Spring 5-1986

Preferred Provider Organizations: Developmental Indicators

Marcia Anne Guida
Old Dominion University

Old Dominion University

"Preferred Provider Organizations:

Developmental Indicators"

A Thesis Submitted To

The Faculty of the Community Health Professions

Department in Candidacy for the Degree of

Master of Science

Department of Community Health Professions

By

Marcia Anne Guida

Norfolk, Virginia

May, 1986

Running Head: Preferred Provider Organizations

"Preferred Provider Organizations:

Developmental Indicators"

A Thesis Submitted To

The Faculty of the Community Health Professions

Department in Candidacy for the Degree of

Master of Science

Department of Community Health Professions

By

Marcia Anne Guida

Norfolk, Virginia

May, 1986

Thesis Committee Approval

Gregory J. Mertz, MBA, Chairman

Colin Box, HSD

John Echternach, Ed.D

ABSTRACT

The purpose of this research was to determine what factors, if any, led to the development of a preferred provider organization and if these factors were related to sponsorship. A survey instrument was developed and mailed to a random sampling of 90 existing preferred provider organizations' executive directors for their completion. A Two-Factor Contingency Table Analysis was compiled. Chi-square, and the Contingency factor, C, were computed and tested at the .05 level of significance. First and second preference analyses were done on the responses to developmental indicators. Mean percentages were tallied for: sponsorship, tax status, alternative delivery systems in the area, coalition activity, doctors and hospitals within each PPO, primary care doctors, area employers participating, self-insured employers, self-insured member employers, and area unemployment rates above the national percentage of 6.7%. No significant relationship between developmental indicator and sponsorship was found. However, the

results did show two common reasons why most PPOs developed: competition and a response to employer needs. The results also indicated the existence of certain community factors which may lead to the development of a PPO in a particular area: high unemployment rates, business coalition activity, alternative delivery system presence, high number of self-insured employers.

TABLE OF CONTENTS

LIST OF TABLES

Page

CHAPTER I

Introduction

During the 1980's many changes have taken place in the American health care system. It has become the era of the alternative delivery system. The advent of health maintenance organizations, home health care, surgicenters, urgicenters, outpatient diagnostic facilities and preferred provider organizations have changed the face of health care and are forcing hospitals and other providers of care to redirect their priorities. The emphasis being placed is on quality health care at a reasonable price.

Employers, who pay 60% of the costs of all private health insurance premiums, are looking for ways to provide employees quality health care at a reasonable price (Cowan, 1984). These efforts often lead to the initiation of an alternative delivery system as a source of health care. An alternative delivery system may consist of a health maintenance organization, a preferred provider organization

or an exclusive provider organization, among others. Health maintenance organizations and preferred provider organizations are two alternative delivery systems which have been utilized most frequently. Health maintenance organizations are the most frequently found alternative delivery system. Preferred provider organizations developed later but could possibly surpass health maintenance organizations as the alternative delivery system most used. The growth of preferred provider organizations has been phenomenal. In 1981, less than ten preferred panel arrangements were in existence. That number is now over 300, with the largest increase occurring in 1983 (AMCRA, 1985). Why the dramatic increase? First, purchaser concern over escalating medical expenditures in the late 1970's and the early 1980's gained momentum as the result of adverse economic conditions and the continuing increases in the cost of medical care. Secondly, major purchasers of medical care began to consider new arrangements to control escalating medical care expenditures (Barger, 1985).

Most preferred provider organizations have only one or two years of operational experience, therefore, only a limited number of preliminary studies have been done of their effects on competition, cost and other factors. Numerous informational articles are available in the literature on PPOs, not many studies are available to analyze and record trends which may be present in PPO development.

There are 334 operational preferred provider organizations throughout the United States (AMCRA, 1985). Preferred provider organizations are located in 40 states plus Puerto Rico and Washington, D.C., with the largest concentration of PPOs in California. See Appendix A.

There may be several reasons for the development or expansion of a preferred provider organization in a particular area, such as type of sponsorship; a response to other alternative delivery systems (health maintenance organizations); competition; or a for-profit-venture.

The answers to these questions would be of importance to those individuals or groups assessing the market for preferred provider organization

development. This might include hospitals, physicians and other possible sponsors of preferred provider organizations.

A questionnaire was developed and mailed to a random sampling of existing operational and preoperational preferred provider organization executive directors for their completion. Ninety PPOs were randomly selected from a state-by-state listing of PPOs published by the Institute for International Health Initiatives.

The surveys were divided into two groups: ones returned by a specific date and those which required a follow-up letter or phone call to be returned. Results were analyzed for both groups for significance.

Literature Review

Health benefits cost American industry approximately $100 billion in 1982 (Lublin, 1984). Most of this was in the form of premiums. Business pays about 60% of the costs of all private health insurance premiums. In 1980, the costs of health care benefits for the 1500 largest employers in

the United States averaged $1,015 per employee (Barger, 1985). The increases in amounts of health care benefits convinced many employers that they needed to develop and adopt strategies to reduce the rate of increase in health care costs (Cowan, 1984).

Cost shifting was one factor which caused additional increases in health benefits costs to employers. Cost shifting is the shifting of costs that are incurred but not paid by beneficiaries of public programs such as Medicare to private payors. These cost shifts caused health insurance premiums and benefits paid by employers to be higher and forced employers to become more cost conscious about the administration of their employee health benefits (Barger, 1985).

While there were increasing pressures on employers, there were pressures on providers as well. There were large numbers of providers with the number of physicians increasing 21% in 8 years. Coupled with an increased number of physicians, there was a decreasing number of patient visits, a 20% decrease

from 1974 to 1982. A portion of this decrease may have been attributed to fewer visits to the doctor by patients affected by the downturn in the economy during the past 4 years. Much of the decrease, however, appeared due to the increase in the number of practicing doctors (Cowan, 1984). With less patients seeing their doctors, there was a concomitant decreasing occupancy rate for hospitals, with more acutely ill patients being housed. As a result, hospitals looked to alternative delivery programs, such as preferred provider organizations, to help them maintain and expand their patient base.

Employers, who obviously account for a large percentage of purchasers of health care services, became more cost conscious in their health benefits programs. Faced with the decision of reducing their employees' medical coverage and/or applying larger deductibles and co-payments, employers looked for ways to cut costs while maintaining quality. Alternative delivery systems such as health maintenance organizations and preferred provider organizations play a large part in employee health plans, not

only because they offer a choice to the traditional health care plans, but also as a way to offset increasing medical expenditures.

HMOs vs. PPOs

Health maintenance organizations are the plans most frequently offered by employers, since they offer such a wide variety of services and are federally mandated. However, preferred provider organizations are gradually gaining momentum as an alternative in the health care delivery arena. There are numerous differences between HMOs and PPOs. One difference is from the employer/consumer perspective. Health maintenance organization payment is based on a prospective payment with little incentive for utilization, whereas preferred provider organizatons are based on fee-for-service. Health maintenance organization participants are required to use only physicians participating within the plan. Preferred provider organization participants may choose plan physicians or a non-participating provider and pay a co-payment, allowing for freedom of choice in provider, an important aspect to the patient.

Another important difference between HMOs and PPOs is in assumption of risk. In PPOs, the providers are not at financial risk for losses resulting from the cost of services they provide, whereas in an HMO, the assumption of risk is with the provider. In addition, offering HMOs may produce administrative problems for self-funded corporations and labor union trust funds. The PPO, on the other hand, may be easily integrated into the existing benefit structure of corporations and other purchasers (Barger, 1985).

Until recently, not many regulatory factors had affected PPOs. PPOs were viewed as advantageous for competition and the predominant approach of state legislative action had been to facilitate participation of commercial insurance and hospital (medical service) plans in preferred provider organizations directly (Young, 1984). Now, with such a large number of PPOs identified, some states have started to develop legislation to monitor PPO development (AMCRA, 1985).

PPO Characteristics

Preferred provider organizations are characterized by several factors as follows:

1. Formal contractual arrangements which hold the preferred provider organization together.

2. A select panel of providers, open to any physician, hospital or provider, whose numbers may or may not be limited.

3. Emphasis on cost efficiency by discount usually.

4. Marketing programs directed at purchasers as opposed to consumers.

5. Prospective negotiation-usually fee-for-service.

6. Economic incentives to encourage selection of the provider panel-usually a financial incentive or a disincentive.

7. Flexibility in choice of provider-no consumer lock-in.

8. Rapid turnaround on provider's claims.

9. No assumption of financial risk by the providers.

10. Use of primary care physicians as the entry point into the system.

11. Utilization review and/or claims including some form of control mechanism (Barger, 1985).

The preservation of fee-for-service reimbursement, the absence of pre-payment of fees and the absence of financial risk are the three features of preferred provider organizations which enable them to attract physicians to their panels of providers. However, the features which attract physicians to PPOs also represent the key ingredients that underlie the success of health maintenance organizations in containing health care costs (Cowan, 1984). Ultimately, there is a dichotomy existing in the philosophies of both alternative delivery systems.

In the contract laden environment of the PPO, the legal entity initiates contracts with several groups such as physicians (providers) and purchasers. If, however, a rigid system precludes the admission of certain physicians, there may be antitrust concerns. In terms of cost efficiency, several areas may be explored, including discounts, establishment of unique payment systems and various control mechanisms ranging from utilization review,

data feedback for providers and incentive systems for physicians.

Marketing efforts towards major purchasers of health care has been the primary focus for preferred provider organizations. Prior to 1983, preferred provider organizations directed their efforts towards self-funded corporations and labor union trusts. Now, however, they are not limiting their expansion potential and are emphasizing attracting all purchasers, including third party administrators, employee benefits brokers and insurance companies.

PPO Participant Benefits

In an ideal situation, the preferred provider organization produces economic benefits for each of the three major participants: purchasers, patient and provider. Purchasers are primarily concerned with cost containment. Within a preferred provider organization, purchasers have control over medical expenditures through utilization review. Purchasers derive other benefits from participation. The use of per diem and DRG (diagnosis related groups) based

payments allows purchasers the benefits of risk sharing. Self-funded or self-insured purchasers assume full financial risk for care to enrollees.

Third party administrators, employee benefits consultants and brokers are not technically purchasers, however, each receives benefits from participating in such arrangements. Since purchasers look to these entities for assistance in cost containment, it is an advantage for these organizations to be linked with PPOs.

The consumer (patient) also reaps benefits from a relatively wide geographic distribution of physicians and hospitals within a PPO. There is the potential for improvement in the quality of care with strict utilization review. For the provider, the most obvious benefit is the maintenance of existing patient volumes and market shares, the protection of revenues and a rapid turnaround in claims payment. These increase cash flow, investment opportunities and revenue for the provider. The PPO concept maintains existing forms of health care reimbursement for the physician and the hospital. This limits provider risk and helps to ensure that providers

are adequately reimbursed for their costs of care.

Sponsorship

In a study conducted recently by the Institute for International Health Initiatives, it was found that of the 343 operational and pre-operational preferred provider organizations, as of December, 1985, the sponsorship breakdown was as follows: hospital-59, physician-hospital-74, physician-64, BCBS-42, other insurance company-26, third party administrator-16, IPA/HMOs-12, investors-23, others-19, and self-insured employer-8. There are many reasons for such a variance in sponsorship. Often, it seems that providers (both hospitals and physicians) are taking it into their own hands to protect their revenues, increase their patient base and compete more effectively with other alternative delivery systems. Physicians wish to sponsor PPOs to maintain or increase their patient base, compete more effectively with other alternative delivery systems and to maintain control over their professional activities. Physicians in particular desire to have and manage operations of an organization independent

of the hospital. Hospitals wish to establish PPOs to maintain and expand the patient base, develop a structure for delivering health care that can compete with other alternative delivery systems and hospitals, and to promote greater cooperation with their medical staffs in order to achieve long range goals and assure their survival (Cowan, 1984).

Purchasers (which include self-insured employers and union trust funds) who are sponsors of preferred provider organizations hope to decrease the costs of their health benefits payments. Purchasers are in a position to devise cost containment policies and procedures that have potential for achieving their goals, so they are in control. They also must be able to contract with providers, who would have no control and who would be subjected to controls over prices and utilization.

Payors who sponsor PPOs include insurance companies and Blue Cross plans. The reasons payors sponsor PPOs are the ability to control and to be certain they promote their sponsors' goals. Payors have access to information needed to make marketing, and financial projections. They have

expertise in planning, marketing, management and access to perspective subscribers. In addition, they have access to funds needed to start PPOs. Each of these advantages represent areas which providers (especially physicians) are most deficient (Cowan, 1984).

Entrepreneurs, like insurance brokers and third party administrators, sponsor preferred provider organizations in order to increase their own business opportunities. However, this is most difficult since entrepreneurs face the task of recruiting providers and selling to purchasers. Since providers do not have much control in these preferred provider organizations, incentives must be used to gain provider support.

Naturally, the incentive in each type of sponsorship is control. But, it must be remembered that in each type of sponsorship, there are obstacles, as described above, which must be overcome in order for the operation to be successful.

Regardless of sponsorship, a preferred provider organization behaves like a middleman between purchasers of health care and suppliers of medical

services. By bringing these major purchasers of care together, a PPO increases buying power which controls or reduces health costs. Providers of care participate because they see the advantage of having access to potentially large pools of business in an increasingly competitive marketplace (Barger, 1985).

Development of PPOs

The planning, development, and subsequent operations of a preferred provider organization are relatively simple, much simpler than in a health maintenance organization. For a preferred provider organization, the initial start-up costs are much smaller compared to a health maintenance organization, thus making development more desirable. The stages of development may include the establishment of the legal preferred provider organization entity and the completion of contracts with physicians, hospitals, subscriber/purchaser groups and other subcontractors. It is in this phase that a data system for utilization review, program monitoring and management decision making is constructed.

Marketing begins in this phase as well. Initial operation is the final phase of preferred provider organization development, exhibited by the direct provision of medical services, a campaign for continued community support, and monitoring and improving claims payment procedures (Cowan, 1984).

The development of preferred provider organizations has not been random and appears to be closely related to the existence of certain important community indicators and health care system characteristics. In those states that do not have legislative barriers, several characteristics point to the overall potential for the emergence of preferred provider organizations. One such characteristic is a rapidly growing population with significant in and out migration, meaning that new community residents have no commitment to individual providers. In addition, a relatively young population signifies that provider/patient relationships are less developed than with older populations. High unemployment rates serve to further enhance the probability of alternative delivery systems growth. High unemployment levels result in the eventual loss

of insurance coverage by the unemployed, in turn reducing in and out patient medical utilization. This drop in utilization stimulates health providers to affiliate with alternative delivery systems. Another characteristic is a surplus of physicians meaning that physicians are more willing to compete for patients on the basis of price. Alternative delivery systems/health maintenance organization growth shows that market shares of traditional providers are adversely affected, causing these traditional providers to affiliate with preferred panel arrangements in order to maintain their existing volumes (Barger, 1985).

Companies utilizing full pay insurance coverage for their employees offer no motivation for these employees to be prudent buyers of health care. But, growing levels of employee cost sharing causes employees to become financially responsible for certain portions of their medical care. Corporate/labor union self funding means that purchasers experience risk directly and seek ways to minimize it. This corporate assumption of risk positively influence preferred panel arrangement development. Also,

the existence and aggressiveness of a community based health coalition contributes to an environment conducive to the design and development of PPOs. Coalition activity heightens provider awareness about corporate and purchaser interest in controlling medical expenditures. Coalitions are also involved in cost containment programs which heighten consumer awareness. Excess hospital beds, decreasing hospital occupancies mean that hospitals are willing to compete on the basis of price to attract patients (Barger, 1985).

Competition is what preferred provider organizations thrive on. For a preferred provider organization to be successful, it has to be created and exist in a competitive environment. There is little incentive for a preferred provider organization to develop in a rural or single hospital community. There must be competitive forces at play, an excess of supply and demand, a sophisticated audience and much concern about costs (Kodner, 1982).

CHAPTER II

Methodology

The Directory of PPOs and the Industry Report on PPO Development, published in December, 1985, was used to obtain a random list of 90 PPOs throughout the United States to survey. A Panasonic Senior Partner PC was used to maintain a file of each PPO and to generate letters to each PPO. A PPO survey was compiled (see Appendix B), sent with a cover letter (see Appendix C) and a self-addressed stamped envelope to each PPO. A period of 21 days was allotted for answers. Five days following the initial deadline, a follow-up letter was sent (see Appendix D) with another copy of the survey to each non-respondent, giving 2 additional weeks to answer. Out of 43 follow-up letters sent, 8 were returned.

A Two-Factor Contingency Table Analysis was compiled, using sponsorship and developmental indicator as the factors. The chi-square (χ^2) of this table was computed using the formula:

$$\chi^2 = \Sigma\left(\frac{O^2}{E}\right) - \Sigma O$$

Then the Contingency factor, C, was computed by the formula: $C = \sqrt{\frac{\chi^2}{N + \chi^2}}$

See Appendix E for the specific format used to compute χ^2 and C. Finally, the results of this computation were tested at the .05 level of significance. First and second preference analyses were done on the responses to developmental indicators.

The mean percentages of each type of sponsorship were tallied as were mean percentages for: tax status, alternative delivery systems in the area, coalition activity presence, mean percentages of doctors and hospitals within each PPO, mean percentage of primary care doctors, mean percentage of area employers participating, mean percentage of self-insured employers and mean percentage of self-insured member employers. The area unemployment rates above the national average of 6.7% were tabulated.

CHAPTER III

Results

Out of 90 surveys initially mailed, 55 were returned, 47 of which were answered. This represents 61% of the total sample responding, 52% of which answered the questionnaire. Of the 8 questionnaires returned unanswered, 3 sent letters explaining that they were too busy to answer, 1 expressed inability to answer due to the death of the Executive Director, and 4 were sent back with letters explaining that the PPO never became operational.

Twenty-eight surveys returned were filled out in their entirety. Fifteen surveys, however, lacked specific information which was not available or because of a concern for confidentiality. Four others lacked answers because of the short duration of operations. Whenever answers were left blank, most explained the reason why they remained as such.

The sponsorship percentage of the survey sample answering is represented in Table 1. The largest percentage of sponsorship represented was the

hospital/physician joint venture with 34.04% of the survey sample, followed by physician, other insurance company, investor, hospital and other sponsorships with 10.64%. Blue Cross/Blue Shield had 6.38%, IPA/HMO had 4.25% and the smallest portion of the survey sample was third party administrator sponsorship with 2.13%.

The "other" type of sponsorship consisted of a hospital/physician/insurance joint venture, a free-standing owner operated, a PPO as part of a diversified health care company, an insurance company owned and administered PPO and a privately owned and operated PPO.

95.74% of the PPOs had alternative delivery systems set up within their areas, 4.26% indicated that they did not have any type of alternative delivery system within their service area. Most of the types of alternative delivery systems in the PPO areas were IPA-HMOs, followed by group HMOs, then staff HMOs.

Table 1

Sponsorship Percentage

Sponsorship	Percentage
Hospital/physician joint venture	34.04%
Physician	10.64
Other Insurance Company	10.64
Investor	10.64
Hospital	10.64
Other	10.64
Blue Cross/Blue Shield	6.38
IPA/HMO	4.25
Third Party Administrator	2.13
Total	100.00%

As for business coalition activity, 78.72% of the PPOs responding had coalition activity present, 14.89% were not aware of any coalition activity within their area and 6.39% did not answer the question or did not know.

Each PPO indicated its tax status. There were 42.55% non-profit and 57.45% for profit PPOs within the sample.

The mean percentage of physicians participating in the PPOs was 31.26% and the mean percentage of participating hospitals was 26.67%. The mean percentage of primary care physicians was 36.35%.

Unemployment rates above the national average of 6.7% were present in areas of 20 of the 32 PPOs which answered the question, or 62.5%.

The mean percentage of the area employers participating in the PPOs were 2.28%. The mean percentage of area employers which were self-insured was 34.16% and the mean percentage member employers which were self-insured were 69.72%.

A Two-Factor Contingency Table Analysis revealed that there is not enough evidence to show that

sponsorship and developmental indicators are related. See Table 2 for computations. However, a physician/ hospital joint venture sponsorship was most likely to indicate "competition from other area HMOs and PPOs" as a reason which led to development and most likely to choose "concern over maintaining existing volumes" as a secondary reason. The other types of sponsorship did not indicate any reasons in particular which led to development.

A First and Second Preference Table was completed, for those PPOs which stated a preference for developmental indicator. See Table 3. The answer most often chosen first preference as developmental indicator was "response to area employers". This answer received second preference most often also. The answers which received first preference second most often were "Competition from other HMOs and PPOs" and "Cost reduction for area health costs".

Table 2

Contingency Table of Analysis for Sponsorship and Developmental Indicators

	Sponsorship								
	Physician	Hospital	Physician/ Hospital	Ins. TPA	BCBS	Other ins. company	IPA/HMO	Investor	Other
Competition	3	2	13	0	2	1	1	0	3
Need in response to employers	2	2	7	1	3	2	1	5	4
For-profit	0	3	1	0	0	1	2	1	2
Maintain existing volumes	3	2	11	0	1	1	0	2	2
Cost reduction	2	1	5	0	2	4	0	2	4
Other	1	1	4	1	0	1	0	0	0

χ^2 was found to be 44.27. C was found to equal .41. Testing the null hypothesis at a .05 level of significance shows that these two factors are independent of one another. There is not enough evidence to show that sponsorship and developmental indicators are related.

Table 3

First and Second Preference on Developmental Indicators

Indicator	First	Second
Competition from other HMOs & PPOs	6	5
Need for PPO in area in response to employers	8	7
For profit business venture	1	3
Concern from physicians over maintaining existing volumes	5	2
Cost reduction for area health costs	6	1
Other	2	0

These two answers were selected equally. The answer which received first preference least often was "For profit business venture".

When given the opportunity to specify any other reasons which led to development, several PPOs indicated various reasons. These included: "cost containment", "positioning the organization for new challenges", "empty beds", "employers had not recognized the place for PPOs but we anticipated their need based on what was occupying other markets", "maintain market share or increase for doctors and hospitals", "need to stabilize hospital payor mix", "business coalition sponsored an HMO to come to town", "experiment with concept", "cost effective position of member providers", "need for cost containment".

When asked "What was the total number of hospital days/1000 before your PPO became operational?" and "Did your PPO decrease this amount?", 25 PPOs responded to this question. Five did not know the hospital days/1000, but did know that the hospital days were decreased after the PPO became operational. Three knew the hospital days/1000, but did not know whether this increased or decreased as the PPO became

operational. Two knew the hospital days/1000, but said this number did not decrease when the PPO became operational. Fifteen PPOs knew their hospital days/1000 and said this decreased when the PPO became operational. The mean hospital days/1000 before the PPO became operational were 691.89. The national average was 1168.2/1000 in 1982.

Originally, the surveys were to be divided into two groups: those returned by a specific date and those which required a follow-up letter or phone call. Only 3 of the follow-up group were returned answered, which did not represent a large enough amount for testing to observe differences between the two groups.

CHAPTER IV

Discussion

The Contingency Table Analysis indicated that there was not enough evidence to demonstrate a relationship between developmental indicator and sponsorship. Therefore, no inferences could be made between which sponsorships in particular chose which developmental indicator most often. However, there appeared to be a pattern emerging. Where the statistics revealed that there was not enough evidence to demonstrate a relationship between developmental indicator and sponsorship, the results showed that there were 2 popular reasons (chosen more often as both first and second preference) why PPOs developed: competition and a response to employer needs.

The fact that PPOs were developed most often in response to employers' needs confirms what had been occurring in the health care arena, that employers affected by large medical expenditures were looking for ways to cut costs. The results also showed that the PPOs surveyed did not develop

primarily as a for-profit venture, being the least often chosen developmental indicator. This showed that monetary incentives may not have been the driving force in development as much as the competitive forces at play in the particular health care area. The two most popular reasons cited by physician/hospital sponsorships (the largest portion of the sample) were "concern over maintaining existing volumes" and "competition". These two reasons cited by hospital/physician sponsorships go hand-in-hand. With competition abounding in the healthcare sector, physicians and hospitals are getting together to help each other maintain their market share. It appeared that the hospital/physician joint venture sponsorships developed PPOs in response to the surrounding environment. None of the other sponsorships showed as much a response as the physician/hospital joint venture.

Several community indicators which encourage PPO development were present in the survey sample. High unemployment rates (above the current national average of 6.7%) were found in 62.5% PPO areas which answered. Therefore, high unemployment rates seemed

to be one such characteristic of an area ripe for PPO development. In addition, business coalition activity was found in 78.72% of the PPOs, showing that this type of activity may influence provider and consumer concern about the price of services.

Alternative delivery systems were present in 95.7% of the PPO's areas, a factor which related directly to competitive forces acting within these areas. The areas which did not have any alternative delivery systems were small towns in New Mexico and Northern Alabama, which might not be particularly competitive areas.

Another community indicator is high number of self-insured employers. In the survey, 34.16% was the mean percentage of area self-funded employers, but 69.72% was the mean percentage of self-insured PPO member employers. Employers who are self-funded experience their risks directly and seek ways to minimize them by entering into a PPO arrangement, accounting for the large number of self-funded PPO member employers.

When questioned about their area's hospital days/1000, many PPOs were not aware of the number.

Nor did they know if hospital days/1000 were increased or decreased as a result of the PPO becoming operational. Those which did know their hospital days/1000 seemed to give numbers far below the national average. The mean hospital days/1000 of the PPOs before they became operational was 691.89. The national average is approximately 1100. Such a discrepancy could be due to the PPO executive director's lack of knowledge of the true number.

Summary

The goal of this research was to determine what factors, if any, led to the development of a PPO and if these factors were related to sponsorship. The results indicated that there was no relationship between sponsorship and developmental indicator. However, the results did show that the 2 most popular reasons why PPOs were developed (competition and response to employer needs) seemed to be related to what was occurring within the particular health care area.

The literature suggested that there were several community factors which led to the development of

a PPO, among them, empty hospital beds, a young population, a high unemployment rate, presence of alternative delivery systems and presence of an active business coalition. The results of the survey reinforced these suggestions.

Further research should be completed in the area of PPO development. A more in-depth survey of a larger sample of PPOs would lead to more conclusive evidence of PPO development, i.e., why are there more of one sponsorship than another and what factors, if any make a PPO successful in any particular area. PPO growth is rapid, however, many PPOs have been in operation only a short while, making attempts at thorough research difficult.

Literature Cited

Aquilina, David and Stowe, James B. "Increasingly Sophisticated Customers forcing PPOs to Address Market Needs", Modern Healthcare, Dec. 6, 1985, pp. 105-106.

Barger, Brian. The PPO Handbook, Aspen Systems, Rockville, MD., 1985.

Blacker, Richard A. and Michelson, Angela A. "Negotiating Contracts with PPOs", HFM, Sept. 1983, pp. 48-51.

Boland, Peter. "PPOs Must Recognize Divergent Interests, Incentives to Succeed", Modern Healthcare, Feb. 1, 1985, pp. 54-57.

Brukardt, Gary. "Mountain Medical PPO", FAH Review, July/August 1982, pp. 29-32.

Carlova, John. "What's Hiding in That PPO Contract?" Medical Economics, Aug. 6, 1984, pp. 66-71.

"Competing Through Contracting and Effective Pricing Strategies", Topics in Health Care Financing, Winter 1984, pp. 79-83.

Cowan, Dale. Preferred Provider Organizations, Aspen Systems, Rockville, MD., 1984.

Dimensions in Health Care, Peat, Marwick and Mitchell, Co., March, 1985.

Directory of PPOs and the Industry Report on PPO Development, AMCRA, June 1985.

Drury, Sallie J. "PPO's Efficiency, Not Discount is Prime Card for Stouffer", Modern Healthcare, June 1984, pp. 74-76.

Ellwein, Linda K. and Gregg, David D. "An Introduction to PPOs", Feb. 1982.

Ellwein, Linda K. and Gregg, David D. "Interstudy Researchers Trace Progress of PPOs", FAH Review, July/August 1982, pp. 20-25.

Enders, Robert. "PPO-ProCompetitive Alternative or Antitrust Problem?" Hospital Forum, November/December 1982, pp. 42-44.

Goldman, Robert L. "The PPO- How to Market It and To Whom", Health Marketing Quarterly, Fall 1983, pp. 101-107.

"Health Care Industry, Businesses Show Increasing Interest in PPO Concept", FAH Review, July/August 1982, pp. 12-18.

"Hospital Testing PPO On Employees", Modern Healthcare, Nov. 15, 1984, p. 34.

"Investor Owned Hospital Study PPO Concept", FAH Review, July/Augustl982, pp. 40-42.

Kodner, Karen. "Competition: Getting a Fix on PPOs", Hospitals, Nov. 16, 1982, pp. 59-65.

Kraft, Jeffrey G. "Addressing the Legal Issues", HFM, Aug., 1983, pp. 10-16.

Lathrop, Phillip. "Hospital Based PPOs Could Find Discounts Lead to Disappointment", Modern Healthcare, Nov. 1, 1984, pp. 157-158.

Lefton, Doug. "Competitive Marketing Spawning PPOs", American Medical News, May 7, 1982, pp. 7-8.

Lemkin, Jeffrey L. and Rich, Peter J. "A Practical Guide to Structural and Organizational Options", HFM, Dec., 1983, pp. 80-86.

Lublin, Joanne S. "Moves to Cut Health Care Benefits Meet Stiff Opposition from Unions", Wall Street Journal, Oct. 26, 1983, p. 33.

Lundy, Robert W., Jr., and Blacker, Richard A. "The Latest Response to Healthcare Competition- An Overview", July, 1983.

Mackie, Dustin L. "Lowell General's Preferred Health Plan", HFM, Oct., 1983, pp. 46-49.

MacStravic, Robin E. "Provider Choice Plan", Group Practice Journal, Oct., 1980.

Mitlying, Joseph W., Jr. "PPO: Implications for Management", Medical Group Management, September/October, 1983, pp. 38-47.

O'Connor, Maureen L. "PPOs: A Market Approach", Hospital Forum, November/December 1982, pp. 16-21.

"PPOs Will Proliferate If QA/UR Programs Improve", Hospital Peer Review, May, 1982, pp. 53-55.

Punch, Linda. "Consultants Give PPOs Mixed Reviews", Modern Healthcare, April, 1984, pp. 130-131.

Richman, Dan. "Attorneys Urge Hospitals to Combat PPOs with Competition, Not Lawsuits", Modern Healthcare, Feb. 15, 1985, p. 60.

Rothenberg, Fred. "PPO: Critical Elements in Their Design", HFM, Oct., 1983, pp. 32-40.

Schmitt, John, Ph.D. "PPOs: A Fiscal Perspective", HFM, Nov., 1983, pp. 58-63.

Schroer, Kathryn. "A Survey of PPOs", Hospitals, March 16, 1984, pp. 85-88.

Sellers, Kenneth G. "To PPO or Not to PPO?" Hospitals, Nov. 16, 1984, pp. 110-112.

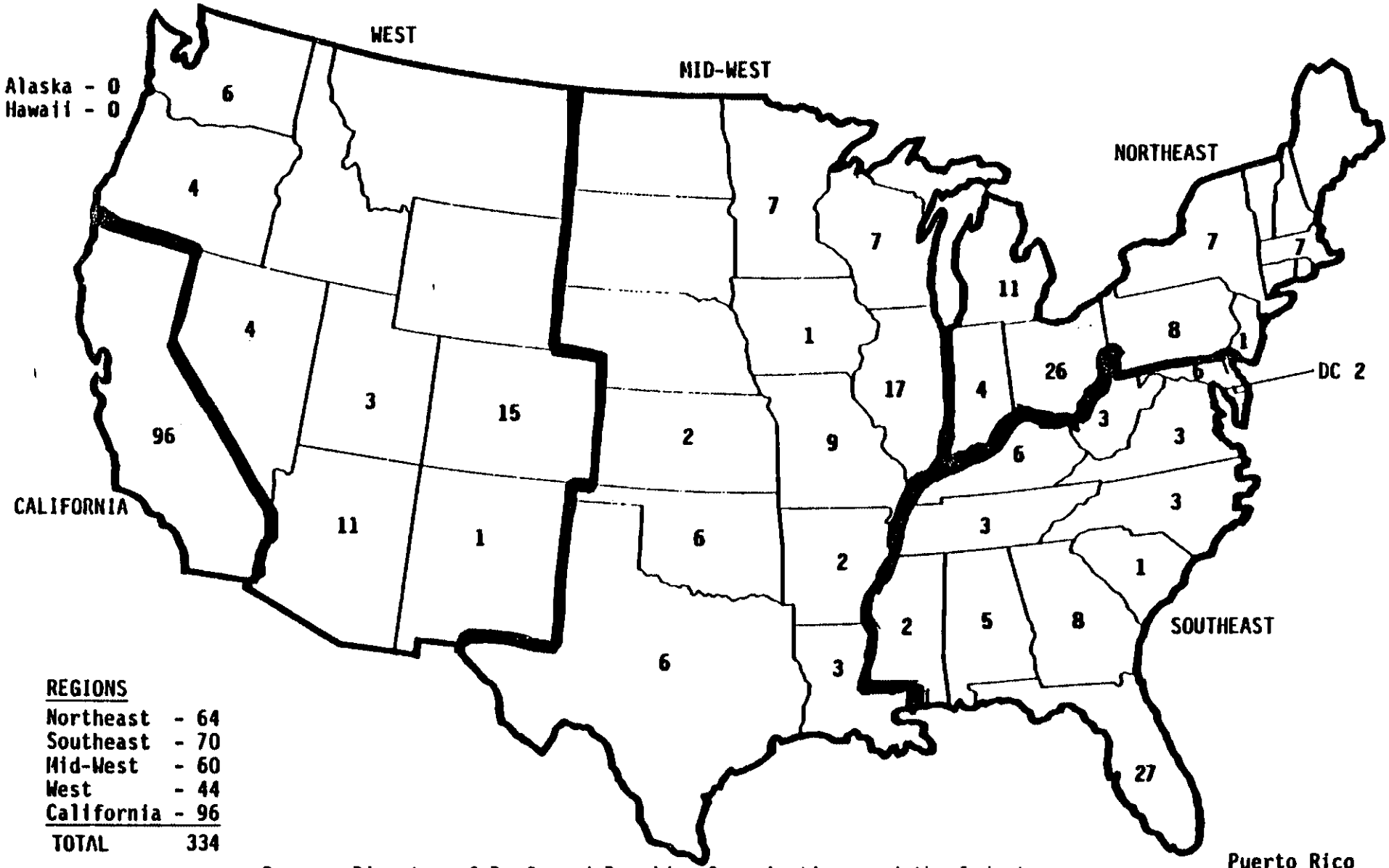
Stafstrom, Anne. "PPOs Come of Age", Ambulatory Care, Oct., 1984, pp. 16.

"Three Networks Reflect Growing Interest in Development of California PPO", FAH Review, July/August 1982, pp. 36-39.

Valentine, Steven. "PPOs Growing Rapidly in CA Market Study", Modern Healthcare, Feb. 1, 1985, pp. 58-60.

APPENDIX A

STATE TOTALS OF PPOs



REGIONS

Northeast	- 64
Southeast	- 70
Mid-West	- 60
West	- 44
California	- 96
TOTAL	334

Source: Director of Preferred Provider Organizations and the Industry Report on PPO Development (AMCRA, 1985)

Preferred Provider Organization Survey

Name of PPO _____

Name of person completing survey _____

Part I: General Information

1. Please indicate sponsorship of your PPO

_____ Physician owned

_____ Hospital owned

_____ Physician/Hospital joint venture

_____ Insurance owned third party administrator

_____ Blue Cross/Blue Shield

_____ Other insurance company

_____ IPA/HMO

_____ Investor

_____ Other, please indicate

2. Please indicate what type of PPO

_____ For profit _____ Not-for-profit

3. Are there any HMOs/PPOs in your area? _____ no _____ yes

Number of types of HMOs: Group _____ Staff _____ IPA _____

4. Please indicate your operational date _____

5. Please indicate number of participating physicians _____

How many physicians are there in your area? _____

What percentage of participating physicians are primary care? _____

6. What is your geographical service area? _____

APPENDIX C

January 3, 1986

name
company
add1
add2
add3

Dear *salutation*:

I am a graduate student working on my Master's Thesis in Community Health at Old Dominion University in Norfolk, Virginia. As part of my Thesis work, I am conducting a nationwide survey of Preferred Provider Organizations and what factors, if any led to their development. I will also attempt to determine if any relationship exists between type of sponsorship and reason for development. The results of this survey would be of great significance to those PPOs already in existance and those which are in a pre-operational stage.

Please take a few minutes, if possible, to complete and mail back this survey by February 1, 1986. Your cooperation is greatly appreciated. All responses will be kept strictly confidential and respondants will receive summary data.

Sincerely,

Marcia Anne Guida
Graduate Student

Enclosure

APPENDIX D

February 5, 1986

Dear Non-Respondent:

About 3 weeks ago, I sent to your company a PPO survey along with a self-addressed, stamped envelope. This survey is being conducted for completion of my Master's Thesis in Community Health from Old Dominion University in Norfolk, Virginia. I am enclosing another copy of the survey and would appreciate your response by February 20, 1986. All respondents will receive summary data.

Sincerely,

Marcia A. Guida
Graduate Student

APPENDIX E

Chi square, $\chi^2 = \Sigma\left(\frac{O^2}{E}\right) - \Sigma O$

, where O is the observed value and E is the expected value.

Contingency factor, C

$C = \sqrt{\frac{\chi^2}{N+\chi^2}}$, where χ^2 is chi square calculated from the above formula for chi square and N is the total from the addition of all the columns and rows in the Contingency table.