



## Survey Shows One-Third of Americans **USE ANTIBIOTICS INAPPROPRIATELY**

A survey conducted by Harris Interactive has revealed that one out of three Americans mistakenly believes antibiotics are effective in treating viruses such as cold and flu and takes these drugs to fight these viruses. The survey findings were released by the Council for Affordable Quality Healthcare (CAQH), a not-for-profit alliance of healthcare plans and networks.

Traditionally known to be powerful medications in reducing illness and death from infectious bacterial diseases, antibiotics still kill bacteria that cause infection in most cases. But many bacteria are now fighting off antibiotics that once worked well against them, making them harder for physicians to treat.

### SURVEY FINDINGS ON ANTIBIOTIC USE

**ONE-THIRD** of Americans has stopped taking an antibiotic before finishing the full amount prescribed. Not finishing a prescribed treatment of antibiotics contributes to the development of resistant bacteria.

**64%** of those who did not finish their medication said that they stopped taking it because they were feeling better.

**44%** of those who did not finish their medication said that they save the leftover medication for the next time they are ill.

Source: Harris Interactive

Consumers demanding antibiotic treatment for viruses, and physicians yielding to this demand, have led to the over-prescribing of these drugs. According to the Centers for Disease Control and Prevention, more than 50% of all antibiotics prescribed are unnecessary and can do more harm than good.

To help curb the inappropriate use of antibiotics and raise awareness of antibiotic resistance, CAQH, in partnership with the CDC, is launching an education initiative called Save Antibiotic Strength (SAS). San Diego, Calif.-area CAQH members WellPoint, Health Net, and Aetna are participating in the SAS campaign by providing San Diego healthcare providers with the tools they need to educate consumers about using antibiotics wisely.

"Antibiotic resistance is a much more significant problem than most people realize," says Jeff Kamil, M.D., corporate medical director of WellPoint and co-chair of the SAS Initiative in San Diego. "With many serious bacterial infections in the United States and abroad developing resistance, it's crucial that we take action now."

The SAS campaign features a variety of educational materials and community outreach programs promoting appropriate antibiotic use among healthcare providers and patients. The campaign also features a physician tool kit with a "prescription" pad for patients with symptoms of viral infections. The "prescription," accompanied by the tool kit's patient Q&A handouts and physician treatment guidelines for common bacterial (strep throat) and viral (common cold) infections, arms physicians with the means to effectively communicate the rationale of their diagnosis and treatment to the patient.

Local health plans also are working with the California Medical Association Foundation's Alliance Working for Antibiotic Resistance Education (AWARE) project to spread the word about antibiotic resistance to consumers. The partnership includes a collaboration on a speaker's bureau, which will make medical experts available to the community.

## Report Examines Causes and Solutions to **U.S. HEALTHCARE CRISIS**

A joint publication released by Deloitte & Touche LLP and the UCLA Anderson Forecast examines what is driving the seemingly limitless rise in healthcare costs, and what are the solutions. The report, Forecast: What Every Business Needs to Know About the Current Health Care Crisis, summarizes the analyses shared by top-level executives, policy makers, and economists during a one-day Anderson Forecast conference on healthcare.

Conference attendees agreed that escalating costs are a major driver in the rising health insurance premiums paid by employers and this trend is hurting the bottom line. Panelists addressed a range of

### FACTORS ATTRIBUTED TO RISING HEALTHCARE COSTS:

- ▶ **HEIGHTENED CONSUMER DEMAND.** With the advent of the Internet, consumers have become more educated about their healthcare options. They want unlimited benefits, access to new medical treatments, brand-name drugs, and less restrictive networks — and they want it at an affordable premium.
- ▶ **NEW TECHNOLOGY.** Although medical technologies have improved, many have become more expensive. One source estimates that new technology contributes up to a third of the annual increase in healthcare costs throughout the U.S.
- ▶ **HOSPITAL CONSOLIDATION.** Due to a wave of consolidation, the share of admissions controlled by the largest hospitals has grown dramatically. While conventional wisdom asserts that economies of scale yield reduced costs, that benefit has not yet been realized in most consolidating markets.
- ▶ **INCREASE IN PHARMACEUTICAL PRODUCT USAGE.** Many Americans believe there is a pill for everything, and they want full access. Both physicians and patients are using more prescriptions at higher prices than ever before. Source: Deloitte & Touche and UCLA Anderson Forecast

factors that are coalescing to feed the upsurge in today's healthcare costs, including new technology, consumer expectations, the diminished role of managed care, legislation, the aging U.S. population, hospital consolidation, and the high price of prescription medicines.

"Healthcare costs are now rising at a rate considerably higher than that of inflation," says Steve Burrill, partner in charge of the Health Care Practice for the Pacific Southwest region of Deloitte & Touche. "As this rate of increase cannot be sustained, the need for logical solutions to this crisis is imperative."

Some of the tactics, strategies, and solutions to the healthcare crisis outlined by the conference presenters include tiering pricing strategies, cost shifting, identification of short-term efficiencies, new health security models, modifying consumer expectations, and even a complete overhaul of the nation's healthcare system.

## Report Investigates the **COST OF DEVELOPING A DRUG**

A report titled, From Inception to Ingestion: The Cost of Creating New Drugs, from conservative think tank the Institute for Policy Innovation, investigates the question of how many millions of dollars are required to develop a drug.



*"Drug industry critics constantly complain that pharmaceutical manufacturers overstate the costs of creating a new drug, but this paper makes it clear that companies are spending roughly \$900 million to get one new drug approved," says Merrill Matthews, Ph.D.*

"The pharmaceutical industry cites studies that suggest it costs more than \$800 million to approve a new drug, while other orga-

nizations, such as Ralph Nader's Public Citizen, claim the cost is roughly \$110 million," says Merrill Matthews, Ph.D., a visiting scholar with the Institute for Policy Innovation and author of the study.

"But there is a way to resolve the discrepancy," he says. "By dividing the research and development costs by the number of drugs approved in a given year, we get a rough but accurate picture over time of the money it takes to move a drug from inception to ingestion."

For example, research-based pharmaceutical companies spent about \$26 billion on research and development in 2000, and 27 drugs were approved. Thus, it cost about \$964 million per drug approved in 2000.

While the author notes that this approach is not

THE COST OF CREATING A NEW DRUG			
Year	R&D (billions)	No. Approved in Year	Cost/Approved Drug (millions)
2000	\$26.0	27	\$964.1
1999	\$22.7	35	\$649.1
1998	\$21.1	30	\$702.0
1997	\$19.0	39	\$487.4
1996	\$16.9	53	\$319.0
1995	\$15.2	28	\$543.1
1994	\$13.4	22	\$611.3
1993	\$12.7	25	\$509.6
1992	\$11.5	26	\$441.1
1991	\$9.7	30	\$323.5
1990	\$8.4	23	\$366.1
1989	\$7.3	23	\$318.7
1988	\$6.5	20	\$326.9
1987	\$5.5	21	\$262.0

Source: Pharmaceutical Research and Manufacturers of America

as scientifically rigorous as other methods, it still provides a relatively accurate estimate when considered over time.

He also points out that the pharmaceutical industry pours billions of dollars annually into new, innovative drugs. New drugs, however, face numerous hurdles that can drive up costs.

Dr. Matthews notes that if pharmaceutical companies spent \$110 million to get a new drug

approved in 2000, as claimed by Public Citizen, including failed drugs, but spent \$26 billion on research and development, then 236 new drugs should have been approved that year.

The number of new, approved drugs, however, has remained relatively stable during recent years, he adds.

## Study Finds Pharma Companies Target Pharmacy Providers and Consultants to LONG-TERM CARE MARKET

According to a Verispan report, pharmacy providers/consultants see the most pharmaceutical representatives in long-term care facilities.

The report, Seniors and the Long-Term Care Market, has found that medical directors prefer to see representatives in their private practice.

Almost 60% of the medical directors reported details in their private practice are tailored to their elderly population; 53% reported these visits influence their prescription decisions at the long-term

care facility. Verispan's study found that other long-term care personnel do not see pharmaceutical representatives as often as they would like.

Assisted-living personnel see pharmaceutical representatives infrequently, but express interest in seeing them more often. These caregivers want up-to-date information and data on medication-management programs.

The study was designed to answer many questions about the current and future state of long-term care. These include, are pharmaceutical companies focusing on the right areas and the right personnel? Who are the key players in the long-term care industry? And what are their unique needs?

The study also assesses the roles, responsibilities, and needs of pharmacy providers and consultants, medical directors, and assisted living facilities.

Topics explored include: formulary and contract influences; impact of state and federal regulations; reimbursement issues; interactions with long-term care and assisted-living personnel; and value-added services in LTC and assisted-living facilities.

between 1990 and 1994 was 11.5%. During the same time, the real cost of capital was 11%.

The assessment of the earning power of new drugs reflect conclusions from a similar study done a decade earlier.

The authors note that since the 1970s, rapid growth in R&D spending has coincided with the introduction of new therapeutic classes and blockbuster compounds. But, they added, whether increasing research and development spending and innovative new product introductions will continue remains to be seen.

"How quickly these technologies lead to important new medicines will depend not only on scientific and economics factors, but also on the course of public policy actions," say the report's authors.

In a separate study involving 68 drugs introduced during the 1990s, Dr. DiMasi concluded that preclinical screens that boost clinical success rates from the current one in five to one in three would lower the average cost of a new drug to \$560 million. According to the Tufts Center, the costs associated with bringing a new drug to market are estimated at \$802 million.

Another study from The Tufts Center for the Study of Drug Development predicts that development strategies geared toward bringing blockbuster drugs to market (products that generate annual revenue of \$1 billion or more) will give way to alternative drug-development plans by pharmaceutical companies that can produce more predictable revenue streams.

"Since blockbusters are relatively rare and the cost of new drug development continues to rise, many pharmaceutical companies, confronting strong and growing pressure to enhance drug development pipelines, will re-evaluate their traditional blockbuster development strategies," says Tufts Center Director Kenneth I. Kaitin. "Also, as patents on several lucrative drugs expire this year, many companies will take a closer look at prescription to over-the-counter switches as a way to maintain revenue flow."

Mr. Kaitin added that the most consistently profitable drug companies will be those that succeed in shortening development times and terminating unpromising drugs earlier in the research and development cycle.

## Follow up

**THE COUNCIL FOR AFFORDABLE QUALITY HEALTHCARE**, Washington, D.C., is a nonprofit alliance of health plans and networks committed to improving the quality of healthcare and reducing administrative burdens for patients, physicians and payers. For more information, visit [caqh.org](http://caqh.org).

**DELOITTE & TOUCHE LLP**, New York, is a professional services firm. The Health Care and Life Sciences Practices division includes more than 1,800 professionals providing a broad range of auditing, accounting, tax, and consulting services to payers, providers, and life-sciences organizations. For more information, visit [deloitte.com](http://deloitte.com).

**HARRIS INTERACTIVE**, Rochester, New York, is a worldwide market research and consulting firm, best known for The Harris Poll and for its use of the Internet to conduct scientifically accurate market research. The company combines the power of unique methodologies and technology with international expertise in predictive, custom, and strategic research. For more information, visit [harrisinteractive.com](http://harrisinteractive.com).

**INSTITUTE FOR POLICY INNOVATION**, Lewisville, Texas, is a conservative-leaning organization that offers position papers and other documents on current policy issues, including tax policy, economic growth, technology policy, intellectual property, healthcare, and education reform. For more information, visit [ipi.org](http://ipi.org).

**THE TUFTS CENTER FOR THE STUDY OF DRUG DEVELOPMENT**, Boston, provides strategic information to help drug developers, regulators, and policy makers improve the quality and efficiency of pharmaceutical development, review, and utilization. For more information, visit [tufts.edu](http://tufts.edu).

**UCLA ANDERSON FORECAST**, Los Angeles, is one of the most widely watched and often-cited economic outlooks for California and the nation. For more information, visit [uclaforecast.com](http://uclaforecast.com).

**VERISPAN**, Newtown, Pa., is a healthcare informatics joint venture of Quintiles Transnational Corp. and McKesson Corp., and is one of the nation's leading providers of patient-level, longitudinal data, with de-identified data from about 1.7 billion U.S. pharmacy transactions and 275 million electronic medical transactions annually. For more information, visit [verispan.com](http://verispan.com).

### SENIORS AND LONG-TERM CARE MARKET:

▶ **NOVARTIS** is the company that calls on assisted-living facilities most often

▶ **PFIZER** has the strongest focus on corporate long-term care providers, according to pharmacy providers/consultants

▶ **PHARMACIA** sponsors the most pull-through programs

▶ **JOHNSON & JOHNSON** offers the most value-added services to long-term care facilities

Source: Verispan, Newtown, Pa.

## Tufts Center Studies Examine **BLOCKBUSTER DRUG RETURNS**, and Development Strategies

Despite rising research and development costs associated with new drugs, research shows that the top 10% of newly marketed drugs account for half of the financial returns on all new drug development, and only one-third of newly introduced drugs generate earnings that exceed average research and development costs.

The findings from a study conducted by researchers at the Tufts Center for the Study of Drug Development and Duke University have found that decisions to terminate unpromising drugs earlier in development, more productive discovery programs, and shorter clinical phases could potentially reduce the cost for a new drug by hundreds of millions of dollars.

According to the authors, Henry Grabowski and John Vernon of Duke University, and Joseph A. DiMasi, Ph.D., of the Tufts Center, the estimated average rate of return for 118 new drugs introduced