

Biotechnology Faces Cost Challenges in Consumer-Driven Healthcare Environment

Tom Morrow, MD

Summary

The biggest threat to biotechnology is not competition, but rather benefit design and managed care processes. Particularly for costly medications, the health insurance industry is rapidly shifting costs to individual consumers. Consumer-driven healthcare has many potential advantages and disadvantages. Given the issues seen with consumer-driven retirement savings, the success or failure of having the inexperienced individual determine where to spend healthcare dollars cannot be predicted. Consumer-driven healthcare is an experiment that is going to create a tremendous change in the environment for biotechnology-derived products, in particular because of their incredible cost, but also for all of medicine.

Key Points

- Consumer-driven healthcare is going to radically affect the biotechnology industry and dramatically change the face of the healthcare insurance industry.
- Consumers, not the employer or insurance provider, will determine how and where to spend their healthcare allotments.
- Healthcare value has a different definition for consumers and payers.
- Education of consumers on how to make appropriate choices in both choosing a plan and spending their healthcare dollars is lacking.

ONE OF THE BIGGEST challenges to the U.S. healthcare system, and especially the biotechnology industry, in the next few years will be the dramatic change in the way healthcare benefits are designed. The biggest threat to this industry is not competition—it is benefit design. Managed care processes are going to be put into place that may change the availability of incredible advances in therapies and diagnostics to the end user. Actual use of major scientific advances may be limited by a benefit design that is being thrown into place because managed care cannot identify any other way to deal with the costs related to the issue of biotechnology.

After more than a decade, the Human Genome

Project has identified the 3.1 billion bases of human DNA, and in a matter of decades healthcare and the healthcare insurance industry will be utterly transformed. The history books will mark 2000 as the ceremonial start of the Genomic Era.

Changing Costs of Therapy

Currently, there are medications that routinely cost \$20,000 to \$30,000 annually. Diseases, such as psoriasis, that previously were treated with a \$500-per-year medication, are now treated with a \$20,000-per-year biotechnology-derived medication. Basic therapies for common chronic diseases, such as osteoporosis, are costing nearly as much as what some people pay for

monthly rent (\$500 or more). These overall increases in the costs of therapy are driving a cost shift to consumers by payers.

Trends in Healthcare Delivery

Some of the major trends within the healthcare delivery systems that are going to affect the biotechnology industry are listed in Exhibit 1. Supply creates its own demand with technology advances. When a new medical device, medication, biotechnology product, surgical therapy, or test enters the market, there is an immediate demand by the public for more information, access, and, ultimately, payment for these services. Technology is breeding a tremendous demand.

When the economics of a new technology are examined, the value equation for consumers is equal to whatever they define as quality. Quality could be something they saw in an ad, something their physician told them about, or something they hope will yield a positive outcome. But that's only part of the formula for the typical consumer who has insurance and is paying a \$10 or \$20 co-pay. The value equation is a different equation for the purchaser. The purchaser's equation is quality divided by cost. The cost then becomes the main factor in the equation (see Exhibit 2).

Currently, biotechnology companies seeking to get new products (whether a medication or test) used and reimbursed is to contract with payers, demonstrating the value equation and the scientific data. The payer makes the decision whether to cover a service that

directly affects the patient, but the patient has no influence in the decision. With the rise of consumerism, that decision is soon going to be made at the patient level. If decision-makers for payers need a large amount of information and science to determine value and coverage, the patient is going to require significant education to make an informed decision.

A degree of conservatism exists among payers when it comes to approving new technologies. For example, even when potential value can be demonstrated, a payer may choose not to pay for a new advance such as a genetic test because the payer fears opening the door to paying for additional costly tests.

Currently, the trend among healthcare payers is to shift increases in cost onto the consumer. Very soon, the consumer will be the first insurer. The consumer as first insurer is most evident in the "doughnut hole" or gap in coverage that rapidly increases in size under the new Medicare Modernization Act. Employed members of the general public are increasingly becoming the first insurer, and that changes everything. For the practicing physician, it changes the way a consumer or a patient is approached with the choice of a test or a therapy. Drug manufacturers no longer will be negotiating contracts to get on a formulary. Instead, they will be evaluating whether the consumer is willing to pay the price of the product. Consumers will have increased say in how their disease or condition is treated. The consumer also will have to evaluate whether to use scarce resources (i.e., out-of-pocket costs) for a treatment or test. Consumers will be deciding which is most important: therapy or some other need in their lives. This will be a tremendous realignment of the economic incentives from the payer and provider to the consumer.

Consumer-Driven Healthcare

Spiraling healthcare costs and consumer demand for greater flexibility are the reasons why many employers and payers are moving to consumer-driven healthcare, which is defined as a system where consumers, not the company or insurance provider, determine how and where to spend their healthcare allotments.¹ The basic premise of consumer-driven healthcare is that if users of the healthcare benefit see the true costs of a service, and they are given an incentive to help control these costs, overall healthcare costs will decline while quality care is maintained. Whether these outcomes will be achieved is not known.

There are four main types of plans being used in consumer-driven healthcare:

- Fully Defined Contribution: The employee is responsible for finding and purchasing individual medical coverage. The employer provides funding through either direct compensation or a voucher.
- Tiered Networks: The employer offers employees a

Exhibit 1: Healthcare 2006—The Issues

- Aging of America
- Supply creates demand
- Quality-improvement principles
- Cost
- Financing structure
- 80:20 rule
- Consumerism
- Outcomes
- Technology
- Shift to employers

Exhibit 2: What Is Value?

For Consumers:

Value = Quality (Perceived Outcomes)

For Purchasers:

Value = $\frac{\text{Quality (Outcomes)}}{\text{Cost}}$

choice of medical plans, which include medical systems of varying costs.

- **Menu-driven:** Employers provide online information to help employees customize their own benefit plan by selecting co-pays, deductibles, etc.

- **Managed Competition:** The employer provides a subsidized basic medical plan with buy-up options. Plans can be from the same or multiple insurers.

- **Health Savings Accounts (HSA):** Current options include medical savings accounts, flexible spending accounts, and health reimbursement arrangements. Other options are still under Congressional consideration.^{1,2}

In mid-2005, 50,000 new HSAs were being opened monthly. By the end of 2006, 73 percent of U.S. employers are likely to offer HSAs. This does not mean that the majority of employees are going to be in them, but the system will reach a point where they are being offered by three-fourths of employers. At that point, the 80-20 rule will begin to take over. The 80 percent of the people who are healthy and have fewer than five or 10 claims per year are going to see these as an advantage. The U.S. group insurance model where the sick (20 percent) are paid for by the well (80 percent) will start to dissolve.

Consumers who are already using HSAs are starting to deposit tremendous sums in these accounts, but these deposits are not necessarily by people who are going to need them on an immediate basis. The sums that are going into these accounts will not even come close to paying for some of the biologics, once deductibles and co-pays start to rise. Just like the situation seen with the Medicare Part D coverage gap, out-of-pocket costs will increase for people with consumer-driven coverage.

More and more insurers are getting into this arena because they see consumer flexibility as a trend that is not going away. Health savings accounts have a lot of promise because they do realign some of the incentives.

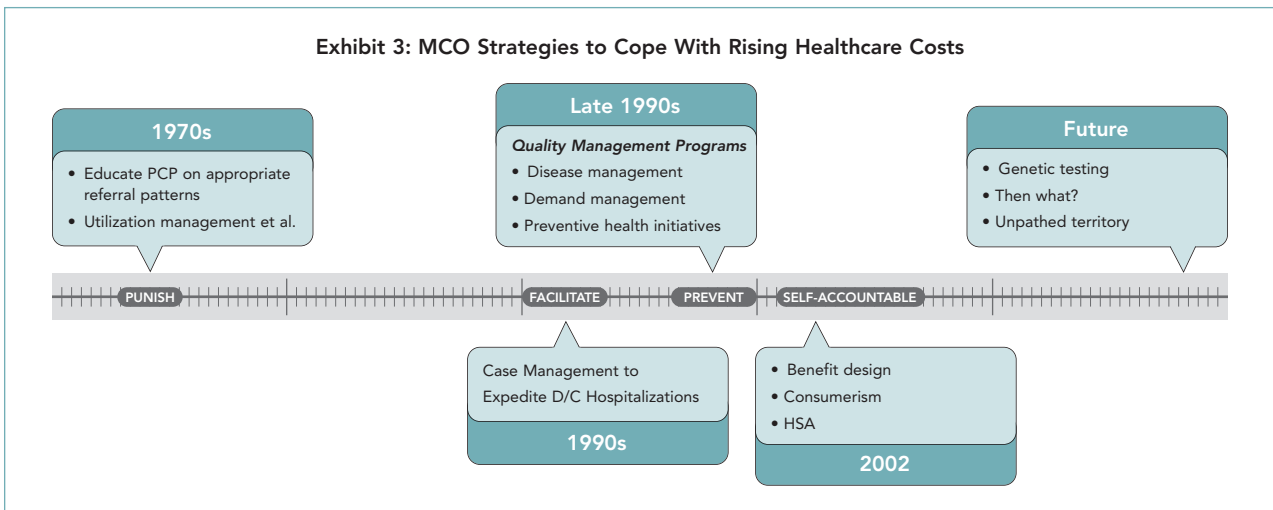
Unfortunately, 47 million uninsured Americans don't have the opportunity to even participate in such plans unless they purchase coverage themselves. HSAs are a hope for people, or a promise, but the reality is that consumer behavior does not necessarily follow what program designers plan. Retirement savings plans such as IRA and 401K plans are a prime example.

Consumer-driven health plans do have some advantages. They eliminate the automatic "no" to coverage that many insurers use as a standard answer. Consumer-driven plans allow choice, but at a cost. It is first-dollar coverage, but only if the dollars are in the bank. The U.S. experience with the retirement crisis, where people have not saved sufficiently for their latter years, has shown that Americans are unlikely to save for their healthcare either. Consumer-driven healthcare forces consumers to budget, a requirement that people with health insurance have not had to deal with in the past. This tough reality may especially be an issue for the currently healthy individual. Statistics already show that consumer-driven plans initially attract the healthier, wealthier members who see this opportunity as money in the bank.

Over the years, managed care organizations (MCOs) have adopted various strategies for dealing with rising healthcare costs (see Exhibit 3). MCOs have years of experience with actuarial data to predict what will happen to their premiums, but they do not have years of experience to predict what is going to happen with consumer behavior under a consumer-driven plan. Managing biopharmaceuticals by MCOs will occur, but it's likely to take directions that no one expects. Planning is essential—healthcare needs to create the future in order to predict it.

Consumer-driven healthcare is an experiment that is going to create a tremendous change in the environment for biotechnology medications in particular, because of their incredible cost, but also for all of medicine.

Exhibit 3: MCO Strategies to Cope With Rising Healthcare Costs



Market-based Approach to Payment

Since the medical insurance industry began, healthcare has been in a market-distorting payment system that has never actually used a market-based approach for medical care. That dynamic is changing rapidly with the rise in consumer-driven healthcare. So far, there has not been a massive shift in the volume but rather a massive shift in the number of payers offering consumer-driven plans. As the next phase of medical payment for the non-Medicare age groups evolves, a market-based approach where the value equation is equal to some quality determination divided by cost will be seen. That is going to affect the biotechnology industry as well as the rest of medicine for many years to come. Exhibit 4 lists resources for additional information.

Consumer Education

Under consumer-driven healthcare plans, the consumer will be the king. The only problem is the average consumer is not informed regarding medical care. There is nothing like *Consumer Reports* for healthcare decision-making. At this time, no major payer (i.e., insurance companies, employers, or the government) is offering educational opportunities to help the consumer make informed healthcare decisions. Consumers, unfortunately, are left to fend for themselves.

Conclusion

Trends in healthcare insurance, primarily propelled by consumer-driven healthcare, are going to have a huge impact on the biotechnology industry. A fear among many in healthcare is that the marvelous

Exhibit 4: Web Site Resources

- **National Center for Policy Analysis
Consumer-Driven Health Care**
<http://cdhc.ncpa.org>
- **Princeton Consultants white paper on
consumer-driven healthcare and pharmacy benefits**
[www.princeton.com/pbm/pdfs/
princetonCDHwhitepaper.pdf](http://www.princeton.com/pbm/pdfs/princetonCDHwhitepaper.pdf)
- **National Health Information–Consumer Driven
Health Care newsletter (\$329/year)**
www.nhionline.net/products/cdh.htm

science of biotechnology will not be available to those people who may need it the most. The question for both the biotechnology industry and all other aspects of healthcare is how is consumer-driven healthcare going to mesh with new technologies such as genetic testing and biotechnology medications? This is the great unanswered question. JMCM

Tom Morrow, MD, is president of the National Association of Managed Care Physicians and has more than 20 years' experience as a managed care executive. He also has served as an NCOA surveyor overseeing disease management programs such as inflammatory arthritis, depression, chronic pain syndrome, and multiple sclerosis, as well as common chronic diseases.

References

1. Consumer Driven Health Care: The Changing Role Of The Patient. National Center for Policy Analysis publication. Available at <http://cdhc.ncpa.org>.
2. Henley E. Consumer-directed health care: One step forward, two steps back? *J Fam Pract.* 2005;54(3):212-5.

National Association of Managed Care Physicians
American Association of Integrated Health Care Delivery Systems
American Association of Managed Care Nurses

Managed Care eNews

Delivered directly to your desk in a tabulated, easy-to-navigate format.

A weekly e-news publication of timely and valuable news articles.

- >> News from the 3 Ps (Purchaser, Plan, and Provider)
- >> CMS (Medicare & Medicaid) News
- >> Drug News, Treatment, Trends, and Technology
- >> Education
- >> Association News

To receive your complimentary copy of Managed Care eNews (MCeN), call Jeremy Williams at 804-527-1905, or e-mail jwilliams@namcp.org.