Pharmaceutical use is documented to save money by avoiding costly hospitalization, emergency room use, moving to a nursing home or repeat visits to specialists. Millions of patients with high blood pressure, high cholesterol, chronic pain, arthritis, sleep disorders or mild depression depend on one or two daily pills, for example.

**Drugs, both brands and generics, can be the cost-effective choice.** The math sometimes may be complex, but savings through use of pharmaceuticals can be irrefutable when compared to other treatments:

- A simple aspirin, costing less than 1 cent, can ward off a first or a second heart attack. After warning symptoms occur, aspirin prevents further damage from small blood clots that have formed. For the long-term, it acts as an anti-inflammatory.

- Heart failure will cost the United States $39.2 billion in 2010, according to the Centers for Disease Control and Prevention. One example of a widely used medication for mild-to-moderate heart attack, Lanoxin® (digoxin), at $20 per 30 day supply, keeps the heart rate slow or well-controlled in most situations.\(^1\)

- A leading brand product for depression and obsessive-compulsive disorder costs $100 per 30 pills, or about $1,200 per year.\(^2\) This compares with $4,500 to $8,100 for a typical one-episode stay in a psychiatric hospital.\(^3\) The “return on investment” varies, but combined with the medical and societal benefits, particular drugs are a widely accepted treatment choice for certain patients.

- About 76 million Americans take Lisinopril, to lower blood pressure. It costs $4 to $5 per month, but is rarely advertised or promoted.

Total annual U.S. pharmaceutical purchases were $244 billion in 2008.\(^4\) Although this figure is huge, it represents just over 10 percent of the overall national health expenditure of $2.4 trillion.

Prescription drug policies remain contentious, with strong economic competition between brand-name companies and generic manufacturers. Experts and interest groups also seek...
market advantage, including those employed by government agencies, insurers, employer benefit managers, medical societies, consumer advocates, professional associations representing pharmacies, pharmacy benefit managers (PBMs), and the manufacturers and distributors of brand-name, generic, over-the-counter and herbal or vitamin supplements.

Cost Containment Strategy and Logic
Buying more generic prescription drugs instead of their brand-name equivalents and purchasing brand-name drugs with discounts can significantly reduce overall prescription drug expenditures.

Brand-name products include the unique patent-protected products that usually are available only from a single manufacturer. Generic drugs, typically no longer protected by patents, are produced and sold by multiple, competing manufacturers at much lower costs.

**Generics.** The federal Food and Drug Administration (FDA), which approves all drug products sold legally in the United States certifies the “safety and suitability of generic drugs and encourages their use.” All generic drugs must meet the same strict quality guidelines and have exactly the same active ingredients as brand-name drug equivalents.

- In 2007, the average retail price for a generic prescription was $34.34, while the average retail price for a brand-name prescription was $119.51, a 71 percent difference.

- The generic substitution rate in the United States in 2009 was 75 percent; generic medicines accounted for more than 2.6 billion of the approximately 3.9 billion prescriptions dispensed. The total number of generic prescriptions dispensed increased 5.9 percent in 2009, while the number of brand-name prescriptions dispensed declined 7.6 percent. This compares to approximately 1.2 billion brand-name prescriptions dispensed annually in the United States.

- Generic drugs represented 22 cents of every $1 spent on prescription drugs.

- Fifty-two percent of FDA-approved prescription products are available in a generic form.

- According to the PhRMA, “The volume of generic drugs dispensed affirms that formularies and generic substitution are the major forces in determining whether a patient receives a newer brand medicine or an older generic medicine.”

**Brand-Name Drugs.** Approximately 48 percent of prescription products are available only in a brand-name product, most of which are available only from a single manufacturer. The highest-priced medications are brand-names, which means generic drugs are not available for some key medical conditions and categories of patients unless a doctor decides a different form of medication is appropriate. Potentially life-saving drugs—such as the latest anti-depressants, anti-psychotics, and cardiovascular products—often remain predominantly brand-name; their sales total approximately $127 billion annually. Each dose of a leading colon cancer drug, for example, costs $10,000 a month and a lung cancer drug about $8,800 per month. If a physician feels that a brand-name product is beneficial for a patient, he or she may request “brand medically necessary” on the prescription especially prevalent for conditions such as HIV/AIDS, organ transplants and mental illness.

**Target of Cost Containment**
States already are one of the largest purchasers of prescription drugs, making decisions and signing agreements worth billions each year. Their buying decisions, set by law, contracts and negotiations, are aimed primarily at cost-effective purchasing based on the needs of the patient populations, not on individual patients’ benefits or treatment. Large national corporations, including health insurers and pharmaceutical benefit management companies, already vie for the least expensive prices. Patients’ access to treatment usually is addressed by separate requirements, such as Medicaid guidelines that require no “medically necessary” prescription drugs be excluded from coverage and through use of simplified prior authorization steps that allow use of “non-preferred” as well as “preferred” drugs.

- Between 2000 and 2005, the annual increase for drug spending was the highest of any health service or product—11.6 percent in 2000 and 10.6 percent in 2005. This annual increase slowed dramatically by 2008 to 3.2 percent. Medicaid prescription drug spending actually decreased by 1.8 percent in 2007; 31 states reported spending less in 2007 than in 2006. The slowdown in costs does not mean the prescription drug market is shrinking or unimportant. It does demonstrate the clearest numerical examples of cost containment within the American health system.

- In late 2009, prescription drug prices were reported to be increasing. For example, Anthem Blue Cross in California claimed it was experiencing 13 percent annual increases for key drug products. AARP reported 9.3 percent increases on several widely used brand products.

- A report by the National Association of Chain Drug Stores states, “Medicaid programs generally have a good generic dispensing rate, but greater savings could be achieved by encouraging or mandating more aggressive prescribing of generics. Most states spend between 7 percent and 8 percent of their Medicaid drug budget on higher-cost brand-
name drugs that have lower-cost generic equivalents." However, states generally provide a good balance of brand-name and generic drug access.

■ A 2009 U.S. Government Accountability Office report examining price changes from 2008 to 2009 reported that “lack of therapeutically equivalent drugs and limited competition may contribute to extraordinary price increases.”

■ A 2010 report released by Express Scripts, one of the largest pharmaceutical benefit management companies, calculated that “potential savings of $18 billion were missed in the commercially insured market alone from use of brand-name drugs instead of chemically or therapeutically equivalent lower cost generics.” “Extrapolating to the U.S. population, including those enrolled in Medicare, Medicaid and other public insurance programs, Express Scripts estimated that ‘missed saving opportunities’ amounted to over $42 billion.”

■ States also can provide incentive payments to pharmacies and to physicians who promote generic drug use.

The complex U.S. pharmaceutical market includes more than 10,000 distinct FDA-approved medicines. Therefore, large purchasers need systematic programs that are constantly updated to ensure both maximum appropriate savings and the best medical effectiveness.

Federal Health Reform
The Patient Protection and Affordable Care Act, signed March 23, 2010, significantly increases the federal Medicaid drug rebate on brand-name drugs by 8 percent, from 15.1 percent to 23.1 percent and the generic drug rebate by 2 percent, from 11 percent to 13 percent. The new rebates apply only to the federally paid portion of Medicaid, not the state portion. The law also extends the prescription drug rebate to Medicaid managed care plans, payable to Medicaid programs retroactively, effective Jan. 1, 2010. The Congressional Budget Office calculated that this change would save a total of $420 million in 2011, $710 million in 2012 and $790 million in 2013. Brand drug manufacturers will be responsible for $2.8 billion in added federal excise taxes annually for the 10-year period between 2010 and 2019.

State Examples
■ Thirteen states—Florida, Hawaii, Kentucky, Massachusetts, Minnesota, Mississippi, Nevada, New Jersey, New York, Pennsylvania, Rhode Island, Washington and West Virginia—and Puerto Rico require licensed pharmacists to dispense the FDA-approved generic equivalent when available. All other states permit, but do not require, licensed pharmacists to dispense the generic equivalent. These state laws generally apply to all patients and all payers.

■ In every state, physicians and other licensed prescribers can specifically order the use of a brand by name and block a generic substitution. A group payer—either a public agency or private sector company—can control the reimbursement rules. South Dakota’s state employee health plan, for example, pays only the generic price if enrollees choose a brand-name drug that is not “medically necessary” when a generic could be used. The employee will pay the $9 generic copayment plus the difference in cost between the generic drug and brand-name drug.

■ In 2006, Washington launched a three-agency joint purchasing project. The three agencies reported “that on average each one percent increase in generic use can decrease pharmacy spending by an equivalent one percent.”

■ An analysis of annual generic, brand-name and total annual spending in state Medicaid programs showed the following examples of spending and projected savings for the period from July 2008 to June 2009 (Table 1).

■ West Virginia law requires substitution of generic drugs when appropriate and further requires that pharmacies pass on to purchasers the entire savings realized from use of generic drugs. In August 2009, the state sued major pharmacies in the state for overcharging retail consumers.

■ Under Medicaid, nine states pay a tiered reimbursement to pharmacies as an incentive to dispense generics. Illinois, for example, pays a $4.60 pharmacist dispensing fee for generics and a $3.40 fee for branded products. North Carolina pays

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**Table 1. State Medicaid Prescription Drug Use, Cost and Projected Savings**

<table>
<thead>
<tr>
<th>State Medicaid</th>
<th>Total Rx Scripts (million)</th>
<th>Total Rx Spending ($ in millions)</th>
<th>Brand Average Cost</th>
<th>Brand % Total Dollars</th>
<th>Generic % Total Dollars</th>
<th>Generic Use Savings if 1% Change (state share)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>4.5</td>
<td>$359</td>
<td>$172</td>
<td>79%</td>
<td>20%</td>
<td>$1.8 mil.</td>
</tr>
<tr>
<td>Connecticut</td>
<td>3.4</td>
<td>$313</td>
<td>$194</td>
<td>79%</td>
<td>20%</td>
<td>$2.8 mil.</td>
</tr>
<tr>
<td>Kentucky</td>
<td>9.9</td>
<td>$533</td>
<td>$147</td>
<td>76%</td>
<td>23%</td>
<td>$3.8 mil.</td>
</tr>
<tr>
<td>Maine</td>
<td>2.4</td>
<td>$168</td>
<td>$149</td>
<td>89%</td>
<td>11%</td>
<td>$1.2 mil.</td>
</tr>
<tr>
<td>New Jersey</td>
<td>5.4</td>
<td>$547</td>
<td>$203</td>
<td>79%</td>
<td>20%</td>
<td>$4.5 mil.</td>
</tr>
<tr>
<td>National Total</td>
<td>289</td>
<td>$23,040</td>
<td>$191</td>
<td>82%</td>
<td>17%</td>
<td></td>
</tr>
</tbody>
</table>

*Savings figures are a projection based on an assumption of a 1 percent change, not actual savings. A 50-state version of this information is available online. The column headed “Generic utilization if 1% change (state share)” calculates only the state portion of Medicaid payment, ranging from 50 percent to 24 percent of total costs, and excludes the federal share of savings (FMAP share). Source: National Association of Chain Drug Stores, National Brand and Generic Prescription (Rx) Medicaid Drug Utilization and Expenditures by State in 2008Q3 - 2009Q2.*
Selecting Brand-Name Products.

Some brand-name drugs cost less than generics. With discounts and marketing a particular brand product can be obtained for the same or less than a generic. Acknowledging this, several state required generic substitution laws have a blanket exception for products sold at a lower price.

Some brand-name drugs have proven to be more effective, causing fewer side effects or requiring fewer doses per week. Thus, state-sponsored preferred drug lists almost always include selected brand-name products for “preferred” status.

Extra discounts agreed to by manufacturers (supplemental rebates) make some products competitive by price, especially in the Medicaid pricing structure.

The federal 340B Drug pricing program allows 14,500 approved clinics, hospitals and other entities located in all 50 states and the territories to purchase and provide many costly brand-name products at deep discounts, frequently below the established Medicaid price. Regular outpatients of the approved clinics and hospitals are eligible for the 340B prices, including the uninsured and Medicaid or Medicare patients. A leading brand-name cancer drug, for example retails at $6,000 per month (100 percent), while a 340B community health clinic or hospital pharmacy can purchase the same product for $3,060 (51 percent) or less. Some states achieve savings by having some Medicaid enrollees obtain their drugs from the 340B-eligible clinics and pharmacies. (Find more information about using the 340B pricing program online at “States and the 340B Drug Pricing Program,” http://www.ncsl.org/default.aspx?tabid=14469.)

The major brand-name pharmaceutical manufacturers offer free and reduced-cost pharmaceutical assistance programs nationwide, some with state-identified branches. The Partnership for Prescription Assistance (PPA Rx), for example, helps qualifying patients who do not have prescription drug coverage obtain free or low-cost medications, including 2,500 products offered by 200 brand-name manufacturers and 275 other assistance sources. Started in April 2005, PPA and its Help Is Here Express bus tour had helped 6 million patients as of October 2009. Together RX provides a similar nationwide service free or at a discount.

Evidence of Effectiveness

Purchasing generic pharmaceuticals instead of their brand-name equivalent drugs can provide substantial savings, not only for state and local governments and Medicaid programs, but also for health insurers, employers, employees, and direct-pay patients and consumers.

Among all purchasers, the total cost of using generic pharmaceuticals nationwide was $121 billion less compared to the purchase price of brand-name equivalents. In 2008, for all drugs except specialty products, overall use of brand-name drugs decreased by 10.9 percent, and generic drug use increased by 7.5 percent. As a result, the cost was lowered by 2.3 percent to $12.70 per prescription for these drugs, according to the annual survey conducted by Express Scripts. Decreased brand-name drug use also was influenced by the slowing economy, over-the-counter sales, drug safety concerns and expiring patent protections.

Massachusetts adopted a mandatory Medicaid generic substitution process in 2002, when its generic use rate was 47 percent. By 2007, it had increased generic use to 70 percent. Total prescription drug spending was $464.9 million, of which approximately 20 percent was spent on generic drugs ($92.8 million). The average cost of the generic...
Arizona's Medicaid managed care plans require generic drug use when available. According to Director Anthony Rogers, the overall state agency dispensing rate average for generic drugs is 70 percent. When generic drugs are available, health plans average a 98 percent generic dispensing rate. Arizona has found it is more cost effective to use generic drugs than to use brand-name drugs and receive a rebate.

New York’s Medicaid Mandatory Generic Drug Program, enacted in 2002, requires doctors to prescribe the generic version of a drug unless they obtain prior approval for a brand-name drug. For FY 2008-2009, the state program showed a decrease in use and spending on most products requiring drug review and a 50 percent reduction in total payments for switched drugs. Annual cost reduction was estimated to be $22,918,665.

Fifty-seven percent of the total nationwide cost reduction from use of generic drugs between 1999 and 2008—totalling some $420 billion—were realized in cardiovascular, psychiatric and neurological disease medications. Generic metabolism and anti-infective drugs combined accounted for an additional 19 percent of the savings. Nationwide, overall reduced cost from use of generic drugs in these five major therapeutic categories totaled approximately $561 billion (an average of $56 billion annually).

Challenges

- Treatment for some of the most serious and costly medical conditions—including life-threatening and chronic diseases—may require prescribing brand-name products because no generic drugs are available for a particular condition.
- With thousands of FDA-approved brand-name and generic drugs available, it is difficult for legislators and other elected policymakers to understand, monitor or play a direct role in an arena where physicians and pharmacists traditionally make all decisions.
- At least two case studies of state prior authorization programs found the programs “can lead to bureaucratic and communication problems among enrollees, providers, and pharmaceutical benefit management firms under contract to the state, which in turn can lead to delays and other problems with prescription drug access.”
- Brand-name pharmaceutical manufacturers make a high-visibility, frequently presented case that continued use of brand-name products is good both for patients and the overall economy. They state, “Brand medicines bear the cost of research and development needed to achieve treatment advances and to prove that a new medicine is safe and effective. Over time, these innovative medicines transition to cheaper generics, which piggyback on the brand’s research and development.”
- People may react differently to medications. A published story of one very ill patient who is denied a particular treatment can lead to reversal of otherwise well-established or scientific-based prescription drug programs.

People’s perceptions of generic drugs can present a challenge. A national survey of a random sample of commercially insured patients with prescription drug coverage found that patient perception of generic drugs generally is positive. When asked whether they “prefer” generics, however, only 38 percent agreed. Few patients reported concern about the safety or side effects of generic drugs, only a minority believe that brand-name drugs are more effective than generics, and most believe that generics are a better “value” than brand-name drugs. As a result, respondents overwhelmingly agreed with the statement, “More Americans should use generics.”

For More Information

The latest information on this topic is available in an NCSL online supplement at www.ncsl.org/?tabid=19934.

Notes

5. Brand-name products also include some “off-patent” and so-called “me-too” drugs, which are similar copies of other products.
13. NACDS, Medicaid Cost Savings.
16. NACDS, Medicaid Cost Savings.
22. West Virginia Code §§ 30-5-23 and 46A-7-108.
23. Twelve states also have a Medicaid tiered patient copayment, charging less to beneficiaries as an incentive to use generics. Colorado, for example, charges $1 for a generic and $3 for a brand drug. Illinois has no copayment for generics and $3 for brands. Centers for Medicare and Medicaid Services, CMS Medicaid Reimbursement Chart, March 2010 (Baltimore, Md.: CMS, March 31, 2010); http://www.cms.gov/Reimbursement/Downloads/reimbursementchart1Q2010.pdf.

About this Project

NCSL’s Health Cost Containment and Efficiency Series describes multiple alternative state policy approaches, with an emphasis on documented and fiscally calculated results. The project is housed at the NCSL Health Program in Denver, Colorado. It is led by Richard Cauchi, program director, and Martha King, group director, with Barbara Yondorf as lead researcher.

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