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The ABCs of PBMs

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A discussion featuring

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The ABCs of PBMs

As Congress continues to consider adding an outpatient prescription drug benefit for Medicare beneficiaries in this presidential election year, the number of administrative and legislative proposals goes on climbing. While the nature and scope of these proposals vary widely, they all contain a common element, the use of PBMs—pharmacy benefit managers.

By acting as intermediaries between pharmaceutical manufacturers and third-party payers (that is, employers, managed care organizations, labor unions, and state-funded pharmaceutical assistance programs for the elderly), PBMs administer prescription drug benefits. A major policy and, indeed, practical consideration, will be the degree of latitude provided a PBM in managing a Medicare outpatient drug benefit.

As new tools to control drug costs have emerged, PBMs have enjoyed dramatic market success. Along with the tremendous growth enjoyed by the PBM industry in the past decade, however, has come increased public policy attention.

> The FTC is scrutinizing PBMs for possible antitrust violations, the FDA is concerned about their drug switching and information disclosure policies, and the GAO is examining how PBMs affect access to drug benefits in the Federal Employees Health Benefit Plan. To date, however, the degree of actual government intervention has been modest. This may change in the future.[1]

In addition to providing background information on the history and structure of PBMs, this Forum session will focus on the following public policy questions raised by the potential use of PBMs in a Medicare milieu:

- What challenges would the government face acting as a purchaser contracting with a PBM?
- What role would PBMs play?
- What tools would PBMs use?
- What implementation obstacles would PBMs have to overcome?
- How would various stakeholders be affected?
- What impact on quality of care can be expected? On cost?
- What unintended consequences might result from the use of PBMs?
- What competitive issues (within the PBM market and within the broader health care marketplace) will need to be addressed?
- What additional research on PBMs is needed?

It is interesting to note that several of these and related issues (for example, questions surrounding the potential conflicts of interest, given the financial arrangements and ownership of some PBMs, and consumer protection and confidentiality of medical data) will remain on the current health care policy radar screen, regardless of the outcome of a Medicare outpatient drug benefit. In fact, many of the cost management issues that would arise under a Medicare outpatient prescription drug benefit currently apply to Medigap plans.

EVOLUTION OF THE PBM INDUSTRY

In existence since the late 1960s, the PBM industry has its roots in claims administration. As prescription drug coverage increased in the private sector, insurance companies were faced with the daunting challenge of managing efficiently and economically a high volume of relatively small dollar claims. It was in this arena and in the related information systems field that PBMs were born. Having mastered the art of data standardization, PBMs became leaders in the field of electronic claims processing.

Ushering in a decade of rapid growth for PBMs, the development of the plastic drug benefit identification card in the 1970s changed the way many prescriptions were bought and paid for. Since that time, an eligible

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employee armed with an identification card and using a network pharmacy pays only a small copayment. The pharmacist receives the balance from the PBM. The patient is no longer required to file paper claims and the pharmacist is paid quickly.

In addition to the card system, PBMs created pharmacy networks and pioneered mail service benefits that enable patients to receive medication through the mail at discounted prices. All of these advances have translated into administrative simplification and reduced administrative costs.

Another milestone came in 1987, with the introduction of online, real-time electronic drug claims processing. As information technology advanced, PBMs were successful in establishing links with pharmacies to enable two-way communication of not only claims data but also clinical information. The entire claims adjudication process became paperless. This advance yielded an extremely valuable tool for PBMs—a massive computer database of prescription records.

The 1990s have witnessed a move by PBMs towards a greater patient health focus. In addition to fulfilling their traditional claims processing function, PBMs have evolved into much more complex organizations, offering a variety of products and services (Figure 1).

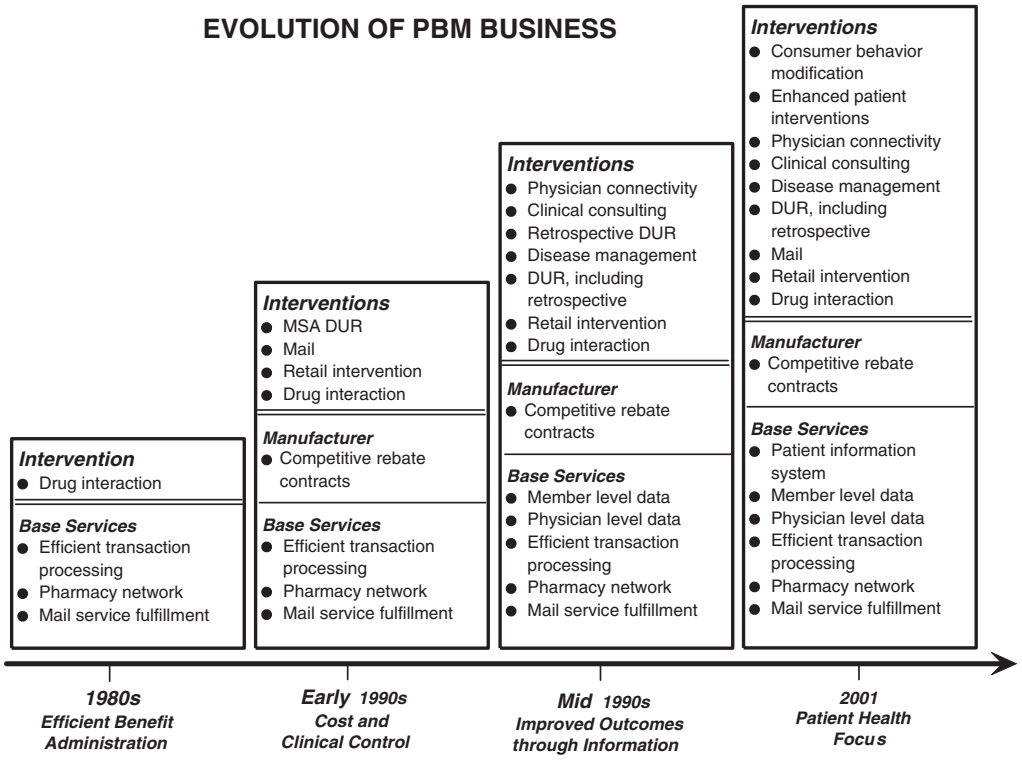
THE PBM MARKET

According to the most recent data collected by the Pharmaceutical Care Management Association (PCMA), the organization representing "managed care pharmacy, pharmacy benefits management companies, and their healthcare partners in pharmaceutical care,"

- PBMs manage about 1.8 billion prescriptions annually, 70 percent of all prescription orders dispensed for ambulatory care patients.
- PBMs employ more than 9,000 pharmacists.
- Over two-thirds of prescriptions are covered by pharmacy benefits.

In a recent article, "Pharmacy Benefit Management Companies: Dimensions of Performance," Helene L. Lipton and colleagues[2] noted that, while estimates of the total number of PBMs vary slightly due to differences in

Figure 1



Source: PCS Health Systems, June 1999.

the definition of PBMs, the top ten listed in Table 1 (particularly the top four) account for the bulk of covered beneficiaries.

Table 1
Lives Covered by Leading Pharmacy Benefit Management Companies, as of December 31, 1997
(in millions)

PCS Health Systems	56.0
Merck-Medco Managed Care, L.L.C.	51.0
Express Scripts/Value Rx	22.7
Diversified Pharmaceutical Services	21.0
WellPoint Pharmaceutical Services	15.5
Integrated Pharmaceutical Services	14.0
Advance Paradigm	13.0
Medimpact Healthcare Systems	12.0
Caremark, Inc.	10.0
Eckerd Health Services	9.0

Source: Helene L. Lipton, David H. Kreling, Ted Collins, and Karen C. Hertz, "Pharmacy Benefit Management Companies: Dimensions of Performance," Annual Review of Public Health, *1999, 20:361-401; data from SMG Marketing Group, Inc. © 1998.*

PBM MERGERS AND ALLIANCES

During the 1990s, there was a great deal of jockeying within the PBM market, a highly penetrated market compared to just a decade ago. In order to remain competitive, PBMs have, over the years, merged and formed strategic alliances. Most recently, in 1998 and 1999, four major mergers occurred: Rite-Aid's purchase of PCS, Express Scripts' purchase of Value Rx and Diversified, and Advance Paradigm's purchase of Integrated Prescription Solutions.[3]

While most of the PBM mergers and business alliances have not come under scrutiny, there have been several instances where critics have questioned the possibility of conflict. In a book published in 1998, Sheila R. Shulman and Louis Lasagna noted that[4]

> Among other things, questions have arisen about the ability of PBMs to conduct their business independently, particularly with respect to the selection of drugs for formulary inclusion and with respect to communications between PBMs and their managed care or corporate clients. . . . All of these new organizational structures (between PBMs and drug companies, pharmacy chains, and institutional providers) have generated questions about the roles and interests of the various parties. . . . Still another set of concerns relates to the increasing centralization of the drug selection process. The pharmacy and therapeutics committees of large PBMs select the drugs for formulary inclusion. In so doing, they are effectively determining the drugs to be taken by tens of millions of patients in the U.S. What appears to be the distancing of the physician from the final drug selection process raises questions about the impact of PBMs on the nature and quality of direct patient care.

PBM CONTRACTS: EXPECTATIONS AND PAYMENT ARRANGEMENTS

As the PBM industry continues to evolve, the management of prescription drugs has become increasingly sophisticated. Every customer, whether a managed care organization, manufacturer, or employer, enters into an agreement with a PBM with a variety of expectations, as illustrated in Figure 2.

Paying the PBM

The different contract arrangements—fee-for-service, risk sharing, and capitation—each offer advantages and disadvantages (Table 2). Currently, PBMs generally do not go at risk. Rather, the majority of their payment comes from fee-for-service arrangements for claims processing and selected services, such as reports or disease management programs. In addition, PBMs are compensated by retaining a fraction of the rebate they negotiate with the manufacturer.

PBM SERVICES

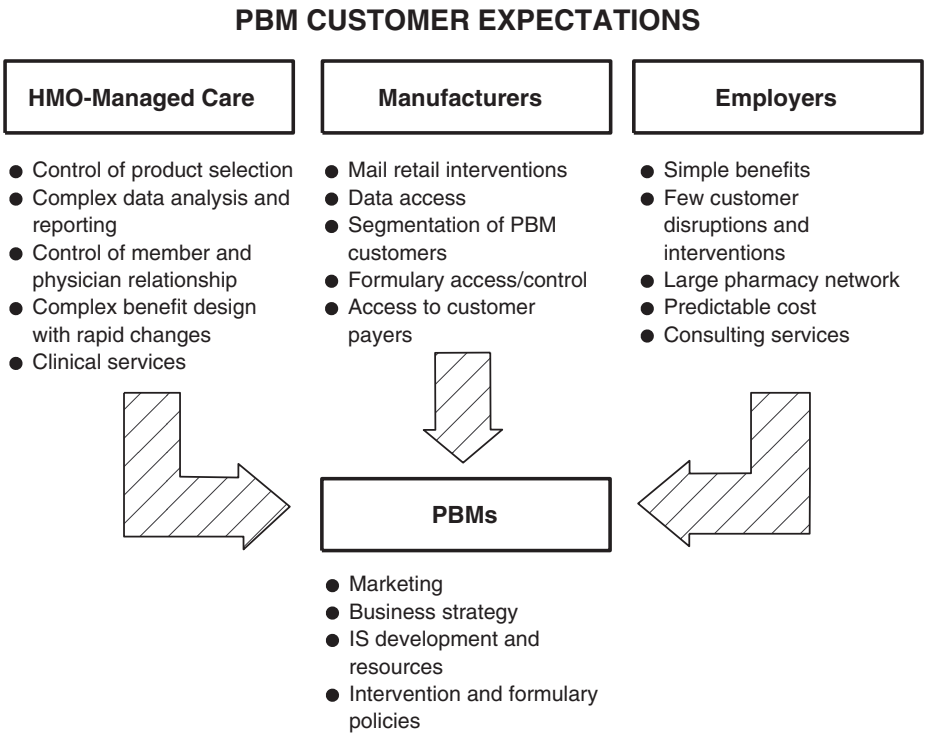
In addition to offering their core services—claims processing, record keeping, and reporting programs —PBMs offer their customers a wide range of services, including drug utilization review, disease management, consultative services, and most recently, Internet prescription fulfillment. (Issues regarding online pharmacies will be the focus of a future Forum session.)

PBMs also assist clients with establishing their benefit structure. Options for plan design include developing and maintaining a network of pharmacy providers, providing a mail service component, and developing and maintaining a drug formulary.

Retail Pharmacy Networks

Beneficiaries can receive their medication through retail pharmacies, mail service, or a combination of

Figure 2



Source: Health Strategies Group, Inc., 1999.

Table 2
Advantages and Disadvantages of PBM Contract Types

	Advantages	Disadvantages
Fee-for-service	■ Potential for lower cost because the PBM is not exposed to insurance risk.	■ Employer does not know in advance what the cost of the pharmaceutical benefit will be.
Risk sharing	■ Employers have an incentive to help control costs. To the extent that the employers can influence employee utilization patterns (that is, through coinsurance), they can achieve cost savings. ■ PBM has a financial incentive to control the cost of the benefit.	■ Few companies have the data necessary to accurately price the drug benefit. ■ Potential for higher cost due to partial insurance risk.
Capitated	■ Employers know the annual price of the pharmaceutical benefit in advance and can plan accordingly. ■ If the PMPM* rate is set too low, employers benefit at the PBM's expense.	■ Few companies have the data necessary to accurately price the drug benefit. ■ Potential for higher overall costs due to full insurance risk. ■ If the PMPM rate is set too high, the PBM benefits at the employer's expense.

**Per member per month.*
Source: Robert J. Rubin, Anne Hawk, and Elisa Cascade, "PBMs: A Purchaser's Perspective," in PBMs: Reshaping the Pharmaceutical Distribution Network, *ed. Sheila R. Shulman, Elaine M. Healy, and Louis Lasagna (Binghamton, N.Y.: The Pharmaceutical Products Press, 1998), 35.*

both. Retail pharmacy networks can be either open (very inclusive) or preferred (very restrictive). In an open network, beneficiaries enjoy greater access, but typically at a higher cost per prescription. Preferred pharmacy networks, while restricting access, are able to offer greater discounts in exchange for increased service volume.

> If PBM contracts can be restricted to limited numbers of pharmacy providers, additional discounted prices may be obtained from those participating providers, in return for the potential for increased customer volume. However, in 31 states there are legislative barriers in the form of "any-willing-provider" laws that can constrain PBMs from excluding pharmacies from the network.[5]

Independent pharmacies contracting with PBMs have raised a number of concerns, one of which involves what the pharmacies consider to be "frighteningly low payment rates . . . offered on a take it or leave it basis. In fact, several hundred community pharmacies have gone out of business in the last three years. A primary cause of this is continued low reimbursement rates paid by PBMs."[6] (Under a typical arrangement, a pharmacy receives the list average wholesale price for a drug, minus a percentage, usually around 12 to 15 percent. In addition, the pharmacist receives a dispensing fee, typically $2.00 to $2.50 per prescription.) Others point out, however, that while payment rates may have contributed to the demise of many of the community pharmacies, other factors, such as the proliferation of the chain drug stores, were also involved.

Advocates of PBMs point out that one of the major advantages of PBMs, given the breadth of their databases, is their ability to pick up potentially dangerous drug interactions. In addition, given the PBMs' ability to amass a patient's drug history in one place, they can more easily spot inadequate prescribing and refilling of drugs used to treat chronic conditions.

Mail Service

In addition to retail pharmacy, the use of mail service has been growing. The 1998 edition of *Pharmacy Benefit Report: Trends and Forecasts*, published by Novartis, reported the following:

- 91.3 percent of HMOs surveyed estimated they will offer mail service by 1999, favoring an externally contracted service to manage this option.
- Mail service is predicted to constitute nearly 10 percent of total prescriptions and over 22 percent of total budget dollars by 1999, with the dispensing ratio of brand to generic remaining fairly constant in favor of brand.
- PBMs report that mail service is mandatory for about 16 percent of the retiree benefits they manage.

The 1998 edition of the Novartis *Pharmacy Benefit Report: Facts & Figures* concluded that

> mail service continued to be a source of savings for members who share their pharmacy benefit costs through copays. Usually covering a 90-day supply (actual days' supply reported averaged 88 days), mail-service copays ranged to $45 for brands and $20 for generics from lows of less than $2 in some staff-model plans. The mail-service brand copay averaged $13.88. Compared to the patient who pays an average of $8.65 for a 30-day supply of a brand prescription obtained through a retail pharmacy, mail service represents a value.

Mail service pharmacy must be used judiciously in order to retain its value. Robert J. Rubin and colleagues have noted, for instance, that

> the use of mail service is increasing because of its potential to be a low-cost and convenient means of providing maintenance medications for chronic conditions. However, faulty benefit design might decrease expected savings if employee cost-sharing is set artificially low or if mail service is used to distribute medications for acute (i.e., nonchronic) medical conditions.[7]

Drug Formularies

The formulary—which specifies which drugs will be covered and therefore paid for—is the centerpiece of the pharmaceutical benefit. A powerful lever for transforming the drug purchasing market, formularies fall into three broad categories: open, or voluntary; managed, or preferred; and closed, or restricted. Lipton has offered the following distinctions based on the work of David H. Kreling[8] and K. A. Schulman[9]:

> ***Open formularies*** are the least restrictive type of formulary, listing all drugs and drug products but typically providing rankings of which products are preferred relative to one another; full reimbursement is provided for nonformulary drugs.
>
> ***Managed formularies*** are similar to open formularies in their breadth of covered products but use incentives and interventions to encourage the use of "preferred" products by physicians (e.g., drug withholds, academic detailing, and prior authorization), pharmacists (e.g., higher dispensing fees to pharmacies for formulary compliance), and patients (e.g., higher copayments if nonpreferred drug products are used).
>
> ***Closed formularies*** are the most restrictive, relying on a limited list of drugs approved for use or covered under the health plan; in the past, closed formularies allowed patients access to nonformulary drugs only after they paid a financial penalty (e.g., a higher copayment or the price difference between a formulary product and

its related nonformulary product); increasingly, closed formularies are growing more restrictive by requiring patients to pay for nonformulary drugs in their entirety (unless an exception is granted via a prior authorization process.)

How drugs make their way onto a particular formulary is a complex process. Members of a pharmacy and therapeutics (P&T) committee usually assist in the decision. Criteria for formulary inclusion include the safety and efficacy of a drug product. Another criterion, the cost of the product, has become an increasingly important consideration.

Many of the new breakthrough drug and biotechnology products on the market, while clinically valuable, are expensive. The decision to include or exclude these products from a formulary has the potential to profoundly affect patient health outcomes. Many critics are concerned that, while even restrictive formularies make available nonformulary products, the price is too high, especially for lower-income patients. The ability to successfully appeal for coverage of a nonformulary product is a growing health policy concern, particularly as the use of open formularies decreases.

Rebates

In an effort to save plan sponsors money, PBMs negotiate with pharmaceutical manufacturers for rebates on products selected for the formulary. According to a May 1997 *American Druggist* article, "Tug-of-War over Rebates," by Robert DiChiara, Patricia Pesanello, and Ellen Cappelino, rebates flow from the manufacturer through the PBM and are split with the benefit plan of the HMO or employer (Figure 3).

Rebate arrangements have caught the attention of many, especially in Washington, D.C. Critics argue that the potential is there for products to be included on the list of preferred formulary drugs on the basis of the rebate negotiated rather than the drug's clinical efficacy. Often, the terms of individual rebate agreements are confidential and not made public, even to the plan sponsor.

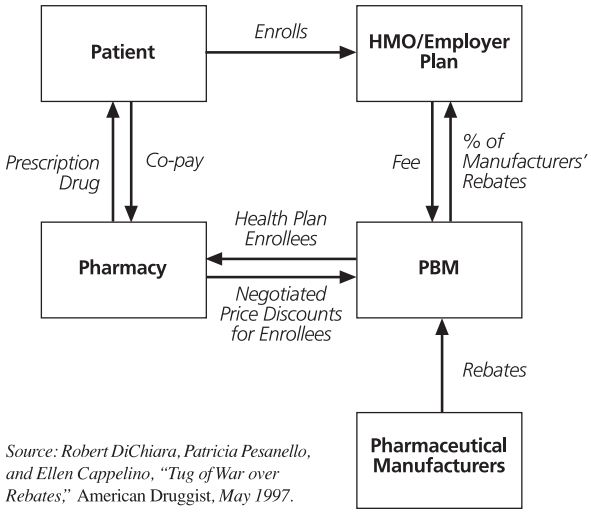
In his July 13,1999, *New York Times* article "Tracking Just What the Doctor Ordered," Robert Pear pointed out that, should Medicare become a PBM customer,

> Congress and the public would probably insist on knowing the details of any discounts negotiated on behalf of Medicare patients. The Comptroller General of the United States would want to audit Medicare's drug spending. Medicare officials would be tempted to regulate the activities of pharmacy benefit managers to protect Medicare patients and to save taxpayers' money. And pharmacists would demand an explanation if they were excluded from the list of drugstores serving Medicare beneficiaries in a particular region.

Figure 3

Follow The Money

PBMs Play Central Role in Rebate Flow



Source: Robert DiChiara, Patricia Pesanello, and Ellen Cappelino, "Tug of War over Rebates," American Druggist, *May 1997.*

TOOLS OF THE TRADE

In order to achieve their double-pronged goal of obtaining cost savings and increasing patient health care quality, PBMs have developed a broad spectrum of tools. For example, PBMs rely on utilization control measures such as prior authorization to minimize net drug costs for at least a comparable level of quality.

Another crucial group of tools relied upon by PBMs are those geared toward encouraging formulary compliance by patients, physicians, and pharmacists. A formulary is only as good as its implementation. Many of these tools have their origins in the managed care world and have been adapted specifically to the pharmaceutical sector.

Patient Cost-Sharing

Copayments are the most common type of cost-sharing. For example, in response to rising drug costs, insurers have begun a three-tiered copay arrangement. Typical of this arrangement are copays in the following amounts: $5 for generics, $10 for preferred brand-name drugs, and $20 to $25 for nonpreferred brand-name drugs.

Most recently, health plans such as Highmark Blue Cross and Blue Shield of Pittsburgh are considering

calculating copayments as a proportion of drug costs, perhaps as much as one-third. This approach is essentially a form of coinsurance. The objective with both copays and coinsurance is to motivate beneficiaries to use the most economical drug, whether purchasing prescriptions in a retail pharmacy or through a mail service.

Based on data from the 1998 Managed Care Pharmacy Director CUE Program, the Novartis 1998 *Pharmacy Benefit Report: Facts and Figures* indicated that "the differential between brand and generic copayments for formulary drugs tightened at $8.65 to $6.02, respectively. The copayment for nonformulary brands jumped to an overall average of $12.28, with highs ranging to $25 in some IPA models."

Physician Prescribing Practices

Getting to the physician early on is critical for formulary compliance. In addition to the more traditional methods, such as communication about preferred drug products between doctors and PBM pharmacists and informational materials sent directly to patients, a recent approach involves the assumption of risk on the part of physician organizations—a potent incentive for formulary compliance. Not surprisingly, most physicians are less than enthusiastic about this arrangement, particularly as drug prices continue to climb and direct-to-consumer advertizing continues to increase.

Physician connectivity—enabling the physician in his or her office to prescribe online—is one of the newest tools making its way into medical practice. Going from a POS (point of sale) system in the pharmacy to a POP (point of prescribing) system in the physician's office enables the PBM to intervene more rapidly. A problem message (such as "potential drug interaction" or "nonformulary drug") could immediately flash on the physician's computer screen, allowing a physician to change the prescription instantly, thus eliminating the need for the pharmacist to call. While this technology exists, it is not yet widespread. It is thought that within five to ten years this tool will become commonplace.

Formularies and Pharmacists

> To encourage formulary compliance by pharmacists, several PBMs have instituted financial incentives, such as "floating" dispensing fees based on formulary or generic dispensing levels attained within specific pharmacy networks. Kreling et al. found that pharmacists' willingness to respond to such incentives may be mitigated by other requirements and incentives created by PBMs, such as high-volume dispensing and time-intensive documentation of drug interchanges.[10]

Drug Interchange Programs

The use of various drug interchange programs by PBMs, such as generic substitution and therapeutic substitution, has sparked a good deal of controversy. At issue is the question of whether these programs compromise patients' access to necessary therapies, thereby contributing to negative health outcomes. On the other hand, proponents are of the opinion that these programs hold great promise in slowing the growth rate of drug expenditures by promoting clinically appropriate and cost-effective products.

PBMs are geared towards keeping costs down for therapeutically similar drugs. The challenge will be in figuring out how to moderate spending for new, improved, more expensive products.

THE FORUM SESSION

Should an outpatient prescription drug benefit be implemented under Medicare and should PBMs become a cornerstone of that benefit, Medicare will most likely find itself in a precarious situation. While it will enjoy its clout as a (very) large purchaser, it will no doubt be subjected to the vagaries of special interests and the scrutiny of Congress—challenges private companies do not have to overcome. Additionally, the administration of such a benefit and the infrastructure necessary to transform policy into practice raise numerous questions.

The purpose of this Forum meeting is to shed light on the structure of PBMs while raising implementation issues and public policy concerns regarding their role in a Medicare outpatient prescription drug benefit. It is not, however, designed to address whether Medicare should cover outpatient prescription drugs and what that benefit should be.

Peter D. Fox, Ph.D., president of PDF Incorporated, is a consultant who specializes in managed care for both private- and public-sector clients. He has assisted clients in selecting PBMs and is currently preparing a report for the American Association of Retired Persons' Public Policy Institute on the cost management issues that could arise if a Medicare outpatient prescription drug benefit materializes. Fox will lead off with an overview of PBMs, focusing on the complex relationships between stakeholders and PBMs. He will also illustrate the various techniques utilized by PBMs to decrease drug spending. In addition, he will address administrative issues related to the Health Care Financing Administration should a Part D Medicare drug benefit materialize.

Terry S. Latanich, senior vice president for government affairs with Merck-Medco Managed Care, will provide the "inside story" of PBMs, focusing his remarks on the potential role of PBMs in a broad-based Medicare outpatient prescription drug benefit. **Chris O'Flinn, J.D., LLM,** manager of global benefits for Mobil Corporation, will describe the private-sector experience with PBMs, both in specific terms regarding Mobil's retirees and more generally regarding Mobil's part in the three-year-old National Prescription Drug Coalition, a prescription drug group purchasing entity.

Wrapping up the session will be **Phonzie Brown,** vice president of MIM Health Plans. Brown will discuss the advantages and disadvantages of PBMs in the Medicaid program (specifically in the TennCare program) and will share Tennessee's experiences with outpatient prescription drugs, PBMs, and that segment of its population dually eligible for Medicare and Medicaid. This group, although small, accounts for a significant amount of drug spending. The lessons learned from the states will be important as policymakers analyze the potential Medicare outpatient drug benefit.

GLOSSARY[11]

Academic detailing: An educational outreach program in which pharmacists provide one-to-one, objective, and unbiased consultations to physicians, designed to promote cost-effective drug prescribing.

Average Wholesale Price (AWP): the published suggested wholesale price of a drug obtained from the drug manufacturer/labeler or from a price survey of wholesalers; often used by pharmacists to price prescriptions; drug manufacturers suggest a list price that wholesalers charge pharmacies; the average of the list prices, collected for many wholesalers, is called a drug's AWP.

Capitation: A method of reimbursement in which payments are made in advance on a per-member-per-month (PMPM) basis to a health care provider for providing specified services during a specified period of time to enrolled members of a managed care organization.

Carve-out: Agreement between a managed care organization or other insurer and a separate firm or organization that specializes in providing specific plan benefits (for example, mental health services or pharmacy benefits) on a stand-alone basis.

Chargeback: An amount of money returned by a pharmaceutical manufacturer directly or through a wholesaler to an HMO after the HMO's purchase of pharmaceuticals. A chargeback is essentially a "discount" for the purchase of the pharmaceuticals. It is usually the difference between the average wholesale price of a drug and the price bid by the pharmaceutical manufacturer.

Closed formulary: A limited list of drugs approved for use; nonformulary drugs are not covered by the health plan and require prior authorization and higher copayments or full payment by patients (see formulary, managed formulary, and open formulary).

Copayment: A fixed fee paid by the patient each time he or she uses certain medical services.

Detailing: Provision of information about drug products by sales representatives of the pharmaceutical industry to physicians to influence the physicians' prescribing behavior.

Disease management: A philosophy toward the treatment of the patient with an illness (usually chronic in nature) that seeks to prevent recurrence of symptoms, maintain high quality of life, and prevent future need for acute and more costly medical interventions by using an integrated, comprehensive approach to health care; pharmaceutical care, continuous quality improvement, practice guidelines, and case management all play key roles in this effort, which (in theory) will result in decreased health care costs and improved patient outcomes.

Drug claims processing: An automated assessment of drug claims at the point of service, meant to detect potential problems that should be addressed before drugs are dispensed to patients (for example, checking patients' eligibility for drug coverage or checking whether the prescription has been filled at another pharmacy in the last prescription cycle).

Drug risk-sharing arrangements: Health care organizations may be at partial, full, or no risk for drug costs.

> Groups at partial risk for drug costs share in a proportion of savings and/or cost overruns; the group can share in savings if it prescribes less than the budgeted amount ("upside risk"), and it may also share in any over-expenditures (downside risk).
>
> Groups at full risk for drug costs realize all of the savings or absorb all of the losses.
>
> Groups at no risk for drug costs absorb none of the losses and profits (typically, risks are absorbed by the HMO or other managed care organization).

Drug utilization review/evaluation: An authorized, structured and continuing program that reviews, analyzes,

and interprets drug-prescribing patterns against predetermined standards (see prospective and retrospective drug utilization review).

Firewall: FTC requirement that PBMs owned by pharmaceutical manufacturers must prevent the flow of certain information between the PBM and its parent company and vice versa; for example, the parent company is prevented from obtaining information on pricing and bid features submitted by competitors to the PBM.

Formulary: A list of drugs that are approved for use by a hospital, health plan, or other health care organization and that will be dispensed through participating pharmacies to an insured person (see open formulary, managed formulary, and closed formulary).

Generic drug: A chemically equivalent copy of a brand name drug with an expired patent; typically less expensive and sold under a chemical name for the drug, not the brand name.

Generic substitution: Substitution of generically equivalent drugs for their brand-name counterparts as a cost-saving device.

Global budget: A comprehensive fixed payment for all health care services for a given period of time within which a provider of services must operate; with a global budget attempts are made to align financial incentives across different provider types (for example, a vertically integrated organization such as Kaiser may have a global budget that encompasses primary care and specialty physician services, pharmacy costs, hospitalization, and other health care services).

Hard edit: A preprogrammed block that cannot be overridden by the patient, the pharmacist, or the physician without a prior authorization or edit override; often implemented by HMOs to block the use of a nonformulary drug product.

Mail service: Program offering pharmaceutical agents through the mail, typically at discounted prices relative to those of independent or chain pharmacies.

Managed formulary: A list of "preferred" drugs developed by an HMO or other managed care organization, typically a subset of its open formulary; incentives are created at the physician, pharmacist, and patient levels to encourage use of "preferred" drug products (for example, lower patient copayment for such products) (see formulary, open formulary, and closed formulary).

Market share: The percentage of the total population (nationally, by state, by region, by local market, etc.) that is participating in a managed care product, such as a specific HMO.

Maximum Allowable Cost (MAC): A maximum price that retail pharmacies in 'plans' networks may be paid for certain generic drugs.

Maximum Allowable Cost (MAC) list: List of prescription medications established by a health plan and distributed to pharmacies for which reimbursement will be provided at a generic price level only, regardless of what is dispensed.

"Me too" drug: brand-name drug that falls into the same therapeutic class as another drug product but confers no additional therapeutic benefit.

Open formulary: Provides coverage for almost all drugs; the patient's copayment is not based on a drug's formulary status (see formulary, managed formulary, and closed formulary).

Payer: Party, organization, or individual paying for health care services (for example, patient for out-of-pocket payments, insurer, HMO, or self-insured employer for capitated or fee-for-service payments).

Pharmaceutical care: A strategy that attempts to utilize drug therapy more efficiently to achieve outcomes that improve a patient's quality of life; a set of relationships and decisions through which physicians, pharmacists, nurses, and patients work together to design, implement, and monitor a treatment plan that will produce therapeutic outcomes.

Pharmacoeconomics: The description and analysis of the costs and consequences of drug therapy to health systems and society.

Pharmacy and Therapeutics (P&T) Committee: A committee of physicians, pharmacists, and other health care professionals in a health care organization that determines drug treatment policies and formulary issues; the P&T Committee manages the formulary and acts as the organizational line of communication between the medical and pharmacy components of the health care organization.

Pharmacy network: Pharmacies under contract with HMOs and/or their contractual PBM partners to provide drug services, typically at a negotiated discounted fee.

PMPM: Per-member-per month; specifically applies to revenue or cost for each member enrolled in a health plan each month.

Practice guidelines: Treatment procedures arrived at and agreed upon by a medical committee or group for

certain common medical conditions; a guideline provides the clinician with specific treatment options or steps when faced with a particular set of clinical symptoms, signs, or laboratory data.

Prior authorization: The approval a physician must obtain from an HMO or other payer before hospitalizing a patient, performing certain procedures, or using certain medical products or drugs, for the service to be covered by the health plan.

Profiling: An analytical tool that uses epidemiologic methods to compare practice patterns of providers on the dimensions of cost, service use, and/or quality of care; the provider's pattern of practice is expressed as a rate, aggregated over time, for a defined population of patients.

Prospective drug utilization review (P-DUR): Designed to enable pharmacists to detect potential problems with drug therapy before dispensing medications.

Purchaser: Buyer of health care services or insurance; includes patients who purchase individual private insurance policies or pay for health care out-of-pocket, as well as self-funded employers, employer coalitions, and government organizations as group buyers.

Quality assurance (QA)/management: A peer review process that audits the quality of care delivered; may be measured with instruments such as member satisfaction questionnaires, chart audits, member transfer rates, etc.

Rebate: A sum of money given to an organization (typically a health plan) by a drug manufacturer in exchange for inclusion of the manufacturer's drug product on the formulary or, more recently, in exchange for moving market share of a particular ("preferred") drug or combination of drugs ("bundling").

Retrospective drug utilization review (R-DUR): Automated checks of drug claims data after drugs are dispensed, to identify potentially inappropriate prescriptions for individual patients; if the computer program finds that a physician's prescription for a particular patient has violated the criteria for optimal drug use, the case is reviewed by a panel of physicians and pharmacists; if the panel finds the prescription problematic, it sends an advisory letter asking the physician to change it.

Risk: Acceptance of the possibility of financial gain or loss for provision of health care benefits at a fixed rate; potential to lose money, earn money, or spend more time without additional payment.

Risk pools: Sums of money set aside by a managed care organization for payment of hospital, emergency room, physician services, or specialized services such as drugs; risk pools constitute a portion of a managed care organization's direct medical expenses or a percentage of profit, which the managed care organization contracts to pay the provider if specific performance goals are met.

Therapeutic interchange: A therapeutically similar drug of equal efficacy and less expense is interchanged for a nonpreferred drug; typically this occurs in pharmacies through the use of an online hard edit that indicates lack of coverage of a prescribed drug and offers covered alternatives; this change can occur only with the consent of the physician (also referred to as "switch" or "conversion" programs).

Third-party administrator: An entity, usually an insurance company, that provides health plan administration services, including claims processing, and assumes no financial risk.

Withhold: An amount (often 10 percent to 20 percent of the monthly capitation payment), held in reserve by the managed care organization; at the end of each fiscal year, the money withheld from the risk pool is used to satisfy outstanding assessments, and any remainder is distributed to the providers; withholds can be tied to a physician's own practice quality, efficiency and referral costs or to the aggregate performance of a larger group of physicians.

ENDNOTES

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2. Helene L. Lipton, David H. Kreling, Ted Collins, and Karen C. Herz, "Pharmacy Benefit Management Companies: Dimensions of Performance," *Annual Review of Public Health, 1999*, 20:364-5.

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4. Sheila R. Shulman and Louis Lasagna, "PBMs of the 1990s: Why They Deserve a Second Look," in *PBMs: Reshaping the Pharmaceutical Distribution Network.,* eds. Sheila R. Shulman, Elaine M. Healy, and Louis Lasagna (Binghamton, N.Y.: The Pharmaceutical Products Press, 1998), 2-3.

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9. K. A. Schulman et al., "The Effect of Pharmaceutical Benefits Managers: Is It Being Evaluated?" *Annals of Internal Medicine,* 124:906-13.

10. Lipton et al., "Pharmacy Benefit Management Companies," 376.

11. Lipton et al., "Pharmacy Benefit Management Companies," 393-401; the following source was used to generate some of the definitions within this glossary: Ciba Geneva Pharmaceuticals, "A thru Z Managed Care Terms," Bronxville, N.Y., Medicam International.