Medicaid Drug Utilization Review and Managed Care: The Perspectives and Experiences of State Program Directors

by Betsy Sleath, Thomas R. Konrad, Thomas Fulda, and Theodore M. Collins

In 1990, with the passage of the Omnibus Budget Reconciliation Act (OBRA '90), Congress-mandated drug utilization review (DUR) for the Medicaid program. DUR is an authorized, structured, and continuing program that reviews, analyzes, and interprets patterns of drug use against predetermined standards. Congress and the states believed that DUR would help contain rising Medicaid expenditures for prescription medications. States were to establish retrospective and prospective DUR programs by January 1, 1993, for covered outpatient medications “in order to assure that prescriptions (1) are appropriate, (2) are medically necessary, and (3) are not likely to result in adverse medical results.”

All states have DUR boards made up of physicians and pharmacists who advise Medicaid. The states contract with vendors—usually private firms or universities—to conduct retrospective and prospective DUR activities. A pharmacist on staff at each Medicaid agency typically serves as the director of the state’s DUR program, working closely with the state DUR board and the vendors who provide the state’s retrospective and prospective DUR services.

Retrospective DUR involves a review of pharmacy claims data to identify inappropriate patterns of patient drug use and physician prescribing. After claims are reviewed, educational interventions are conducted with physicians and/or pharmacists about certain therapeutic classes of medications in an attempt to change prescribing practices. Retrospective DUR interventions are typically conducted through the mail, and occasionally by phone or in person. Although once only face-to-face retrospective DUR interventions were considered effective in changing physician prescribing patterns and reducing patient care costs, recent reports indicate that mailed retrospective DUR interventions can be equally effective. However, little evidence exists to demonstrate whether individual state Medicaid retrospective DUR programs are cost-effective.

Prospective DUR programs grew significantly with the introduction of point-of-sale technology in the late 1980s. Prospective DUR involves screening prescriptions when they are dispensed against predetermined criteria for drug-related problems. When problems are identified, the pharmacist dis-

OBJECTIVE: To obtain from Medicaid drug utilization review (DUR) program directors their perspectives on the current status of their retrospective and prospective DUR programs, and to ascertain their assessment of the current and future influence of managed care on the integrity of these programs.

PARTICIPANTS: All directors of state Medicaid drug utilization review programs

DESIGN: Telephone contact and faxed survey

RESULTS: Eighty-two percent (n=42) of the program directors responded. The majority of states did not carve out their pharmacy benefit plans when contracting services from managed care organizations (MCOs). The DUR program directors commented that Medicaid agencies should put strict data-reporting requirements into their contracts with MCOs. Several of the program directors did not know whether MCOs reported to Medicaid certain data that could be potentially useful for DUR purposes, indicating that communication between the DUR program and other departments within Medicaid agencies should be improved.

CONCLUSIONS: Future research should investigate what types of DUR activities managed care organizations are undertaking for Medicaid enrollees so that more informed decisions about the future of Medicaid DUR under managed care can be made by the state agencies.

KEYWORDS: Drug utilization review, managed care, medication

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I thinking the medication receives an alert, prompting him or her to discuss modification of the drug regimen with the patient’s physicians, the patient, or both. Pharmacists may override alerts if they view them as false positives.

The United States General Accounting Office recently published a study that examined prospective DUR programs in five states and determined that prospective DUR is cost-effective. However, other reports show that some of the cost savings of prospective DUR programs reported by vendors and/or states may be overstated. For example, denied prescriptions are often counted as a cost savings to Medicaid’s drug program without determining whether denied prescriptions lead to an increase in other patient health care costs.

Little is known about the Medicaid DUR program directors’ attitudes toward the cost-savings estimates of the prospective and retrospective DUR programs that their vendors provide. Moore sent inquiries in the early 1990s to administrators in every Medicaid program to determine whether they had tried DUR, and, if they had, to obtain information on their experiences. He received information from the 20 states that were conducting DUR at the time and found that some administrators admitted exaggerating their cost savings to gain legislative approval because they believed the program would improve quality of care. However, Moore did not ask the program directors whether they believed the estimates supplied by their vendors.

Each Medicaid program has required several years to develop its retrospective and prospective DUR programs. As these programs were being implemented during the early 1990s, the movement toward enrolling Medicaid patients in managed care was beginning. Drug utilization review is an important quality-assurance process because it can potentially improve the health status of Medicaid patients by preventing adverse outcomes caused by drug-related problems. Lyles et al. point out that the enrollment of Medicaid patients into managed care plans is causing fragmentation of patient medical and pharmacy information, which increases the risk of medication-related crises. The future of Medicaid DUR programs remains uncertain in the era of managed care. OBRA ’90 does not require states to perform DUR on Medicaid recipients enrolled in managed care. Yessian and Greenleaf point out that “as states continue to look to capitated, comprehensive managed care for their Medicaid beneficiaries, the DUR infrastructure built up by state Medicaid agencies and their vendors could become increasingly irrelevant.”

A report on Medicaid DUR programs from the Office of the Inspector General of the Department of Health and Human Services notes that “state DUR programs appear to have little understanding of the nature and scope of the drug utilization review that appears under the auspices of managed care organizations. Some states are moving in the direction of asking managed care organizations for drug encounter data but such efforts have barely begun and there is little understanding of whether they are likely to be effective.”

The DUR program directors may not be included in the decisions made about managed care within their Medicaid agencies, which would explain why little is known about DUR under managed care. Therefore, the purposes of this study were: (1) to obtain from Medicaid drug utilization review program directors their perspectives on the current status of their retrospective and prospective DUR programs; and (2) to ascertain their assessment of the current and future influence of managed care on the integrity of these programs.

## Methods

All of the directors of state Medicaid DUR programs were con-
taced in August 1997 and asked to respond to a survey about their drug utilization review programs. The survey was developed by the authors, pretested on three state DUR program directors, and revised using the pretest results. The survey was divided into five sections: (a) prospective DUR; (b) retrospective DUR; (c) prospective versus retrospective DUR; (d) Medicaid managed care; and (e) demographics. All sections of the survey contained both open-ended questions and questions with response categories.

Both the prospective and retrospective DUR sections of the survey contained closed-ended questions that asked whether the state had a program and whether the director believed the cost-savings estimates of the vendor implementing the program. Both the prospective and retrospective DUR sections of the survey also contained an open-ended question that asked, “If you could change one thing about the program, what would it be?” In addition, the prospective DUR section of the survey contained closed-ended questions that asked whether the directors believed that too many false alerts were going out to pharmacies, what areas generated the most excessive false alert messages (e.g., drug/drug), whether pharmacies could override the alerts without pharmacist input, and whether they monitor pharmacies that routinely override prospective DUR alerts.

The retrospective DUR section of the survey asked the directors to circle all of the various types of interventions that their state conducts (e.g., profiling of physicians). The prospective versus retrospective DUR section of the survey asked respondents, “If you had to choose to continue either the retrospective or prospective DUR program in your state, which one would you continue and why?”

The Medicaid managed care section of the survey contained closed-ended questions about whether the pharmacy benefit plan is carved out from the managed care plan, whether the program receives encounter/claims data from MCOs, whether the program requires MCOs to report drug-specific measures to Medicaid, whether MCOs are required to submit Health Plan Employer Data and Information Set (HEDIS) measures, and whether any of these developments have affected the cost or effectiveness of non-managed care Medicaid DUR activities. This section of the survey also asked what percentage of the Medicaid population is currently enrolled in managed care, what the director believed might happen to prospective and retrospective DUR programs under Medicaid managed care, and what can be done to protect the integrity of the DUR programs under managed care.

The demographics section of the survey asked the respondent’s sex, age, years worked for Medicaid, years worked for Medicaid in the DUR area, whether the respondent was a pharmacist, how long the respondent had been a pharmacist, and how challenging the director finds his or her work.

A research assistant contacted each of the Medicaid DUR directors by telephone to introduce the purpose of the study and ask them to participate. To encourage participation and rapid response, the DUR program directors received the surveys by fax. If a survey was not returned within one week, the research assistant called back to ask the director to return the survey as soon as possible. Nonrespondents received a final call two weeks after the initial survey was faxed to determine
whether they would participate. All of the respondents returned the survey by fax. The data were analyzed using SPSS/PC (Statistical Package for the Social Sciences, version 8.0).

Results

Eighty-two percent (n=42) of the state Medicaid DUR program directors responded. Ninety-three percent of the responding directors were pharmacists with 10 to 42 years of experience as a pharmacist (mean=23.3, standard deviation=8.05); 2 to 31 years of experience working for Medicaid (mean=8.4, standard deviation=6.73); and 1 to 14 years of experience working in DUR (mean=5.5, standard deviation=3.10). Fifty-five percent of the program directors were female. DUR program directors ranged in age from 36 to 63 years (mean=47.4, standard deviation=6.94). Measuring the challenge of their work on a scale of 1 to 10 (1=“very routine”, 10=“very challenging”) DUR directors rated their work as “challenging,” at an average score of 8.2 (standard deviation=1.83, range 2–10).

Retrospective and Prospective DUR

All of the responding states had retrospective DUR programs. Seventy-six percent of the responding states had an online, real-time prospective DUR program at the time of the survey and 11.1% were planning to implement a prospective DUR system within a year. One state had no plans to implement prospective DUR even though it is required by OBRA ’90. Four states did not answer the question.

State programs performed the following types of retrospective DUR activities: 88% of the programs send letters about individual patients with drug therapy problems to pharmacists; 54.8% profile physicians with prescribing problems; 11.9% conduct face-to-face interventions with physicians; 16.7% conduct telephone interventions with physicians or pharmacists; 7.1% write journal or newsletter articles; 4.8% give continuing education programs or presentations at hospitals and other institutions.

When asked if they believed the cost-saving estimates of their retrospective DUR programs were accurate, 50% of the DUR program directors answered “yes,” 28.6% said “no.” 9.5% were unsure, and 11.9% did not answer the question. Thirty-four percent of the DUR program directors did not believe that their prospective DUR cost-savings estimates were accurate and 9.5% were uncertain.

Improving DUR Programs

Table 1 (see page 132) presents the program directors’ desires for changes in their retrospective DUR programs. Almost 43% of the program directors want vendors supplying retrospective DUR to provide more flexible services. Twenty-six percent stated that they need more resources to administer the program.

Sixty-two percent of the program directors in states with prospective DUR programs believed that too many false alerts were going out to pharmacies, while 31% did not believe that false alerts were going out. The remaining 6.3% did not know the answer to this question because they did not receive feedback from their vendors. The program directors felt that inappropriate alerts were being issued in the areas of drug-drug interaction, low dose, late refill, and therapeutic duplication. Almost 47% of the program directors reported that prospective DUR alerts could be overridden in community pharmacies without pharmacist input; 40.6% did not know; 12.5% report-
ed that alerts cannot be overridden without pharmacist action. Approximately 62% of the states monitor pharmacies that routinely override prospective DUR alerts.

Table 1 also reveals what the DUR program directors would like to change about their prospective DUR programs. Approximately 30% of the program directors want more flexibility to adjust the prospective DUR criteria supplied by the vendors to ensure that pharmacies receive more appropriate alert messages. Fourteen percent want to identify individual pharmacists who are ignoring prospective DUR messages.

The program directors were asked what types of training programs Medicaid DUR staff and board members need to help them improve their state’s prospective DUR program. Nineteen percent of the directors want more training on conducting cost-savings analyses. Approximately 20% believe that “cookbook” or modular interventions or best practices of other programs, provided in a systematic way, could help them improve their prospective DUR programs.

When asked if they would continue the retrospective or prospective DUR programs if given a choice, 60% of state directors said that they would continue the prospective DUR program, 16.7% would continue the retrospective program, 9.5% would continue both, and 14.2% did not answer the question. State directors who would continue prospective rather than retrospective DUR programs believe that prospective programs prevent problems before they occur, allow for easier measurement of outcomes, and provide greater cost savings. Those who would prefer to continue retrospective programs have found that retrospective DUR identifies trends and abuse and educates physicians and other providers about medications.

Managed Care

States ranged from having none to all of their Medicaid patients enrolled in managed care plans. The mean number of Medicaid patients enrolled in managed care across the responding states was 36%. Thirty-two of the responding 42 states reported having at least some patients in managed care. Only one state reported having 100% of patients enrolled in managed care. Four states reported having no patients enrolled in managed care plans and six states did not answer the question.

Of the 32 states with at least some patients enrolled in managed care, 21 (65.6%) reported that the pharmacy benefit plan was not carved out at all from the managed care plan, 8 states (25%) reported that the pharmacy benefit was carved out for all covered medications, and 3 states (9.3%) reported that the pharmacy benefit was carved out only for certain types of medications or patients (e.g., the mentally ill). A pharmacy benefit plan was considered carved out if the managed care organization did not provide pharmaceutical services for the Medicaid enrollees.

Table 2 presents the characteristics of the 21 states whose pharmacy benefit plan was not carved out from the managed care plan. Close to 50% of these states reported not receiving any encounter or claims data from MCOs and only 14% require MCOs to report drug-specific measures to the state. Thirty-eight percent of the states require MCOs to report HEDIS measures; 33% of the Medicaid DUR program directors did not know if MCOs are required to submit HEDIS measures. Over 50% of the Medicaid DUR program directors did not know whether the state’s managed care activities had affected the cost or effectiveness of their non–managed care DUR activities. Thirty-eight percent of the program directors believe that the state’s managed care activities have affected the cost or effectiveness of their non–managed care DUR activities.

Table 3 presents the program directors’ predictions about what will happen to prospective and retrospective DUR programs under Medicaid managed care. Twenty-one percent of the directors believed that Medicaid’s current DUR activities will continue or expand. Nineteen percent believed that there will be a division of labor between the managed care organizations and Medicaid. Thirty-eight percent stated that there will be reduced or contingent Medicaid involvement with DUR under managed care.

Almost one-fourth of the responding DUR directors believed that the states should coordinate the DUR activities performed by managed care organizations to help protect the integrity of these programs. Among their suggestions were: The state could coordinate the activities of the MCOs through the state DUR function; states could provide managed care organizations with guidelines and cookbooks for DUR interventions; and states could be a statewide DUR oversight organization. Approximately 21% of the respondents believed that the states should put strict DUR requirements in their contracts with managed care organizations. Fourteen percent of the DUR program directors believed that the managed care organizations should have to submit encounter data so that DUR activities with respect to Medicaid could continue.

Discussion

The results of this study indicate that several activities must be undertaken to optimize DUR activities for Medicaid patients enrolled in managed care. Improving communications should be one of the first goals. Several of the DUR program directors reported not knowing whether MCOs report certain data to Medicaid that could be potentially used for DUR. Patients will benefit if communication is improved between the different departments to assure that strict DUR requirements are put into contracts with MCOs. The Health Care Financing Administration (HCFA) could encourage each state to have their DUR program director and/or DUR board oversee the quality of medication prescribing under Medicaid managed care.

A number of respondents want the MCOs that implement state DUR programs to provide more flexible services. For example, several directors reported that they would like their vendors to provide better physician profiling in the retrospective DUR program. Retrospective DUR profiles that focus on one physician and one patient essentially duplicate prospective drug utilization review.

The directors also would like their vendors to provide more flexible programming for prospective DUR programs and
specifically want to decrease the number of false positive alerts sent to community pharmacies. Only 12.5% of the respondents reported that alerts could not be overridden in community pharmacies without pharmacist input. Therefore, in the majority of states, pharmacy technicians or clerks can override DUR alerts without consulting a pharmacist—which virtually defeats the purpose of the program. An article in *U.S. News and World Report* found that pharmacists have filled prescriptions that had potentially dangerous interactions. If fewer false positive prospective DUR alerts were sent out, pharmacists might take alerts more seriously and address them appropriately.

Best practices or cookbook interventions must be shared among the states to allow improvement in all these programs. Further, Medicaid DUR program directors need continuing educational programs on the types of interventions to conduct, how to estimate the cost savings of their programs, and how to negotiate with vendors to receive the data they need to evaluate their programs. Zimmerman et al. developed a guide for Medicaid DUR program directors on year-end final reports to HCFA that contains some information on estimating cost savings. These survey results, however, indicate that the DUR program directors desire more training in cost-savings methodologies. HCFA could take a leadership role and develop these desired educational programs for state Medicaid DUR program directors and DUR boards. The educational programs could also be offered to managed care organizations involved in DUR activities.

A concerted nationwide effort may be required to protect the integrity of current state Medicaid DUR programs under managed care. Congress deemed drug utilization review important enough to mandate it in 1990, but many of the current DUR programs created under that mandate are now becoming fragmented as patients are enrolled into managed care plans. The role of Medicaid agencies in DUR under managed care must be clearly defined. Will Medicaid oversee the DUR efforts of managed care organizations? Will the program receive data from MCOs and conduct drug utilization review in-house? Or will Medicaid not be involved with the DUR activities of managed care organizations at all?

Although this study provides important new information about the perspectives of Medicaid DUR program directors on the current and future status of their programs under managed care, it has important limitations. Medicaid DUR program directors gave no responses to the open-ended questions on the questionnaire in some cases. The study only examined the perspectives of Medicaid DUR program directors. Future research should investigate what types of DUR activities managed care organizations are undertaking for Medicaid enrollees. If Medicaid agencies understood what types of DUR activities are being performed in managed care organizations, then state agencies could make more informed decisions about the future of Medicaid DUR under managed care.

REFERENCES

3. 42 United States Code 1396-8