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Prescription Drug Trends

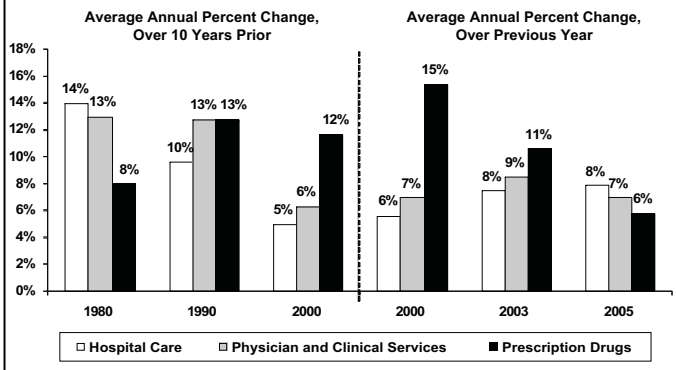
Overview

Prescription drugs are vital to preventing and treating illness and helping to avoid more costly medical problems. Rising costs and implementation of the Medicare drug benefit have highlighted the need for a better understanding of the pharmaceutical market and for new approaches to address rising costs.

Rising Expenditures for Prescription Drugs

Spending in the US for prescription drugs was $200.7 billion in 2005, almost 5 times more than the $40.3 billion spent in 1990.[1] Although prescription drug spending has been a relatively small proportion of national health care spending compared to spending for hospital and physician services (10% in 2005, compared to 31% and 21%, respectively), it has been one of the fastest growing components, increasing from 1994 to 2003 at double-digit rates compared to single-digit rates for hospital and physician services. However, the annual rate of increase in prescription spending declined from a high of 18% in 1999 to 6% in 2005, which is slightly lower than the 8% increase for hospital care and 7% for physician services in 2005[2] (Figure 1). Prescription spending growth declined because of the slowdown in Medicaid drug spending, the increased use of generic drugs (driven in part by the proliferation of tiered copayment benefit plans), changes in the types of drugs used, and a decrease in the number of new drugs introduced.

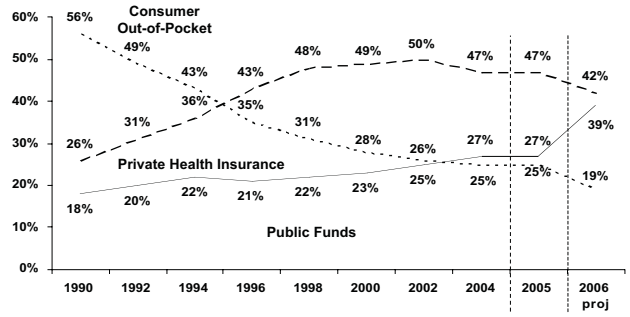
Figure 1: Average Annual Percentage Change in Selected National Health Expenditures, 1980-2005



Source: Kaiser Family Foundation calculations using National Health Expenditures data from Centers for Medicare & Medicaid Services, at http://www.cms.hhs.gov/NationalHealthExpendData/.

The share of prescription drug expenses paid by private health insurance increased substantially over the past decade (from 26% in 1990 to 47% in 2005), contributing to a decline in the share that people pay out-of-pocket (from 56% in 1990 to 25% in 2005). However, HHS projects that the shares will change significantly in 2006 when private health insurance will drop to 42%, out-of-pocket will decline to 19%, and public funds, because of Medicare's new Part D prescription drug program, will increase to 39% (Figure 2).

Figure 2: Percent of Total National Prescription Drug Expenditures by Type of Payer, 1990-2005 Actual, 2006 Projected

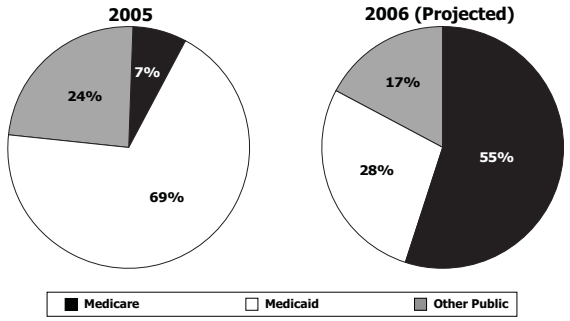


Notes: Consumer Out-of-Pocket includes direct spending by consumers for health care goods and services not covered by a health plan and cost-sharing amounts (coinsurance, copayments, deductibles) required by public and private health plans. It does not include consumer premium payments and cost sharing paid by supplementary Medicare policies, which are included in the Private Health Insurance category.

Source: Kaiser Family Foundation calculations using National Health Expenditures data from Centers for Medicare & Medicaid Services, Historical and Projected, at http://www.cms.hhs.gov/NationalHealthExpendData/.

Within public funds, the shares will change from 7% Medicare and 69% Medicaid in 2005, to a projected 55% Medicare and 28% Medicaid in 2006 (Figure 3).

Figure 3: Distribution of Total Public Prescription Drug Expenditures by Type of Payer, 2005 and 2006 Projected



Note: "Medicaid" includes federal and state funds for Medicaid and the Medicaid State Children's Health Insurance Program (SCHIP) expansion; "Other Public" includes other federal, state, and local expenditures and the Medicaid SCHIP program.

Source: Kaiser Family Foundation calculations using National Health Expenditures data from Centers for Medicare & Medicaid Services, NHE Historical and projections (2006 data are projected, 2005 data are not), at http://www.cms.hhs.gov/NationalHealthExpendData/.

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Factors Driving Changes in Prescription Spending

Three main factors drive changes in prescription drug spending: changes in the number of prescriptions dispensed (utilization), price changes, and changes in the types of drugs used.

Utilization. From 1994 to 2005, the number of prescriptions purchased increased 71% (from 2.1 billion to 3.6 billion), compared to a US population growth of 9%. The average number of retail prescriptions per capita increased from 7.9 in 1994 to 12.4 in 2006.[3] The percent of the population with a prescription drug expense in 2004 was 59% (for those under age 65) and 92% (for those 65 and older); the proportions of these populations with a drug expense has changed little since 1996, when they were 62% and 88%, respectively.[4]

Price. Retail prescription prices[5] (which reflect both manufacturer price changes for existing drugs and changes in use to newer, higher-priced drugs) increased an average of 7.5% a year from 1994 to 2006 (from an average price of $28.67 to $68.26), almost triple the average annual inflation rate of 2.6%. The average brand name prescription price was over 3 times the average generic price in 2006 ($111.02 vs. 32.23). Of the 2006 average retail prescription price of $68.26, the manufacturer received 78% of the cost, the retailer received 19%, and the wholesaler received 3%.[6]

Changes in Types of Drugs Used. Prescription drug spending is affected when new drugs enter the market and when existing medications lose patent protection. New drugs can increase overall drug spending if they are used in place of older, less expensive medications; if they supplement rather than replace existing drugs treatments; or if they treat a condition not previously treated with drug therapy. New drugs can reduce drug spending if they come into the market at a lower price than existing drug therapies; this can occur when a new drug enters a therapeutic category with one or two dominant brand competitors. New drug use is affected by the number of new drugs (new molecular entities) approved by the US Food and Drug Administration; approvals have fluctuated over the past decade, with 53 approvals in 1996, 27 in 2000, 36 in 2004, and 22 in 2006.[7]

Drug spending is also typically reduced when brand drugs lose patent protection and face competition from new, lower cost generic substitutes. According to an FDA analysis, on average for drugs sold from 1999 through 2004, the percentage that the generic price was of the brand price decreased as the number of generic competitors increased: 94% with 1 generic competitor, 26% with 10 generic competitors, falling to 13% with 15 competitors.[8]

Approximately three-quarters of FDA-approved drugs have generic counterparts. In 2006, 20% of prescription drug sales and 63% of prescriptions dispensed were generic medicines. Generic sales grew by 22% and generic prescriptions dispensed grew by 13% from 2005 to 2006.[9]

Advertising. Both prescription use and shifts to higher-priced drugs can be influenced by advertising. After a decade of increases, the total amount manufacturers spent on advertising declined 3.5% from 2004 to 2005 (from $11.9 billion to $11.4 billion). The share directed toward consumers increased 5% in 2005 (from $4.0 to $4.2 billion), while the share directed toward physicians declined by 8% (from $7.8 to $7.2 billion). Spending for consumer advertising in 2005 was over 5 times the amount spent in 1996 ($0.8 billion), while 2005 physician advertising was 2 times the 1996 amount ($3.5 billion).[10] The FDA and Congress are considering changes to prescription advertising rules.

Profitability. From 1995 to 2002, pharmaceutical manufacturers were the nation's most profitable industry. They ranked 3rd in 2003 and 2004, 5th in 2005, and in 2006 they ranked 2nd, with profits (return on revenues) of 19.6% compared to 6.3% for all Fortune 500 firms.[11]

Insurance Coverage for Prescription Drugs

Lack of insurance coverage for prescription drugs can have adverse effects. A 2005 survey found that uninsured adults are twice as likely as insured adults to say that they or a family member cut pills, did not fill a prescription, or skipped medical treatment in the past year because of the cost (51% vs. 25%, respectively).[12] Prescription drug coverage comes from a variety of private and public sources.

Employer Coverage. Employers are the principal source of health insurance in the United States, providing coverage for 177 million (60%) of Americans in 2005.[13] Sixty-one percent of employers offered health insurance to their employees in 2006, and 65% of employees in those firms are covered by their employer's health plan.[14] Other employees may have obtained coverage through a spouse. Nearly all

(98%) of covered workers in employer-sponsored plans had a prescription drug benefit in 2006.[15]

Medicare. Prior to January 1, 2006, the traditional Medicare program (the federal health program for the elderly and disabled) did not provide coverage for outpatient prescription drugs. As a result, about one-quarter (27%) of seniors age 65 and older, and one-third of poor (34%) and near-poor (33%) seniors, had no drug coverage in 2003.[16] The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 established a voluntary Medicare outpatient prescription drug benefit (known as Part D), effective January 1, 2006, under which the 44 million Medicare beneficiaries can enroll in private drug plans. These plans vary in benefit design, covered drugs, and utilization management strategies.

Department of Health and Human Services (HHS) data show that as of January 16, 2007, approximately 90% of all Medicare beneficiaries had drug coverage: 23.9 million beneficiaries had Medicare Part D drug coverage from either a stand-alone prescription drug plan (PDP--11.0 million) or a Medicare Advantage drug plan (6.7 million), including 6.3 million low-income seniors and people with disabilities, known as dual eligibles, who were transferred from Medicaid drug coverage to Medicare Part D drug coverage in stand-alone PDPs; 10.3 million beneficiaries had coverage from creditable employer or union plans including FEHB and TRICARE retiree coverage; and an estimated 4.9 million had creditable drug coverage from the VA and other sources. About 4.0 million beneficiaries did not have creditable coverage (were not enrolled in a Part D drug plan or a source of creditable coverage).[17]

Medicaid. Medicaid is the joint federal-state program that pays for medical assistance to over 55 million low-income individuals. Medicaid contributed 19% of total US drug spending in 2005[18] and is the major source of outpatient pharmacy services to the low-income population. All state Medicaid programs provide coverage for prescription drugs, although there are important differences in state policies with regard to copayments, types of drugs that are covered, and the number of prescriptions that can be filled. The approximately 6 million dual eligibles who were transferred from Medicaid drug coverage to Medicare Part D drug coverage in January 2006 represented an estimated 14% of Medicaid beneficiaries and accounted for about 45% of Medicaid prescription drug spending in FY2003.[19]

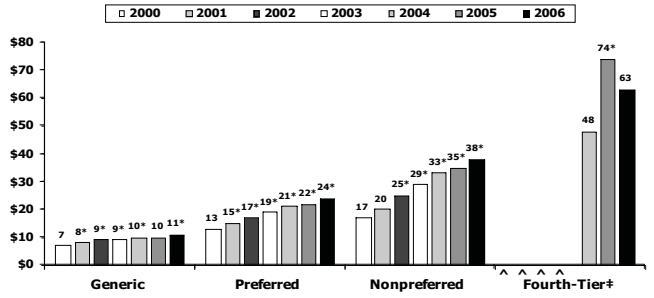
Since January 1, 2006, states are required to make payments to Medicare to help finance Medicare drug coverage for the transferred and future dual eligibles.

Responses to Increasing Prescription Costs

Public and private health plans have implemented a variety of strategies to attempt to contain their rising costs for prescription drugs, as described below.

Utilization Management Strategies. Health plans have responded to increasing prescription drug costs by excluding certain drugs from coverage, using quantity dispensing limits, and increasing enrollee cost-sharing amounts. In 2006, about three-quarters (74%) of workers with employer-sponsored coverage had a cost-sharing arrangement with 3 or 4 tiers, over 2½ times the proportion in 2000 (27%).[20] Copayments for nonpreferred drugs (those not included on a formulary or preferred drug list) more than doubled from an average of $17 in 2000 to $38 in 2006. Copayments for preferred drugs (those included on a formulary or preferred drug list, such as a brand name drug without a generic substitute) increased by 84%, from an average of $13 in 2000 to $24 in 2006 (Figure 4).

Figure 4: Among Covered Workers Facing Prescription Drug Copayments, Average Copayments, 2000-2006



*Estimate is statistically different from estimate for the previous year shown at p<.05.

^Fourth-Tier drug copay information was not obtained prior to 2004.

‡The average copayments for preferred and nonpreferred drugs include values for firms where cost sharing is the same regardless of drug type. Because in some cases drugs covered as fourth-tier drugs may be covered by health plans through other portions of their coverage (e.g., as part of major medical coverage), the average copayment for fourth-tier drugs is calculated using information from only those plans that have a fourth-tier copayment amount.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2000-2006, at http://www.kff.org/insurance/7527/index.cfm.

Discounts and Rebates. Private and public drug programs negotiate with pharmaceutical manufacturers (often using contracted organizations known as pharmacy benefit managers) to receive discounts and rebates which are applied based on volume, prompt payment, and market share. Manufacturers who want their drugs covered by Medicaid must provide rebates to state Medicaid programs for the drugs they purchase; many states have also negotiated additional rebates, known as supplemental rebates. However, the shift of the

approximately 6 million dual eligibles from Medicaid to Medicare drug coverage affects the ability of state Medicaid programs to negotiate prices and secure supplemental rebates.

Several government agencies, including the Department of Veterans Affairs, the Defense Department, the Public Health Service, and the Coast Guard, participate in a program known as the Federal Supply Schedule through which they purchase drugs from manufacturers at prices equal to or lower than those charged to their "most-favored" nonfederal purchasers. In order to participate in Medicaid, the Section 304B Program requires manufacturers to provide drugs to certain nonfederal entities (such as community health centers and disproportionate share hospitals) at reduced prices.

Medicaid. Historically, prescription drugs have been one of the fastest-growing Medicaid services. Drug spending as a share of Medicaid spending on services rose from 5.6% in FY1992 to 13.4% in FY2003.[21] A 2006 survey of 50 states+DC found that more than half had Medicaid pharmacy cost containment measures in place in FY2006, including preferred drug lists and prior authorization programs (about three-quarters of states), supplemental rebates from manufacturers (about 70% of states), and state Maximum Allowable Cost programs for generic and multi-source brand drugs (about 60%); smaller proportions of states were members of multi-state purchasing coalitions (about 25%) or had limits on quantities dispensed per prescription (about 20%).[22]

Under the Deficit Reduction Act of 2005 (enacted 2/8/06), states were given more authority to control Medicaid drug spending through increased cost sharing for non-preferred drugs, changes in the way Medicaid pays pharmacists, allowing pharmacists to refuse prescriptions for beneficiaries who don't pay their cost sharing, and inclusion of authorized generic drugs in the calculation of "best price" for drugs.

Medicare. The Medicare Part D drug benefit shifts spending from the private sector and Medicaid to Medicare, making Medicare the nation's largest public payer of prescription drugs in 2006 when Medicare spending is projected to rise to 22% of total US prescription spending from 2% in 2005.[23] Under the Medicare Part D legislation, Medicare is prohibited from directly negotiating drug prices or rebates with manufacturers, but will rely on the private Part D drug plans to negotiate these discounts/rebates. In early 2007, the 110th Congress considered but did not pass legislation to allow or require Medicare to negotiate drug prices with drug makers.

Purchasing Pools. Some private and public organizations have banded together to form prescription drug purchasing pools to increase their purchasing power through higher volume and shared expertise. Examples include the Department of Defense and VA joint purchasing from manufacturers; individual state purchasing pools for their Medicaid, state employees, senior/low-income/uninsured pharmacy assistance programs, or other public programs; and multi-state pools.

Consumers. Consumers are turning to a variety of methods to reduce their prescription costs, including requesting cheaper drugs or generic drugs from their physicians, using the Internet and other sources to make price comparisons, buying over-the-counter instead of prescribed drugs, buying drugs in bulk and pill-splitting, using mail-order pharmacies, and using pharmaceutical company or state drug assistance programs.[24] Over half of physicians say they frequently talk with patients about the out-of-pocket costs of medicines they prescribe, 62% say they switch patients to less expensive drugs, and 58% say they give patients office samples.[25]

Importation. The high cost of prescriptions has led some to suggest that individuals be permitted to purchase prescription products from distributors in Canada or other countries (called "importation," or "reimportation"). Although it is generally not lawful for individuals or commercial entities such as pharmacies or wholesalers to purchase prescription drugs from other countries, the government does not always act to stop individuals from purchasing drug products abroad. Importation of pharmaceutical products from Canada through Internet sales and travel to Canada totaled about $700 million in sales in 2003, or 0.3% of total US prescription sales. An equivalent amount of prescription drugs was estimated to have entered the US from the rest of the world, mostly through the mail and courier services.[26] Actual savings amounts, drug safety, and marketplace competition and pricing are issues being debated.

Outlook for the Future

HHS projects US prescription drug spending to increase from $200.7 billion in 2005 to $497.5 billion in 2016, a 148% increase in 11 years. The annual increase in drug spending is projected to rise from

5.8% in 2005 to 9.4% in 2016. Drug spending as a percent of overall health spending is projected to increase from 10% in 2005 to 12% in 2016. HHS also projects that over the next decade, drug spending growth will accelerate due to 1) a leveling off of the generic dispensing rate, and 2) the expected approval of new drugs to treat cancer and other diseases and of modified versions or new indications of existing drugs. HHS does not expect Medicare Part D to have a strong impact on the drug spending growth rate after 2006.[27]

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[1] All spending amounts in this report are in current dollars (i.e., not adjusted for inflation).
[2] Centers for Medicare & Medicaid Services, National Health Expenditure Accounts, Historical, http://www.cms.hhs.gov/NationalHealthExpendData/.
[3] Kaiser Family Foundation calculations using data from IMS Health, http://www.imshealth.com (US Top-Line Industry Data), and Census Bureau, http;//www.census.gov. The per capita number may differ from the number reported at KFF's website www.statehealthfacts.org because they use different data sources using different retail pharmacy definitions (e.g., IMS Health includes mail order, Verispan does not).
[4] Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey Component Data, "Prescription Medicines – Mean and Median Expenses per Person With Expense and Distribution of Expenses by Source of Payment," table 2, 1996 and 2004, http://www.meps.ahrq.gov/mepsweb/.
[5] Retail prescription prices reflect the prices paid by insured and uninsured patients, and do not reflect rebates, discounts, and other payments that in effect lower the cost of prescriptions.
[6] Kaiser Family Foundation calculations using data from National Association of Chain Drug Stores, "Industry Facts-at-a-Glance," http://www.nacds.org (based on data from IMS Health), and Consumer Price Index, US City Average, All items, from the Bureau of Labor Statistics, http://www.bls.gov.
[7] US Food and Drug Administration, http://www.fda.gov/cder/rdmt/NMEapps93-06.htm; 2004-2006 data include new BLAs (biologic license applications) for therapeutic biologic products transferred from FDA's Center for Biologics Evaluation and Research to its Center for Drug Evaluation and Research.
[8] U.S. Food and Drug Administration, Center for Drug Evaluation and Research, "Generic Competition and Drug Prices," http://www.fda.gov/cder/ogd/generic_competition.htm.
[9] Generic Pharmaceutical Association, http://www.gphaonline.org/Content/NavigationMenu/AboutGenerics/Statistics/default.htm.
[10] IMS Health, http://www.imshealth.com (US Top-Line Industry Data); Kaiser Family Foundation, *Prescription Drug Trends, a chartbook*, (July 2000), ex. 3.13, http://www.kff.org/rxdrugs/3019-index.cfm. The data on spending for advertising directed towards physicians excludes the retail value of drug samples left at sales visits to physicians' offices, which totaled about $16 billion in 2004.
[11] *Fortune* 155, no. 8 (April 30, 2007): F-32, and earlier April issues.
[12] *USA Today*/Kaiser Family Foundation/Harvard School of Public Health, *Health Care Costs Survey* (August 2005), chart 17, http://www.kff.org/newsmedia/upload/7371.pdf.
[13] US Census Bureau, "Revised CPS ASEC Health Insurance Data" (March 23, 2007), http://www.census.gov/hhes/www/hlthins/usernote/schedule.html.
[14] Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits 2006 Annual Survey (*September 2006), sec. 3, http://www.kff.org/insurance/7527/sections/ehbs06-sec3-1.cfm.
[15] Ibid, sec. 9, http://www.kff.org/insurance/7527/sections/ehbs06-sec9-1.cfm.
[16] Dana Gelb Safran et al., "Prescription Drug Coverage And Seniors: Findings From A 2003 National Survey," *Health Affairs*, Web Exclusive (April 19, 2005): W5-160, http://www.kff.org/medicare/med041905pkg.cfm.
[17] Kaiser Family Foundation, *Medicare: A Primer* (March 2007), 8, http://www.kff.org/medicare/upload/7615.pdf.
[18] Kaiser Family Foundation calculations using data from Aaron Catlin et al., "National Health Spending in 2005: The Slowdown Continues," *Health Affairs* 26, no.1, (January/February 2007): 150, ex. 6, http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage.
[19] Kaiser Family Foundation calculations using data from John Holahan and Arunabh Ghosh, *Dual Eligibles: Medicaid Enrollment and Spending for Medicare Beneficiaries in 2000* (Kaiser Commission on Medicaid and the Uninsured, July 2005), 8,10,21, http://www.kff.org/medicaid/7346.cfm.
[20] Kaiser Family Foundation and Health Research and Educational Trust, op. cit., ex. 9.2, http://www.kff.org/insurance/7527/sections/ehbs06-9-2.cfm.
[21] Kaiser Commission on Medicaid and the Uninsured, *Medicaid and Budget Reconciliation: Options and Implications of Savings Proposals* (October 2005), http://www.kff.org/medicaid/7410.cfm. Percentages are net of drug rebates.
[22] Kaiser Family Foundation calculations using data from Vernon Smith et al., *Low Medicaid Spending Growth Amid Rebounding State Revenues: Results from a 50-State Medicaid Budget Survey, State Fiscal Years 2006 and 2007* (Kaiser Commission on Medicaid and the Uninsured, October 2006), 39, fig. 24, http://www.kff.org/medicaid/upload/7569.pdf.
[23] John A. Poisal et al., "Health Spending Projections Through 2016: Modest Changes Obscure Part D's Impact," *Health Affairs*, Web Exclusive (February 21, 2007): w250, http://www.cms.hhs.gov/NationalHealthExpendData/03_NationalHealthAccountsProjected.asp#TopOfPage.
[24] Devon Herrick, National Center for Policy Analysis, *Shopping for Drugs: 2004*, National Center for Policy Analysis, Policy Report No. 270 (October 2004), http://www.ncpa.org/pub/st/st270.
[25] Kaiser Family Foundation, *Prescription Drugs: Advertising, Out-of-Pocket Costs, and Patient Safety from the Perspective of Doctors and Pharmacists* (November 2006), http://www.kff.org/kaiserpolls/upload/7583.pdf .
[26] US Department of Health and Human Services Task Force on Drug Importation, *Report on Prescription Drug Importation* (December 2004), ix, http://www.hhs.gov/importtaskforce/Report1220.pdf.
[27] John A. Poisal et al., op.cit.

For More Information:
In addition to the Kaiser Family Foundation reports in the Endnotes above, this Fact Sheet (#3057-06) and the following reports are available on the Foundation's website at www.kff.org: *Trends and Indicators in the Changing Health Care Marketplace* (#7031), *Prescription Drug Trends—A Chartbook Update* (#3112), *Cost Containment Strategies for Prescription Drugs: Assessing the Evidence in the Literature* (#7295), *Follow the Pill: Understanding the U.S. Commercial Pharmaceutical Supply Chain* (#7296), *Medicare Prescription Drug Benefit Fact Sheet* (#7044-05), *Medicare Payments and Beneficiary Costs for Prescription Drug Coverage* (#7620), *Resources on the Medicare Prescription Drug Benefit*, *Medicaid and Outpatient Prescription Drugs* (#1609-03), *Federal Policies Affecting the Cost and Availability of New Pharmaceuticals* (#3254), and *Retiree Health Benefits Examined: Findings from the Kaiser/Hewitt 2006 Survey on Retiree Health Benefits* (#7587). Also see www.statehealthfacts.org for state-specific prescription drug utilization and sales (under Health Costs & Budgets), and www.kaiserEDU.org (Prescription Drugs) for a Tutorial, Issue Modules, and SmartLinks on prescription drugs.