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United States Health Care Delivery System, Reform, and Transition to Managed Care

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The US health care delivery system, faced with an exponential increase in expenditures during the second part of the 20th century, was forced to explore ways to reduce costs and, at the same time, maintain a high quality of care. Managed care emerged as one of the answers and quickly became one of the predominant health care delivery models. While the cost of health care did go down, it remains unclear what the future holds. Currently, managed care is growing rapidly in publicly funded programs and the changes which are currently underway may be defining those programs in the time to come.

Key words: case management, insurance; cost sharing; health care; managed care program; quality assurance, health care; planning, health and welfare; state health planning, United States; USA

This article is an attempt to provide the reader with a concise overview of some of the major changes that occurred in the US health care delivery system during the past several decades and to offer some thoughts about the future. As managed care quickly became one of the hallmarks of reform, as well as one of the most controversial topics in the entire health care delivery system, we attempted to describe the environment in which it had developed. A more detailed account of changes in the Medicaid program is used to exemplify the extent of the change in the delivery of health care during this past decade in at least that program.

Expenditures and the Need for Reform

Faced with the skyrocketing costs of health spending during past three decades, the US health care delivery system was forced to reform the manner in which health services are reimbursed and delivered to patients. While the national health expenditures in 1997 did amount to $1.1 trillion (with about $4000 per capita), it is notable that this amount (which was 13.5% of gross domestic product, GDP) represented the smallest proportion of the nation's resources being used for health spending in the 5 years preceding 1997 (1). It should be noted that the reduction in the proportion of GDP spent on health care may have been tempered by growth that the US economy experienced during this time period.

This remarkable reduction in growth trend of health care expenditures, as seen over the past three decades, has been the result of several factors. Probably one of the most significant factors has been the shift of power from the physician to the payer, who is increasingly showing interest in and demanding accountability for what their monetary allocations for health care are buying. This leads to the second factor; the demand for greater value at lower cost which in turn creates the third factor – the transformation of the health care into a highly competitive, market-based industry (2).

The reform is taking place not only in the system funded by private payers but is, in recent years, even more significantly fueled by publicly funded programs. It should be noted that the publicly funded programs are the single largest health care purchaser in the US with over 46.4% of health care costs being reimbursed by programs such as Medicare and Medicaid (3) (see Fig. 1).

Figure 1. Sources of US health care funds in 1997 (3).

Clearly, overall private funding still exceeds public funding with 53% of health care expenditures being covered from that source, but as such sources are fragmented among smaller individual purchasers it is still the publicly funded programs that are one of the major forces for reform in the US today.

Perhaps one of the most remarkable indicators from 1997 is the extent to which Medicaid expenditure growth has been reduced. Total Medicaid spending in 1997 was US$159.9 billion, an increase of 3.8% over the 1996 level. What is remarkable about this number is that this is the slowest growth in spending since Medicaid's inception. As a single largest public payer for health care, Medicare financed US$214.6 billion in spending for health care for its 38.4 million aged and disabled enrollees

in 1997. Similar to Medicaid, the annual growth in Medicare spending has slowed markedly from 12.2% in 1994 to 7.2% in 1997 (1).
Hospital and physician expenditures traditionally account for the majority of personal health care spending (3) (Fig. 2). It is estimated that 54% of all health care expenditures are related to hospital revenues and physician earnings. In recent years, however, the percentage of health care resources being spent on these services has been declining. The major portion of the remainder of expenditures are related to pharmacy, nursing home and home care, dental care and administrative aspects of health care delivery (4).

Figure 2. Allocation of health care funds in the US in 1997 (3).

The nature of hospitals has been subject to change in the changing environment of US health care. It is interesting to note that most of the 7,500 acute care hospitals operate as nonprofit institutions under the direction of the boards of community leaders (5). Additionally, about two thirds are community and teaching hospitals established as private nonprofit institutions, 25% are publicly sponsored while only the remaining 10% plus are owned and operated by for-profit organizations (6). In this environment, and while experiencing shrinking hospital occupancy, it is remarkable that most hospitals are able to maintain their revenue by reacting timely to changing needs of the marketplace (e.g., new ambulatory and home care services, etc.).
The future, size, and characteristics of the physician supply, in the time of a large expansion in physician to population ratio by 80% between 1960 and 1997, has been the topic of much debate (4). While there is arguably an oversupply of physicians (particularly specialists), one of the continuing problems preventing the successful moderation of the physician supply is the lack of providers, particularly physicians, in underserved areas both urban and rural which fail to attract US trained physicians (4).
Home health care growth also decelerated as a result of actions from the public sector to rein in the extraordinary growth in expenditures for those services. Prescription drugs, on the other hand, grew at double-digit rates during the last few years because of increases in the number of new, higher-priced drugs entering the marketplace, increased consumer demand induced by drug manufacturer advertising and an increase in the number of prescriptions filled. This trend will most likely continue as the changes in treatment options, with advancement in pharmacological therapy, are seen as the future of medical expenditure trends (it is anticipated that in 2001 more resources will be allocated to pharmacy than to hospital services!) (3).
Managed Care – a Remedy for Increases in Expenditures?
The transformation of the US health care system is marked by the ascendancy of managed care. Large employers and government purchasers have begun to perceive the fee-for-service system, in which no real checks and balances existed, as a primary factor for increasing health care expenditures. Resultantly, a gradual process of moving employees from fee-for-service to managed care arrangements begun in early '80s. Unlike fee-for-service, where beneficiaries have the ability to access care from any provider, be it primary care or subspecialist, at any point in time and for whatever reason, in managed care arrangements various case management structures exist to restrict access to the health care system while still assuring the provision of medically necessary care. The numerous forms of managed care in the marketplace are beyond the scope of this article but it should be noted that one of the hallmarks of the majority of managed care models is the primary care case manager who also serves as a gatekeeper. The gatekeeper is most often a general practitioner, family practitioner, pediatrician, or internist. In this model, access to services other than primary care is limited by a requirement that the gatekeeper, to whom the patient is assigned, must make a referral. This form of case management/cost containment is very prevalent among the Health Maintenance Organizations (HMOs) which is the predominant form of managed care in the US. While HMOs have existed since the 1930s, it was not until the early 1990s that the major transition to managed care of the HMO type took place. By 1995, HMOs and other forms of managed care became the most prevalent health care delivery system in the US with over 130 million citizens enrolled in some form of managed care (7). Additionally, an estimated 50% of physicians and most large employers contract with managed care plans. About 8% of Medicare beneficiaries were enrolled in managed care programs in 1995, while the total Medicaid enrollment in managed care grew from 9.5% in 1991 to 47.8% in 1997 (8) (Fig. 3). Clearly, 69% of employees enrolled in managed care programs exceed the aforementioned participation of public program beneficiaries in managed care, but the size of the public programs makes their participation (while lesser in terms of ratios) very significant.

Figure 3. Medicaid Managed Care trends (8). Black bars, total; shaded, fee-for-service; gray bars, managed care.

The migration of the population into managed care has indeed provided for a significant overall slowdown of private health insurance premium growth in the 1990s. Over time, however, the expectation of managed care on the part of purchasers evolved from that of cost containment to the expectation of true management of medical care that beneficiaries receive. The health care system is clearly in transition and the coordination and management of an individual's care through the entire spectrum of available health care services in a continuous and comprehensive manner remains only a goal. However, it is fair to state that the U.S. health care system is primed for integration (2) that will be required to support the ”true” health management as opposed to cost management.

The integration and management of care is probably going to be crucial for the success of managed care. Early attempts at managed care (still very much alive in some markets) in which little more than utilization management was done (managing cost as opposed to care), have created such an outcry against managed care in the nation that it may take a very long time for patients to forget all the horror stories they heard from the media. Indeed, recent explorations of the effect that the health care delivery mode has on the relationship between the physician and patient suggests that fee-for-service indemnity patients have higher level of trust in their physicians as compared to patients enrolled in managed care plans in which physicians are salaried, capitated, or reimbursed on a fee-for-service basis (9).

Public Purchasers and Health Care Expenditures

The nation's two largest purchasers of health care service, Medicare and Medicaid, have been driven through some of the biggest changes since their inception for reasons of sharply increasing expenditures. Medicare is administered by the Health Care Financing Administration (HCFA) and is the nation's largest health insurance program (HCFA), covering 37 million Americans. Medicare provides insurance to: people who are 65 years old, people who are disabled, and people with permanent kidney failure. Medicare is split into two programs, Medicare Part A (Hospital Insurance) which provides coverage of inpatient hospital services, skilled nursing facilities, home health services and hospice care, and Medicare Part B (Medical Insurance) which helps pay for the cost of physician services, outpatient hospital services, medical equipment, and supplies and other health services and supplies (1).

Medicaid (enacted into law in 1965), in turn, provides medical assistance to eligible needy persons. Medicaid coverage is broader than that of Medicare in that it covers at a minimum: inpatient hospital services; outpatient hospital services; physician services; medical and surgical dental services; nursing facility (NF) services for individuals aged 21 or older; home health care for persons eligible for nursing facility services; family planning services and supplies; rural health clinic services and any other ambulatory services offered by a rural health clinic that are otherwise covered under the state plan; laboratory and X-ray services; pediatric and family nurse practitioner services; federally-qualified health center services and any other ambulatory services offered by a federally-qualified health center that are otherwise covered under the state plan; nurse-midwife services (to the extent authorized under state law); and early and periodic screening, diagnosis, and treatment (EPSDT) services for individuals under age 21 (1).

Medicaid's most significant feature is that it is a jointly funded program by Federal and state government in which the state establishes its own eligibility standards, determines the type, amount, duration, and scope of services, sets the rate of payment for services; and administers its own program. This leads to a wide diversity among Medicaid programs. Due to their relatively small size (each state administers its own program) and stringent budgetary restrictions, many Medicaid programs can almost be considered experiments for different models of delivering health care (7).

Medicaid Managed Care as a Natural Experiment at a Health Care Reform

There is an expression among policy makers which probably best defines the Medicaid program in the US and that is ”if you understand one state Medicaid program – you understand one state Medicaid program”. This statement exemplifies the aforementioned wide variety of differences in the design of Medicaid program from one state to the next.

Almost all of the states implemented their Medicaid programs with a fee-for-service model in which states developed benefit packages and set fees that were typically lower than those found in the health care market (10). As general health care expenditure increased, Medicaid program costs followed. The introduction of new procedures and technologies further compounded the fact that health care costs were getting out of hand. Increasingly, states began looking towards managed care as a solution for some aspects of the problem. As administration of a managed care program enabled them to plan their budgets (with preset per capita expenses) thus placing the risk of incurring loss (or

realizing profit) on someone else (i.e., managed care organization) this option became increasingly appealing to state Medicaid programs. In developing contractual requirements, additional benefits of a resource for management of clinical care and assurance of access for Medicaid beneficiaries was realized.

While there was clear appeal to it, implementation of managed care programs presented itself as a major change in the operation of a Medicaid agency. As already mentioned, the main tasks of Medicaid agencies encompassed setting the payment rates for providers, paying claims and occasional utilization management most often in the pharmacy program (11) similar to an insurance company. From such a history, Medicaid agencies had to become prudent purchasers of care with expertise in contracting, performance requirements structuring and general benefit design (10).

As Medicaid beneficiaries are statutorily guaranteed freedom of choice and managed care is seen as a restriction in that freedom of choice, states must obtain a waiver of the freedom of choice provision from the federal government (there are two main types of waivers; 1915 and 1115 and, while they differ significantly, the detailed description of their differences is beyond the scope of this article). When applying for such a waiver, state governments are obligated to assure that access to care is not reduced and that quality of care is at least comparable to that which beneficiaries have in the fee-for-service program. These, apparently simple, requirements have resulted in a major need for restructuring of Medicaid agencies in order to support activities required by administration of a managed care program (12).

The five fold increase (from 2.3 million in 1990 to 13.3 million in 1996) in the number of people enrolled in Medicaid managed care (8,13) programs, with majority (70%) in the capitated health plans (14), has increased the stakes that Medicaid agencies have in their managed care programs. The landscape of the types of managed care organizations participating in Medicaid managed care has been changing dramatically in the last decade of this century. By 1996, based on the National Association of Insurance Commissioner's reports, it appeared that HMOs participating in the Medicaid managed care market were similar in type to those participating in commercial insurance plans (10). This clearly fits one of the desires behind enrolling Medicaid beneficiaries in commercial managed care plans. Mainstreaming, as opposed to marginalizing the Medicaid beneficiary to a small subset of providers willing to provide care for them on a fee-for-service basis, was preferred. However, the most recent trend is the increase in the proportion of Medicaid only plans and the decrease in participation of mainstream commercial plans, thus defeating the notion of mainstreaming Medicaid beneficiaries (10). This is most likely due to the states developing more sophisticated reimbursement strategies and becoming more savvy and aggressive in contractual requirements (i.e., quality assurance and improvement) that increased administrative costs and made contracting with Medicaid agencies increasingly complicated.

While the cost containment effects of managed care became obvious, so did the concerns over the impact that it may have on quality of care. As one of the driving forces behind managed care evolution has been cost containment and reduction, a clear incentive to economize care to the point of inappropriateness cannot be overlooked (15,16). Medicaid beneficiaries by virtue of their socioeconomic and health status are a more vulnerable population, which further compounds concerns over the effect of managed care on quality of clinical care (16).

The Quality Assurance Reform Initiative (17) (QARI) developed by the Health Care Financing Administration was the first major national initiative to assist states in developing a state level quality assurance system (15). While an enormous step forward, QARI's predominant focus on structural requirements and lack of definition in oversight of delivery of clinical care has led to a need for a new approach. Additionally, as Medicare and Medicaid began to develop in significantly different directions, they caused difficulties in the market which attempted to serve both programs. It was clear that a major revision of the approach to managed care quality assurance that would induce bringing these two programs closer together was needed.

In response to these needs, the Quality Improvement System for Managed Care (18) (QISMC) was developed as a second generation of the quality assurance for Medicaid and Medicare managed care. While retaining much of the structural oversight requirements (although arguably in a much more refined and meaningful manner), QISMC will induce Medicaid agencies to devote much of their attention to clinical and non-clinical quality improvement efforts. This balance of effort is significant in more than one way. It exemplifies the ”new and improved” goals for Medicaid and Medicare managed care. The underlying factor was the realization that the purchasing power of these two large programs should be a sufficient driving force to induce improvement in the way clinical care is delivered. Through the requirements of waiver approvals, QARI and as a result of internal motivations, most states have already developed very significant quality assurance programs that will now have to be utilized in support of quality improvement activities. The existing quality assurance strategies range

from the administration of member satisfaction surveys to the collection of clinical performance measures (e.g., rate of eligible women receiving the annual pap-smear, beta-blocker treatment after heart attack) typically based on National Committee for Quality Assurance (NCQA) Health Employer Data Information System (HEDIS) (19). For an exhaustive review of the state quality assurance mechanisms, refer to a seminal study by Landon, Tobias, and Epstein (16), which summarizes the existing as well as planned quality assurance methodologies. Review in this study suggests that the majority of the state efforts, at the time, were focusing on assessment and improvement of patient satisfaction with early attempts and plans to delve into more clinical aspects of care by both the plans and states. This is probably largely related to the immaturity and complexity of the science of clinical quality assurance. NCQA's HEDIS (19) has emerged early as a de-facto standard for such measurement and it contains only 15 (HEDIS 3.0) clinical effectiveness of care measures.

A significant barrier to a smooth transition to the measurement of clinical effectiveness of care is the nature of Medicaid information systems. As these systems have been designed to provide for accurate and timely reimbursement, the amount of clinical information is very limited and the complexity of any study that attempts to produce meaningful statement about the impact that managed care had on quality of care rises exponentially (20). Patient satisfaction surveys are, on the other hand, easy to administer and yield a variety of useful information that, despite significant cost, assist states in administration of their programs.

The level of scrutiny to which Medicaid participating managed care organizations are subjected, in conjunction with poor reimbursement, may be among the reasons for disappearance of mainstream commercial plans from the Medicaid managed care arena. However, as this undesirable trend is very recent in occurrence and it did not occur in all State's managed care programs, it is being explored as the Medicaid experiment continues.

Future Projections and Conclusions

HCFA is projecting an increase in the nation's total spending for health care from US$1.0 trillion in 1996 to US$2.1 trillion in 2007 (with 6.8% average annual increase, see ref. 21). Over this period, health spending as a share of gross domestic product (GDP) is estimated to increase from 13.6% to 16.6%. HCFA's expectation is that the cost containment provisions of the Balanced Budget Act (BBA) of 1997 will slow the growth in Medicare spending between 1998 and 2002 (21). On the other hand, many Medicaid agencies are of the opinion that the significant administrative burden that BBA imposes on programs will result in the greater growth in Medicaid spending. Clearly, the exploration of the effects that the BBA of 1997 will have on Medicaid and Medicare will have to be performed when it's provisions are fully implemented.

The private sector expenditures have experienced a significant slowdown over the past few years with increases in spending being at a low 2.9%. On the other hand, public sector spending grew faster at 7.5%. Although a part of the noted slowdown in private sector expenditures may be attributed to managed care, it is argued that most of the savings that managed care can offer have been realized. It is expected that from 1998 through 2001 public sector spending will grow slower (as more beneficiaries are enrolled in managed care) from that in private sector plans which has realized a greater proportion of savings from managed care. In general, an acceleration in national health spending, from 5.0% (1993 to 1996) to 6.5% (1998 to 2001) is expected.

It is expected that patterns of growth will not be the same for different types of services (21) (Fig. 4). Rising costs will affect all health providers, but hospitals, through downsizing may be more adversely affected than other providers. In fact, it is estimated that hospital growth will continue to lag increasingly behind growth in drugs and physician and other professional services. This is seen as a result of the trend of movement of patients from inpatient setting to alternative and in home treatment settings induced at the outset by managed care. This is expected to produce a rapid rise in outpatient hospital services that will substitute for inpatient services declines (e.g., mothers are routinely discharged one day after birth and some recent news reports listed cases of ambulatory mastectomies).

Figure 4. US national health care expenditures: history and projections (21).

One type of service that has alarmed almost all purchasers of care, including Medicaid, are pharmacy expenditures. In the past year, costs of both the brand and generic drugs have increased significantly. As a compounding factor, drug costs are expected to grow at fairly rapid rates through 2007 as a result of both the increases in utilization (number of prescriptions) and types of drugs used (including changes in size and mix of prescriptions). The ultimate implications of this trend remain to be seen.

The success of health care changes underway have enormous implications for the nation. For example, despite the existence of publicly funded programs for the poor it is very often that such

programs leave a gap between the ”not poor enough for Medicaid” and ”employed and covered by commercial insurance”. This is obviously a hyperbole, but one of the hallmarks of the US health care system is a large number of uninsured. The aforementioned BBA of 1997 has afforded federal funding for states to extend medical insurance to uninsured children through the State Child Health Insurance Program. These funds may or may not be available in the future should the health care expenditures get out of hand again. Additionally, one of the hottest topics today is the future and survival of the Medicare program on which virtually every person over 65 depends for their health care.
While managed care has proved to be a significant force in cost containment it has not been the panacea and some barriers it has imposed on patients have induced a massive backlash against it. Increasing involvement of federal and state governments legislating the delivery of health care and prescribing controls over managed care entities are expected to significantly affect the industry. It is unclear what the future holds and opinions vary widely, but with so much at stake, health care reform has everyone's attention and will probably have it for some time to come.

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