

The Changing Healthcare Market: Outlook for the Future of Cardiovascular Disease Treatment—Part 2

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Abstract

This paper, the second in a series of 2, reviews major developments and trends in the current healthcare arena that will affect cardiovascular disease (CVD) treatment over the next 10 years. The paper also discusses the implications and future outlook for cardiovascular services in a managed care environment.

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As noted in the first part of this series, the far-reaching changes impacting the healthcare system give little evidence that they will abate or slow down. We begin by discussing some of these changes in greater detail.

...CURRENT TRENDS IN THE HEALTHCARE MARKET ...

Growth in Managed Care Arrangements

The most common managed care models are health maintenance organizations (HMOs), preferred provider organizations (PPOs), and point-of-service (POS) plans. In traditional HMO plans, sub-

scribers must receive their care from a limited group of providers. Generally, PPO and POS subscribers may go to any provider, but their out-of-pocket payments are lower if they choose participating physicians who give the plan discounted rates. PPO and POS subscribers may not be subject to the same level of plan administration oversight as HMOs.

Over the past 4 years, managed-care enrollment exploded. According to the American Association of Health Plans, more than 60% of the US population were enrolled in an HMO in 1997, whereas just 36% were enrolled in an HMO in 1992.¹ Using a definition of managed care that includes PPOs and POS plans, as well as HMOs, 74% of insured workers in firms with 200 or more employees were in managed care arrangements in 1997.²

Enrollment in Medicare managed care plans is likely to continue to grow. The Balanced Budget Amendment of 1997 broadened the health plan choices for Medicare beneficiaries by creating the Medicare Plus Choice program. This program includes risk-contracting programs, PPOs, provider-sponsored programs, private fee-for-service plans, and a pilot project allowing medical savings account plans.

Healthcare Payment Reforms

Hospital Payment Reform—Prospective Payment System. In 1983, Medicare implemented a new method of reimbursing hospitals for inpatient care that was designed to conserve resources. Rather than pay the hospital after care is provided, Medicare now determines payment before care is provided, ie, the prospective payment system (PPS). Each patient admitted to the hospital is categorized into one of 470 diagnosis-related groups (DRGs), and a flat reimbursement is paid based on the national cost for that DRG. These payments are modified to

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account for local wages, location (urban vs rural), and other factors such as teaching hospital status.

Under the PPS, hospitals can lose money if they use more resources than those covered by the flat DRG payment. Conversely, if the episode of illness costs less than the DRG payment, the hospital keeps the surplus. By shifting financial risk to the hospital, the PPS system caused a substantial decline in the proportion of Medicare-funded hospital inpatient services. In 1992, hospital inpatient services represented 70% of Medicare spending and had been growing at an annual rate of 19%.³ By 1996, PPS hospital inpatient services consumed only 49% of Medicare dollars, and the annual growth rate in spending had dropped on average to 6.8%.⁴

The *Balanced Budget Act of 1997* calls for Medicare to broaden the PPS system to all other major healthcare settings by October 2000—including skilled nursing facilities, hospital outpatient departments, long-term care hospitals, home health agencies, and rehabilitation facilities.⁵

Physician Payment Reform. Prior to 1992, physician charges and payments were difficult to measure. The Health Insurance Association of America reported that, in 1992, mean physician charges for a procedure such as a triple coronary bypass varied substantially, by more than 5-fold, between major US cities.⁶ For instance, the mean physician charge for a triple coronary bypass was \$8312 in New York, \$4792 in Denver, and \$5031 in Atlanta.⁶ The 1989 *Omnibus Budget Reconciliation Act* (OBRA89; HR3299 (P.L. 101-239), however, overhauled and unified the Medicare payment system for physician services.⁷ Under the new plan, implemented in January 1992, Medicare payments were set by a national fee schedule based on the resource-based relative value scale (RBRVS).⁸ The RBRVS assigns relative values for approximately 10,000 medical and surgical physician services and accounts for the work, overhead, and malpractice expenses that physicians incur. The legislation was widely touted as an equitable and reasonable system that compensated physicians based on the work and practice costs of their services.⁹

The RBRVS methodology has since been adopted by many state private payers and 9 state Medicaid programs, and 8 additional states are actively exploring it.¹⁰ Aetna/US Healthcare, John Hancock, Massachusetts Mutual, Mutual of Omaha, Prudential, and Travelers Insurance now use the RBRVS. In addition, more than 80% of Blue Cross and Blue Shield plans surveyed in the Blue

Cross and Blue Shield Association survey intend to implement some form of RBRVS-based payment.¹¹ Although there are still concerns about the RBRVS approach and some refinements are needed,¹² the RBRVS is likely to grow.

Under the current RBRVS, primary care physicians are paid substantially less than surgeons. Under this system, patient evaluation and management services have significantly lower values than medical and surgical procedures because their values are based on historic physician charges rather than actual resources used. The measurement of practice costs in the initial Medicare fee schedule was not resource-based but based on physician's historic charges, and did not correspond closely with the estimates of practice costs that exist.¹³⁻¹⁵ However, new legislation is expected to increase the value of office-based services such as visits and consultations and, in turn, decrease the value of hospital and outpatient procedures. This legislation, implemented in January 1999, will be phased in over 4 years and is estimated to reduce reimbursements to cardiologists and thoracic surgeons by 13%.¹⁶ These specialists have initiated a suit against HCFA over the new legislation.¹⁷

Centers of Excellence. In an effort to reduce Medicare costs, the Healthcare Financing Administration (HCFA) also tested a new payment method involving one negotiated package price for part A (hospital payments) and part B (physician payments) for each episode of care. The hospital, in turn, distributed payments to all involved providers under an arrangement managed by the hospital. These participating hospitals, dubbed Centers of Excellence, accepted a global payment that was typically lower than the standard Medicare payment reimbursement. As part of this program, HCFA provided bypass surgery (DRG 106 and 107) to Medicare patients for a single fixed price and promised the centers more Medicare cases. The project, which ended in June 1996, produced a savings of \$40 million, did not affect mortality rates, and did not increase case episode. HCFA is now expanding the project to include cardiac valve procedures (DRGs 104 and 105), angioplasty procedures (DRG 112), and diagnostic cardiac catheterization (DRGs 124 and 125).¹⁸ HCFA has also identified additional services such as cataract surgery and hip and knee replacements for inclusion in the program and may include up to 100 centers in the program.¹⁹ In addition, HCFA is implementing a similar project in New

York, New Jersey, and Pennsylvania for physician-hospital organizations.¹⁸

Initiatives by States and Major Private Payers

While much of the nation's attention has focused on federal healthcare reform, the states have been extremely active in seeking and initiating efforts to provide basic healthcare coverage for all state citizens. Twenty-seven states have developed healthcare reform proposals, although financing is a common obstacle to their implementation. Some states have tried to finance the new systems by building on existing employer-based insurance systems via employer mandates, insurance market reform, and subsidies, while others are calling for a complete overhaul of both financing and delivery.²⁰

Physician Surplus

Recently, the number of physicians in the United States has grown rapidly; yet, population growth has slowed. From 1965 to 1990, the number of physicians increased by more than 140%, rising from 166,367 to 405,699. The number of cardiovascular specialists, in particular, grew 725% from 1901 to 15,685. In comparison, the number of primary care specialists (family and general practitioners, general internal medicine, and pediatric physicians) grew 67% from 125,721 to 209,722.²¹ Simultaneously, population growth slowed. In 1960, the United States had 148 physicians for every 100,000 people; this number increased to 177 in 1975, 202 in 1980, 220 in 1985, 234 in 1990, and 246 in 1993.²¹ By the turn of the century, current projections suggest that there will be 262 physicians per 100,000 Americans.²²

This growing surplus of specialists is regarded by some as a major contributor to the rapid growth in health expenditures, since specialists use technologies and services more frequently. In addition, patients may be inclined to receive inappropriate or unnecessary specialty care in a healthcare environment characterized by a shortage of primary care physicians.²³

Since there are so many factors at play in the healthcare environment, however, it is difficult to predict if this surplus will grow or diminish in the future. When the staffing needs of a typical HMO are used to gauge how many physicians are needed as opposed to the traditional model, a significant excess of physicians currently exists in virtually every specialty.²² For example, on a per-capita basis, there are about 2.4 times more general surgeons, 2.0 times

more cardiologists, and 1.7 times more pulmonary medicine specialists in the nation than are needed based on traditional HMO staffing patterns.²⁴ In addition, new models of cardiovascular delivery portend to further diminish the need for specialists. Examples include the use of nurse case managers, various delivery models that incorporate primary care gatekeepers, practice guidelines, and telemedicine. On the other hand, the aging population and resulting new specialties for this population may offset some of the surplus. In addition, some specialists, especially those in areas where there are excess physicians, may begin to provide more primary and preventive care services.

Growth in Pharmaceuticals and New Technologies

Since 1970, US pharmaceutical industry research and development spending has doubled every 5 years, reaching an estimated \$15.8 billion in 1996.²⁵ The average time required for the Food and Drug Administration to approve new drugs dropped from 39.1 months in 1984 to 19.2 months in 1995, for a decrease of more than 50%.²⁶ Similarly, the US device industry grew at an annual rate of approximately 9% between 1988 and 1993 and was a \$42 billion business in 1994.²⁷ Major factors influencing the rate and direction of technological innovation included: market supply and demand, biomedical research, education, patent law, regulation, healthcare payment policies, and tort law. While a detailed discussion of the current market for pharmaceuticals and new technologies is not possible here, there are some important implications of this trend.

First, managed care organizations (MCOs) and healthcare networks are rapidly shifting decisions about use of pharmaceuticals and new technologies away from individual physicians and toward organizational protocols and medical policies. The effect of this action on drugs and new technologies should not be underestimated. Second, the buying leverage of MCOs and other large providers will cut the profit margins for the drug and technology companies and further heighten competition. Consequently, restructuring in the pharmaceutical and medical device industries is likely to accelerate. Finally, the current healthcare market is now demanding that new drugs and technologies result in measurable clinical improvement at acceptable costs. Previously, new drugs and technologies that offered the prospect for any health benefit were readily adopted regardless of cost.

Evidence-Based Guidelines

Given the widespread variations in the rates of procedures and services, the federal government made practice guidelines an important component of healthcare reform in 1989. To ensure that guidelines were available, Congress created the Agency for Healthcare Policy and Research (AHCPR).²⁸ While AHCPR guidelines have come under considerable pressure from Congress and organized medicine, the development and dissemination of evidence-based practice recommendations is nevertheless seen as an essential component of cost control. For example, Florida's Agency for Healthcare Administration developed a practice guideline for treating low back pain based on AHCPR guidelines that is expected to save the state nearly \$100 million per year.²⁹ In addition, the Department of Health and Human Services announced a joint effort by AHCPR, the American Association of Health Plans, and the American Medical Association (AMA) to develop a comprehensive internet-based source for clinical practice guidelines. The National Guideline Clearinghouse will serve as a central source of current guidance on treatments for specific medical conditions.²⁸

...EMPIRICAL PERSPECTIVES ON FUTURE TRENDS FOR THE HEALTHCARE MARKET ...

Many authors have speculated on the future of healthcare, and one theory holds that the healthcare industry is following a pattern similar to that blazed by the nation's largest industrial organizations in the 19th and 20th centuries.^{31,32} In his examination of more than 100 of the nation's largest industrial organizations, Alfred Chandler in his classic book *Strategy and Structure*³³ found that nearly all of the firms followed 4 basic evolutionary phases: 1) accumulation of resources, 2) rationalization of the use of resources, 3) continued growth into new markets, and 4) rationalization of the newly acquired markets with the old structure. For Chandler, each phase represented a strategic adaptation to the tightening of the market (environment) for the firm's products and to the resulting demand for coordination of the firm's internal operations.³³ Several healthcare prognosticators suggest that the healthcare industry is just beginning the second evolutionary phase; they are rationalizing resource use by developing internal controls and improving productivity with accounting and information systems. In essence, the healthcare industry is just initiating comprehensive efforts to understand, measure, and influence the medical

process. New terms like medical outcomes research, healthcare information systems, activity-based costing, and integrated healthcare systems are a hallmark of this phase which, if history is any guide, may last 10 to 20 years.

...SOCIOECONOMIC IMPLICATIONS FOR CARDIOVASCULAR DISEASE ...

These changes will significantly impact the delivery of cardiovascular services and reimbursement for cardiovascular specialists. A number of major changes appear imminent.

First, the new healthcare paradigm—which focuses on the continuum of care, wellness maintenance and promotion, accountability for the healthcare of defined populations, and provider differentiation on the basis of ability to add 'value' to the patient's healthcare outcome—will become 'standard operating procedure' in the healthcare environment. This change has largely been brought about by the rapid growth in managed care arrangements. Patients will no longer be assessed based on their particular need for a medical service. Rather, healthcare organizations and providers will be responsible, and most likely held at financial risk, for nearly all aspects of the health of an entire patient population. Medical and surgical services will be provided only when they add 'value' to the outcome. CVD specialists, in particular, will undergo increasing scrutiny from MCOs to justify each aspect of a prescribed service or procedure. CVD is on the leading edge of this reform, and these changes are likely to evolve faster than in other areas of medicine.

Second, practice guidelines will become an integral part of medical practice and will represent the standards against which medical practice will be measured. Given the prominent position of CVD in healthcare, CVD practice guidelines will likely pioneer this trend. While the guidelines will be clinical in nature, they will also likely include physician standards. For example, a minimum number of procedures may be expected from one physician in a given time period. Physicians falling below these standards will either not be allowed to perform the procedure or will be required to receive training. Many MCOs already have such standards. Eventually, the guidelines will become internationally applicable, as efforts to rein in US healthcare costs continue.

Third, managed care arrangements will become even more widespread and extensive in the CVD

arena. From the third-party payer perspective, managed care arrangements are an ideal way to set guidelines and standards and use the competitive marketplace to gain value. As a result, more and more decisions previously in the physician's domain will be influenced and controlled by MCOs. Managed care arrangements will extensively impact CVD services.

Fourth, reimbursement for CVD services will continue to decline as competition increases. For most major CVD services, payments will be capitated with one global reimbursement covering both the hospital and physician services. Physicians will come under increasing pressure to provide a bigger share of their payment to the hospitals, and physician incomes from CVD will come under even greater pressure.

Finally, as employers continue to focus on health-care costs, hospitals and physicians will assume a growing risk for maintaining and promoting cardiovascular wellness. As the new paradigm suggests, the emphasis will be on maintaining and promoting wellness for a defined population in a 'continuum of care.' Physicians will be differentiated on the basis of their ability to add 'value' to the patient's healthcare outcome on an empirically measured scale. Success will be achieved by increasing the number of covered lives and keeping people well in a fully integrated healthcare delivery system.

The future for CVD treatment promises to be even more challenging than the past. It is clear that the evolving CVD market will be an important one for MCOs to watch, as it represents both significant opportunities and challenges.

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