THE INFLUENCE OF HEALTH INSURANCE AND CERTAIN SOCIAL AND PSYCHOLOGICAL VARIABLES ON THE UTILIZATION OF PROFESSIONAL MEDICAL SERVICES

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Stephen Kofi Bonsi

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S. K. Bonsi

ABSTRACT

In this study an attempt was made to investogate a number of variables which influence the decision to visit a doctor when a family member experienced symptoms of illness. The basic independent variable was possession of health insurance, although a number of other factors that are likely to influence the decision to utilize professional medical services were also examined.

Utilization of professional medical services was measured by dividing the total number of reported symptoms in a family into the number of times members of the family with symptoms went to consult the doctor. Attitudes toward doctors and dentists and attitudes toward work were measured by Guttman type scales.

The sample consisted of 305 families. These were drawn from metropolitan Winnipeg and Altona, a small community 85 miles from Winnipeg. The respondents were personally interviewed.

Although health insurance was found to be positively related to the use of professional medical services, this relationship seems to disappear controlling for income and age of the family head. The data showed that these variables seem to be more important in the individual deciding to utilize medical services.

Possession of health insurance was found to be positively related to having a regular family doctor. On the other hand, having health

insurance was not found to be significantly related to reported physical and dental check-ups. However, a majority of subscribers as well as non-subscribers were found to obtain physical and dental check-ups at least once a year. Amount of health information was not found to be positively related to utilization of professional medical services. The data showed that families with higher educated heads visited the doctor more often than those with lower educated heads. The differences were, however, small and statistically insignificant.

Although the relationship between utilization of professional medical services and attitudes toward doctors and dentists turned out to be statistically insignificant, the findings were in the predicted direction. Families with favorable attitudes toward doctors and dentists showed a higher tendency to utilize their services than those without such attitudes.

Relationship between occupation of the family head and utilization of professional medical services also approached significance. The findings showed that higher percentages of professionals, white collar and skilled workers initiated medical care than unskilled workers. The data also showed that income and occupation were positively related to having a regular family doctor. All other relationships turned out to be insignificant. No variable was found to be a relevant factor in determining physical check-ups in our sample. However, income, age, amount of health information, education, and occupation of the family head were found to be positively related to dental check-ups. In all of these cases the majority of families obtained the services at least once a year.

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CHAPTER I: THE PROBLEM

Increasingly, individuals and families find it necessary to budget their medical care expenditures, paying them at regular intervals while they are well, rather than incurring large bills payable at a time of illness. As a result, health insurance in its various forms is a subject of wide interest in most countries, including Canada, at the present time. While most people realize that inability to pay for care should not deprive anybody of the health care he needs, there is also a wide recognition that the traditional method of paying for care, the "fee-for-service" system, is breaking down because of the relatively heavy costs involved in modern treatment. Richter (39) observed that what health insurance would achieve is to remove the whole field of health care from the mechanism of the price system. The individual's ability to pay would no longer determine the quality and the quantity of medical care. The "fee-for-service" system based on the ability to pay for care will disappear.

The ordinary man needs good medical care to keep him and his family well, to reduce his suffering, and to improve his chances of recovery when he is ill. He wants to be able to obtain the care when he needs it. However, the costs of good medical care are high, and, as medical knowledge increases, they are likely to become higher. New methods of diagnosis involve expensive equipment such as X-ray machines and skilled technical

at regular intervals unless they are able to pay, or have already prepaid the cost through health insurance. It has become imperative, therefore, for some families to protect themselves against crippling medical and hospital bills by means of health insurance. Somers and Somers (43) suggest that, while low income groups are less likely to qualify for health insurance, there is an increasing number of low income people who receive health insurance through employee benefit plans. Such plans do increase their real income by increasing their ability to pay for medical care. Stephens (45) suggests that providing the ability to pay for good medical care through health insurance to people who had never possessed it previously is likely to bring changes in the way people use medical services. It is our interest, therefore, to find out what influence the existing health insurance plans have on the use of services. For this reason the question of the influence of health insurance on the utilization of medical care is the central concern of this study.

Sickness presents two economic problems to an individual or a family. If the sick person is the breadwinner for the family or for himself, there is the problem of the loss of wages, upon which the family depends. Besides this, there is the additional cost involved in medical care. For that part of the population in the low income bracket, medical costs frequently are beyond current capacity to pay. These costs, as Taylor (51) points out, may be of such magnitude as to constitute a real economic burden. Thompson (53) indicates that very frequently families in low income

groups, in the face of serious medical need, choose to go without medical care if at all possible.

Medical care insurance seems to be a practical method of organizing prepayment for clearly defined professional and hospital services. It appears to be a move to substitute certainty, and organized self-help to remove or reduce the financial burden which may arise from sickness or disability; it is likely to prevent serious illness in many cases by making it possible for the patient to seek and utilize medical services at the first symptoms, and to reduce the demand for ineffective remedies. Taylor (51) points out that a subscriber to a health insurance plan entitling him and his family to medical services will be much less reluctant to seek medical attention at the first indication of needs than one who does not. As Thompson (53) has suggested, there seems to be a financial barrier to seeking needed care, and many people seem not to seek medical care in the early stages of illness if they cannot afford the cost. But once this barrier between the potential patients and the doctor is reduced by spreading the cost through the medium of prepayment--which may also reduce the cost per individual--it is likely that utilization of medical service will increase. Therefore, a study conducted among families covered by the Manitoba Medical Services (hereafter it will be shortened to MMS) and other health insurance plans, as compared with those families not covered by any plan, will provide a fine opportunity for studying the health behaviour of the beneficiaries of insurance systems as well as those without any health insurance coverage.

While medical insurance is undoubtedly an important factor in changing the way people use professional medical care, explaining such a change solely in terms of medical insurance leaves out certain important considerations about the complexity of human behaviour. Many people with health insurance might not use medical services, while some persons without insurance tend to use them. For example, from his study of the use of professional services under medical care insurance in New York, Baehr (7) found that lack of knowledge of the use of physicians' services and lack of education account for under-utilization by most workers. This study and others suggest that there are other factors which also enter into the decision to utilize medical services. Such factors as age, sex, level of education, religious affiliation, ethnicity, and definition of illness may be involved in the decision-making process. Some of these variables will also be examined in this study. These factors, together with ability to pay, are societal forces which may operate to influence health beliefs and attitudes and the consequent health behaviour of individuals and families.

Objectives of the Study

This study has two objectives: first, to determine for the sample whether indeed there is a positive relationship between utilization of professional medical services and possession of health insurance; and, second, to examine a group of other variables that may related to utilization of professional medical services. Clarifying these relationships will be useful in two ways: (1) it will add to our knowledge by establishing to what extent ability to

to pay affects a person's decision to visit a doctor when illness occurs, and (2) it will bring to light a number of factors which enter into the decision to utilize professional medical services.

Review of the Literature

The first part of this section will be devoted to the literature dealing with health insurance and its relationship with utilization of professional medical care. The second part will deal with research findings on other factors related to the use of medical care.

Health Insurance and Utilization of Medical Facilities. Persons who are covered by health insurance are likely to use medical services more than those who are not. The results of the survey conducted for the Health Information Foundation in New York in 1953 emphasized this relationship. Insured families incurred substantially greater charges for health services than those without insurance. A median of $145 for the insured families was found, as compared with $63 for those without insurance. This disparity was due in part to the greater utilization of medical services by those with health insurance. Taylor (51) has pointed out that the average subscriber to a health insurance plan which entitles him and his dependents to a doctor's services at home and office will be much less reluctant to seek medical attention at the first indication of need than one without any coverage. Darsky et al., from their study of the Windsor plan in Ontario, found that subscribers both initiate care more often than the non-subscribers, and tend to receive more services once care is sought. They also found that utilization rate varies with type of plan. They concluded that utilization behaviour of their sample indicated that, "the

lower socio-economic status group, if they have the ability to pay for health services in the form of health or any service plan, will visit the doctor upon the appearance of symptoms of illness more than families that do not have such service plans. Having health insurance seems to remove some obstacle to the initiation of medical care in lower status families which either does not exist in more well-to-do families or is not of sufficient strength to prevent utilization of medical services when they are sought. Thompson (53) also observed that the subscriber with a service contract, particularly one which includes home and office calls, is much more likely to utilize medical services at the first indication of need, since he is required to pay nothing or at least very little above the cost of his contract. Richter (39) attempted to find out what prompted people to go to the doctor under the fee-for-service system and how the situation was likely to be changed through health insurance. He compared the health practices of a mining community in Glace Bay which had a health insurance scheme and Yarmouth, a community without insurance protection. He came to the conclusion that the existence of an insurance plan will not only remove an economic barrier between doctor and patient, but will also have a profound influence on the patient's concepts of the need for medical services. The change, he observed, may be for the better or for the worse. The patient may become health conscious and pay greater attention to types of illness hitherto neglected, or may be merely seeking to get his money's worth for his contributions. No matter which motive prevails, there would be considerable change in the

scope and character of the services which the doctor has to render. To support this hypothesis Richter found that under the health insurance system in Glace Bay the rate of receiving medical care is very much higher than under the fee-for-service system in Yarmouth. Richter's findings may not be typical of the difference between the two systems, but they are indicative of the general trend of the effect of health insurance on the use of medical services.

While these works give us some understanding of the motives behind a decision to seek medical care, it is reductionistic to think of the financial factor as the sole determinant for utilizing professional medical services. There appears to be widespread agreement among social scientists that the utilization or neglect of professional medical services cannot be explained away merely in terms of ability to pay for such services. Though health insurance and other means of paying for health services appear to be helpful in getting people to seek professional medical service, it may not follow automatically that they lead to a visit to a doctor or dentist. Clearly, other factors are involved in deciding to visit a medical practitioner. Many factors have been said to affect the utilization pattern of medical services. Some of the most frequently mentioned are age, sex, level of education, occupation, amount of health information, social values, psychological, and cultural factors.

Socio-economic Factors and Utilization of Medical Facilities. Anderson et al. (4) found that less than fifty percent of the

(d) lack of knowledge and ability to use information effectively. Baehr (7) found, among other things, that lack of knowledge of the use of doctors' services and medical facilities and lack of education accounted for the under-utilization by workers. Thus, education has been found to be positively related to the use of medical services. The United States Health Survey report of 1958 stated that, when persons were classified according to the educational attainment of the family head, there was a positive relationship between educational level attained and the use of medical facilities--utilization increased with increase in amount of education received by the family head. Of the persons visiting the doctor or dentist in the year before the survey, the group with less than five years of school exhibited the lowest percentage, while the highest percentage (57 percent) was found within the groups with heads of families who have had at least one year of college education.

There seems to be comparable data available for Canada with respect to educational level and the use of medical facilities. In his comparative study of dental health needs and the attitude toward dental care DeHaney (12) found that as the level of education increases, so does the proportion of persons at each level of education who had high attitude ratings toward dental care. He found that 58.3 percent of those persons with twelve or more years of schooling indicated that they were favourably predisposed toward seeing the dentist regularly, while less than 27 percent of those persons with less than nine years of schooling were so predisposed. DeHaney found a positive relationship between attitudes toward dental care and visits

to the dentist. He also found that there is a positive relationship between educational level and the predisposition to seek dental care among the sample he studied.

Social scientists have adduced evidence from United Kingdom and New Zealand where medical and dental services are state supported to show that the popular opinion that utilization of medical services varies positively with ability to pay for those services needs some qualification. This is because the rates of utilization within such countries are found to be no higher than in the U.S.A. where medical services have not been state supported. Jaco (22) examined the relative importance families place on their health and the effect this had on the use of medical facilities. He found that ability to pay was not a prime determinant for the use of medical services. On the contrary, he found that the prevention of illness has little meaning to those who did not accept the debilitating effects of illness. Jaco reported that while lower income families were found to seek medical care less than higher income groups, unmet medical needs among the lower income familes "could frequently be traced back to fear of treatment rather than amount of income." His findings also suggest that the importance which is placed on health in relation to other goods and services by an individual or family is an important factor in influencing decisions to seek regular health care.

However, most of the literature suggests that where there have not been effective programs for taking care of medical and dental

needs, there is an income level below which an individual or family finds it difficult to take care of such needs. Most studies on the utilization of medical services have stressed the relevance of cost of such services, and, therefore the income level, as an important factor affecting the use of these services. According to the Canadian Sickness Survey already cited, the average number of dental visits increased constantly from one income group to the other. The average number of dental visits per 1,000 population for the higher income group was more than 3 times as great as those of the lower income group. Kriesberg et al. (25) found that as family income increases from below $2,000 a year to over $7,000 a year, so does the percentage of families seeking preventive dental and medical care. The United States Health Survey already cited reports that the proportion of people who have never been to a dentist or doctor during 1958 was greatest (24 percent) among persons with family income under $2,000 and 10 percent for persons with $7,000 or over family income. It seems, therefore, that the economic factor is still important in spite of the influence which other factors seem to exert on individuals in deciding to visit a doctor or dentist.

Eichhorn and Andersen (14) suggest that the more information an individual has about medical care and about specific problems which face him the more likely he will see a course of action leading to the solution of the problems. They indicate two reasons for this relationship: (a) increased information leads to increased salience, that is, the extent to which the person realizes the nature of the