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# When Drug Cost-Sharing Increases, Patients Newly Diagnosed with a Chronic Illness Delay Starting Medication

To counter the high cost of prescription drugs, health plans typically require patients to pay a larger share of the expense, for example, through increased copayments. This approach has effectively reduced overall drug use and expenditures. However, studies show that chronically ill individuals, whose health is at risk if medications are not taken as prescribed, are also sensitive to higher out-of-pocket drug costs. Little evidence, though, documents the mechanisms by which reductions in pharmaceutical use occur or how other factors may be associated with drug price sensitivity.

Several behavioral pathways may influence pharmaceutical use, but nearly all prior research has focused on how cost-sharing affects compliance among existing users. To obtain a clearer picture of how newly diagnosed chronically ill individuals—a mostly older population—react to increased drug cost-sharing, RAND researchers examined how soon after diagnosis a large sample of retired individuals started taking their prescribed medications.

The team examined data on more than 17,000 retirees with employer-provided drug coverage from 31 different health plans over 1997–2002. The researchers focused on individuals newly diagnosed with hypertension, high cholesterol, and diabetes—common chronic illnesses that, if left untreated, increase the risk for heart attack and stroke. Through analysis of enrollment files, pharmacy claims, medical claims, and health plan benefits, they calculated the proportion of patients who filled a first prescription for their illness in the first several months and years after diagnosis. They then compared the time until initiation of drug therapy for those in low-copayment and high-copayment plans.

The RAND team found that

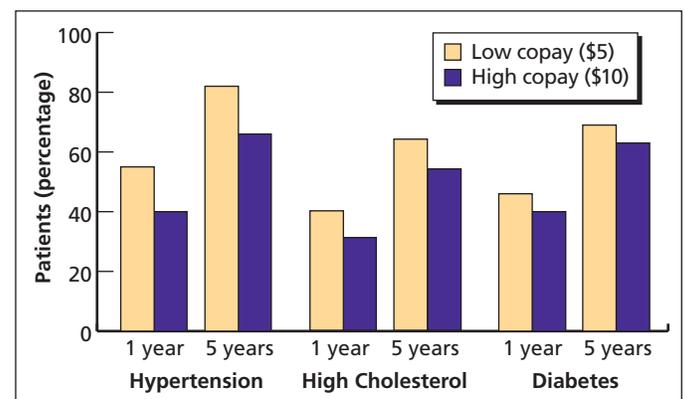
- For all three health conditions, doubling copayments from \$5 to \$10 caused significantly greater delays in starting treatment (see figure).
- Those patients without prior experience using prescription drugs were the most likely to delay the start of their drug therapy and were much more price-sensitive.

The findings suggest that blunt approaches to managing drug costs can influence utilization of all medications, regardless of their clinical benefit. For

policymakers designing insurance benefits, the findings raise concerns about high cost-sharing levels for elderly, insured patients without experience using prescription drugs. High out-of-pocket costs could be a treatment barrier and possibly result in poor health outcomes for this population. The results are particularly relevant for federal policymakers setting standards for Medicare Part D insurance coverage, which should take into account the complex ways that patients react to more-restrictive insurance benefits.

For physicians, the findings are a warning that patients with newly diagnosed chronic disease and no experience using prescription drugs may be less likely to start their medications if faced with high cost-sharing levels from their health plans.

**Percentage of Chronically Ill Patients Starting Drug Therapy at 1 and 5 Years After Diagnosis**



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