, and selling data to the pharmaceutical industry.

Rebates. Drug manufacturer rebates are commonly paid to PBMs by drug manufacturers. PBMs and other managed care organizations have routinely bid therapeutically equivalent drugs (e.g., proton-pump inhibitors) against one another to obtain rebates from drug manufacturers.[19] Rebates can result in a 4–20% saving off the average manufacturer price (AMP).[20] Rebate contracts exist in two basic forms, flat rebates and performance rebates. Flat rebates pay the PBM the same percent rebate for all levels of market share. Flat rebates are known as first-dollar rebates because the PBM is paid a rebate on every unit of product used. Performance rebates provide a PBM higher compensation for higher utilization by patients whose benefits are administered by the PBM. Performance rebates offer a lower rebate on the first dollar spent and increasingly higher percentages as a product gains market share in its therapeutic class. Market-share performance contracts offer value to the PBM only if a product demonstrates market-share growth.[21] Rebate contracts usually specify whether a drug is given preferred status in its therapeutic class, which improves the rate of utilization, or exclusive status, which guarantees the drug nearly the entire market share for that therapeutic class. Since rebate contracts represent a rich source of revenue for the PBM and the payer, they are negotiated vigorously.

In recent years, rebates to PBMs have come under much scrutiny. PBMs have been accused of not disclosing rebate dollars that they keep and do not pass on to the payer.[22-25] In specific cases, payers have received 3–4% of drug costs in the form of a rebate that came from drug manufacturers through the PBM, whereas the manufacturers actually paid the PBM 15–20% in rebates, with the PBM, presumably, keeping the difference.[26] Rebates as high as 35% of brand-name drug spending have been estimated.[27] Critics of rebate contracts have argued that these arrangements are responsible for 10% of the $122 billion Americans spend on prescription drugs every year.[28] Some have called for mandatory disclosure of all financial arrangements between PBMs and manufacturers, including rebates and other "best-price" arrangements that may appear to involve kickbacks or conflicts of interest.[12,14,29]

Spread pricing. Spread pricing is a revenue source PBMs have used in recent years. In spread pricing, the PBM negotiates lower rates with the pharmacy network but does not pass on these lower rates to the employer.[6,30,31]

The spread has been estimated at $0.10 to $0.35 per transaction, although this estimate may prove to be low.[27]

Consider an example in which a PBM's contract with a network of pharmacies specifies the following arrangement for brand-name drugs. The pharmacy is to be paid average wholesale price (AWP) minus 13% plus a dispensing fee, while the PBM's contract with the payer states that the payer is to be billed AWP minus 10% plus a fee.[32,33] Therefore, the PBM company could realize extra revenue of 3%. Thus, for Zoloft, with an AWP of $264.68,[34] the PBM charges the payer $241 and pays the pharmacy $233, creating an $8 spread for the PBM.

Here is a second scenario. A PBM has a contract with a pharmacy to provide a generic product at maximum allowable cost (MAC). MAC amounts are generally significantly lower than the published AWP for a generic drug product. Yet the PBM's contract with the payer is AWP minus 20% plus a fee. In this case, the PBM can realize extra revenue amounting to the difference between the AWP minus 20% charged to the payer and the MAC paid to the provider pharmacy. Thus, for lovastatin, with an AWP of $239.41 for 100 20-mg tablets and an MAC of $124.88,[34] the PBM charges the payer $195 and gives the pharmacy $128, pocketing a difference of almost $67.

Ownership of mail-order pharmacy and repacking. PBMs that own their own mail-order pharmacy and hold a repacker's license have another possible revenue stream.[30] The repacker's license allows its holder to assign the repackaged product a new national drug code (NDC) number. Each NDC has a price associated with it, the AWP. Therefore, the license holder can assign a new AWP to the new NDC. A repacker can buy very large containers of the medication directly from the drug manufacturer at a substantial discount and repack it into smaller containers.

Table 1 presents hypothetical cost data for a PBM-owned mail-order pharmacy that has a repacker's license. The cost to the payer for a prescription drug (100 Celebrex 200-mg tablets) purchased from a community pharmacy is compared with the cost through the mail-order pharmacy. The AWP from the repacker starts off at an artificially elevated level set by the mail-order pharmacy. The PBM, by focusing on the discount off AWP, may very well convince the payer that using mail-order services actually saves money. For example, (AWP minus 20%) plus $1 for mail-order services versus (AWP minus 10%) plus $3 for community pharmacy services indeed makes mail order appear to be the better value. Consequently, the payer accepts a copayment structure that favors employees' purchasing prescriptions by mail. In this case, the payer pays $126 more ($363 minus $237) for the prescription that ostensibly has the greater discount. This additional amount is extra revenue for the PBM of which the payer is unaware.[6]

Selling data. PBMs have for years routinely sold claims data detailing the volumes and types of drugs sold.[27] This information is typically sold to a data warehouse that functions as a broker, reselling the data to the pharmaceutical industry for a profit. Manufacturers then use these data to maximize sales and marketing efforts for their products. Electronic claims data in the PBM industry (usually deidentified to comply with the Health Insurance Portability and Accountability Act) can easily be transferred from one entity to another and represent yet another revenue source for the PBM industry.[17]

The payer. Pharmacy claims processing is highly specialized, and many participants in the insurance industry lack the expertise and infrastructure to accomplish it well. For example, few companies (other than PBMs) have agreements with a large community pharmacy network for provider services or have the capacity to handle millions of electronic transactions daily. Therefore, entities like insurance companies and TPAs often outsource the management of pharmacy benefits to one of the major PBMs.[27] TPAs are independent benefit contractors that work with (usually smaller) payers to set up health care benefits (including pharmacy benefits) for the payer's employees, usually contracting for medical and pharmaceutical services on behalf of a self-insured employer group. Insurance companies and TPAs typically generate revenue by charging for their services on either a PMPM or per claim basis.

Benefits consultants assist payers in selecting the best value in health care benefits for employees. In searching for the best value for a payer, consultants attempt to put prices on a level playing field by comparing the services offered by PBMs.[6] Payers should question a consultant's background in the area of pharmacy benefits before basing a benefit purchase decision on the consultant's recommendation. Some consultants may be unaware of the complexities of the

Table 1.
Cost to Payer of 100 Celebrex 200-mg Tablets from Community Pharmacy and from Mail-Order Facility with Repacker License[a]

Item	Community Pharmacy	Mail-Order Facility
AWP ($)	288	465
Terms	(AWP – 10%) + $3	(AWP – 20%) + $1
Cost ($)	262	373
Patient copayment ($)	25	10
Total cost to payer ($)	237	363

[a]AWP = average wholesale price.

PBM industry. For instance, a consultant may attempt to compare all PBMs on the basis of a discount off AWP. This is reasonable, since the "standard" published prices for medical services are actually standard and since consultants often have more experience purchasing medical, rather than pharmaceutical, services. As discussed earlier, discounts off AWP can be of limited usefulness when comparing potential expenditures. An uninformed consultant may recommend a PBM strictly on the basis of the discount it offers off AWP. Consultants may offer their services for a flat one-time fee or be retained by the payer on nominal per claim or PMPM basis.

Pharmacists educating decision makers

Pharmacists can help themselves in this era of PBMs by acting as educators. A patient with prescription benefits who is visiting a pharmacy may also be someone involved in the payer's decision process regarding a PBM. Or the patient may be an employer. Pharmacists can demonstrate to an employer the ingredient costs typically paid by the PBM to the pharmacy for some generic prescriptions. Next, the pharmacist could work with the decision maker to closely examine the payer's monthly invoices from the PBM. This examination could compare the individual drug ingredient costs charged to the payer by the PBM with the amounts paid to the pharmacy. In this way, a pharmacist can help a payer make a more meaningful interpretation of a given PBM's value. Striking differences in drug ingredient costs can be very enlightening and facilitate more value-conscious decisions about PBMs.

Discussion and conclusion

There are inefficiencies in the current PBM system that may or may not be mitigated by fewer layers of participants. Furthermore, there is the potential for conflicts of interest within the PBM industry.[35] For instance, such a conflict arises when a PBM faces the decision of either maximizing its rebate from the drug manufacturer (thus maximizing cash flow to itself) or selecting the best formulary value for its client, the payer. There are many profit opportunities for PBMs that are not always obvious to the payer.

What seems clear from this navigation of the PBM maze is that prescription benefit plan sponsors (either private employers or government entities) should insist on full disclosure of cash flows to and through the PBM that is administering their drug benefit. Without this level of scrutiny, the plan sponsor cannot be sure if its PBM is providing a good service for a fair price or is acting primarily in its own interest.

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