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## Pharmacy Benefit Plans and Prescription Drug Spending

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**H**EALTH CARE COSTS ARE INCREASING RAPIDLY AGAIN. A recent employer survey reported that health insurance premiums increased 12.7% from 2001 to 2002, the largest increase since 1990.<sup>1</sup> The fastest rising component of health care costs is pharmaceuticals. From 1999 to 2000, national expenditures for prescription drugs increased 17.3% overall, and 19.6% for private insurance.<sup>2</sup> Since the late 1990s, when prescription costs began rising more rapidly than other health care costs, employers have been working with their insurers and pharmacy benefit managers to develop prescription drug coverage plans that would better control costs. Many employers now offer 2- or 3-tier prescription drug coverage plans, with the amount of out-of-pocket cost increasing from bottom to top tiers. Although plans vary, the lowest tier usually includes the low-cost generic drugs, the second tier may include brand-name drugs for which no generic exists, and the third tier brand-name drugs for which generic substitutes do exist.

In this issue of *THE JOURNAL*, Joyce and colleagues<sup>3</sup> have evaluated the cost impact of the multitiered plans, as well as the impact of increasing co-payments and coinsurance within plans. Their findings make clearer which plans are least costly overall, and how the costs are shared between the employer and the employee. The analysis shows that employer insurance costs can be reduced substantially by increasing the employee's out-of-pocket costs.<sup>3</sup> The findings consistently show employer costs decline as the patient's out-of-pocket costs increase with higher co-payments, both in single-tier and multitier plans. A 2002 Employee Health Benefits Survey reported that the use of 3-tier plans has in-

creased since 2001 to include 57% of workers, with an additional 28% having a 2-tiered plan.<sup>1</sup> In addition, the average co-payment level at each tier has increased since last year. Joyce et al<sup>3</sup> also show that as co-payments become larger, patients fill fewer prescriptions and pay a larger proportion of total drug costs. As co-payments increased, individuals filling any prescription during a year declined modestly (78.0% to 74.3%), although the average number of prescriptions filled declined substantially by more than 30% (12.3 to 9.4 annual prescriptions per person).<sup>3</sup> The share of total prescription costs paid by the patient ranged from 16.9% to 32.3% in the 3-tier, high co-payment plan.

The results of the study by Joyce et al<sup>3</sup> raise a significant public health policy concern. The finding that increasing out-of-pocket costs for prescriptions contributes to prescribed medications not being filled cannot be ignored. There is limited research on the health consequences of not taking prescribed medications because they are not affordable. The available evidence comes from research in the public sector and changes in coverage policy. For instance, a study in a Canadian province where drug co-payments and coinsurance were introduced showed new out-of-pocket costs led to fewer prescriptions filled among medications classified as essential (eg, insulin) and among those classified as less essential (eg, dipyridamole).<sup>4</sup> In addition, rates of serious adverse events and emergency department visits associated with reductions in the use of essential drugs also increased significantly. Adverse health events not only have important consequences for patients but can lead to greater use of health care services and higher health care costs.

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See also p 1733.



The rapidly escalating costs for drugs makes ensuring adequate prescription drug coverage more critical, especially for drugs essential for the care of chronic health problems. The evidence in support of the need for drug coverage is compelling. Comparisons made between Medicare beneficiaries with and without drug coverage show those in poor health with no drug coverage fill 36% fewer prescriptions than those with coverage, and those with incomes below the poverty line and without coverage fill 48% fewer annual prescriptions than those with coverage.<sup>5</sup> Other studies have shown the negative effects of reducing drug coverage among poor elderly patients and the consequences of inadequate drug coverage for elderly patients receiving medications that can prevent serious adverse health consequences.<sup>6</sup>

The president<sup>7</sup> and Congress<sup>8</sup> have promised Medicare beneficiaries prescription drug coverage. Congress is seeking to add a drug benefit to the Medicare program in which there would be substantial out-of-pocket costs.<sup>8</sup> In the House-passed plan,<sup>9</sup> the beneficiary would pay a monthly premium of approximately \$33 with a deductible of \$250 and cost-sharing would begin at 20% and increase to 50% and then to 100% until the annual out-of-pocket maximum of \$3700 is reached. The cost-sharing arrangements are similar in the tri-partisan Senate plan.<sup>10</sup> The Graham plan<sup>11</sup> incorporates somewhat different cost-sharing, including a monthly premium of \$25, no deductible, and co-payments of \$10 for generic drugs and \$40 for brand drugs up to a maximum of \$4000 annual out-of-pocket costs. All the plans include some provisions to reduce costs for poor and near-poor elderly. The out-of-pocket costs in these plans are generally higher than those in the employer plans evaluated by Joyce et al,<sup>3</sup> which is cause for concern.

Even if one of the proposed Medicare drug bills is passed and employers were to stop increasing out-of-pocket costs for drugs, out-of-pocket costs for prescriptions will be high enough to force many patients to choose which prescriptions will not be filled.<sup>12</sup> However, the current health care system provides little or no assistance for individuals facing such difficult and complex decisions. There is little or no research-based information available regarding the consequences of such choices for patients. It is not clear how often physicians are consulted by patients about how to make this choice. A patient being cared for by several physicians for multiple health problems may have difficulty determining which physician should be asked for advice.

The driving force behind the movement toward multi-tiered pharmacy benefit plans and higher co-payments is cost control. Joyce et al<sup>3</sup> found no evidence that changing to 2-tiered and 3-tiered drug coverage plans or imposing higher co-payments or coinsurance levels had any effect on the rate of increase in prescription costs over time. Patients, physicians, and policy makers all have reason for concern, considering a likely future of continuing increases in health care costs and more cost-shifting to patients. It is not clear which patients will be able to afford high-quality health care in the

future and benefit from the continuing advances in medical science.

Thus, it may be necessary to take a step back and consider whether the real problem is the way health care is organized, financed, and delivered. In some respects, the way health care is delivered today has not changed much from 50 years ago, even though the technology of health care is vastly changed. The Institute of Medicine report *Crossing the Quality Chasm*<sup>13</sup> found that the way medical care is delivered, particularly for chronic health problems, is failing to ensure high quality and is inefficient. The report provides recommendations to change fundamentally the patient-physician relationship, make health care truly continuous, open medical records to patients, and promote the use of evidence-based medical decisions. Although the goal is to improve quality, such approaches might also greatly improve the efficiency of the health care system. For instance, one possibility is having all prescribed medications, even if written by different physicians, in a single electronic record. With this capability, the patient and treating physician could have on-line access to drug prices and information on the actual out-of-pocket costs to be paid under the patient's prescription drug insurance coverage. Together the patient and physician could make better decisions about what treatments fit the patient's health care needs and also could consider the patient's ability to pay. If this type of improved efficiency can be achieved, the driving and relentless erosion of health insurance by increasing costs might be restrained and affordable access to needed treatments safeguarded.

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