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POLICY BRIEF

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FIRST-DOLLAR COVERAGE FOR CHRONIC DISEASE CARE:

CAN IT SAVE MONEY AND IMPROVE PATIENT OUTCOMES?

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BACKGROUND

Chronic diseases account for three-quarters of all U.S. health care costs and two-thirds of all U.S. deaths.[i] Recent efforts by health care purchasers to control spending have focused on paring back benefits or shifting costs onto patients, including those with chronic diseases. This strategy reduces employers' and government's share of health care costs and, theoretically, makes patients more sensitive to price.

However, cost sharing imposes disproportionate burdens on vulnerable groups, namely the poor and those with chronic conditions. Such patients are indeed sensitive to price and respond by skipping needed treatment. Evidence for this effect can be drawn from the RAND health insurance experiment which showed that patients randomized to a high deductible plan used 25 to 30 percent fewer services than those in a comprehensive, free care plan.[ii] Other studies have shown that financial barriers to chronic disease care, such as copayments and coinsurance, lower drug compliance and increase use of expensive hospital services.[iii] In fact, one study found that 33 to 69 percent of medication-related hospital admissions in the United States are due to poor adherence and cost $100 billion a year.[iv]

In fact, a somewhat counterintuitive approach—reducing or eliminating patient cost-sharing for chronic disease care for certain patients—may be a more effective way to both improve patient

outcomes and reign in health care costs. These benefits are achieved through improved compliance with recommended care and prevention of complications that would have resulted in expensive hospital-based treatment.[v]

PAYING MORE TO SAVE LATER

Benefit-based interventions to address chronic disease compliance generally involve one of two approaches. The most common strategy is to exempt classes of drugs from copayments or coinsurance; a less tested strategy is to exempt classes of patients (i.e., diabetics) from cost sharing.

Do such interventions improve health outcomes, and do they save money? Several studies directly address these questions.

In a retrospective study of claims data, RAND researchers modeled the effect of lowering copayments on cholesterol drugs according to therapeutic need. Copayments for patients with high coronary heart disease risk (CHD) decreased while those for patients with lower CHD risk increased (to offset the cost to health plans). The results showed a strong inverse relationship between copayment amount and compliance—for each $10 rise in copayments, average compliance fell by 5 percent (in a plan-year). Ultimately, the RAND model projected the change would result in net cost savings as a result of reduced hospitalizations and ER visits among high and medium risk CHD patients.[vi]

A second study by University of Michigan researchers modeled the effect of removing coinsurance (which was as high as 40 percent prior to Medicare Part D) for ACE-inhibitor drugs for diabetic Medicare beneficiaries. Using a statistical model that included variables such as the renal and cardiovascular benefits of ACE inhibitor therapy, drug and complication costs, and expected utilization rates, results showed that first-dollar coverage saved both lives and money ($1,606 per beneficiary compared with the coinsurance scenario).[vii] Most of the savings were derived from reduced renal and cardiovascular complications and their related costs.

Pitney Bowes

The Fortune 500 company Pitney Bowes tested this approach in 2002 when it reduced or removed coinsurance on maintenance drugs for diabetes (and later for hypertension and asthma drugs). After three years, emergency department use decreased by 26 percent for patients with diabetes, average total pharmacy costs decreased by 7 percent, and total direct healthcare costs per plan participant with diabetes decreased by 6 percent.[viii] The reduction in pharmacy costs was due to improved medication adherence and a reduced need for drugs to treat complications associated with poorly managed disease. Similarly, after implementation of the asthma program, Pitney Bowes realized a 19 percent reduction in annual per patient expenditures on asthma care. Overall, the company successfully moderated its cost trend—annual per employee cost increases were 5 to 8 percent below benchmark companies.

Marriott

In 2005 the hotel chain Marriott began waiving employee copays on generics and halving the $25 and $45 copays it had required for brand name diabetes, asthma, and heart disease drugs. In addition,

the company contracted with a data and disease management firm that is helping the company identify workers with drug compliance issues and notify doctors when patients have lapsed. The program is being tested in an ongoing controlled trial (Marriott's experience is being compared with a control group of insured workers from a different employer). Initial findings suggest a decrease in adverse events as well as a decrease in the overall healthcare cost trend. Based on this early success, Marriott will begin waiving copayments this year for a range of preventive interventions, including childhood immunizations, mammograms, and colonoscopies.[ix]

However, a quasi-experimental study of the effect of pharmacy benefit manipulations on pharmaceutical utilization and use of other medical resources in a commercially insured population reached different conclusions. The intervention group in the study included enrollees whose employer moved from a two-tier benefit to a three-tier benefit plan that required more employee cost sharing. The comparison group was comprised of enrollees whose employer remained in the two-tier benefit plan. Results showed that after one year, the three-tier plan yielded slightly lower prescription drug costs with no significant increases in physician office visits, inpatient hospital, or emergency room use rates.[x]

COVERAGE FOR CLASSES OF PATIENTS

Asheville, North Carolina

The city of Asheville, North Carolina, has offered free drugs and disease management to diabetic workers for almost 10 years. An analysis of the return on investment for the diabetes effort showed that while costs increased sharply in the first year of the program, in subsequent years adherence improved and medical costs declined.[xi] One-third of the participants had normal hemoglobin levels at the start of the program; three years later, two-thirds did. Asheville also reports a 50 percent reduction in average annual sick leave and no worker's compensation claims filed by diabetic employees between 1997 and 2003. Moreover, the city experienced an overall medical cost trend that was 58 percent below the expected level.[xii]

It's worth noting that diabetics in the successful Asheville program consulted regularly with a community pharmacist—newer research also suggests that reducing copayment alone may not be as successful as cost sharing reduction plus provider education (from a pharmacist or other professional).[xiii]

University of Michigan (U of M)

In 2006, the University of Michigan began providing most diabetes medicines free to insured diabetic employees and their families. The initiative removed copays on all generic drugs that control blood pressure (ACE inhibitors), blood sugar (insulin), and cholesterol (statins). Co-pays for other non-generic drugs in the same classes were reduced by 50 percent or 25 percent. Moreover, beneficiaries receive free yearly eye exams to prevent diabetic retinopathy. Based on research conducted at the university that showed depressed diabetic patients had poor drug compliance, U of M decided to drop copays on depression medications as well. Selection of these therapies for copay exemption or reduction was based on evidence that they help prevent serious complications down the road.

University administrators expected some employees, particularly those with other diseases, to object to the preferential treatment the program gives to diabetics, but according to Allison Rosen, one of the architects of the initiative, that hasn't happened.

Selecting diabetes as an initial target had a key advantage—patients with the disease can be easily identified through pharmacy claims because few other conditions require glycemic or insulin control medications. This issue often complicates efforts to target other conditions, such as congestive heart failure, because use of beta-blockers is associated with a number of conditions including stage fright. For this reason, efforts to target classes of patients are often fraught with patient identification issues.

Initially, the program will cost the university about $800,000, but based on research done by the U of M's Center for Value-Based Insurance Design, the university projects it will recoup these costs and actually save money over the long term.

Rosen is currently evaluating the program using aggregate ordering and refill data from its prescription drug benefit system, eye exam data, and total health expenditures for all participants. These data will be compared with utilization and health metrics for a control group of non-university insured employees who did not participate in a benefit reduction program.

Aetna

The health insurer Aetna is taking an information systems-based approach to tailored copayments. Recognizing that each patient is different and that clinical benefit varies between drugs and clinical applications, the insurer is using electronic patient record data to pinpoint members who would most benefit from lowered copays based on their risk profile. In other words, individuals who would derive the most clinical benefit from specific drugs receive the most financial incentive to use them.

Aetna is currently studying the impact of waived copayments for beta blockers, statins, ACE inhibitors, angiotensin receptor blockers (ARBs), and aspirin for heart attack patients. The experience of these patients will be compared to similar patients who receive no copayment relief.[xiv]

DISCUSSION

There is meaningful evidence to suggest that first-dollar coverage for chronic disease medications delivers both health and financial benefits to patients and overall cost savings to healthcare purchasers and insurers.

However, most of the literature to date focuses on the impact of such interventions on cost and utilization—future research should focus on the impact of lowering copays on longer term health outcomes and health status improvement. In addition, the most encouraging findings to date come from case studies and statistical models—controlled evaluative studies of existing approaches are needed to confirm the efficacy and cost effectiveness of the efforts outlined here.

Further, as Chernew et al. note, most studies to date have failed to take into account concurrently implemented interventions, such as disease management programs, that would likely have an effect on medication adherence.

And, as researchers from the Center for the Study of Health Systems Change have pointed out, such efforts may be difficult to implement for many employers and insurers who lack the capacity to implement a targeted or refined drug benefit program. More complicated benefit design structures are also more difficult to communicate to employees.[xv]

Finally, co-payment reductions are likely most effective when targeted to poor patient populations. The approach proved successful for private employers like Pitney Bowes and Marriott, in part, because they have a large number of very low-wage workers for whom the cost share of prescription drugs is a significant barrier. Compliance may have more to do with behavior and education than cost for middle income patients with chronic disease.

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