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Pharmacy Use and Costs in Employer-Provided Health Plans

Insights for TRICARE Benefit Design
from the Private Sector

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Prepared for the Office of the Secretary of Defense



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Summary

Background

The military health system (MHS) has approximately 8.6 million eligible beneficiaries, including active-duty military personnel and their family members, retired military personnel and their family members, and surviving family members of deceased military personnel. In 2002, the Department of Defense (DoD) spent about \$3 billion on outpatient pharmacy benefits. Like the private health care sector, the MHS has experienced a rapid growth in pharmaceutical expenditures. At the request of DoD, the RAND Corporation has undertaken two studies designed to help DoD shape their pharmacy benefit policy to control costs.

The U.S. Congress has identified the TRICARE pharmacy benefit as an area for reform. Section 701 of the *National Defense Authorization Act for Fiscal Year 2000* requires the Secretary of Defense to establish an effective, efficient, and integrated pharmacy benefits program. As part of a program redesign effort, which will result in the establishment of a Uniform Formulary (UF), the DoD is considering moving from a two-tiered copayment system to a three-tiered copayment system, which will increase the copayment for some classes and brands of medications. It is hoped that this move will give providers (acting in the interest of their patients) an incentive to prescribe lower-tier, less-costly options. To assist the DoD in assessing the potential implications of this policy change, RAND used an existing data resource to examine how beneficiaries with private drug

coverage responded to similar changes in pharmacy benefits. The findings from this analysis, presented in this report, can inform the DoD of the potential costs and benefits of adopting the proposed Uniform Formulary.

Approach

To predict the effects on cost and utilization of changing the current two-tiered DoD formulary to a three-tiered one, we performed a quantitative analysis of pharmacy claims from a group of private-sector health plans that instituted a similar change in coverage. The purpose of this analysis was to assess the effect of the change in coverage on aggregate costs and utilization of several specific (high-cost) classes of medications and the changes in market share within those classes.

We assembled a unique data set linking health care claims to health plan benefits of 25 Fortune 500 employers for 1999 and 2000. The data were made available under license from Ingenix Inc., a unit of UnitedHealth Group that provides cost-management and benefit consulting services to employers, health plans, pharmaceutical manufacturers, and other groups. The data for these analyses included detailed information on insurance eligibility as well as information on medical and pharmacy claims for employees and retirees and their dependents.

The study sample consisted of 56,840 primary beneficiaries who were continuously enrolled in an employer-provided plan with drug coverage for two years. Because the Ingenix data do not support analysis of seniors age 65 and over, we focused on the behavioral responses of a pre-Medicare population age 45 to 64.

We compared the change in pharmacy costs and use in seven plans that added a third tier during our period of analysis with those in 13 plans that did not change drug benefits during the two-year period (six plans that remained two-tier and seven that had become three-tier plans before the start of our analysis period). We included only two- and three-tier plans because they correspond to the current

TRICARE drug benefit structure and the proposed copayment structure under the Uniform Formulary, respectively.

Our analysis assessed the effects of the benefit design (two-tier versus three-tier) and a number of beneficiary characteristics (such as demographics, illnesses, and type of health coverage) on three measures of the cost of providing pharmacy benefits: total yearly costs per beneficiary (costs to the payer plus costs to the beneficiary), total yearly payer costs per beneficiary, and total yearly enrollee costs per beneficiary.

To examine whether benefit design affects pharmacy costs and pharmacy use differentially across therapeutic drug classes, we performed analyses focusing on each of six high-cost therapeutic classes that together account for more than one-fourth of total drug expenditures: antidepressants, antihypertensives, non-steroidal anti-inflammatory drugs (NSAIDs), oral antihistamines, gastrointestinal agents, and oral hypoglycemics. Finally, we also assessed how copayment tiers affect demand for a particular drug by plotting changes in market shares (of 30-day-equivalent prescriptions and of total pharmacy expenditures) when a specific medication was moved from the second to the third tier.

Results

Our research results can be summarized as follows:

- Total pharmacy expenditures, defined as plan expenditures plus beneficiary out-of-pocket expenditures, rose more than twice as fast in two-tier plans that did not add a third-tier than in two-tier plans that did add a third tier, although the difference was not statistically significant.
- Plan expenditures rose significantly faster in fixed two-tier plans than in new three-tier plans. The rate of growth in plan expenditures was 19–21 percent in the fixed two-tier plans, compared with 4–6 percent in the new three-tier plans.

- Beneficiary expenditures grew more rapidly in three-tier plans, both new and fixed, than in fixed two-tier plans. Copayment outlays by enrollees increased \$7 per member per year during the first year in fixed two-tier plans, \$27 per member per year in fixed three-tier plans, and \$38 per member per year in new three-tier plans, although the differences were not statistically significant.
- Both total pharmacy expenditures and plan expenditures rose faster in fixed two-tier plans than in fixed three-tier plans, although the difference was seldom statistically significant.
- Adding a third tier was not associated with a significant change in the number of 30-day-equivalent prescriptions that are dispensed or the probability of any pharmacy use.
- The pattern observed in the aggregate analyses was observed for most high-cost therapeutic classes, but not for oral hypoglycemics and gastrointestinal drugs. The finding of no relationship between plan type and oral hypoglycemic expenditures is explained by the fact that none of the plans in our sample placed oral hypoglycemics in the third tier. We could not explain the finding related to gastrointestinal drugs.
- The introduction of a third tier had an even stronger effect on spending at mail-order pharmacies.
- Drug-level analyses showed no consistent relationship between changes in tier status and changes in market share. However, for specific medications in some plans, the fall in market share was precipitous after the drug was moved to the third tier.

Conclusions, Limitations, and Policy Implications

If the DoD's experience in adopting the Uniform Formulary resembles that of the private-sector civilian plans we analyzed, the cost savings will be substantial. A 15-percentage-point reduction in the rate of growth in DoD spending, for example, would generate savings of nearly \$200 million in the TRICARE Senior Pharmacy (TSRx) program in the first year. However, many factors affect the applica-

bility of these results to the TRICARE program; these factors should be carefully considered as the new benefit program is implemented:

- Many pharmacy benefit features other than the number of tiers and copayment levels (some of which are already incorporated into the TRICARE pharmacy benefit) affect pharmacy costs and use, but these factors could not be identified in the Ingenix data set.
- As a federal buyer, the DoD is generally able to negotiate better prices on pharmaceutical products than civilian firms, who are constrained by Medicaid best-price regulations.
- The Ingenix database does not provide information about manufacturer rebates; thus, our findings may underestimate cost savings; we assume manufacturers would be willing to grant such price concessions to the DoD.
- The proposed UF differs in a key respect from the reforms adopted by the civilian plans in that the UF would make non-preferred (third-tier) brands available through the TRICARE Mail Order Pharmacy (TMOP)¹ plan for a copayment of \$22 for a 90-day supply, which would limit the utilization-dampening effect of adding a third tier, all other things remaining equal. However, DoD expenditures may decline if utilization shifts from costlier civilian pharmacies to the TMOP.
- For the DoD to achieve the cost savings realized by the civilian-sector employers we studied, the DoD will need to be as aggressive as the average employer in placing drugs in high-cost therapeutic classes in the third tier.

The limitations of this study include the following:

- Although our focus is on the TSRx program, our sample was limited to 45- to 64-year-olds because the Ingenix data set did not support analysis of elderly beneficiaries (age 65 and older).

¹ On March 1, 2003, the Department of Defense National Mail Order Pharmacy (NMOP) program changed to the TRICARE Mail Order Pharmacy (TMOP) program.

The elderly and pre-elderly appear to have similar demands for prescription drugs; however, they differ in other ways that might affect the applicability of our findings.

- The study was limited to a modest number of plans (20), although the number of beneficiaries was large.
- The finding of higher pharmacy spending in plans that had three tiers at the start of the study suggests that some employers may tailor benefits to employee demands.

This study has a number of policy implications for the DoD as well as others who are concerned with pharmacy benefit design:

- To achieve savings without adverse health consequences, the drugs in a particular class should be easily substitutable and thus distinguishable principally on the basis of price.
- The level of administrative restrictions and other financial incentives, such as those that encourage use of TMOP, will also impact the magnitude of savings.
- The transition to the new program raises another important issue. The principal concern here regards the potential for adverse health effects when patients switch from an effective medication to a medication they have not used in the past. To achieve the significant cost savings suggested in this study without adversely impacting health, the DoD Pharmacy & Therapeutics Committee should carefully consider the drugs and drug classes that it places in the nonpreferred third tier. The most heavily scrutinized drugs should be those in the costliest therapeutic classes, which account for a disproportionate share of expenditures.
- Recent growth in pharmacy spending has been largely due to the increased number of prescription drugs dispensed rather than rising drug prices. If this trend continues, changes in benefit structures are likely to play a larger role in reducing the *level* of drug spending than in slowing the *growth* in expenditures.
- TRICARE Management Activity (TMA) policymakers must also consider the critical question of whether lower pharmaceutical use resulting from higher patient cost-sharing adversely af-

fects clinical outcomes and overall medical spending. Several previous studies support concerns about adverse effects. Other studies, by contrast, suggest that the effects of prescription drug cost containment policies are mostly benign. Our study found that adding a third tier did not reduce the probability of pharmacy use, but further study is needed to determine if substitution from nonpreferred to preferred products resulted in adverse health outcomes.

At the time of this writing, Congress is considering enacting legislation to add a prescription drug benefit to the Medicare program. Our findings regarding the effect of multi-tier cost sharing on costs and utilization have implications not only for the TRICARE benefit but also for the Medicare drug benefit.