

Benefit-based Copays in the Real World: The Employer Perspective

Since 1960, healthcare costs as a percentage of the gross domestic product have climbed from 5% to about 15% in 2002.¹ Yet despite greater spending, significant gaps in healthcare quality remain.

The continued rise in healthcare costs and spending has hit employers particularly hard. Between 2000 and 2005, employer health insurance premiums rose an average of 9.4%, jumping 11.2% in 2004 alone.^{2,3} That has resulted in fewer employers offering health coverage. In 2005, the Kaiser Family Foundation reported 60% of all firms offered health benefits to their employees, a significant decrease from 69% in 2000.³

One of the fastest-growing costs for employers has been in the area of prescription drugs. Spending in the United States increased more than 400% between 1990 (\$40.3 billion) and 2004 (\$188.5 billion). The increase in cost is primarily driven by drug utilization (an increase of 71% between 1994 and 2005) and higher costs for drugs that are, in most cases, linked to new medications entering into the market.⁴ Although the proportion of the US population with a prescription drug expense did not significantly change from 1996 to 2003 (from 62% to 61% in those younger than 65 years of age, and from 88% to 91% for those 65 years and older, respectively), drug costs increased an average of 8.3% per year from 1994 to 2005 (from an average of \$28.67 to \$64.86).⁴

Employer efforts to address the issues of suboptimal quality and costs, including drug costs, have followed 2 broad paths: benefit design changes that focus on cost control, largely by increasing cost sharing with employees; and quality initiatives, such as disease management coupled with pay-for-performance initiatives designed to improve quality, potentially indirectly limiting cost growth by keeping employees healthier.⁵

Can Disease Management Coexist with Cost-shifting?

Disease management programs aim to improve quality by increasing adherence to recommended treatment and screening services. Increasing adherence to recommended care can potentially lessen overall costs by reducing hospitalizations, emergency department (ED) visits, and rates of complications.⁶ However, the return on investment from disease management remains largely unproven.⁷ Nevertheless, even without a positive financial gain, disease management can improve health and increase the value associated with healthcare spending.⁶

Cost containment is designed to decrease the use of inappropriate healthcare services.⁸ If patients can respond optimally to cost sharing, not only would there be a reduction in expenditures, but value would be enhanced, because forfeited services would provide only a marginal benefit.

Yet, it is clear that copays affect patient adherence to recommended treatments, such as those treatments advocated by disease management programs. For example, Ellis et al found that 50% of patients taking a statin for secondary prevention of coronary heart disease (CHD) discontinued statin therapy after 3.4 years, whereas 50% taking the drug for primary prevention of CHD discontinued after an average of 3.7 years—both independently linked to drug copay amounts. Seventy-six percent of patients with a \$20 or greater copay were nonadherent compared with 49.4% of those with less than a \$10 copay.⁸

Goldman et al found that doubling copays reduced medication use by 25% to 45% in 8 therapeutic classes, although the patients with chronic illnesses who had ongoing needs were somewhat less responsive to copay increases.⁹

Unfortunately, cost-containment efforts primarily through increased patient cost sharing have occurred without substantial improvement for the quality initiatives that are simultaneously under way. For example, Chernew et al found no difference in the copay amounts of patients in disease management programs and those who are not in such programs.¹⁰

At the same time plans and purchasers encourage the use of quality-enhancing services, efforts to constrain overall health costs result in patients being directed to consume the recommended services (such as increased use of pharmaceutical drugs or services recommended by the disease management program),¹⁰ causing conflicting approaches to benefit design which actually contradict each other.

Although increased cost sharing can reduce inappropriate healthcare resource use because employees take a more active role in managing their care, such cost sharing can also work against the use of appropriate services encouraged by disease management and potentially reduce the effectiveness of this management.

Value-based Insurance Design

It may be possible to successfully integrate disease management programs with patient cost sharing without negatively affecting treatment adherence and outcomes. A value-based insurance design, which bases patient copays on medical need and cost as determined from available medical and economic evidence, offers such an option.¹¹

The plan begins with a cost/benefit analysis of the medical benefits available from specific drugs based on evidence-based data relative to the total cost of treatment. Patients who exhibit symptoms for which the drug appears to provide the greatest benefit receive the lowest copays, and sometimes no copay at all. Those less likely to benefit clinically have higher copays.¹¹

For example, a patient with a history of 2 myocardial infarctions and a low-density lipoprotein cholesterol (LDL-C) level >160 mg/dL would receive the lowest copay for a statin, whereas a patient with an LDL-C of 130 mg/dL and just 1 coronary artery dis-

ease risk factor would receive a higher copay. The benefit is designed to be dynamic, enabling copays to change as drug costs or overall use change.¹¹

Although value-based insurance designs may not be applicable to all disease areas, this clinically rational approach is best used in areas that have scientifically tested and generally accepted guidelines, such as cholesterol reduction, asthma, and diabetes.^{5,11}

A predictive modeling by Goldman et al found that such an approach used for cholesterol-lowering therapy could reduce hospitalizations and ED visits among patients receiving therapy, particularly high-risk patients, without increasing a benefit plan's pharmacy costs.¹²

Goldman et al modeled 2 copay scenarios relative to a base case in which high- and medium-risk cholesterol-lowering therapy users of all risk levels had a copay of \$10. In the first scenario, eliminating high- and medium-risk users' copays and increasing low-risk patients' copays to \$22 increased full adherence to the medication from 62% (base case) to 71% among the high-risk group and from 59% (base case) to 69% among the medium-risk group. Adherence dropped from 52% to 44% in the low-risk group. Nonetheless, the model avoided 79 837 hospitalizations overall, and accounted for an additional 10 406 hospitalizations among the low-risk group. Similar results were seen in reduced ED visits.¹²

The second scenario also eliminated copays for high- and medium-risk patients, but made no change for low-risk patients. In that scenario, drug spending increased, but the additional costs were more than offset by reduced hospitalizations and ED visits compared with the base case, yielding significant savings overall.¹¹ Since this value-based approach was first described by Fendrick et al in 2001, more than 20 employers nationwide have adopted it, including Pitney Bowes and a variation on the value-based insurance design implemented by Humana Inc.¹¹

Pitney Bowes

Pitney Bowes, a Fortune 500 company based in Stamford, Connecticut, has more than 35 000 employees worldwide. It pro-

vides more than \$5.5 billion in integrated mail and document management solutions to more than 2 million customers. Pitney Bowes' primary product, however, is service, making its employees' health critical.¹³

The company's employees are split into 2 groups: those who work for the corporate entity, with an average age of 43 years, who have been working for the company an average of 11.3 years, and those who work for Enterprise Solutions, which outsources mailrooms. Enterprise Solutions' population skews younger, with an average age of 40 years and an average tenure of 5.3 years. This population is also more likely to have a history of unemployment or receiving public assistance.¹³

In 2000, Pitney Bowes experienced its first double-digit increase in per-employee medical costs in 10 years, a 13% increase, compared with an increase of just 3% as benchmarked against a cohort of similar companies. Analysis and predictive modeling found the company's highest-cost chronic diseases were asthma, diabetes, and cardiovascular diseases, with a strong association between chronic disease progression, low rates of medication to treat the conditions, and lack of prevention and screening utilization. For example, the analysis found plan participants with diabetes who had 9 or less 30-day refills for their medications were most likely to transition into the high-cost group.¹⁴

Findings led to a major benefit redesign in which all front-end deductibles were eliminated and free preventive care was provided. Located in its Connecticut office, Pitney Bowes runs onsite medical clinics and call centers for its employees, and captures medical data in an electronic data tracking system. Pitney Bowes recontracted with its health plans, holding them to quality metrics based on those developed by the National Business Coalition on Healthcare, including a viable disease management and case management program.

The company changed its wellness program to focus on personal safety, exercise, nutrition, and screenings, offering significant incentives to employees who participated in these areas. Additionally, Pitney Bowes worked to increase the overall perception of

health in the workplace. For example, it offered opt-in disease management programs, an Internet-based health portal, and even charged more for some less healthy snacks than healthier alternatives in the employee cafeteria.^{13,14}

Also among the changes was a redesign of its pharmacy benefit plan. At the time, Pitney Bowes offered 2 options: a regular drug plan and a buy-up Extra Rx Plan, with slightly lower coinsurance and copays and an annual out-of-pocket maximum. Both plans were built on a 3-tier coinsurance plan.¹⁴

In January 2002, the company moved all drugs for asthma, diabetes, and hypertension—generic, preferred, and nonpreferred brands—into the 10% tier, including all diabetes testing equipment and test strips. Pitney Bowes also automatically added new drugs approved for these diseases to the first-tier category without a waiting period or review by its Pharmacy and Therapeutics Committee.¹⁴ Given lost rebates and reduced employee copays, this amounted to a \$5-million investment.¹³ The change decreased the average cost of a 30-day prescription for employees with any of these diseases by 50% to 80%.¹⁴

As seen in **Table 1**, annual costs of care for diabetes and asthma decreased 6% and 15%, respectively, between 2001 and 2003. Overall, average pharmacy costs decreased 7% and 19%, respectively. Drop-in drug costs are directly related to decreased use of drugs to treat complications from these diseases.^{13,14}

Additionally, ED visits for plan participants with diabetes decreased 26% in absolute terms, whereas cost savings for asthma was driven by fewer and shorter hospital admissions.^{12,13}

Pitney Bowes also realized savings in short-term disability. The rate for those with diabetes decreased from 0.06 days per 100 employees in 2002 to 0.03 days in 2004, whereas the average duration per incident decreased 29.3%, from 58 days in 2002 to 41 days in 2004. This translated into short-term disability cost savings of 75% (**Table 2**).¹³

Finally, as seen in the **Figure**, Pitney Bowes has experienced 7% compounded

Table 1. Effect of Pharmacy Change on Overall Costs, Pharmacy Costs, Emergency Department Visits, and Hospitalizations

	Change from 2001-2003			
	Diabetes		Asthma	
Annual costs	↓ 6%		↓ 15%	
Average pharmacy costs	↓ 7%		↓ 19%	
	2001	Compared with benchmark	2003	Compared with benchmark
Emergency department visits (per 1000 members)	0.65	+21%	0.48	-16%
Hospital admissions (per 1000 members)	0.42	-40%	0.50*	-29%

*Increase due to aging population, still below benchmark.
 Source: Reference 13.

Table 2. Preliminary Findings: Disability Data

Preliminary results: employees with diabetes diagnosis (self-insured medical plans ~750 employees)			
	2002	2003	2004
Medical patients per 1000 employees	49.5	50.5	53.3
Active STD cases per 100 employees	0.06	0.07	0.03
Average duration per STD case	58	30	41
Average STD cost per claimant (\$)	7798	2486	1925

STD indicates short-term disability.
 Source: Reference 13.

annual growth rates in healthcare costs since 2000, whereas growth rates for benchmarked companies were 12% to 15%.¹⁴

Humana Inc

Humana Inc is a \$6.9-billion Fortune 500 company headquartered in Louisville, Kentucky. It is one of the nation’s largest publicly traded health benefits companies, with approximately 11 million medical members and 18 500 employees.

Since 1994, the company has seen plan pharmacy costs increase from between 3% and 4% of the healthcare dollar to between

18% and 20% on the commercial side and 10% on the Medicare side. Humana was the first to launch a 4-tiered pharmacy benefit (the fourth tier [Rx4] encompasses specialty-injectable drugs), and remains one of the few in the country offering such a benefit.¹⁵

The company also uses its “Maximize Your Benefit” program to drive down consumer and, ultimately, employer drug costs. Under this approach, about 5% to 8% of Humana members receive targeted information (by mail, phone, or e-mail) about lower-cost drug alternatives to the medication they have chosen and are encouraged to discuss

drug options with their doctors. More than 20% of the members contacted switch to a lower-cost alternative, with average member and employer savings of \$125 to \$200 per drug annually.¹⁵ This consumer program is used for all membership and benefit types.

Recognizing that drug copays limit employee engagement and force employers to absorb cost increases, the company launched its RxImpact allowance-based drug benefit in 2003 (patent pending). The benefit groups drugs into tiers based on their impact on medical events and the time required for the impact of their use on those medical events to be seen. The process used to group the drugs into tiers considers drugs that offset medical events and provide a specific return related to outcomes. In other words, value is based on the return on investment to the employers. Employees receive an allowance for each month's supply of medication within a tier, and each tier includes a maximum out-of-pocket protection for the consumer.¹⁵

Drugs are grouped into 4 categories¹⁵:

- **Group A:** Encompasses drugs with evidence-based, short-term effectiveness, primarily for acute conditions. Examples include antibiotics, antidepressants, and asthma and diabetes medications. These drugs represent about 45% of drugs dispensed to commercial members, which accounts for about 33% of drug plan costs. The employer typically provides the highest allowance to members for this category. The member pays anything in excess of that amount (with out-of-pocket limits).
- **Group B:** Encompasses drugs shown to have long-term, evidence-based effectiveness. Examples include drugs for cardiovascular disease, multiple sclerosis, and cancer. These represent about 27% of drugs dispensed to commercial members, which accounts for about 33% of drug plan costs.
- **Group C:** Encompasses drugs that provide symptom relief, but do not necessarily prevent additional medical costs. These include antihistamines, anti-inflammatories, and antacids. These drugs represent about 26% of the drugs dispensed to commercial members, which accounts for about 33% of drug plan costs.
- **Group D:** Encompasses drugs that may impact lifestyle. These include sexual dys-

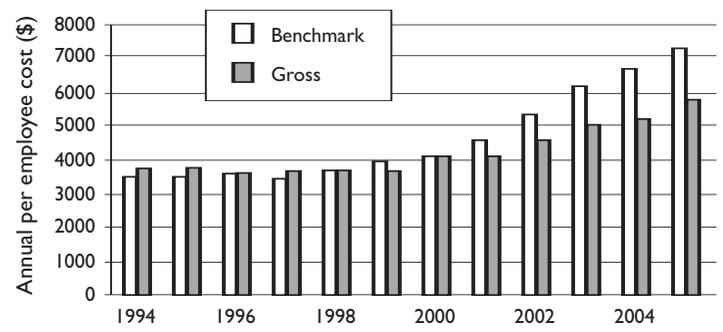
function, cosmetic, obesity, and smoking cessation medications. This tier typically has the lowest allowance.

The appeal for the employer depends on its level of investment in its employees and its employee needs. For example, a company responsible for retiree medical costs would be more likely to invest in Group B drugs with a lower copay, whereas a retail establishment with short-term employees would be more likely to invest in Group A drugs.¹⁴ A company dependent on low rates of absenteeism and presenteeism might be more inclined to invest in Group C drugs, whereas an employer looking to be the employer of choice and differentiate itself from other employers in the same market might invest more in Group D drugs.¹⁴

Humana piloted the program on its own employees, offering \$40/\$30/\$20/\$5 and \$30/\$20/\$10/\$5 copayment options, based on drug group, and a premium reduction for those who participated. It also provided tools to help in decision making, including online drug cost calculators, an "Ask the Pharmacist" program, and the "Maximize Your Benefit" program described earlier.¹⁴

Early data showed a decrease of about 10% in out-of-pocket costs for members compared with the 4-tier model. Members have no out-of-pocket costs approximately 60% of the time, and 99% of pharmacy claims cost members less than \$75 total (Table 3).¹⁴ Employers also pay less under RxImpact—slightly less than \$21 per member per month (PMPM) versus slightly more than \$29 PMPM under the

Figure. Pitney Bowes Gross Employee Healthcare Cost Versus Benchmark



Source: Reference 13.

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Table 3. RxImpact: Humana's Results

<ul style="list-style-type: none"> • Members have \$0 out-of-pocket expenses 60% of the time • 99% of prescription claims cost the member less than \$75 			
	Utilization (%)	Percent at no cost to member	Average out-of-pocket cost (\$)
Group A	49	63	12.01
Group B	26	61	13.23
Group C	23	55	22.29
Group D accounts for less than 2% of total claims.			

Source: Reference 15.

Rx4 plan, a 30% drop. RxImpact also increased generic utilization from 52.2% under Rx4 to 55.3% under RxImpact, and led to a significant increase (40%) in utilization of Web-based tools that provide price and cost information.¹⁵

Conclusion

Rising healthcare costs, particularly for pharmaceuticals, coupled with increasing health insurance premiums, have driven employers to seek new approaches to health insurance benefits. These generally include greater cost shifting to employees and a greater reliance on disease management strategies. Increasing drug copays or coinsurance, however, typically reduces patient adherence, preventing the successful implementation of most disease management efforts.

By using a value-based approach, in which copays are inversely tied to the benefit of the drug for a particular patient and/or disease state, employers can reduce overall pharmacy costs as well as other medical costs by increasing adherence and reducing complications that lead to hospitalizations and ED visits.

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