

The US Health Care System in the Year 2000

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Predicting the future in an age of rapid social change is risky business. However, one thing can be confidently said about the American health care system in the year 2000: most of its ingredients -- the patients, the professionals, the strains of scientific inquiry and technological development, and much of the capital--are already present. Scientific and technological developments have been extensively reviewed elsewhere¹; this article will speculate on the impact of demographics, changing financing systems, and medical care organization in shaping the future American health care provision system.

Demographics

Barring a major war or natural catastrophe, approximately three fourths of the population to be served at the dawn of the 21st century is already living (unpublished data, National Center for Health Statistics, 1984 4)². The US population currently alive may account for as much as 90% of the health care demand encountered by the early part of the next century. By the turn of the century, our society will be better than 50 years into the process of "digesting" the gigantic 78 million person postwar baby boom cohort. By the year 2000, the youngest boomers will be in their late 30s, while the vanguard of this human tidal wave will be in its early 50s, in sleepy mid-career, asset poor, and awash in broken gadgets. Yet, from a health care standpoint, its most significant economic impact will still be ten to 20 years off at the turn of the century. The percentage of the US population older than 65 years will climb moderately from 11.3% to 13.1% between 1980 and 2000, but by 2030 will exceed 21%. As the baby boom generation becomes caught up in the coils of degenerative illness, American society will experience an unprecedented wave of health care cost pressure for both acute and chronic care.

The Changing Role of the Hospital

As treatment advances divert large numbers of patients from the inpatient hospital setting, and as life-support and maintenance technologies enable patients to carry on their lives away from hospitals and nursing homes, the hospitalized population will shrink to perhaps half its current size by the early part of the next century, despite an aging population. Even though hospital costs have continued to increase, per capita inpatient hospital use in the United States peaked in 1975, and has since declined by almost 25%². Some metropolitan areas such as San Diego and Portland, Ore (despite large elderly populations), have inpatient use rates almost a third lower than the 1985 US average, and are continuing to decline in per capita use³. These communities present compelling evidence of further potential for contraction of inpatient use nationally.

The hospital of the future will be transformed into the critical care hub of a dispersed network of smaller clinical facilities, physician offices, and remote care sites that may stretch out as far as 200 miles (320 km) from the core facility, connected by air and ground critical care transport and integrated by clinical information and patient monitoring systems.

Health Professionals

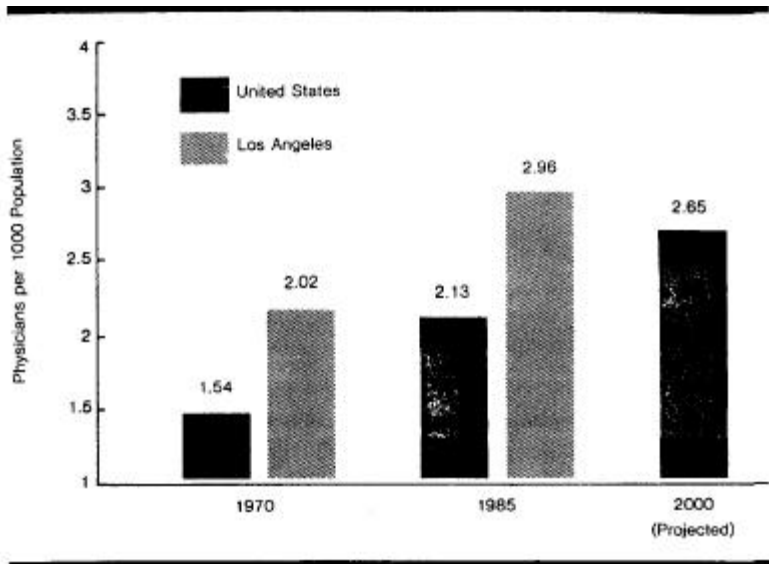


Fig 1.—Physicians/population ratios, 1970 to 2000 (projected).

The remaining portion of this century will see a continued waning of the post-World War II "seller's market" for physician services. By 1990, 40% of the physicians practicing in the United States will have entered practice since 1978⁴. Only as recently as the mid-1980s did the United States experience even modest reductions in entering class size in its medical schools, suggesting that physician supply will continue expanding vigorously for at least the next decade. The traumatic consequences of the flood of young talent on physician communities across the country—falling office visit volume, heightened competition, and leveling or declining physician incomes—have only begun to be felt. Fifteen years from now, physician supply conditions prevalent in acknowledged medical war zones such as South Florida, Southern California, or New York City will be endemic to most US metropolitan areas (Fig 1).

The turn of the century will probably find us with a substantially under-employed specialty physician cadre (Fig 2). Physician-to-physician relationships have already become significantly strained in many communities by competitive pressures, as physicians become progressively more reluctant to seek specialty consultation for fear of loss of patients. The decline in physician collegiality could prove to be a significant threat to the quality of clinical care.



Fig 2.—A possible indicator of a physician oversupply.

Physician supply growth may have several salutary impacts. The relatively modest supply growth during the 1970s has made physician services more accessible to rural populations⁵, a trend likely to continue during the next 15 years as many physician incomes decline and metropolitan area physician markets saturate. The supply growth of the 1980s and 1990s will also provide physicians with more time to spend with their patients if they so choose, broadening and deepening patient relationships and tilting medical care away from pure technology.

Another trend likely to continue for the balance of the century is the increasing acceptance of group practice. In 1969, only 40 000 US physicians practiced in groups. By 1984, this number had reached more than 140 000⁶. From 1980 to 1984, group practice appears to have absorbed almost three fourths of the growth⁷ in physician supply in the United States.

Health Care Financing

Because of the large influence of policy and political considerations on the shape of health care financing, the largest predictive uncertainty and the most intractable problems are encountered here. Governments and constituencies for which governments are responsible, bulk very large in the health care financing equation, accounting for 39.6% of all health care spending, and 54.4% of all hospital spending (unpublished data, Health Care Finance Administration, 1985).

Nevertheless, several trends have manifested themselves during the 1980s that may have lasting influence into the next century. Growing patient economic exposure to the cost of care has been a common theme of the 1980s, permeating both public and private insurance systems. This movement was encouraged by evidence from The Rand Corporation's studies of the powerful impact of patient cost sharing in curtailing the discretionary use of health services⁸.

Another important trend has been the increasing use of large clinical data bases to frame health care payment decisions. For example, the recent movement of Medicare hospital payment to diagnosis related groups was made possible by a large clinical and financial data base generated from past Medicare payment records. Efforts to reduce wide variations within the country in such indicators a length of hospital stay or the incidence of hospitalization or clinical procedure will have to rely on large clinical data bases. Private insurers have discovered a gold mine of information on health care use buried in the trail or claims that they pay. They are developing sophisticated software to manipulate and improve these data bases.

While current clinical data bases and the systems to manipulate them are relatively crude, the construction of longitudinal data bases tracking patient experience and cost throughout the course of an illness, as well as outcomes, will enable those who pay for care to influence the course of health care treatment more minutely. The ability to tie data on patterns of treatment to health status outcomes of a longitudinal basis over large populations will permit, perhaps for the first time, empirically valid assessments of the quality of health care. These data systems will also provide an empirical basis for professional review organizations to set standards for appropriate medical intervention as an alternative to forced convergence on the "lowest-incidence" rates, the current police temptation.

Another historic trend in health care financing has been the shifting of economic risk from payers for care to providers through capitation, negotiated rates, and fixed payment schemes. Payment systems based on fixed limits per admission or per capita have compelled providers to develop

better information and control system to manage the cost and quality of care provided to patients within fixed economic limits.

Health Maintenance Organizations

An influential school of contemporary thinking holds that integrated systems of financing and providing health care, such as prepaid health care plans or health maintenance organizations (HMOs), will become the dominant health care financing vehicle in the United States. Current projections of HMO enrollment in the United States range as high as 90 to 12 million people by the early 1990s. There are good reasons to doubt these projections.

Health maintenance organizations achieve competitive advantage over other forms of health insurance primarily by reducing hospital admission of the enrolled populations¹⁰. By "arbitraging" between HMO-managed rate of hospital utilization and those prevailing in the community, HMOs achieve lower health insurance premium rates for comparable packages of benefits than insurance based on fee-for-service practice.

However, it is becoming apparent to employers that what HMOs do, employers can do themselves while retaining conventional health insurance coverage. Employers have been able, through pre-admission review, mandatory second surgical opinion programs, and other utilization control vehicles, to impose standards of medical necessity on their employees that are, in some cases, more rigorous (and often more arbitrary) than those of HMOs. And insurers and employers are discovering that representing even a relatively small employee population may be sufficient to secure discounts from providers of care. Finally, through patient cost sharing, employers have been able to implicate the patient economically in the health care decision, reducing the amount of care they require, while HMOs continue to market their services to patients on the basis of first dollar coverage.

As a result, community standards of hospital use are rapidly converging on HMO standards (Fig 3), erasing much of the economic margin that HMOs have used to compete against fee-for-service plans. As HMOs have not been better able to restrain the rate of increase in health care costs than non-HMO providers¹¹, prepaid health plans do not seem to have a long-term, sustainable competitive cost advantage over externally managed fee-for-service practice. The more aggressively employers redesign their health benefits, and the more conservative community standards of medical practice become, the less growth potential there will be for systems of prepaid care.

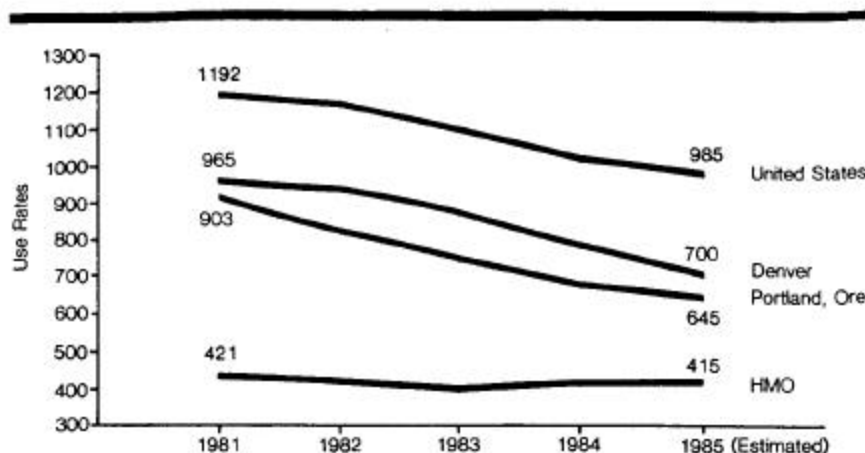


Fig 3.—Health maintenance organization (HMO) vs community inpatient hospital use rates (from *Interstudy*²).

While HMOs reached some 23 million in total enrollment at the middle of 1986, there are still more than 215 million people in the United States who are not in HMOs, 185 million of whom have some form of health insurance. Some capitation advocates have pronounced private practice a "dying" institution, but with close to 90% of the insured market, it is a lively corpse indeed. The explosion of physician cost-containment initiatives and rapid changes in practice style evidenced during the 1980s suggest a far more adaptive institution than its critics realize.

The Uninsured

However, major troubling economic discontinuities remain. Widening gaps exist between federal and state programs for providing health services to the poor and the private insurance system. The late 1970s and early 1980s witnessed an erosion of the health care entitlement for the poor, as eligibility standards for public assistance were outstripped by inflation. During the severe 1981 to 1982 recession, the number of poor people enrolled in Medicaid actually shrank¹². Simultaneously, much of the labor force growth during the last ten years has taken place in low-pay, low-benefit service sectors of the economy that do not offer their workers health insurance. As a consequence, reliable estimates place the number of Americans with no health insurance at between 30 and 35 million people, between 13% and 14% of the US population (E. Friedman, unpublished data, 1986).

Federal health policy seems to have moved inexorably in the direction of disenfranchising the poor and compromising their access to health care. And, while a recent congressional action compelled employers to provide continued access to group health insurance for workers who are terminated, or for the families of workers who die on the job, the congressional mandate for bolder action in covering the unemployed, or working poor, does not appear to exist.

As a consequence, responsibility for caring for the growing uninsured population has fallen to a fiscally distressed network of public hospitals and to private-sector providers who have funded the services to this population by shifting costs to private insurance plans. The policy impetus for filling the funding gap seem to emanate largely by providers, particularly hospitals, rather than advocates of the poor or unemployed. Funding pools to finance hospital care to this population are being created by some state legislatures, either through insurance premium taxes, excise taxes, or hospital rate-control mechanisms that spread the burden across all payers for care. At least one state, Hawaii, has mandated that all employers provide health insurance coverage to their workers, shifting a portion of the burden back onto the private sector¹³. These remedies have in common two flaws. They fail to establish a fiduciary responsibility for limiting expense on the part of hospitals that have sought payment for the uninsured as a kind of entitlement. They also fail to finance ambulatory and preventive services as an alternative to institutional care.

The most effective long-term solutions will probably be the creation by state and local initiative and funding of local systems of health services that seek to stress prevention and ambulatory services, and control unnecessary institutional care¹⁴. The sense of political urgency needed to install universal, national health insurance in the United States does not exist, and the generalized distrust of activist central government and chronic fiscal problems bode ill for its enactment in the foreseeable future.

The Elderly

A larger and perhaps more wrenching discontinuity exists in the financing of chronic care services to the nation's growing elderly population, who are not significantly covered by Medicare or private health insurance. The explosions in program cost for renal dialysis, or for the whole Medicare program for that matter, have dulled policymaker enthusiasm for creating a chronic care "entitlement" to parallel coverage of acute illness.

Thus, policy attention has turned to trying to stimulate a private insurance market for long-term and chronic care, and to mechanisms for encouraging private capital formation for payment of these services (Barron's, June 2, 1986, pp61-62)¹⁵. Health maintenance organizations have been provided with attractive incentives to enroll Medicare patients in capitated programs, and a major policy thrust toward the use of capitated systems for the elderly is taking shape in Washington, DC. Systems of managed health care may be able to create sufficient savings through more conservative patterns of treatment of acute illness in order to extend coverage to chronic conditions. Experiments are under way in four communities with "social HMOs," which integrate social and human services for the chronically ill into traditional acute-care services. However, given the long lead times needed to produce scientific breakthroughs, develop new types of health insurance, or create pools of capital for private payment of the chronic care bill, the nation's most significant health planning and human challenge remains in this area.

Health Care Systems

Some observers have suggested that, as a consequence of growing economic pressures, the US health care system will consolidate over the next ten years to the point where only a dozen vast organizations- "SuperMeds," some observers have dubbed them-control US health care provision¹⁶. There are also reasons to doubt these projections. It is difficult to argue that US health care provision is concentrated economically. In fact, only one provider of health care services controls more than 1% of US health care spending. And momentum behind further consolidation on the hospital front (where dramatic consolidation occurred during the 1970s) appears to be slowing during the 1980s¹⁷. During 1986, three of the four largest investor-owned hospital companies, facing disappointing earnings performance, announced plans to divest themselves of facilities they have been unable to restore to profitability, reversing more than a decade of growth.

According to business historians, the forces that produced concentration in other sectors of the US economy were successful efforts by the largest firms to leverage economies of scale and of managerial coordination to lower the unit cost of their product and control markets¹⁸. "Integrated" organizations in steel, chemicals, automobile manufacturing, and retailing drove smaller, more costly producers out of the market. It has not yet been demonstrated, however, that there are either significant economies of scale or economies of coordination in the provision of health services¹⁹.

There may actually be diseconomies of scale in health care provision, a factor that may limit the growth of mega-organizations in a price competitive environment. Ownership of all the elements of providing and financing health services may be a competitive handicap. This was illustrated by the recent historic decision by Kaiser Permanente Medical Care Plan, the nation's largest and most successful vertically integrated health care provider, not to construct its own hospital in Denver, despite a critical mass of enrollment sufficient to support one. Kaiser and other insurers have come to realize that it does not make economic sense to own hospital beds in a marketplace

where they can purchase bed space at highly favorable rates from hospitals half or more emptied by the forces discussed above.

It is unclear what "national" health care organizations will be able to bring to what is inherently a local activity. Medicine begins at the neighborhood level and seems to aggregate at the regional level only for a minority of highly complex services. Most metropolitan areas are better than 99% self-sufficient for even the most complex care. Only a handful of clinical services, such as bone marrow transplants or heart transplants, are unavailable in most American cities. The extended metropolitan area will probably be the most inclusive geographic unit within which health services will be organized in the future. With multiple competing regional systems or networks of hospitals, physicians, and health plans in each metropolitan area, there will probably be thousands, not dozens, of actors in the health care system several decades hence.

Drucker²⁰ has observed that health care organizations are the most complex human institution we have ever attempted to manage. Health care is not a commodity, but the most complex personal service provided in the US economy. Industrial models of organization seem unlikely to have the same powerful impact on market structure in health care.

Can the United States Afford its Health Care System?

During the 1970s, it was fashionable to point with alarm at the steadily increasing percentage of national resources being devoted to health care. Yet during the 1980s, health care spending began to level as a percentage of gross national product, and in 1985, the percentage of the national wealth devoted to health care stood only at two tenths of 1% above two years earlier²¹. Some observers believe that countervailing fiscal and economic forces in our health economy are actually sufficiently powerful to reduce the percentage of the gross national product devoted to health care from the current 10.7% to around 9% by the early 1990s²².

Considerable skepticism remains concerning whether the society can effectively manage its health care needs without "rationing" health services²³. However, a growing number of observers believe that the rapid expansion in health care spending during the 1970s was a product not of expanding demand for health care services, as much as a failure of public and private health insurance systems to exert a prudent countervailing influence or cost and utilization in an inflationary era.

As mentioned above, the US health system faces major unfinished business in finding acceptable mechanisms for financing care to its large uninsured population and, perhaps with more difficulty, finding an affordable yet humane vehicle both for financing and providing long-term care services to its growing elderly population. However, solutions to these problems are not constrained by a shortage of health care resources as much as by a lack of viable financing schemes and organizational arrangements to provide the care. As Angell²⁴ recently suggested, the physician's most important task in the coming years will not be to "ration" health care but to rearrange the ways in which care is provided, to eliminate unnecessary care and wasteful practices to ensure that care is available to those who need it. The key words in the US health care system two decades later are not likely to be "market share," "return on equity," or "leverage," as much as "continuity," "linkage coordination," and "accountability."

What is imponderable in achieving this necessary rearrangement of health care financing and provision is whether the US economy will permit it to be achieved in a thoughtful manner. A

reawakening of economic problems, particularly a reignition of inflation, could result in a significant contraction in private health insurance coverage, and simultaneously create fiscal pressures to reduce government health care outlays. These developments could threaten the viability of both public and private health care providers and erode both quality of care and access to health care services.

During the 1980s, the United States embarked on a new and unconventional approach for managing its health care system. A combination of good economic luck and a seemingly incongruous mixture of fiscal and market constraints on health care spending have produced some unexpectedly favorable results -moderated cost inflation, more conservative standards of medical practice, more responsible patient behavior, accelerating technological progress, and major innovation in both health care provision and financing. If general economic conditions remain supportive of these developments, the prospects for a viable; humane and responsive US health care system for the 21st century may be far brighter than some contemporary analysts currently believe.

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Figure 2 is reproduced with permission from Universal Press Syndicate, Kansas City, Mo.

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