

The Impact of Medicare HMOs on Business, Private Consumers, and Government

Health Maintenance Organizations (HMOs) help manage rising Medicare costs. Data were collected on 517 elderly subjects. Differences between billed costs and contracted Medicare HMO payments were analyzed. Five differences were significant. Two differences were negative, indicating a loss to the HMO, three were positive, indicating a profit. HMO support is based on the belief that business, consumers, and government benefit from the transaction. Study results indicate that the HMO may help stem the tide of growing costs related to health care.

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Introduction

Health care is costing Americans over \$800 billion per year and at its current pace will, by the year 2030, equal more than one fourth of the gross national product (GNP)(Hawthorne, 1992). Containing health care expenditures and maintaining the quality of services, is a key issue for all Americans, but is even more crucial for our elderly population.

The number of people age 65 or older is growing at twice the pace of the general population. This group is projected to account for more than 21 percent of the total U.S. population by the year 2030 (Lumpkin & Hunt, 1989). A case can be made that the elderly represent a critical consumer group. Almost 25 percent of older Americans have incomes near or below the poverty line and older Americans use more health care services than any other group by a factor of three to one (Moon, 1990).

The largest single health insurance program in the United States, Medicare, serves over 30 million elderly and disabled people. It is estimated that 29 percent of the U.S. health care expenditures are devoted to the elderly (Prasad & Javalgi, 1992). Jencks and Schieber (1991), report that national health care expenditures, increased at a rate of 11.6 percent; greater than the general economic growth. They go on to report, however, that over the 20-year period between 1970 and 1990, Medicare expenditures grew at an annual rate of 14.3 percent.

With the changing demographics of the U.S. population, and the urgent challenge to identify resources to pay for the resulting health care expenditure increases, policy makers will need to identify alternative delivery systems for the elderly (Levit & Cowan, 1991; Prasad & Javalgi, 1992). One possible delivery system is the

health care maintenance organization (HMO). HMOs offer a comprehensive health care package of benefits for a stated premium. There is strong support to show that HMOs have been successful in reducing the overall costs of health care (Block, 1992; GHAA, 1990; Woolsey, 1992).

Objectives of the study

The primary objective of the study was to investigate whether HMOs are successfully (i.e. supplying health care while maintaining a profit) managing health care costs. The success variable was operationalized by looking at differences between the amounts paid by the HMO to the hospital providing the service, and the amounts Medicare reimbursed the HMO (analyzing five preselected DRGs, both separately and collectively). This "cost difference" can be either negative or positive, thus indicating a loss or profit for the HMO respectively.

A secondary objective was to provide descriptive data on the selected sample. Variables analyzed include age and gender of private consumers in the sample, and health care variables including cost of service and Length of Stay in the hospital (LOS).

Review of Literature

Growth of expenditures

There are three major sectors or payers of health care, they include business, the private consumer, and government. Over 12.2 percent of the GNP during 1990 went to national health care expenditures, with a projection of over 16.4 percent of GNP by the year 2000 (Sonnenfeld, Waldo, Lemieux, & McKusick, 1991). Little progress has been made over the last 10 to 20 years in containing the growth of health care expenditures.

One way employers reduce costs is by placing covered retirees in HMOs. As this trend spreads, employers will be able to cut their retiree health care costs (Block, 1992). Woosley (1992) projects that premium increases for employers with traditional indemnity plans will continue to average 20 to 27 percent, while increases for employers with managed indemnity plans average 16 to 20 percent. Employers with HMOs continue to lead in terms of controlling health care expenditure increases.

Business

Employers began to establish private health insurance as a fringe benefit during World War II. Since that time it has become an acknowledged and accepted role of business to provide private health insurance. After 1965, government provided coverage for the elderly, poor, disabled and other disadvantaged groups. Business then became the primary source of coverage for the work force and its dependents (Levit & Cowan, 1991). Businesses continue to believe that they should be the source of this support (Woolsey, 1991).

According to Levit and Cowan (1990), "The burden business carries for health spending at least doubled from 1965 through 1989, and, depending on the measure, rose as much as seven times the 1965 level" (1990, p.133). In 1990, \$186.2 billion for health care was paid by the business sector, this equates to around 29 percent of all health services and supplies (HSS). This is a change from 1965 levels when business accounted for 17 percent of the HSS (Levit & Cowan, 1991).

The private consumer

Over 21 percent of HSS expenditures in 1990 went for out-of-pocket medical expenses. Out-of-pocket spending includes copayments, deductibles, and payments for services not covered by insurance. In 1990 this made up the largest single category of payments by families and the private consumer. This equates to over \$224.7 billion spent on health care in 1990, an increase of 6.8 percent since 1989. Household and consumer spending accounted for 35 percent of the 1990 expenditures. In 1965, the HSS paid by private individuals was 61 percent of all HSS expenditures (Levit & Cowan, 1991). Much of this reduction came from the advent of Medicare and other government programs whose role it is to care for the elderly. Families with an elderly head of household in 1988, spent 12.1 percent of the household income on health care spending. In 1988, this was only 5.0 percent for all families. A key point to note is that health care spending as a portion of adjusted personal income was constant at around 4 percent between 1965 and 1980 (Levit & Cowan, 1990).

Levit and Cowan go on to state that for all families, the share of income devoted to health care costs after taxes has been fairly constant. It is when the elderly headed households are compared that we see a consistent rise in costs over the last 15 years.

Government

The growth in health care spending of the government has been dramatic. There was almost a 400 percent increase in federal government health care expenditures between 1965 to 1985 (Levit & Cowan, 1990). In 1965 the federal government purchased 9 percent of HSS which grew to 15 percent as Medicare programs began to get underway in 1967. This upward trend continued in 1976 with 18 percent of all HSS expenditures. Today, federal government expenditures account for about one-third of HSS. Thus, each of the major payer's share accounts for approximately one-third of the total health care costs (Levit & Cowan, 1991). As the population grows older the government's role in providing health care will continue to be an issue.

Medicare and Medicare-HMOs

The development of risk-based prospective payment health plans for the elderly, better known as Medicare-HMOs, were developed out of the passage of the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 (Iglehart, 1985). Under contract, the Health Care Financing Administration (HCFA) pays the HMO 95 percent of what the agency has determined that it would cost to deliver health care to the Medicare eligible participant living in a specific area. The HMO charges the retiree, their former employer, or both, a monthly premium for any additional benefits not offered by the Medicare coverage. This extra coverage can vary by HMO and can include items such as prescription drugs and vision care (Block, 1992).

Payments to the hospitals or HMOs under Medicare's payment system are based on currently established prices for 474 DRGs. These prices reflect average charges for inpatient hospital services provided to Medicare beneficiaries (Price, 1989). Payments are calculated by assigning each DRG a weight which is multiplied by a standardized payment amount. This amount is adjusted for the specific area's hospital wages, teaching status, and percent of poor patients (Jencks & Schieber, 1991; Price, 1989). Other variables include the mix of hospital cases (what type), number of beds, outpatient visits, for-profit status, region and characteristics of the medical staff. (Welch, 1992). The DRG weights are recalculated annually by HCFA.

Since the early 1970s the federal government supported the HMO strategy as a way to deliver an

efficient and fair health care system (Wallack, 1991). Final HCFA regulations allowing all qualified HMOs to enter the Medicare market were published in 1985. In 1990 1.3 million Medicare beneficiaries received their services from Medicare-HMOs. This amounted to approximately 4.1 percent of the Medicare population. Medicare-HMOs are still a relatively new concept in the health care industry and many older people don't know they exist (Prasad & Javalgi, 1992). To the elderly consumer, decisions to join or not join Medicare HMOs are based on four criteria: quality, value, continuity, and convenience (Prasad & Javalgi, 1992).

By using managed care techniques, HMOs work to deliver care for less than what Medicare pays them. This is how Medicare HMOs can make a profit. "HMOs could be treated as an investment, because they appear to save more than the statutory 5 percent in the long run" (Welch, 1992, p. 98).

Wallack states that, "HMOs can reduce costs below unmanaged fee for service by perhaps 20 percent and below managed fee for service by about one-half that amount" (1991, p. 30). Jencks & Schieber (1991) support Wallack (1991) by noting that HMOs are becoming a common form of coordinated care and have been shown to be 20-30 percent less costly than fee-for-service providers while providing comparable quality.

Procedures

Data were collected from the five DRGs most commonly used by one Medicare HMO in Southern California. The specific geographic area was chosen based upon its high concentration of older citizens. The following information was collected: number of cases per DRG, age, gender, billed cost, dollars paid by Medicare HMO, dollars paid by Medicare for the specific DRG, dollar difference (the DRG paid in relation to dollars paid by HMO), and LOS.

To accomplish the primary objective, which compares five DRGs separately and collectively, t-tests were performed. A minimum significance level of .10 was established as the rejection region. Frequency statistics were generated including mean, minimum, and maximum to address the secondary objective.

Variable definitions

The following definitions are industry specific. These terms will be used throughout the paper.

DRG 1 through DRG 5 - Diagnosis Related Groups, most frequently utilized DRGs in the HMO sample population.

DRG C - All five DRGs combined, includes 517 cases.

Length of Stay - Total days a person under hospital care.

Billed Cost - Amount billed by attending hospital.

Paid by HMO - Reimbursement for services provided by the hospital on a contracted basis.

DRG Paid - Reimbursement paid to the HMO, as established by Medicare's hospital reimbursement system.

Dollar Difference - The difference between the amount paid by the HMO to the hospital provider, and the amount that Medicare reimbursed the HMO (DRG paid - HMO paid). Amount can be negative or positive, indicating a loss or profit for the HMO, respectively.

Results

Description of the sample

Descriptive statistics generated show that the total sample (DRG C) consists of 517 cases. The age of the entire sample ranged from a minimum of 52 years to a maximum of 98 years, with a mean age of 78. Sixty-one percent of the sample were men. The mean billed cost was \$8,871, while the mean paid by the HMO was \$4,481. The mean dollar amount that Medicare paid to the HMO as reimbursement was \$4,429. The dollar difference ranged from a low of -\$27,927 to a high of \$5,270. The mean dollar difference of the sample was -\$52. Average length of stay in DRG C was 5 days.

Results of t-tests

The results of the t-tests revealed five out of six t-tests were significant at the .10 level and higher. Results are presented in Table 1. The t-tests related to DRGs 1 and 3 were rejected at the .10 level or higher, while the t-test analyzing DRG 5 was rejected at the .001 level, indicating that the dollar differences for these DRGs were significantly different from zero. The t-tests regarding DRGs 2 and 4 were both rejected at the .05 level. Results related to DRGs 1, 2, and 5 showed that the dollar differences were significantly greater than zero, indicating that the HMO made a profit from managing these specific categories of service. Results addressing both DRGs 3 and 4 revealed dollar differences that were significantly less than zero, indicating that the HMO did not make a profit from managing these specific categories of service.

The collective DRG (DRG C) was accepted, indicating that the dollar difference in DRG C was not significantly different from zero.

Table 1
Dollar difference t-tests

	Number of Cases	Mean	Standard Deviation	T-Value
DRG 1	138	526.97	304.76	1.73 ¹
DRG 2	70	677.61	343.67	1.97 ²
DRG 3	163	-462.98	239.46	1.93 ¹
DRG 4	97	-969.81	391.13	-2.48 ²
DRG 5	49	460.93	120.75	3.82 ³
DRG C ⁴	517	-51.83	143.65	-0.36

¹Significant at the .10 level

²Significant at the .05 level

³Significant at the .001 level

⁴DRG C is the total sample population of DRG 1 through DRG 5

Summary And Implications

Over \$800 billion per year is being spent by Americans on health care. By the year 2030 that amount will equal more than one fourth of the GNP. Older Americans use more health care services by nearly three to one when compared to younger Americans. This critical consumer group is growing at twice the pace of the general population. Currently, Medicare is serving over 30 million elderly and disabled people. Medicare expenditures grew at an annual pace of 14.3 percent between 1970 - 1990, much faster than the rate for all health care expenditures.

Wide spread support for HMOs is based upon the belief that all three parties in the health service transaction, (i.e., business, private consumers, and government) could benefit from the HMO approach. Depending on the ability of the HMO to manage costs, there are opportunities for dollar savings and dollar losses. Results of this study indicate that HMOs faces both dollar savings and dollar losses. Three of the DRGs generated dollar savings while two of the DRGs manifested dollar losses. Since some DRGs can create a dollar loss, HMOs must be able to manage all the DRGs so that the net effect is profitable.

Once managed, savings realized by HMOs can help to stem the tide of growing costs related to health care.

All three parties can reap benefits. Business can realize stabilized or reduced costs in premiums for their employees. The private consumer can realize lower out of pocket expenses as compared to current Medicare

coverage. Additionally, consumers may experience a reduced tax burden currently supporting government's Medicare system. Government can immediately reduce the over all burden of health care expenditures by utilizing HMOs which provide for a 5% reduction in payment as mandated by HCFA. Implied benefits reaped by the government include lower administrative costs, and reduced accountability for providing and managing health care. Government can reduce the over all burden through HMO providers and spread resources in other needed areas.

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Endnotes

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