

SEPTEMBER 2011

## Prescription Drug Use and Cost Among Medicaid Beneficiaries with Disabilities and Chronic Illnesses

By James M. Verdier, Ann D. Bagchi, and Dominick Esposito

**W**ith the shift of prescription drug coverage for Medicaid-Medicare dual eligibles to Medicare in 2006, Medicaid prescription drug spending is now highly concentrated among nondual Medicaid-only beneficiaries under age 65 with disabilities and chronic illnesses. They accounted for 62 percent of nondual Medicaid prescription drug spending in 2007, although representing just 12 percent of nondual Medicaid beneficiaries. They often have significant behavioral health needs and complex co-existing physical and behavioral health conditions. They represent about 12 percent of the Medicaid-covered residents of nursing facilities and increasingly are being included in capitated managed care programs. New data, prepared by Mathematica for the Centers for Medicare & Medicaid Services (CMS) from Medicaid Analytic eXtract (MAX) files, provide detailed state-by-state and national information on prescription drug utilization and costs in 2007 for all Medicaid beneficiaries, including this high-need, high-cost population. The data are in detailed and uniformly formatted tables and an accompanying chartbook, allowing states to compare themselves to national averages and other states. Mathematica has produced comparable tables and chartbooks for 1999 and 2001–2006; these can be used to trace trends over time. The tables and chartbooks can be found online at [https://www.cms.gov/MedicaidDataSourcesGenInfo/08\\_MedicaidPharmacy.asp](https://www.cms.gov/MedicaidDataSourcesGenInfo/08_MedicaidPharmacy.asp).

### Issues for States

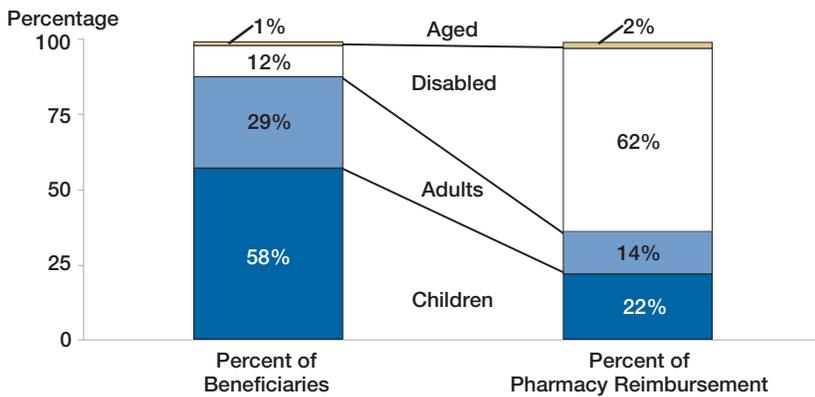
Medicare's coverage of prescription drugs for Medicaid beneficiaries dually eligible for Medicare, which started in 2006, shifted nearly half of total Medicaid prescription drug expenditures to Medicare. Among the nondual beneficiaries whose drug coverage remains Medicaid's responsibility, those in the disabled eligibility category are by far the greatest users of prescription drugs, accounting for 62 percent of Medicaid's total nondual prescription drug spending in 2007 (Figure 1). Medicaid also continues to cover some prescription drugs for dual eligibles, accounting for just under 6 percent of total Medicaid spending on prescription drugs in 2007, primarily for drugs excluded by statute from Medicare Part D and for drugs provided in prescription drug programs for the elderly in a number of states. (See U.S. National Tables N.1a, D.11, D.12, and D.13 for details.)<sup>1</sup>

State Medicaid agencies must deal with a number of issues in providing drug coverage to nondual Medicaid beneficiaries with disabilities and chronic illnesses, including:

- **How to ensure that the use of costly and powerful antipsychotic drugs for beneficiaries with mental health needs is cost-effective and clinically appropriate.** Antipsychotics accounted for almost 15 percent of total Medicaid prescription drug spending for all nondual beneficiaries in 2007, with those in the disabled eligibility category accounting for more than two-thirds of that.
- **How to ensure that there is appropriate coordination of care for Medicaid residents of nursing facilities now that Medicaid no longer pays for a significant portion of drug use in those facilities.** In 2007, nondual Medicaid beneficiaries represented just 12 percent of Medicaid-covered nursing facility residents. Since they are the only Medicaid residents for whose drug costs Medicaid remains responsible, Medicaid's ability to ensure coordination of drug use with other aspects of Medicaid residents' care is limited.
- **How to ensure that nondual Medicaid beneficiaries with disabilities and chronic illnesses have appropriate and cost-effective access to prescription drugs in managed care settings** as states increasingly move these beneficiaries into managed care.
- **How to prepare for the enrollment of newly eligible low-income childless adults in 2014**, a significant portion of whom will have prescription drug needs that are likely to be comparable to those of nondual Medicaid beneficiaries with disabilities and chronic illnesses.

**Figure 1.**

**Distribution of Medicaid Beneficiaries and Total Pharmacy Reimbursement Among Nondual Beneficiaries, by Basis of Eligibility, 2007**



Source: 2007 Chartbook, Exhibit 14.

**State-by-state and national Medicaid prescription drug data.** While full analysis of these issues requires consideration of complex clinical, administrative, and budget issues, data on drug costs and utilization can make an important contribution to understanding the issues and identifying potential solutions. The national and state-by-state tables available on the CMS web site are important sources for needed drug data. These tables provide detailed information on prescription drug costs and utilization for both nondual and dual-eligible Medicaid beneficiaries for 1999 and 2001 to 2007. The text box on page 4 describes the tables and accompanying chartbooks. The most important limitation of the information presented in these tables and chartbooks is that it represents drug use in fee-for-service (FFS) settings only. Drug use and expenditures for those who receive their prescription drugs through capitated managed care plans are not included because states often do not report data on these capitated services fully to CMS, so data on managed care services are not currently included in the MAX files. However, only 20 percent of nondual beneficiaries in the disabled eligibility category—the highest users of prescription drugs—were enrolled in capitated managed care programs in 2007, and their enrollment was concentrated in a small number of states. In addition, to

expand the population covered in the tables as much as possible, we have included prescription drug utilization and costs for beneficiaries in eight states (DE, IA, IL, NE, NY, TN, TX, and WV) who were enrolled in comprehensive managed care programs in 2007 for their non-drug Medicaid services, but who received their prescription drugs on a FFS basis.

### Prescription Drug Use by Nondual Disabled Beneficiaries

Nondual Medicaid beneficiaries in the disabled eligibility category account for a disproportionate share of Medicaid prescription drug use and expenditures. In 2007, as shown in Figure 1, people with disabilities and chronic illnesses represented just 12 percent of nondual beneficiaries but accounted for 62 percent of nondual FFS Medicaid prescription drug expenditures. Their share of nondual drug expenditures ranged from a low of 34.7 percent in Vermont to a high of 95.2 percent in Hawaii (Table N.3). These beneficiaries used an average of 2.8 prescription drugs per benefit month, at an average cost per benefit month of \$275. (A benefit month is a month in which a beneficiary had Medicaid prescription drug coverage, whether or not a drug was prescribed in that month.) Non-disabled adults, by contrast, used only 0.7 drugs per month at a monthly cost of

\$40, while children used 0.5 drugs at a cost of \$29 (Table ND.4).

Nondual disabled beneficiaries were especially heavy users of antipsychotics (25 percent of both males and females) and antidepressants (25 percent of males and 47 percent of females). In other nondual eligibility categories, only about 2 percent of beneficiaries used antipsychotics, and about 6 percent used antidepressants (Table ND.7A).

High use of drugs by disabled Medicaid beneficiaries is not surprising, given their complex and chronic physical and mental health needs and the variety of providers from whom they receive care. In light of their complex care needs, however, special attention to the appropriateness of their drug use is warranted, especially when the level of use in a particular state appears to be out of line with that of other states.

### Antipsychotic Drugs

There has been considerable discussion and controversy in recent years about the appropriate use of antipsychotic drugs, including whether newer and more costly “atypical” antipsychotic drugs represent a significant advance over older antipsychotic drugs that long have been available in less costly generic form.<sup>2</sup> State Medicaid programs spent more than \$2.8 billion for antipsychotic drugs for nonduals in 2007, almost 15 percent of total Medicaid spending on prescription drugs for nonduals in that year (Tables ND.6 and ND.7). Medicaid spent more on antipsychotics than on any other nondual drug group in 2007, and antipsychotics ranked first or second in terms of total cost in every state (Table N.4).<sup>3</sup> State Medicaid programs account for a very large share of the total national market for antipsychotic drugs, giving Medicaid purchasers substantial potential leverage over this market and a corresponding potential to influence appropriate utilization.

### Drug Use in Nursing Facilities

More than 88 percent of the 1.38 million Medicaid residents of nursing

facilities in 2007 were dual eligibles, for whose prescription drug costs Medicare is now responsible. Just under 12 percent were nonduals, for whom Medicaid paid a little more than \$855 million in 2007 (Tables ND.2, D2, and N.1a). This is very substantially below the \$5.4 billion that Medicaid paid for prescription drugs for both duals and nonduals in 2005, giving Medicaid much less leverage as a payer over prescription drug use in nursing facilities now than before drug coverage for duals was shifted to Medicare.

Since Medicaid remains responsible for all other aspects of the nursing facility care of dual-eligible residents, Medicaid's lack of information about their prescription drug use raises concerns about the quality and coordination of care for these dual-eligible residents. In addition, Medicaid's diminished financial leverage over nursing facility drug use may also limit Medicaid's ability to ensure appropriate drug use for nondual residents. Prescription drug use among dual eligibles is discussed in detail in a March 2010 Mathematica policy brief,<sup>4</sup> so this issue brief focuses only on prescription drug use by nondual nursing facility residents.

**Nursing facility drug use by nondual residents.** In 2007, 60 percent of nondual nursing facility residents used antipsychotics, 59 percent used anticonvulsants, and 59 percent used antidepressants. Antipsychotics cost Medicaid more in total than any other drug group used in nursing facilities for nonduals—\$111 million for all-year nursing facility residents, nearly a quarter of total Medicaid spending on drugs for these residents over the course of the year (Tables ND.9 and ND.10).

While nursing facility residents under age 65 have higher rates of mental illness than those ages 65 and older, based on the most reliable national survey, the percentage of under-65 residents with a primary diagnosis of mental illness is much lower than the percentages shown as receiving antipsychotics and other mental health drugs in the MAX files. In the National Nursing Home Survey for

2004 (the most recent year available), 12.9 percent of residents age 65 or younger had a primary diagnosis of mental illness, compared to 6.0 percent of those age 65 or older.<sup>5</sup>

It is common for Medicaid beneficiaries with mental health problems who are residents of nursing facilities to have significant physical health problems as well, increasing the importance of coordinating their mental health with their physical health care, and their prescription drug use with other forms of care. With Medicaid now responsible for only a limited portion of prescription drug use in nursing facilities, it has become even more challenging for states to ensure the kind of coordination of care that is both clinically appropriate and cost-effective. This was not a high priority in many states even when Medicaid was responsible for drug use for all Medicaid nursing facility residents, which further underscores the current challenge.<sup>6</sup>

### **Medicaid Disabled Beneficiaries in Managed Care Plans**

As noted earlier, states increasingly are moving nondual Medicaid beneficiaries in disabled eligibility categories into capitated managed care arrangements. The 2002 through 2007 National Compendiums show national and state managed care penetration rates for nondual and dual-eligible Medicaid beneficiaries, with rates for nonduals presented separately for those in the Aged/Disabled and Adults/Children eligibility categories (Appendix Tables A.3 and A.6). In these managed care penetration tables, only beneficiaries enrolled for the full year in comprehensive capitated managed care plans (classified by CMS as MCO, HMO, or HIO plans) are counted as managed care enrollees.

Among all nonduals in 2007, 32 percent were enrolled in comprehensive capitated managed care arrangements nationally, with 10 states (AZ, DE, HI, MD, NE, NJ, NY, OR, PA, and RI) and the District of Columbia enrolling more than half of their nondual beneficiaries in

capitated managed care for the full year. Managed care enrollment was lower among aged/disabled nonduals in 2007, with only 20 percent enrolled in comprehensive capitated managed care all year and with enrollment heavily concentrated in just eight states (AZ, DE, MD, NE, NM, OR, PA, and VA). Fourteen states had no nondual enrollees in comprehensive capitated managed care (AL, AK, AR, ID, LA, MS, MT, NH, NC, ND, OK, SD, VT, and WY).

**Importance of encounter data.** As states move beneficiaries with disabilities and chronic illnesses into capitated managed care arrangements, it is important to ensure that managed care organizations report complete and accurate "encounter" data to states (comparable to the data on FFS claims), including data on prescription drug utilization and costs. Without accurate encounter data on service use and costs in managed care plans, states have only a very limited ability to monitor and report on the quality and cost of services provided in these plans. The Patient Protection and Affordable Care Act of 2010 requires Medicaid managed care organizations to report encounter data to states (Section 6504(b)) and states to report these data to CMS (Section 6402(c)). Mathematica currently is working with CMS and states to provide technical assistance to states to help them improve their collection of encounter data and submission of the data to CMS.

### **Newly Eligible Low-Income Childless Adults in 2014**

There is some uncertainty about the likely prescription drug use among the estimated 20 million individuals who will become newly eligible for Medicaid in 2014, most of whom will be low-income childless adults not previously covered by Medicaid. Some have estimated that these new enrollees are likely to be relatively young and healthy, based on national survey estimates of their characteristics, care needs, and service utilization.<sup>7</sup> Based on the experiences of states that have enrolled low-income childless adults in the past, others have

estimated that the characteristics and care needs of a substantial portion of these new enrollees are likely to be similar to those of current Medicaid beneficiaries in the disabled eligibility category.<sup>8</sup> The uncertainty is based largely on differing estimates of the likelihood and timing of enrollment by different kinds of enrollees, which may depend in turn on the extent and effectiveness of state and other outreach efforts, especially to younger and healthier low-income adults who otherwise might not enroll until they need care.

However this plays out as 2014 approaches, it would be prudent for states to assume for planning and program design purposes that a substantial portion of the low-income childless adults who enroll in Medicaid in 2014 and later years will have prescription drug needs similar to those of current nondual Medicaid enrolled adults with disabilities and chronic illnesses.

## Looking Ahead

This issue brief highlights a number of prescription drug issues that remain important for states after the 2006 shift of drug coverage for dual eligibles to Medicare. The data in the 2007 Compendium provide only a starting point for states dealing with these issues and are not a substitute for more recent data that states have available for their own Medicaid programs. However, the data do allow consistent state-by-state comparisons that cannot be made at the same level of detail with more recent data. These comparisons can highlight areas for states in which they may be out of line with other states or national averages and that warrant more careful and thorough analysis.

## Background on the Data

**State-by-state and national data tables.** Under contract with CMS, Mathematica has developed 51 data tables for the nation, each state, and the District of Columbia for 2007, and similar tables for 1999 and 2001 to 2006. For 2007, 14 tables focus on nondual Medicaid beneficiaries and 14 comparable tables on dual eligibles. There are also seven tables that focus on all Medicaid beneficiaries and six supplemental tables on dual eligibles. Finally, there are eight national comparison tables that show state-by-state comparisons based on a number of key measures included in the full set of tables, and two tables that show capitated managed care penetration rates by state for both nonduals and duals. The full set of tables, a “Statistical Compendium,” is available online in both PDF and Excel formats at [https://www.cms.gov/MedicaidDataSourcesGenInfo/08\\_MedicaidPharmacy.asp](https://www.cms.gov/MedicaidDataSourcesGenInfo/08_MedicaidPharmacy.asp).

**Chartbooks.** Mathematica also has developed chartbooks (available at the same website as the tables) from data in the tables for 2007 and earlier years. The chartbook for 2007 contains 54 exhibits (2 tables and 52 graphs) that highlight major features and comparisons for 2007 and trends since 1999.

**MAX files.** Mathematica developed the state-by-state data tables from MAX files for 2007 and earlier years that were 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 tables include data for all months in which beneficiaries had FFS Medicaid coverage in each year. They do not include data for months in which beneficiaries received prescription drug coverage through capitated managed care plans, since the MAX files do not include claims or “encounter” data for enrollees in these capitated plans. About 32 percent of all nondual Medicaid beneficiaries were in comprehensive capitated managed care arrangements all year in 2007, but only 20 percent of nondual aged/disabled beneficiaries—the highest users of prescription drugs—were in such plans, and their enrollment was concentrated heavily in just eight states. Appendix Tables A.3 and A.6 in the compendium provide state-by-state detail on managed care penetration rates for both nondual and dual-eligible Medicaid beneficiaries.

## Endnotes

<sup>1</sup> All tables referred to in this issue brief are in the “U.S. National” tables for 2007 in the Medicaid Analytic Rx eXtract (MAX Rx) Table Listing on the CMS website at: <http://www.cms.gov/MedicaidDataSourcesGenInfo/MAX/list.asp>.

<sup>2</sup> See, for example, Rosenheck, Robert A., Douglas L. Leslie, and Jalpa A. Doshi. “Second-Generation Antipsychotics: Cost-Effectiveness, Policy Options, and Political Decision Making.” *Psychiatric Services*, vol. 59, no. 5, May 2008, pp. 515–520.

<sup>3</sup> Antipsychotics were also the highest cost drug for dual eligibles, accounting for almost 11 percent of total state expenditures on prescription drugs for duals and ranking first or second in terms of cost in all but 10 states. See Tables D.6, D.7, and N.7.

<sup>4</sup> Verdier, James M. “Coordinating and Improving Care for Dual Eligibles in Nursing Facilities: Current Obstacles and Pathways to Improvement.” Washington, DC: Mathematica Policy Research, March 2010.

<sup>5</sup> Bagchi, Ann D., James M. Verdier, and Samuel E. Simon. “How Many Nursing Home Residents Live with a Mental Illness?” *Psychiatric Services*, vol. 60, no. 7, July 2009, pp. 958–964.

<sup>6</sup> Verdier, “Coordinating and Improving Care for Dual Eligibles in Nursing Facilities,” p. 5.

<sup>7</sup> See, for example, Holahan, John, Genevieve Kenney, and Jennifer Pelletier. “The Health Status of New Medicaid Enrollees Under Health Reform.” Robert Wood Johnson Foundation and Urban Institute, August 2010.

<sup>8</sup> Somers, Stephen A., Allison Hamblin, James M. Verdier, and Vivian L.H. Byrd. “Covering Low-Income Childless Adults in Medicaid: Experiences from Selected States.” Hamilton, NJ: Center for Health Care Strategies, August 2010; Natoli, Candace, Valerie Cheh, and Shinu Verghese. “Who Will Enroll in Medicaid in 2014? Lessons from Section 1115 Medicaid Waivers.” Washington, DC: Mathematica Policy Research, May 2011.

For more information, contact Jim Verdier, [jverdier@mathematica-mpr.com](mailto:jverdier@mathematica-mpr.com).