



FIXING  
AMERICAN  
HEALTH  
CARE

# CEO DAVID SNOW SAYS BY CHANGING DRUG DELIVERY MEDCO CAN IMPROVE PATIENTS' LIVES — AND THE U.S. HEALTH-CARE SYSTEM.

BY JOHN R. QUAIN » PHOTOGRAPHS BY ERIN PATRICE O'BRIEN

“THE HEALTH-CARE SYSTEM IS BROKEN, VERY BROKEN,” says David B. Snow Jr. As chairman and CEO of **MEDCO HEALTH SOLUTIONS INC.** (MHS), the largest pharmacy benefits management (PBM) company in the U.S., Snow says Medco is in a position to help fix health care in America.

The figures backing up his claim are alarming. Last year U.S. employer-sponsored health-care premiums rose 6.1 percent, more than double the 2.6 percent rate of inflation. Health-care expenditures in the U.S. reached \$2.3 trillion in 2007, according to the National Coalition on Health Care. Further, medication errors add \$3.5 billion worth of needless hospitalizations annually.

Snow believes Medco is at the epicenter of a health-care revolution. Using a combination of electronic prescription filings, automated mail-order pharmacies, specialized pharmacists and personalized medicine, he suggests that doctors, patients and PBMs can cut health-care costs while improving patient care. “We’re creating an end-to-end capability to drive better outcomes, both clinically and financially,” he says.

Franklin Lakes, N.J.-based Medco manages drug-benefit programs for managed-care organizations, corporate employers, union-sponsored benefit plans and government agencies. The company designs drug form-



MEDCO CEO DAVID SNOW

ularies, negotiates discounts with pharmaceutical companies and processes claims. Medco also operates two of the world's largest pharmacies, as well as the country's largest specialty pharmacy (see "Special Handling Required," page 19). Its clients' employees can fill prescriptions via a network of close to 60,000 subcontracted pharmacies or through Medco's mail-order pharmacies, usually at substantial savings.

Medco operates under what CFO Richard J. Rubino calls an unconflicted model: "What's good for us is good for the patient and for the client." He points to Medco's 98 percent client-retention rate in 2007, even as it held client drug cost increases to about 2 percent in a business accustomed to double-digit price inflation. He says that new clients should add \$5 billion in 2008 revenues, "so we'll be a more than \$50 billion company this year."

## Building Trust

But Medco's prognosis wasn't always so optimistic. Starting in the late 1990s, the company notes, it faced several class-action lawsuits alleging that Medco had not fully disclosed rebates that it had received from drug companies to promote their products; the fact that Medco was then owned by pharmaceutical company **MERCK & CO. INC.** (MRK) only exacerbated the issue. The suits led to distracting litigation and negative press, says Snow. "A PBM that worked for a drug company didn't make sense," says the CEO, who came to Medco in March 2003 after working as president and chief operating officer at Wellchoice Inc., which provided health coverage under the Blue Cross and Blue Shield brands. Five months after joining Medco, he followed through on Merck's promise to launch Medco as an IPO.

Snow had his work cut out for him, says Kenneth Klepper, Medco's president and chief operating officer, who also came from Wellchoice. "Usually on the first day at work, you do the easy things, like find out where the cafeteria is," says Klepper. "But Dave took me to visit a large client who told us flatly that one more mistake and they would terminate their relationship with us."

For Klepper that client underlined Medco's need to fix foundational issues. "We set about instituting new processes to improve Medco's software and service reliability," he says. "We institutionalized preventive action as a key component of every correction made. This was a big culture shift, which generated substantial improvements in both visibility and accountability." Five-hour meetings to determine how to prevent errors and improve customer service became common. And, explains Klepper, most of the litigation was settled by the end of 2004, including a \$29.3 million agreement with attorneys general of 20 states. In the agreement, Medco did not admit wrongdoing but settled issues concerning the drug company rebates. More than one of those attorneys general hailed Medco's new business practices as the gold standard for the industry, according to the company.

Fortunately, dealing with customer-relationship problems was familiar territory for Snow. The 54-year-old, who has been married for 30 years and has 15-year-old twin daughters, is from a family of physicians. After

receiving a master's degree in health-care administration from Duke University in 1978, he spent five years in hospital management. He worked for the next two decades in "the big health-care plan world," Snow says, culminating in November 2002 when he helped take Wellchoice public.

Beyond experience, "what Dave brought us was passion," asserts Rubino. Klepper says that Snow became the company's defender, communicating to employees his unhappiness about media coverage he saw as unfair. "People felt that finally someone was fighting for this company," he says. In *Fortune* magazine's 2008 survey, Medco was named most admired company in the health-care industry, and ranked third in the innovation category, notes Snow proudly.

Snow's blueprint for Medco called for bringing in new resources. Medco indicates its employee count has grown from 13,000 workers in 2003 to more than 20,000, including 2,400 pharmacists. It reports filling nearly 560 million prescriptions for about 60 million patients last year — or one out of every five people in the U.S. That clout helps Medco keep customer costs down as it negotiates discounts with retail pharmacies and rebates with drug makers. Medco estimates that it will fill 105 million prescriptions by mail this year, compared with a reported 65 million for its closest mail-order competitor, **CVS CAREMARK CORP.** (CVS).

Medco dispenses mail-order prescriptions through automated facilities in Las Vegas and Willingboro, N.J. Running on software developed at the company and using robotics, says Snow, these pharmacies can handle a combined 2 million prescriptions a week with better than Six Sigma accuracy, fulfilling orders taken online and by phone. Medco is also investing

more than \$140 million in a next-generation mail-order facility in Indiana, expected to be able to fill an additional million prescriptions per week when it begins operations next year. "I can fulfill more scripts in an hour than a retail pharmacy can in a year," says Snow, "with 23 times fewer errors."

The use of technology means Medco pharmacists don't have to sort pills into bottles — which is where many mistakes are made. Instead, says Snow, company pharmacists spend time working with patients and doctors to ensure that patients get the right medications. The Institute



MEDCO'S BRAIN TRUST INCLUDES (FROM LEFT) KENNETH KLEPPER, RICHARD RUBINO, ROBERT EPSTEIN AND JOHN DRISCOLL.

E-PRESCRIPTIONS REDUCE MISTAKES, BOOST PATIENT SAFETY AND SAVE ABOUT \$1.50 ON EACH SCRIPT FILLED.

of Medicine reports that 1.5 million Americans become ill, injured or die due to medication errors each year.

What's more, separate from the cost of the medicine, "dispensing costs of mail order can be as little as 50¢ per prescription," says Snow, compared to what some have suggested to be retail pharmacies' costs of \$8 to \$10 per prescription when one includes salaries, real estate and other overhead.

Having drugs arrive on a customer's doorstep also encourages people to take their medicine. As many as one in three prescriptions goes unfilled, according to some studies, and eliminating the inconvenience of traveling to the store removes one obstacle in getting patients to take their meds.

## Therapeutic Resource Centers

Medco is also aiming for better patient care through specialization. Patients suffering from chronic and complex diseases such as diabetes account for about 96 percent of a health-benefit plan's cost, Snow explains. So in 2006, Medco began opening therapeutic resource centers covering 14 major diseases and staffed by more than 1,100 pharmacists who

and a retail pharmacy group launched SureScripts. Both systems allow doctors to electronically file prescriptions that pharmacies also can access. In July the two systems announced they would merge in an effort to further the adoption and use of e-prescriptions. "It's a very big deal," says Snow.

The CEO explains that e-prescriptions can be filled more quickly without the wait time for patients to deliver handwritten scripts to pharmacies. The systems can automatically alert physicians and pharmacists if another doctor prescribes a drug that could create potentially unsafe drug interactions. In one Medco study, says John P. Driscoll, the company's president of new markets, more than 3,000 doctors in southeast Michigan generated 3.3 million e-prescriptions. "The e-prescription system alerted doctors to over a million cases where a potential danger existed, which in turn resulted in changes to about 41 percent of the prescriptions," he says.

E-prescriptions make up about 12,000 of Medco's new prescriptions each week, compared with millions that still come in as handwritten doctors' orders or phone calls. Still, Snow is encouraged that recent Medicare legislation provides financial incentives for doctors to file e-prescriptions,

# GENETIC TESTS CAN DETERMINE WHETHER A DRUG WILL HELP AND HOW MUCH OF IT A SPECIFIC PATIENT NEEDS.

specialize in specific illnesses, such as diabetes, cancer or heart disease. Located in Florida, New Jersey, Ohio, Pennsylvania, Texas and Washington, these condition-specific centers are driven by protocols, such as those endorsed by the American Diabetes Association. Medco pharmacies typically call patients who fail to order their regular medication, and its pharmacists check with doctors if a contraindicated drug is prescribed. "Knowing a disease well closes another gap in care," says Brian Griffin, group president for health plans.

For example, an asthma center observed that many patients were ordering sleeping pills, says Dr. Robert Epstein, Medco's chief medical officer. Recognizing insomnia as a symptom, "the pharmacists worked with patients to get their asthma under better control so that sleeping medications wouldn't be needed."

Medco recently recruited six gold-medal-winning athletes afflicted with chronic and complex conditions to share the ways in which the company's advanced pharmacy has improved their overall health. Through Medco's Tour of Champions, swimmer Mark Spitz and heptathlete Jackie Joyner-Kersey cross the country discussing, respectively, cholesterol and asthma.

To make a widespread difference, Snow says, doctors need to submit prescriptions electronically rather than on handwritten paper slips, a simple process that can reduce mistakes and improve patient safety. He notes that the infrastructure is in place to speed the electronic process. In 2001 a consortium of pharmacy benefit managers (including Medco) founded RxHub,

and later penalties for failing to do so. The ultimate goal, of course, is to have all medical records, X-rays, MRIs and the like digitized so that doctors have full and quick access to a patient's medical history.

## Personalized Medicine

Snow says the greatest reform may come from pharmacogenomics, or personalized medicine. He says just three enzymes metabolize 50 percent to 60 percent of drugs dispensed today. Unlike genetic screening meant to find predispositions to certain ailments, pharmacogenomics tests those enzymes to determine "if a drug will work for you, and the right dose for you," he explains.

Medco is partnering in pharmacogenomic studies with independent organizations such as the Mayo Clinic. To oversee its research efforts, this past summer Medco hired as vice president Felix Frueh, formerly the associate director for genomics at the U.S. Food and Drug Administration's Office of Clinical Pharmacology. Medco has since entered into a two-year agreement to deliver reports to the FDA about pharmacogenomic testing, including physician participation results and the outcomes of such tests.

In some cases, a lack of testing can be fatal. For example, 6 percent to 7 percent of HIV/AIDS patients have a hypersensitivity to a particular drug that can result in death, says Epstein. He says that a simple genetic test should be given to every patient starting this particular therapy.

Rubino takes the testing personally. Following open-heart surgery, his father received the widely used blood thinner Coumadin to prevent clots in the heart, but suffered a brain hemorrhage. "It left him in rehab for six months and cost hundreds of thousands of dollars," says Rubino.

The problem is that individuals metabolize the anticoagulant differently, so that when prescribing Coumadin, doctors cautiously adjust dosages until they achieve the proper levels. This traditional approach, according to Rubino, takes an average of six months. In a clinical study undertaken by Medco and the Mayo Clinic, "we found that of the first 800 doctors we called, only two knew of the pharmacogenomic test," notes Snow, who believes the study will show that the test can shrink the time for doctors and patients to find the right dosage to just six weeks.

Snow adds that the inpatient hospitalization rate for people on Coumadin in the first six months is 22 percent nationally. "We believe that we can significantly reduce this statistic, which would improve clinical care for patients and provide cost savings for our clients."

Pharmacogenomic tests may have the most profound effect in treating cancer. Snow says a genetic test has existed for almost five years to determine whether a patient is among the approximately 10 percent of the population who cannot metabolize tamoxifen, a popular and generally successful treatment to prevent recurrence of breast cancer. Snow asks: "Wouldn't you want the test to know that the drug you're taking is actually working? Otherwise, when you find out it's not working it's too late to try another treatment."

Medco is partnering with the **LABORATORY CORP. OF AMERICA HOLDINGS (LH)** to determine the effectiveness of the tamoxifen genetic test. It's an end run around the existing catch-22 situation, says Snow: Insurers don't want to pay for tests not considered a part of standard care, and physicians won't order the tests to make them standard because insurers won't pay for them. Medco says that, through peer-reviewed studies, it can demonstrate the benefits to large, self-insured clients, who can make such testing standard on their own. "We're trying to jump-start the science here," says Epstein. By determining in advance whether a treatment will be effective, he adds, such personalized medicine can save lives and money.

Naturally, Medco continues to push forward in more traditional PBM areas to reduce costs, says Snow, who points out that the growth of generic drugs (where Medco earns a higher margin) has helped the company's bottom line. Nearly 60 percent of Medco members ordered generics last year, and "a tremendous number of brand drugs are going generic between now and 2015," Rubino points out.

Ultimately, Snow believes, improved health care involves not just bringing costs down but also fixing the system. And he says Medco is positioned to make a difference. "Drugs are the first line of defense," he says, "so when you manage them better, you manage the whole health-care system better." ■



TIM WENTWORTH, CEO OF ACCREDO HEALTH GROUP

## SPECIAL HANDLING REQUIRED

"OUR MODEL IS VERY HIGH TOUCH," explains Timothy C. Wentworth, president and CEO of Accredo Health Group Inc., a Memphis-based specialty pharmacy that Medco acquired in 2005 for \$2.2 billion. "We dispense prescriptions for rarer diseases that typically require biotechnology drugs and special handling," he says. Many of its medications require extra care, such as refrigeration or shielding from light. And although Accredo treats only about 200,000 patients a year, it says it is the largest specialty pharmacy in the country. Year to date, Accredo has experienced more than 30 percent revenue growth and is expected to contribute more than \$7.5 billion to Medco's 2008 revenues.

"The specialty pharmacy area continues to be one of the fastest growing subsets of health care," says Ross Muken,\* vice president, DEUTSCHE BANK AG (DB).

Wentworth cites an example of a hemophilia patient whose drug treatments cost \$4 million a year. "Our clients want us to take very good care of this patient," he says, because precise dosing can not only provide better treatment, but also can save as much as \$400,000 a year.

To handle such delicate therapies, Accredo maintains more than 30 branches nationwide, each staffed by nurses specifically trained in Accredo's therapies. The nurses can make regular visits to patients or train some patients to administer their own medications so that they become more self-sufficient and avoid costly hospital visits that can be dangerous for patients with compromised immune systems.

Wentworth sees ample opportunity for growth, particularly as pharmaceutical companies develop more biotech therapies. "With the advances in biotechnology," he says, "we see many diseases becoming chronic illnesses rather than death sentences."

\* Ross Muken, vice president, Deutsche Bank AG, is not an officer, director or member of an advisory board at Medco Health Solutions Inc.; his firm owns shares of Medco's stock.