

# Medicine and Society

## What is managed care? A conceptual primer

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### ABSTRACT

Managed care is a new concept for many health policymakers. Developed in the USA as a response to increasing healthcare costs, it is being exported across the world, and many countries are incorporating elements of managed care into their health systems. In the absence of a basic understanding of managed care, reality may not meet expectations. This article explains what managed care is, traces its development in the context of the American healthcare system, discusses its achievements (or lack thereof) to date and considers its relevance to healthcare delivery in India.

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### INTRODUCTION

One idea that has attracted the attention of policymakers worldwide is managed care. Started in the 1970s, this concept has transformed the face of healthcare delivery in the USA. A plethora of articles, books and other media focus on managed care, yet the actual understanding of this concept is still poor. 'Managed care' conjures different interpretations among different people. This lack of clarity is particularly acute in developing countries, where many think of managed care as a panacea for all their health sector problems—including issues of access, costs or financing. This lack of understanding often leads to a mismatch between expectation and reality.

According to the Confederation of Indian Industry (CII), India's healthcare industry is expected to grow by 13% annually for the next 6 years.<sup>1</sup> Given the fact that there will be nearly 315 million potentially insurable lives in India during this period, one of the major changes the CII forecasts is the rapid growth of managed care systems in the country. The CII estimates that the Indian insurance market will be worth US\$ 4 billion by 2005.<sup>1</sup> It is interesting to note that USAID has also targeted the promotion of awareness of health insurance and managed care as one of its goals under its Financial Institutions Reform and Expansion-Regulatory (FIRE-R) programme in India. Many local companies such as the General Insurance Company (GIC), the Apollo Group (via its Family Health Plan), Pegasus HealthCare and Sedgwick Parekh are already consulting, designing and offering managed care products to large organizations such as Satyam Infoway, Tatas, Hindustan Lever, Escorts, GE Capital and Oracle.

To develop a basic understanding of what managed care is and how it might apply to India, it is instructive to examine its conceptual development and growth in the USA. We present a

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simple narrative model of managed care that will help international policymakers and health personnel understand the underlying concepts and explain the acronyms that managed care has contributed to the lexicon of healthcare.

### THE DEVELOPMENT OF MANAGED CARE

#### *The past: A provider-driven system dominates*

The USA does not have a single monolithic healthcare system, such as the National Health Service in the UK or Canada's Medicare. It has a system that can be characterized as a set of interlocking subsystems that serve distinct populations. For approximately two-thirds of all Americans, health insurance is a benefit obtained as part of their compensation package; the employer pays a part or the full amount of the health insurance premium. About 13% receive healthcare through the Medicare programme, which covers the elderly population (>65 years) and younger people with disabilities; it is paid for by earmarked taxes, premiums and general revenues. Certain categories of the poor (primarily women, children and the elderly) receive healthcare through the Medicaid programme, paid for from general government revenues; leaving approximately 14% of the US population uninsured.

The key stakeholders in the system are the patients, providers, health plans/insurance companies, payers (employers) and the government. We discuss the interactions between these stakeholders, focusing primarily on the employer-based insurance system, for it is this system that covers most Americans and is where managed care originated and has had the greatest impact.

In the US system, once a person accepts employment with a company or firm, the employee enrolls with one of the health insurance plans the company has contracted with. Figure 1 represents the traditional interaction between the stakeholders. When a patient falls ill, he seeks care from his healthcare provider. Before managed care, under traditional insurance, the patient was free to choose from any provider in the community, with no restriction whatsoever. After treating the patient, the provider

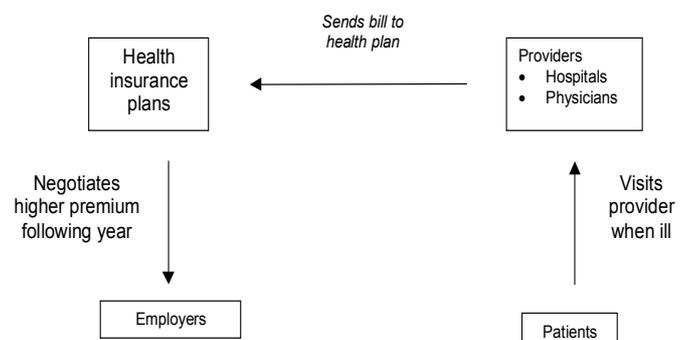


FIG 1. Schematic diagram of the fee-for-service system

billed the insurance company, which paid them. The mode of payment to providers was a fee-for-service basis, which meant that providers charged a fee for every service rendered to the patient.

At the end of the year, the health plans used the sum of these various provider payments as a basis for calculating the premiums they would charge employers for the coming year. Employers would either pay these increased premiums themselves or share the cost in a predetermined fashion with their employees.

An important characteristic of this system is that it is essentially patient driven—the patient initiates the cascade of events that lead to a visit to the provider, payment of the provider by the health insurer, and the health insurance company being paid by the annual premiums.

The second important characteristic of this system is that although it is patient initiated, it is provider controlled. Providers have complete freedom over how they treat the patients and what treatment choices they can prescribe. Physicians are paid on what is called a ‘usual and customary’ basis, giving them no incentive to rein in their fees or the services they provide. Hospitals are paid on a cost plus basis, leading them to provide more care and invest more in technology and facilities. In the absence of any controls, such a system is inherently inflationary, as there is every incentive for a provider (physician or hospital) to perform more services/procedures and charge for them. In addition, providers are paid *after* the service is rendered, in contrast to the pre-payment mechanism utilized under managed care (see below).

*The present: An employer-driven system dominates*

The absence of central control in the healthcare system caused costs to be passed around the chain: providers billed health insurers, and the health insurance companies in turn increased premiums for employers and employees. As long as the economy was booming and employers were able to handle the premium increases, the system worked fine. In other words, this inflationary system worked well until such time as the ultimate payers—the employers—were willing to put up with the yearly increases in health insurance premiums they paid for their employees, and the premium increases did not adversely impact their profits. This situation existed in the USA until the late 1970s/early 1980s.

During the early 1970s, the earliest managed care models were being developed and the concept of a ‘Health Maintenance Organization’ (or HMO) was put forth by Dr Paul Ellwood. President Nixon signed the HMO Act in 1973, aiming to enrol 50% of all Americans in HMOs by the end of the decade. Enrolment in HMOs remained low till the early 1980s, when the first strains began to appear in the fee-for-service system. Premium increases reached a stage where they began to erode company profits. The debate over rising premium costs was structured in terms of the diminishing competitiveness of American companies, especially on their ability to grow and innovate. While large employers could bear the cost increases, many small employers simply made a business decision to stop paying for health insurance for their employees, leaving many employees uninsured.

By the early 1980s, healthcare costs reached a point where a majority of the payers, including both employers and the federal government, felt they had to take action. In August 1983, the federal government changed the way it paid hospitals and physicians to a prepaid system based on diagnosis. It was during this ferment of experimentation that the concept of managed care began its decade-long boom.

Instead of having an open chequebook, employers decided that

they would henceforth pay a fixed amount per employee or, in other words, capitate their healthcare expenditures to a set, pre-determined amount. Employers began to offer managed care plans as well as indemnity health insurance, and capped the amount they would pay for premiums. Employees who wanted traditional indemnity insurance had to pay more for premiums.

The health plans assumed responsibility for providing the contractually agreed-upon services to employees from within that capitated amount (now called ‘pmpm’ or per member per month). For example, an employer with 100 employees would agree to pay a health insurance plan a pmpm rate of US\$ 50 for every covered employee. Every month, the employer would thus pay US\$ 5000 (US\$ 50 for each of the 100 covered employees) to the health plan, which would have to provide all agreed-upon healthcare to these 100 employees from this US\$ 5000.

The most important consequence of this paradigm was that the risk was now shifted from the employer to the health plan. In the previous fee-for-service era, the employer potentially had unlimited risk for employees’ healthcare expenditures. Under managed care, employers had capped their financial liability at the negotiated pmpm rate. The health plan assumes responsibility under the managed care arrangement. For example, the health plan in the example mentioned above will make a profit if it provides care to the enrolled population for less than US\$ 5000 per month. On the other hand, if a few patients require very expensive care (for example, a heart transplant) the plan will lose money, as the cost of providing this care will easily exceed US\$ 5000.

Over time, the health insurance plans in turn changed their payment arrangements with providers, especially physicians. Similar to the pmpm rates they were given by the employers, the plans contracted with the providers on a pmpm basis (Fig. 2). Thus, the economic incentives of the health plans and providers were aligned in the same direction, as both were getting a fixed payment per enrolled person, and to make a profit they had to provide care within this budgeted amount.

The system now became economically driven, compared to the clinically oriented fee-for-service system, and was more akin to a buyer’s market. As employers ratcheted down their pmpm payments, the only way for the plans and providers to make a profit was on the basis of volume—by enrolling as many ‘covered lives’ as possible. This quest for volume (or ‘covered lives’) led to organizational changes, primarily a wave of consolidation in the health plans and providers. Smaller players were merged and bought out by larger organizations with the idea of achieving not only economies of scale in their operations, but also gaining leverage by virtue of size in negotiations with employers.

This wave of consolidation was not limited to the providers and

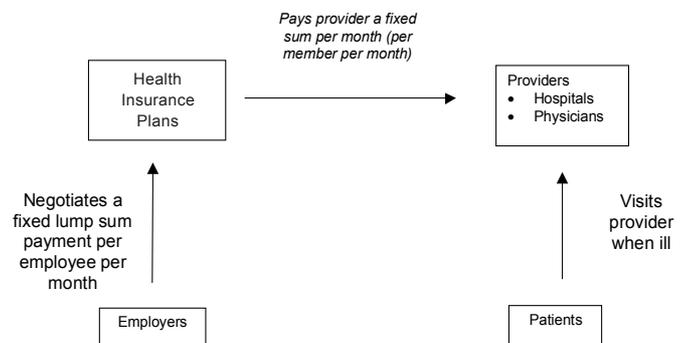


FIG 2. Schematic diagram of the capitated system

health plans. To increase their market power, employers joined together to form purchasing coalitions, for example, the Pacific Business Group on Health, a cooperative group of large and small employers in the San Francisco area who pool together their employees as a single bloc for the purpose of purchasing healthcare. This group of 45 employers is able to negotiate better prices with health plans as they purchase healthcare for approximately 3 million employees.

The payment system has changed patient control. In the old fee-for-service system, patients were the initial drivers of the system. In the new era of managed care, decisions about a patient's healthcare are now being made by their employers, health plans or providers; these decisions are no longer based purely on clinical criteria, but in terms of costs and economics as well.

From the developing country perspective, it is interesting to observe the role of the US government in this system. Health services in the USA are predominantly provided by private sector hospitals, physicians and community-based organizations. Financing of healthcare is divided approximately evenly between the government and private sector. Employer-provided health insurance is an example of the private financing mechanism. The government pays for healthcare through two large programmes which are focused on specific populations: Medicare and Medicaid.

In the recent past, Medicare has attempted to move its population into managed care, but that effort has now been stalled for two major reasons. First, elderly Medicare beneficiaries are reluctant to break established relationships with their physicians, as shifting to a managed care plan often entails breaking these relationships and enrolling with new physicians. Second, the federal government has reduced its payments to Medicare managed care plans, causing many insurance companies to leave this market. Medicare thus remains at this time predominantly fee-for-service. Medicaid, on the other hand, is aggressively moving population groups into managed care. Figure 3 shows the rapid increase in the number of Medicaid beneficiaries being enrolled in managed care.

**PRODUCTS/ORGANIZATIONS IN MANAGED CARE**

New ways of organizing physicians and providers have emerged due to managed care, accompanied by a whole new vocabulary and an array of acronyms. Any discussion of managed care is full of references to HMOs, PPOs, POS, etc. This section presents a conceptual basis for differentiating the various organizational structures in managed care and explains the accompanying acronyms.

Products/organizations in managed care are differentiated primarily on the basis of how physicians and physician groups are reimbursed for services. Figure 4 presents a spectrum of payment

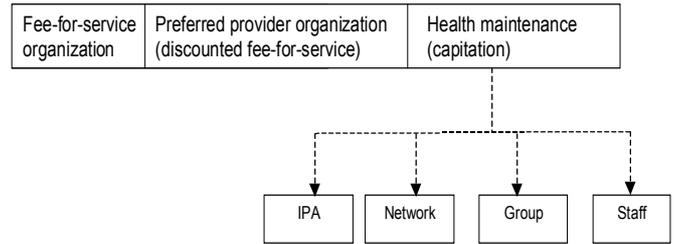


FIG 4. Managed care organizations/products  
IPA independent practice association

mechanisms, with fee-for-service on the extreme left. Although fee-for-service is not strictly speaking a part of managed care, it has been placed at one end of the spectrum to highlight the different physician payment mechanisms.

The first form of widespread managed care was the HMO or the health maintenance organization. Instead of a fee-for-service rate, providers in the HMO are paid a flat pmprn rate. For instance, the HMO may receive a sum total of US\$ 100 for every enrolled member. Irrespective of whether the patient/enrolled member uses the services or not and irrespective of the number of services s/he received, the HMO would be paid only US\$ 100 every month for that member. The key difference in this organizational model was that the HMO was at risk, either for a loss (if health services utilization was high) or a profit (if it kept utilization to a manageable level). From the patient's perspective, they no longer had the choice of going to any provider they wished, but were locked into the HMO and could see only those providers who were in the HMO panel, thus limiting patient choice and the ability to choose a physician. Patients' dislike for these constraints rapidly led to the first major modification of the HMOs, the PPO (Preferred Provider Organization).

Based on their organization, HMOs can also be of many types. At one end of the HMO spectrum in Fig. 4 are the staff model HMOs and at the other end are Independent Practice Associations (IPAs). In a staff model HMO, the physicians are the employees of the HMO and provide care exclusively to the HMO's enrollees, and are paid a monthly salary by the HMO. The IPA is the opposite of this arrangement: it is a group of independent physicians who come together only for the purpose of bidding for contracts to serve HMO patients. The physicians are owners of their individual practices and practise in their own offices. They do not see HMO patients exclusively, and may also see other fee-for-service and PPO patients.

When physicians from different specialties and geographic regions come together to form an IPA, they become attractive as a contracting partner for the HMO because they are able to offer both a complete spectrum of services as well as geographical reach. At the same time, an HMO is not limited by the number of IPAs it contracts with: it may contract with IPA 1 in Region X for a complete package of services, but in Region Y it may contract with IPA 2 for primary care services, and with IPA 3 for specialist services. The unique characteristic of the IPA model is that the physicians remain their own bosses and are not salaried employees of the HMO.

In between these two extremes are the group and network models. A group model is one where the HMO contracts with a single large group of physicians to provide all care to their enrollees. The network model is a mixture of group and IPA models.

The most common complaint against the HMOs was that they limited patient choice of providers. In order to provide a larger

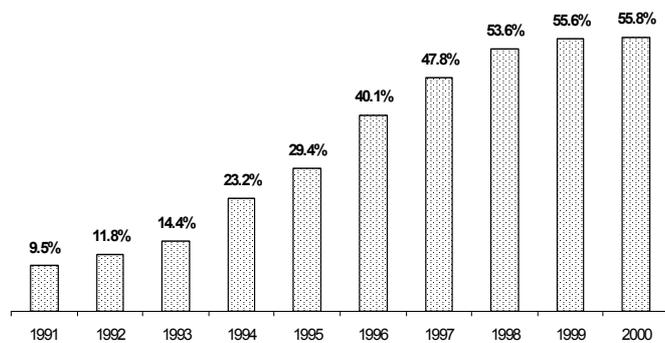


FIG 3. Medicaid beneficiaries in managed care (Source: Kaiser Family Foundation, 2002)

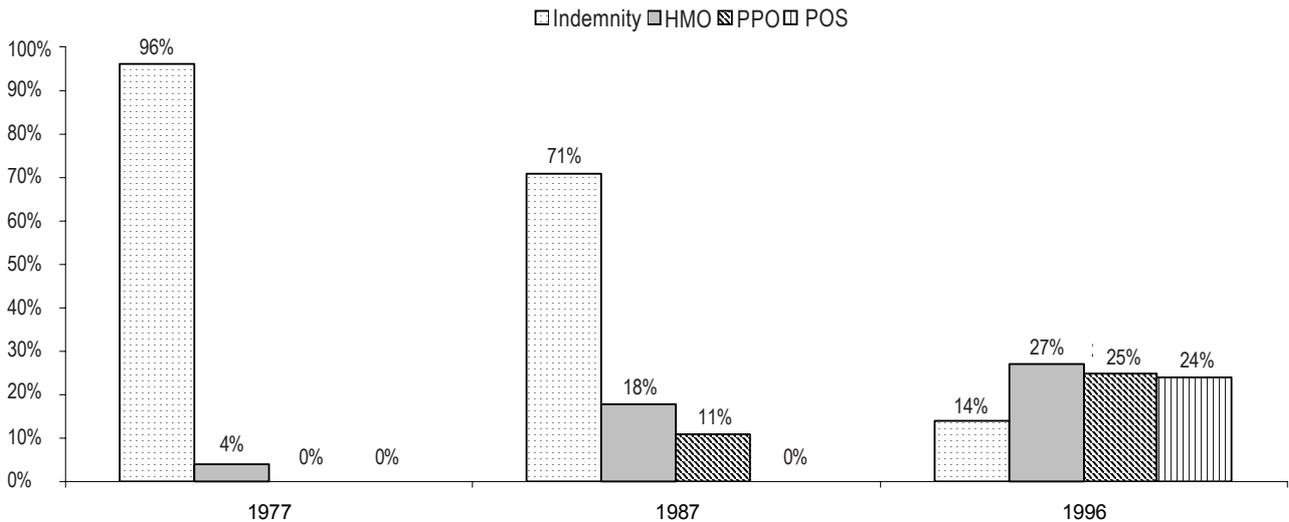


FIG 5. Employee enrolment in health plans (Source: Gabel JK. Job-based health insurance, 1977-1998: The accidental system under scrutiny. *Health Aff (Millwood)* 1999;18:62-74.)

HMO health maintenance organization PPO preferred provider organization POS point of service

choice of providers, the PPO was developed. These were panels of physicians or physician groups who were signed up by the health plans to provide services to their enrolled plan members. In return for having the patients funnelled to them, the doctors gave the health plans discounts on their usual fee-for-service rates. In this mechanism, while doctors were assured access to a volume of patients, health plans got discounts and hence achieved cost savings compared to the fee-for-service system. A patient signed up with the health plan would have access to any provider he or she wished to see; however, financial incentives encouraged patients to go only to these 'preferred' providers. For example, a plan may have a cost-sharing requirement, e.g. the patient pays 20% of the bill and the health plan picks up the remaining 80%. This co-payment would be waived, and the plan would pay 100% of the patient's cost if the patient visited a provider belonging to the PPO.

A recent development has been the growth of a hybrid organization 'POS' or Point of Service. These are a hybrid of an HMO, PPO and fee-for-service plans. A patient has the option of seeking care from any of these 3 organizations, but the financial consequences for using each are different. If a patient in a POS plan seeks care from an HMO (this is usually called tier 1), there is no cost-sharing requirement, i.e. care is fully paid for. If the patient wishes to seek care from a PPO (usually called tier 2), the patient may have to pay 10% of the cost of care, and the plan picks up the remaining 90%. If the patient decides to see a provider who is not in the HMO or PPO, he is allowed to do so, but has to share a greater amount of the cost, say 30% of the total cost, with the plan paying 70%. The idea behind this hybrid is to increase patient choice but, at the same time, create financial incentives that encourage patients to choose low cost options. Figure 5 shows the changing picture of employee enrolment in indemnity and managed care plans for the period 1977 to 1996.

WHAT HAS BEEN THE IMPACT OF MANAGED CARE?

Figure 6 presents a scorecard of managed care with respect to access, costs and quality of care. In terms of access to care, managed care is certainly more restrictive than the fee-for-service

	Fee-for-service	Managed care
Access	o	X
Cost	X	o
Quality	?	?

FIG 6. Impact of managed care

system. Not only is access to primary and specialist providers controlled, but a patient also has to be referred to the provider at the next level, often with the burdensome requirements of getting authorization from the health plan to do so. Patients are understandably not happy with this requirement, and this has in part fuelled the growth of the POS style hybrids. In addition to requiring authorization, care is often denied when it is deemed unnecessary by the health plan. This is indicative of the shift from being a clinically driven system to a system now driven by economic considerations. At a systemic level, there are concerns with regard to equity of access, as those enrolled in a managed care plan will have access to care, while those not enrolled are left to fend for themselves.<sup>2</sup>

In terms of costs, managed care has clearly done a better job of controlling costs than the fee-for-service approach. It has done so by stringent attention to the bottom line; witness the constant negotiations between employers and plans, and between plans and providers, for deciding the pmpm rates; strict control over utilization, especially of specialists; controlling drug costs by creating drug formularies and extensively using generic medications; disease management programmes and by a host of other management techniques.<sup>3-5</sup> The seminal work regarding the impact of managed care on costs and quality was undertaken by Luft in the early 1980s.<sup>6</sup> Periodic updated reviews have confirmed his original findings that managed care did lower costs, primarily by lowering hospital admissions.<sup>7-8</sup>

Although managed care had succeeded in controlling the rate of increase of healthcare costs in the 1990s, costs are inching up again. One reason for the cost increases are the demands by patients for a less restrictive version of managed care, leading to the rise of POS

style hybrids. Health plans are not able to exercise as tight a control over POS plans as they are able to do over HMOs, leading to higher expenditures. Another factor has been the rise of pharmaceutical costs. Despite the best efforts of managed care, pharmaceutical costs increased at annual rates of well over 10% during the 1990s.<sup>9</sup> Health plans are now negotiating premium rates, and often giving double digit premium increases to employers, who are in the unenviable position of passing these costs on to their employees.

Where evidence is unclear is how managed care has done with respect to quality of care. A thorough review of the literature conducted by Miller and Luft indicated that evidence is mixed, except for elderly Medicare beneficiaries with chronic conditions, who fared worse in managed care settings.<sup>10</sup> Recent reviews have found that while patients enrolled in managed care plans use more ambulatory and preventive services, there are no significant differences in health outcomes.<sup>3,10-13</sup> While the clinical elements of quality of care may not be significantly different between managed care and the fee-for-service system, what is undeniably worse in managed care is patient and physician satisfaction.<sup>3</sup> However, it must be cautioned that issues such as established patterns of clinical practice, inadequate risk adjustment and poor measurement and reporting of quality measures remain significant barriers to truly evaluating quality in either setting.<sup>10</sup>

As India embarks upon the path to managed care, it would be wise to remember the set of preconditions that Peabody and Luck list for managed care to be successfully implemented in developing countries.<sup>14,15</sup> These include an adequately developed formal wage sector so that people have the ability to pay for healthcare, adequate supply of trained professionals to manage the system, legislative and regulatory mechanisms to adjust for market failures, adequate information systems, formal groups of providers, enforceable contracts and, last but certainly not the least, competition in the healthcare sector between insurers and providers.<sup>14,15</sup> It is only when we have these conditions that we can tackle the complex issues of controlling provider and consumer behaviour, monitoring and rationing of care, administrative and medical leadership, and protecting against the underutilization that managed care inevitably raises.<sup>16</sup>

Managed care did succeed for a period of time in controlling the

rate of cost increases, but at the expense of alienating its customers—the patients and providers, especially physicians. A backlash against managed care has been led by patients and providers. We are now seeing plans drop out of business in some markets and patients return to fee-for-service options. The question policymakers are facing is whether the pendulum will swing once more in the direction of a fee-for-service system or will remain weighted towards a managed care system. The next few years will be crucial in determining the fate of managed care in the new millennium.

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