The Rise of HMOs

Martin Markovich
This Ph.D. Thesis is Dedicated to my Wife, Elizabeth Markovich (born Nancy Elizabeth Hoge). She brings God’s Love into my life.

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This study was performed in partial fulfillment of the requirements of the RAND Graduate School for the degree of Doctor of Philosophy (Ph.D.) in Public Policy Analysis. The work contributes to our understanding of the growth of the HMO industry and of some of the dynamics of the health care sector of the U.S. economy. The findings and conclusions of this study may be of interest to State and Federal legislators, public servants, HMO managers, health economists, health services researchers and others concerned with the financing, organization and operation of our health economy.
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ABSTRACT

The purpose of this research is to determine factors associated with differential HMO enrollment growth across metropolitan statistical areas (MSAs). The study examines 2 periods, 1973-1978 and 1988-1993, during which national HMO enrollment grew substantially. Results for the 2 periods are compared to determine the stability of statistical relationships.

Data was collected for the 75 largest U.S. MSAs as of 1990. The study uses multiple regression to test several hypotheses concerning the association of independent variables with HMO enrollment growth. Hypotheses concerning medical supply variables, hospital costs, per capita income, unionization, employment concentration, net migration, education and location are tested. Because of concerns about endogeneity, the values for medical supply and cost variables at the beginning of each 5-year period are used to estimate HMO market share growth.

The study finds that the availability of physicians and other physician related factors are strongly associated with HMO enrollment growth during the 1973-1978 period, but that is not the case for the 1988-1993 period. For the earlier period, the percent of physicians (in the state) who are in group practice shows the strongest association. On the MSA level, an increase in the number of physicians in group practice by 1% of the physician population is associated with a .17% increase in overall HMO market share. The overall proportion of MDs in the MSA population also generated a statistically significant positive association, as did the overall proportion of RNs. None of the associations found for the 1973-1978 period are found for 1988-1993.

This research strongly suggests that the factors associated with HMO enrollment growth on the MSA level changed in the 10 years between the 2 periods. This finding can be interpreted and understood within the framework of the life cycle of the HMO industry. Even though the national industry was still growing rapidly in 1993, a more detailed examination of that growth suggests that the industry was shifting from growth to maturity. The observed transition from continued growth to slow decline during subsequent years reinforces this suggestion.