ISSUE BRIEF

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TRENDS IN HEALTH CARE FINANCING

New State Data on Medicaid Drug Use and Cost Can Help States Solve Problems

by James M. Verdier and Myoung Kim

New data on Medicaid prescription drug use and reimbursement in 1999, prepared by Mathematica for the Centers for Medicare & Medicaid Services (CMS), provide a tool states can use to identify and explore solutions to potential problems in their Medicaid prescription drug programs. The data are organized into 27 uniformly formatted tables for each state and the nation as a whole to facilitate comparisons. States can use these tables to reveal areas in which they are outliers, compared with other states and the national average, and explore potential explanations. Their own more recent state Medicaid prescription drug data can help them assess in-state trends since 1999. This brief uses data for Indiana to illustrate use of this new tool, the "Statistical Compendium: Medicaid Pharmacy Benefit Use and Reimbursement in 1999." The compendium is online at www.cms.hhs.gov/researchers/projects/Medicaid_rx/. Tables 1 through 18 and A.1 through A.4 provide comparable data for each state and the nation as a whole; Tables N.1 through N.7 in the national table set provide state-by-state comparisons.

Step One: Identify Problems

The first step in the process is to look at the national comparison tables at the end of the national table set (Tables N.1 to N.7) on the CMS website (www.cms.hhs.gov/researchers/projects/Medicaid_rx/) to identify areas where your state appears to be an outlier. For example, in Indiana, the Medicaid prescription drug reimbursement "per benefit month" in 1999 was just a bit above the national average, ranking 22nd in the nation. However, Indiana spent more per benefit month than any other state on beneficiaries who were aged, dually eligible for Medicare and Medicaid, and/or living all year in a nursing facility (see box below). Because these categories overlap substantially, the data suggest that the outlier status is probably caused by volume of use and/or price per drug for Medicaid prescriptions in nursing facilities.

The tables allow us to explore specific dimensions of Medicaid drug expenditures in state nursing facilities. How much of the high spending per benefit month is due to price, and how much to utilization? Is there less use of generic drugs, and more use of expensive brand-name drugs? Are certain types of drugs used more extensively in nursing facilities?

MEDICAID PRESCRIPTION DRUG REIMBURSEMENT PER BENEFIT MONTH*

INDIANA AND U.S.

Rx Dollars Per Benefit Month	Indiana	U.S.	Indiana's National Rank
All Fee For Service (Table N.3)	$75	$69	22
Aged (Table N.3)	$198	$129	2
Duals (Table N.6)	$215	$157	3
All-Year Nursing Facility (Table N.2)	$277	$187	3

*A "benefit month" is a month during which a person is enrolled in the Medicaid fee-for-service program, whether or not that person receives a Medicaid service during that month. It provides the basis for standardized measures of Medicaid prescription drug reimbursement and use over time and across states.

Note: The tables referred to here show states in alphabetical order. You can also rank states on various quantitative dimensions by downloading the Excel version of the tables and using the downloaded spreadsheet to perform the rankings.

Price versus utilization. Average reimbursement per prescription in Indiana nursing facilities in 1999 was $40, only slightly above the national average of $38 for the U.S. as a whole. (Compare Table 5 for Indiana to the same table for the United States, using the "Use of Nursing Facilities" row.) In terms of the number of prescriptions per benefit month, however, Indiana was well above the national average—seven prescriptions per benefit month versus five for the nation as a whole. National Comparison Table N.2 shows that Indiana ranked third in the nation on this measure.

Brand name versus generic. Use of generic drugs in Indiana was somewhat above the national average in 1999, both for all fee-for-service (FFS) beneficiaries (48 percent in Indiana versus 46 percent in the U.S.) and for dual eligibles (45 percent versus 43 percent). (See National Comparison Tables N.2 and N.5.) Although the tables do not include a measure of generic drug use for those in nursing facilities, the use for dual eligibles—who make up a large share of the nursing facility population—suggests that underuse of generic drugs is not a problem.

Type of drug. The three most costly drugs in nursing facilities in Indiana and in other states are antipsychotics, antidepressants, and ulcer drugs. Together they accounted for approximately 30 percent of total Medicaid drug costs in nursing facilities in 1999, both nationally and in Indiana. (See Tables 9 and 10.) The amount of reimbursement per prescription for these drugs in Indiana was around the national average, but the percentage of nursing facility residents using them was much higher in Indiana. Forty-two percent of full-year nursing facility residents used antipsychotics in Indiana, for example, compared to 35 percent nationwide. There was a comparable difference for antidepressants (52 percent in Indiana compared to a national average of 43 percent). In fact, drug use for all-year nursing facility residents was above the national average for all top 10 drug groups in the CMS/Mathematica tables. (Compare Table 10 for Indiana to the same table for the United States.)

The unusually high use of prescription drugs among Indiana Medicaid beneficiaries in nursing facilities may be a potential problem. The next step is to determine whether any external events or initiatives the state has taken since 1999 may have changed the patterns.

Step Two: Assess Changes

The prescription drug marketplace has experienced many changes since 1999 in drug prices, new brand-name drugs, new generic substitutes, and drug manufacturer marketing efforts. However, these are largely national factors not likely to have had major differential impacts from state to state. State Medicaid programs have undertaken a large number of initiatives since 1999 that could well affect a state's ranking on various dimensions of prescription drug use and reimbursement, so states need to examine these initiatives before concluding that a problem identified in 1999 still warrants attention.

Examples of state initiatives that could affect Medicaid prescription drug use include:

- Changes in populations covered by capitated managed care
- Changes in coverage of prescription drugs in capitated managed care benefit packages
- Changes in payments to pharmacies
- Changes in beneficiary copayments
- More stringent requirements for generic substitution
- Implementation of preferred drug lists
- More stringent prior authorization requirements
- More thorough prospective or retrospective drug utilization reviews
- Quality initiatives aimed at more appropriate use of psychotropics and other drugs
- Disease management programs
- State prescription drug purchasing pools

Step Three: Analyze State Claims, Eligibility, and Provider Data

The next step is to look at your state's Medicaid prescription drug claims and eligibility data for the years after 1999 to determine if 1999 patterns still prevail. Look for new trends or breaks in old trends. Focus on areas where problems appear the same as or larger than in 1999. Look at price, utilization, brand versus generic, and prescription drug use in specific

BACKGROUND ON THE DATA

Mathematica developed the data tables from Medicaid Analytic Extract (MAX) files for 1999 prepared by CMS from Medicaid claims and eligibility data states submitted electronically through the Medicaid Statistical Information System (MSIS). The MAX files link claims data on all Medicaid services to beneficiary eligibility files, creating a "person summary file" for each beneficiary. The new tables include data for all months in which beneficiaries had fee-for-service (FFS) Medicaid coverage in 1999. They do not include data for months that beneficiaries were in capitated managed care programs, since claims data were generally incomplete or unavailable for those months. About a quarter of beneficiaries appeared to be in capitated managed care programs in 1999, but they accounted for only six percent of Medicaid pharmacy reimbursement captured in the MAX files. This is partly because of missing data for managed care, but also because disabled and aged beneficiaries—who have the highest drug use—were generally not in managed care.

Mathematica developed 27 data tables for the nation as a whole and for each of 48 states and the District of Columbia; 15 of the tables focus on dual eligibles. The tables are available on the CMS website in both PDF and Excel formats. Tables for Arizona and Tennessee are not included because the extensive penetration of capitated managed care in those states resulted in little or no usable FFS claims data.

The tables show FFS Medicaid drug use and reimbursement by:

- Beneficiary demographic characteristics (age, sex, and race)
- Basis of eligibility (children, adults, disabled, and aged)
- Medicaid-Medicare dual eligible status
- Beneficiaries in nursing facilities
- Brand status (patented brand name, off-patent brand name, and generic)
- Therapeutic category (cardiovascular agents, central nervous system drugs)
- Drug group (antipsychotics, antidepressants, ulcer drugs)
- Dual eligibles in $500 annual reimbursement increments (number and percentage of beneficiaries with annual reimbursement of $0, $1 to $500, $501 to $1,000, and so forth)

settings and for specific eligibility groups. Using the categories and definitions in the CMS/Mathematica tables will facilitate comparisons.

Identifying providers. An important part of this analysis is to "drill down" in the data to identify providers or provider types that may account for a significant portion of pharmacy expenditures, since service reimbursement and use in Medicaid are often driven more by providers than by beneficiaries. In the case of prescription drugs in nursing facilities, for example, utilization and cost are driven by some combination of prescribing physicians, the facilities themselves, and the specialized pharmacies that supply drugs to facilities and often employ the "consulting pharmacists" who are required to review facilities' drug use.

The MAX files (see box at left) used to prepare the tables do not include any information on providers, other than their identification numbers. To analyze provider behavior, you will need to link your Medicaid claims files to your Medicaid provider files. This linkage will allow you to look for trends, patterns, and outliers that can help explain what is happening.

Impact of beneficiary prescription drug needs. Beneficiary needs can help explain prescription drug use and reimbursement patterns. It is not possible to get a precise estimate of beneficiary needs from pharmacy claims alone, since diagnostic information is not available on these claims. To some extent, need can be assessed on the basis of the eligibility categories to which beneficiaries are assigned. Disabled beneficiaries, for example, usually have higher prescription drug needs.

Step Four: Identify Solutions

The final step is to identify solutions for addressing problems that show up in the data. The state initiatives listed in Step Two represent the major tools available to control prescription drug use and reimbursement.

Impact of the MMA

Under the Medicare Modernization Act (MMA), Medicare will assume responsibility in January 2006

for providing prescription drugs to Medicaid beneficiaries who are dually eligible for Medicare. Dual eligibles accounted for 56 percent of total Medicaid FFS pharmacy reimbursement in 1999, and dual eligible beneficiaries in nursing facilities accounted for 14 percent. Any initiatives that states undertake to deal with Medicaid prescription drug use and reimbursement in the near future must take into account this very major restructuring.

At a minimum, states must look closely at drug use and reimbursement for groups that will remain the responsibility of Medicaid, especially disabled beneficiaries not eligible for Medicare. This group accounted for just over 60 percent of disabled Medicaid beneficiaries in 1999 (Table 2) and for 50 percent of Medicaid prescription drug reimbursement for all disabled beneficiaries (Tables 7A and 16A).

Tackling the Analysis

The new 1999 state-by-state Medicaid prescription drug tables prepared by Mathematica allow states, for the first time, to make detailed comparisons across states of prescription drug use and reimbursement. Because the MAX files from which these tables are compiled take time to construct, there will always be some lag in the availability of these national data. States will have to supplement this new tool with their own Medicaid data to pick up more recent trends and investigate reasons for outlier patterns. It is important to look at claims data by type of provider, since provider behavior can often explain Medicaid use and reimbursement trends. Discussions with state staff, providers, advocates, and others will often uncover information that can help to explain data patterns and trends.

For more information, contact Jim Verdier, (202) 484-4520, jverdier@mathematica-mpr.com.

HIGHLIGHTS FROM THE TABLES

- Generic prescriptions accounted for 46 percent of all Medicaid FFS prescriptions nationally, ranging from 37 percent in New York to 52 percent in Utah (Table N.2).
- Average monthly Medicaid FFS pharmacy reimbursement for all beneficiaries nationally was $69, ranging from $43 in South Carolina to $165 in Connecticut (Table N.2).
- Average monthly FFS pharmacy reimbursement nationally was $154 for disabled beneficiaries, $129 for aged beneficiaries, $31 for nondisabled adults, and $12 for children (Table N.3).
- Disabled Medicaid beneficiaries accounted for 58 percent of total Medicaid FFS reimbursement nationally, aged beneficiaries 28 percent, nondisabled adults 6 percent, and children 8 percent (Table N.3).
- Average national monthly FFS pharmacy reimbursement for dual eligibles was $157, ranging from $109 in New Mexico to $315 in Colorado (Table N.5).
- Dual eligibles accounted for 56 percent of Medicaid FFS pharmacy reimbursement in 1999 for the nation as a whole, ranging from 39 percent in West Virginia to 90 percent in New Mexico (Table N.1b).
- Average annual FFS pharmacy reimbursement nationally for disabled dual eligibles under age 65 was $2,143. It was $1,431 for duals age 65 to 74, $1,447 for duals age 75 to 84, and $1,247 for duals age 85 and older (Supplemental Tables 1A to 1D).
- Dual eligible beneficiaries in nursing facilities accounted for 14 percent of Medicaid FFS pharmacy reimbursement nationally, with the percentage ranging from 2 percent in South Carolina to 30 percent in Maryland (Table N.1b; add the two columns on the far right).
- Full-year Medicaid residents in nursing facilities nationally received an average of 5 prescriptions per month, with the number ranging from 1 in the District of Columbia to 13 in Colorado (Table N.2).
- Antipsychotics accounted for nearly 11 percent of total Medicaid pharmacy reimbursement; antidepressants accounted for another 7 percent (derived from National Tables 6 and 7).
- Antipsychotic drugs were the top-ranked drug group in terms of total Medicaid FFS pharmacy reimbursement in 38 states, and ranked second in 9 other states and the District of Columbia (derived from Table N.4).

To Find Out More:
Communication Services
Phone: (609) 799-3535
Fax: (609) 799-0005

Princeton Office
PO Box 2393
Princeton, NJ 08543-2393
Phone: (609) 799-3535
Fax: (609) 799-0005

Washington Office
600 Maryland Ave., SW, Suite 550
Washington, DC 20024-2512
Phone: (202) 484-9220
Fax: (202) 863-1763

Cambridge Office
955 Massachusetts Ave., Suite 801
Cambridge, MA 02139
Phone: (617) 491-7900
Fax: (617) 491-8044