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# A Radical Prescription

*While most companies look to slash health costs by shifting more expenses to employees, Pitney Bowes took a different tack. The results were surprising.*

By VANESSA FUHRMANS
Staff Reporter of THE WALL STREET JOURNAL
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In the fall of 2001, **Pitney Bowes** Inc.'s corporate medical director, John Mahoney, proposed an unusual experiment: Slash the amount that employees pay for diabetes and asthma drugs, and see what happens.

On its face, the proposal seemed it would only add to the company's escalating health-care costs. But there was a simple logic to Dr. Mahoney's theory: If diabetic or asthmatic employees found drugs more affordable, they might take them more regularly. Over time, taking better care of their chronic conditions might reduce expensive complications.

But Dr. Mahoney says even he didn't expect the dramatic savings that resulted. Since 2001, the median medical cost for a Pitney Bowes employee with diabetes has fallen 12% from about $1,000 a year. The median cost for a patient with asthma has dropped 15% from $900 annually. Overall, the company says it will save at least $1 million in 2004, with continued savings in future years.

Pitney Bowes's move is indeed radical. Amid health-care cost increases of 11% to 15% annually, many employers are taking the more obvious approach: have employees shoulder some of the financial burden by raising premiums, deductibles and co-pays. Such moves appear to be helping to slow health-care cost increases in the short term. But Pitney Bowes's experience shows that spending more upfront to make it easier -- and cheaper -- for employees to manage some chronic illnesses may actually bring about greater savings in the long run.

## Avoiding the Squeeze

"There's a reluctance among many people to take this kind of a chance because conventional wisdom says it's going to increase your costs," says Dr. Mahoney, a former White House physician in the Ford administration. "But health care is kind of like a balloon. When you squeeze costs in one place, they often pop up in another."

## THE IMPORTANCE OF CO-PAYS

Highlights of recent studies involving co-payment levels for prescription drugs

**Rand Corp.**

• What: Studied claims data for 420,786 employees at 25 large companies.

• When: 1997 to 1999.

• Key Finding: When co-payments were doubled, average drug spending per person fell 22% in one type of plan and dropped 33% in another.

**Harvard Medical School, Medco Health Solutions**

• What: One company switched 11,600 salaried workers to three co-pay tiers from two, and raised co-pays in the third, most expensive tier. Another company switched 55,000 hourly workers to three co-pay tiers from one,

but raised co-pays for all tiers.

• When: 2000.

• Key Finding: At the first company, 41% of people using third-tier ACE inhibitors for cardiovascular disease switched to lower-tiered drugs, while 48% on third-tier statins for cholesterol switched. At the second company, 16% of those on ACE inhibitors stopped taking them, while 21% of those on statins stopped taking them.

**Pitney Bowes**

• What: For diabetes and asthma drugs, the company set the patient's share of the cost at 10%, compared with as high as 50% previously.

• When: End of 2001 to Oct. 31, 2003.

• Key Finding: Overall cost of care for median diabetes patient fell 12%; for median asthma patient, it fell 15%.

*Source: WSJ reporting*

Shifting health-care expenses to employees is about more than sharing the cost burden. Behind the strategy is the notion that if you make workers experience more of the true cost of health care, they'll become smarter consumers of it. By spending their own money, the theory goes, they will seek quality, cost-effective care, ultimately reducing waste in the health-care system and the overall cost.

Employees certainly are spending more of their money. From 2000 to 2003, employees' average annual out-of-pocket expenses for family medical premiums rose 49% to $2,412, according to a study last fall by the Kaiser Family Foundation, a nonprofit health-care research group in Menlo Park, Calif.

The move toward higher co-pays in particular began several years ago, when prescription-drug costs were climbing more than 14% annually. Concerned that people would be lured by pharmaceutical companies' marketing and direct-to-consumer advertising blitzes, many health plans have moved to tiered co-pay systems. In a typical tiered system, a patient will pay a lower amount, say $10, for generics, perhaps $20 for branded drugs on the company's preferred-drug list and $40 for nonpreferred branded drugs. From 2000 to 2003, according to the Kaiser study, the average co-payment for a preferred prescription drug rose 46% to $19, while the average amount for nonpreferred drug on a health plan climbed 71% to $29.

Employers already are seeing the effect of the higher, tiered co-pays on prescription-drug spending. Pitney Bowes, which makes and provides corporate mailing and document-management systems and employs 35,000 people world-wide, moved three years ago from fixed co-payments to co-insurance rates of 10%, 30% and 50%. (Co-insurance rates are a percentage based on the price of the drug.) The highest tier is reserved mostly for branded drugs that have a cheaper generic alternative. In 2002, the Stamford, Conn., company's prescription-drug costs rose 12%, a smaller increase than the national average of 16%. The following year, its drug costs rose nearly 11%, compared with a 15% national average.

The company's strategy has been particularly effective in steering employees and their families toward relatively inexpensive generics: In 99.8% of prescriptions written for drugs that also come in generic form, Dr. Mahoney says, patients choose the generic.

A 2002 study by Rand Corp., a think tank in Santa Monica, Calif., suggests that co-pay increases, even modest ones, can reduce spending significantly. The study, which looked at the claims data of nearly 421,000 workers at 25 large employers during the late 1990s, found that a doubling of co-pays in a single-tiered plan -- from $5 to $10 -- caused the annual average drug cost per worker to fall 22% to $563.

**Too Expensive to Buy**

But what's unclear is the threshold at which higher co-pays begin steering people away from filling necessary prescriptions and actually threaten to raise U.S. health-care costs -- when those people who stopped taking medication later require more expensive treatment to manage their illnesses.

"My guess is a lot of employers have been so concerned about the increases they've been seeing, they've been willing to try anything," says Haiden Huskamp, assistant professor of health economics at Harvard Medical School in Boston. "It's only now we're starting to see some research on what the effects have been."

A recent study by Ms. Huskamp and other researchers at Harvard Medical School and Medco Health Solutions Inc., a company that manages pharmacy benefits for employer health plans, found that patients may stop taking necessary medications if faced with a steep co-pay increase.

Published in the New England Journal of Medicine in December, the study looked at two large employer-sponsored health plans. One was a plan that made modest changes, moving from a two-tier to three-tier co-pay structure, but increasing the co-pay amounts only for the highest tier. There, researchers saw that nearly 41% of people taking ACE inhibitor drugs for cardiovascular treatment switched to a lower-tier generic drug, while 48% taking an anti-cholesterol statin drug did the same. Relatively few stopped filling prescriptions altogether.

The other plan made more severe changes, switching from a one-tier to a three-tier structure and raising co-pays across the board. Similar numbers of people on that plan switched to cheaper generic drugs. But 16% of those taking ACE inhibitors in the third, most-expensive tier stopped taking the medication when the price went up. Of those taking the most expensive anti-cholesterol statins, 21% halted therapy as well.

**'Ahead of the Curve'**

In an effort to curb its growing health-care costs, Pitney Bowes turned to predictive modeling, a technique already used by some insurance carriers and disease-management companies to forecast health-care risks by spotting future patterns in historical claims data.

That strategy, Dr. Mahoney says, suggested a more maverick approach to covering drugs for chronic conditions such as diabetes and asthma. In trying to figure out new ways to target medical costs, "there was a frustration that all the analysis we do was retrospective," he says. "We wanted to get ahead of the curve."

So Pitney Bowes commissioned Medical Scientists Inc., a predictive modeling firm in Boston, to answer the question: What is the biggest factor in turning an employee with relatively low health-care costs in one year -- usually between $400 and $700 -- to one with high costs of roughly $10,000 or more?

The employees most at risk, it turned out, were those suffering from a chronic condition, such as diabetes or asthma. That in itself wasn't a surprise. What was startling, though, was that the presence of the condition wasn't such a risk factor. Rather, it was the incidence of patients refilling their prescriptions for medications such as insulin or inhalers only two-thirds of the time or less.

Spurred by the data, Dr. Mahoney made his proposal to reduce all asthma and diabetes co-insurance rates to 10%. But there was no guarantee that lowering them would lead to better refill rates. Just implementing the plan would cost $1 million a year, says David Hom, Pitney Bowes's vice president for employment brand total rewards, who is in charge of benefits and compensation issues. The company would lose both co-insurance amounts and rebates that employers often secure from drug companies for having some of their drugs on a preferred drug tier, versus a competitor's in a higher co-pay bracket.

"If it worked," jokes Mr. Hom, "I told Jack I'd shine his shoes."

**An Ounce of Prevention**

Within a year, Mr. Hom says, he realized he probably would lose the bet. By late 2002, he and Dr. Mahoney already began to notice in the claims data a higher rate of prescription refills for drugs and a shift to more expensive, but often more convenient, combination drugs.

A noticeable example was Advair, which previously had been a third-tier medication because it combined two inhaled asthma drugs sold individually at cheaper, generic prices. Since the lowest strength of the inhaler costs about $125 or higher at most pharmacies, patients would have had to pay at least $62.50 with the 50% co-insurance rate. After the reduction, the same drug cost patients only $12.50 a month. That was a big enough difference to spur many people to switch to the drug, whose extra convenience made it easer to keep taking, Mr. Hom and Dr. Mahoney theorize.

One telltale sign of that was that while the company was paying more for maintenance medications such as Advair, it was spending significantly less on rescue medications, such as albuterol, a drug administered to stabilize a person who has suffered a severe asthma attack.

That sort of shift has more than made up for the $1 million annual investment the company made in the plan. By early this year, as Medstat, a health-care data and research firm owned by Thomson Corp., Stamford, Conn., began crunching the numbers, Dr. Mahoney and Mr. Hom could see that the lower co-pays were leading to not just better health, but also a better bottom line. Average prescription-drug spending among diabetes and asthma patients on the company's health plans has declined about 10% annually, compared with an 11% increase for the rest of the population, they say.

The more significant saving has come from fewer emergency-room visits, which dropped 35% among diabetes patients and 20% among asthma patients between the end of 2001 and the end of October 2003. There also were fewer hospital admissions and doctor's office visits.

Dr. Mahoney says he's doesn't think the company's prescription-drug co-pay system has discouraged other patients from taking necessary medications. Nor does the company have plans to lower co-pays of drugs for other diseases or conditions. A big reason, he adds, is that the predictive modeling analysis didn't suggest that doing the same with other drugs would have such an impact. Diabetes and asthma may be different since people's conditions can change so rapidly, depending on how regularly they take their medication.

Still, health experts say that such results bolster the case for a careful and more refined approach to health-care cost shifting on medical plans. Already some employers are looking at different co-pay designs for different disease areas. Other plans are considering lowering first-tier co-pays while raising the third tier higher, or even eliminating co-pays altogether for low-cost generics or drugs that prevent major morbidity.

"The basic three-tier co-pay structure is a kind of blunt instrument," says Geoffrey Joyce, a Rand health economist who led the group's study on co-pays and prescription-drug spending. "You have a lot of employers out there scratching their heads, asking 'How do we do this a little more intelligently?'"