The Impact of Third Party Reimbursement on Occupational Therapy and Vision Rehabilitation Services: A Comparative Case Study

Tiehan Liu
Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations
Part of the Medicine and Health Commons

Recommended Citation
https://scholarworks.wmich.edu/dissertations/1892

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.
THE IMPACT OF THIRD PARTY REIMBURSEMENT ON OCCUPATIONAL THERAPY AND VISION REHABILITATION SERVICES:
A COMPARATIVE CASE STUDY

by

Tiehan Liu

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Philosophy
Department of Sociology

Western Michigan University
Kalamazoo, Michigan
June 1993
THE IMPACT OF THIRD PARTY REIMBURSEMENT ON OCCUPATIONAL THERAPY AND VISION REHABILITATION SERVICES: 
A COMPARATIVE CASE STUDY

Tiehan Liu, Ph.D.
Western Michigan University, 1993

This is a comparative case study of occupational therapy and vision rehabilitation services. The purpose of this study is to describe how environmental forces, especially third party reimbursement, shape occupational therapy in terms of organizational form, setting, procedure of services and documentation process. The study will further examine the current external and internal conditions under which vision rehabilitation professionals may develop third party payment, especially Medicare and Medicaid. Based on environment theories and the experience of occupational therapy, the potential impact of such reimbursement on vision rehabilitation services is discussed.

Three forms of data were used in this study: (1) a national survey on third party payment of vision rehabilitation services; (2) secondary data such as historical studies, government reports and previous surveys on occupational therapy and vision rehabilitation service; and (3) data gathered through interviews with related professionals from major national, state or local organizations and government departments.
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road. Ann Arbor. MI 48106-1346 USA
313/761-4700 800/521-0600

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The impact of third party reimbursement on occupational therapy and vision rehabilitation services: A comparative case study

Liu, Tiehan, Ph.D.
Western Michigan University, 1993
ACKNOWLEDGMENTS

First, I express sincere appreciation to the members of my committee, Dr. Thomas Van Valey, Dr. James Petersen, Dr. William Wiener and Dr. Sue Crull, for their guidance and insight throughout the study.

Second, I extend my sincere thanks to my wife, Wei Wang, for her willingness to endure with me the vicissitudes of my endeavors, and to my son, Marshall Liu, for understanding my frequent absences.

Finally, my sincere thanks are given to my mother, Jiang Yiming, for all the sacrifices she made to support my study.

Tiehan Liu
TABLE OF CONTENTS

ACKNOWLEDGMENTS ................................................................. ii
LIST OF TABLES ................................................................. vii
LIST OF FIGURES ............................................................... viii

CHAPTER
I. INTRODUCTION ................................................................. 1
   Statement of the Problem ................................................. 1
   Purpose of the Study ..................................................... 4
   Organization of the Study .............................................. 6
II. ORGANIZATION THEORIES ................................................ 8
   Environments and Organizational Changes .................... 8
   The Population Ecology Model ..................................... 10
      Variation ................................................................. 12
      Selection ............................................................... 13
      Retention .............................................................. 15
   The Application of Environmental Theories to the Study ... 17
      Organizational Forms .............................................. 17
      Environmental Factors ......................................... 21
III. RESEARCH DESIGN AND DATA SOURCES ....................... 25
   Research Design ......................................................... 25
### Table of Contents--Continued

**CHAPTER**

<table>
<thead>
<tr>
<th>Setting of Two Case Studies</th>
<th>26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Questions</td>
<td>26</td>
</tr>
<tr>
<td>Subjects</td>
<td>27</td>
</tr>
<tr>
<td>Data Sources</td>
<td>28</td>
</tr>
<tr>
<td>Secondary Data</td>
<td>28</td>
</tr>
<tr>
<td>Survey Data</td>
<td>29</td>
</tr>
<tr>
<td>Interviews</td>
<td>30</td>
</tr>
</tbody>
</table>

**IV. A CASE STUDY OF OCCUPATIONAL THERAPY**             | 32 |

<table>
<thead>
<tr>
<th>Historical Development of the Reimbursement System</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>The First Stage (1920s-1950s)</td>
<td>35</td>
</tr>
<tr>
<td>The Second Stage (1960s-1980)</td>
<td>37</td>
</tr>
<tr>
<td>The Third Stage (Since 1983)</td>
<td>40</td>
</tr>
<tr>
<td>An Overview of Legislation and Funding Sources</td>
<td>41</td>
</tr>
<tr>
<td>Megatrends in the Social Environment</td>
<td>41</td>
</tr>
<tr>
<td>The Community Mental Health Center Act of 1963</td>
<td>44</td>
</tr>
<tr>
<td>The Education of All Handicapped Children Act of 1975</td>
<td>47</td>
</tr>
<tr>
<td>Medicare’s Prospective Payment System and Related Amendments</td>
<td>48</td>
</tr>
<tr>
<td>Nature and Mechanism of Reimbursement</td>
<td>51</td>
</tr>
<tr>
<td>Public Funds and Private Funds</td>
<td>51</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance Program and Grant Program</td>
<td>53</td>
</tr>
<tr>
<td>Physician Prescription and Professional Certification</td>
<td>54</td>
</tr>
<tr>
<td>Adaptation and Impact</td>
<td>55</td>
</tr>
<tr>
<td>General Pattern and Development</td>
<td>55</td>
</tr>
<tr>
<td>Setting of Services</td>
<td>57</td>
</tr>
<tr>
<td>Organizational Forms of Services</td>
<td>68</td>
</tr>
<tr>
<td>Procedure of Services</td>
<td>70</td>
</tr>
<tr>
<td>Documentation Process</td>
<td>72</td>
</tr>
<tr>
<td>Summary</td>
<td>73</td>
</tr>
<tr>
<td>V. A CASE STUDY OF VISION REHABILITATION</td>
<td>77</td>
</tr>
<tr>
<td>Historical Development of Reimbursement System</td>
<td>81</td>
</tr>
<tr>
<td>The First Stage</td>
<td>82</td>
</tr>
<tr>
<td>The Second Stage</td>
<td>82</td>
</tr>
<tr>
<td>The Third Stage</td>
<td>84</td>
</tr>
<tr>
<td>An Overview of Legislation and Funding Sources</td>
<td>86</td>
</tr>
<tr>
<td>Environmental Factors</td>
<td>86</td>
</tr>
<tr>
<td>Traditional Private Supports</td>
<td>89</td>
</tr>
<tr>
<td>Rehabilitation Act of 1973</td>
<td>90</td>
</tr>
<tr>
<td>The Education of All Handicapped Children Act of 1975</td>
<td>91</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Legislative Activities</td>
<td>92</td>
</tr>
<tr>
<td>Nature and Mechanism of Payment System</td>
<td>96</td>
</tr>
<tr>
<td>Private Funds and Public Funds</td>
<td>96</td>
</tr>
<tr>
<td>Grant Program and Insurance Program</td>
<td>98</td>
</tr>
<tr>
<td>Adaptation and Impact</td>
<td>100</td>
</tr>
<tr>
<td>General Pattern and Development</td>
<td>100</td>
</tr>
<tr>
<td>Charge Fee or Not?</td>
<td>103</td>
</tr>
<tr>
<td>For Profit or Nonprofit?</td>
<td>107</td>
</tr>
<tr>
<td>Adapt or Die?</td>
<td>108</td>
</tr>
<tr>
<td>Form and Setting of Services</td>
<td>111</td>
</tr>
<tr>
<td>Procedure of Services</td>
<td>114</td>
</tr>
<tr>
<td>Documentation Process</td>
<td>118</td>
</tr>
<tr>
<td>Summary</td>
<td>119</td>
</tr>
<tr>
<td>VI. DISCUSSION</td>
<td>123</td>
</tr>
</tbody>
</table>

APPENDICES

A. Third Party Payment to Blindness Agencies and Low Vision Clinics Questionnaire | 134

B. Human Subjects Institutional Review Board Approval | 139

BIBLIOGRAPHY | 141
LIST OF TABLES

1. Models in Human Services and Major Organizational Characteristics . . . 18
2. Reimbursement Sources for Occupational Therapy Services ............ 52
3. Services in U.S. Hospitals ................................................................. 56
4. Primary Employment Setting for Registered Occupational Therapists (by Year) ........................................... 58
5. Primary Employment Setting for Certified Occupational Therapy Assistants (by Year) ........................................... 59
6. Percentage of Occupational Therapy Units in U.S. Hospitals .......... 61
8. Impacts of Medicare Perspective Payment System on Selected Occupational Therapy Activities ................................................. 67
9. Self-employed and Private Practice Occupational Therapists ............ 69
10. Funding Sources for Low Vision (LV) and Personal Adjustment (PA) Services .............................................................. 97
11. Summary of Vision Rehabilitation Agencies ................................. 101
12. Background Information of Rehabilitation Agencies ...................... 102
13. Attitude Toward Third Party Payment (by Type of Agency) ............. 105
14. Attitude Toward Licensing Rehabilitation Practitioners (by Type of Agency) ............................................................... 106
15. Setting of Personal Adjustment Services ........................................ 113
LIST OF FIGURES

1. Theoretical Diagram of the Relations Among Environmental Factors and Organizations .......................................................... 23
CHAPTER I

INTRODUCTION

Statement of the Problem

Rapid changes are taking place in American health care. Many factors such as legislation, government regulations, third party reimbursement, increasing need for health services for the aging population, and the self help and health promotion movement, have and will have great impact on the health care delivery system. Among these factors, third party reimbursement could be said to have the most direct impact on the health and rehabilitation services. "Reimbursement is often said to be the force that drives the service delivery system" (Mechanic, 1991, p. 797).

Third party reimbursement refers to all payments for health and rehabilitation services that are not paid directly by the patient/client. In a narrow sense, third party reimbursement is a payment coming from a self-purchase commercial insurance company, Blue Cross and Blue Shield (BCBS), Health Maintenance Organization (HMO), or a federally or state funded programs such as Medicare, Medicaid or CHAMPUS (Kreb, 1991). These are the insurance payments. In a broad sense, a government grant to private service agencies is also considered as a type of third party payment (Piquerás, 1992). More than 60% of payment sources of occupational therapy are third party payments of an insurance nature (American Occupational

Occupational therapy is the use of purposeful activity with individuals who are limited by physical injury or illness, psychosocial dysfunction, developmental or learning disabilities, poverty and cultural differences or the aging process in order to maximize independence, prevent disability, and maintain health (AOTA, 1981). A review of literature showed that the development of occupational therapy services was greatly influenced by third party reimbursement. Among the third party payments, the Community Mental Health Center (CMHC) movement, the Education of the All Handicapped Children Act, now known as the Individuals with Disabilities Education Act (IDEA), and Medicare’s prospective payment system (PPS) are three major reimbursement sources which have had tremendous impacts on occupational therapy services.

Vision rehabilitation helps visually impaired people to maximize their visual functioning and independence in travel and daily life management. Vision rehabilitation covers low vision services and personal adjustment services. Low vision services include low vision evaluation, prescription of visual devices, and training in the use of vision with or without devices. Personal adjustment services include orientation and mobility, and rehabilitation teaching such as daily living skills, home management and communication skills. Vision rehabilitation services are primarily funded by the Vocational Rehabilitation Act of 1973 and related amendments.

Although the vocational rehabilitation system has achieved some success in rehabilitating visually impaired people, it also has obvious disadvantages. The
vocational rehabilitation system, organized as it is with services supplied through monopolistic public agencies, is at a distinct disadvantage at identifying and responding to new opportunities and changes in knowledge—in the area of diagnosis, evaluation, treatment, training, and placement, or even organization and administration (Weaver, 1991). Critics of reimbursement for vision rehabilitation focus on the lack of competition among vision rehabilitation agencies in providing high-quality, cost-effective services, and the lack of freedom of clients to choose needed services (Carney, 1992).

Efforts are being made by professionals of vision rehabilitation to reform the vocational rehabilitation system and to develop new ways of paying for vision rehabilitation services. Medicare and Medicaid are not just new payment sources; they would also be a new reimbursement mechanism that is different from that of the current vocational rehabilitation system. As insurance programs, Medicare and Medicaid are highly structured, with stringent guidelines regarding which services are covered, in what settings and by whom. As a grant program, the vocational rehabilitation system is more flexible, allowing state or local entities to provide specially designed programs as long as they meet broad national goals. Medicare and Medicaid funds would be distributed through competition among service providers, while federal vocational rehabilitation funds are appropriated by the federal government to the monopolistic agencies.

Under what type of external and internal conditions can vision rehabilitation get Medicare and Medicaid payment? What are the potential impacts of this new
reimbursement mechanism on vision rehabilitation services? Occupational therapy and vision rehabilitation are professional rehabilitation services of a similar nature. Furthermore, occupational therapy services have already been reimbursed by Medicare, Medicaid and private insurance. Therefore, the examination of how changes in the reimbursement system affected occupational therapy services and how organized occupational therapists met the challenge to survive and expand services in a changing environment are meaningful and helpful for vision rehabilitation professionals to understand and to develop new ways of reimbursement.

Purpose of the Study

This is a comparative case study of occupational therapy and vision rehabilitation. The purpose of this study is to describe how environmental forces, especially reimbursement sources, shaped occupational therapy services and how occupational therapy organizations adapted and developed services. The study will further examine the current external and internal conditions under which vision rehabilitation professionals may be pressured to develop third party payment, especially, Medicare and Medicaid, and discuss the potential impacts of such reimbursement sources on vision rehabilitation services.

Many studies have been done to examine the impact of specific third party payment sources on occupational therapy services provided in specific areas. For example, there were studies that examined the effect of Medicare’s prospective payment system on occupational therapy services in a hospital setting or on a private
occupational therapy practice (DePaoli, 1984; Gray, 1985; Hershman, 1984). There were also studies that described the impact of the community mental health center movement on occupational therapy services in the mental health area (Bonder, 1987; Dorwart, 1990; Ethridge, 1984; Fidler, 1991; Fine, 1987; Goplerud & Walfish, 1983). However, very few studies treated third party payment as an environmental force and examined its impact on the historical development of occupational therapy services (Howard, 1991). This case study will review the historical literature on occupational therapy from an environmental perspective and describe the pattern of occupational therapy services as shaped by the third party payments.

The case study on occupational therapy is of practical as well as theoretical significance. Occupational therapy's experience with third party reimbursement provides vivid material and lessons for other similar professions, especially, the vision rehabilitation profession. "It is the function of a case history to develop hypotheses which may be shown, on further investigation, to have broader application" (Gouldner, 1954, p. 231). Vision rehabilitation professionals are currently attempting to reform their service delivery system and payment system. They have already expressed the need to learn from occupational therapy's experience (Piqueras, 1992). More is learned from a single success than from multiple failures. Success proves it can be done. Therefore, it is necessary only to learn what made it work (Merton, 1968).
Organization of the Study

There are six chapters in this study. Chapter I is an introduction of the subject of the inquiry, i.e., the impact of third party payment on occupational therapy and vision rehabilitation services, and states the theoretical and practical significance of this comparative case study. Chapter II is a summary of the major results of environmental theories, especially the population ecology model. This chapter serves as the theoretical guideline for organizing the case materials. Chapter III is a description of the instruments and procedures of data collection. A survey, secondary data, and interviews are the three major forms of data used in this study.

Chapter IV contains the case study of occupational therapy. It first reviews the historical development of the reimbursement system as it applies to occupational therapy. It then provides an overview of the major legislation and payment sources for occupational therapy services and describes the nature and mechanisms of the payment system. It also describes the impacts of third party payment on occupational therapy services using both qualitative and quantitative data. Finally, it summarizes occupational therapy’s experiences from an environmental perspective.

Chapter V presents the case study of vision rehabilitation. It follows the same guidelines as the case study of occupational therapy. It starts with a brief review of the historical development of the financial system as it applies to vision rehabilitation. An overview of the major legislation and funding sources for vision rehabilitation describes the unique nature and mechanism of the payment system. Finally, it
assesses some of the possible impacts of third party payment on vision rehabilitation agencies and their services.

Chapter VI brings together occupational therapy's experience and the insights provided by environment theory. It predicts certain trends in vision rehabilitation with respect to funding sources, professional preparation programs, licensing of practitioners, and service procedures.
CHAPTER II

ORGANIZATION THEORIES

Environments and Organizational Changes

Many studies have been done to examine how environmental factors influence health care organizations. One of the major environmental factors in the health care area is government intervention. It is well known that governmental agencies are increasingly involved in the financing and regulation of health care in this country (Scott, 1983). Conditional grants have been made available to hospitals to build or expand, to support the provision of community-based comprehensive health programs, or to support the development of health centers providing prepaid care to closed panels of subscribers (health maintenance organizations). Beginning with the crippled Children's Program of 1936, the government has increasingly taken on the role of third party purchaser of health care services. This approach was vastly expanded with the creation of Medicare and Medicaid. At the present time, the federal government pays for more than 50% of the institutional care delivered in this country (Scott, 1983). Because of rapidly rising costs, the government's more recent stance has been that of regulator and rationer.

Organizational studies of governmental regulation have indicated that most governmental actions in the health care area presumed the existence of authority over
funding but not over the substantive content of services provided (Scott, 1983). The government assumed fiscal but not programmatic decision-making rights. Governmental authority in the health care area was unlike that exercised over military matters or welfare concerns, and more closely resembles that exercised over educational institutions. In both educational and medical matters, government intervention has been justified primarily in terms of equity considerations. It is true that those who pay the bill, including governments, reserve the right to define the nature of what they will buy, so that with fiscal programs have come specifications of minimum standards of care (Ball, 1975). The standards set, however, most often take the form of insisting that the providers be licensed and the care units be accredited and then indicating what level of services will be reimbursed.

Meyer (1979) argued that the combination of decentralized substantive authority and centralized fiscal controls generated a system of organizational controls through accounting and statistical mechanisms (Meyer, 1979). The control exercised is indirect rather than direct, by specifying what services will be reimbursed--not what services will be offered. An observation to be made about the nature of new federal and state control was that they were extensively complex, specialized and fragmented (Scott, 1983).

Few, if any, other industries have been subjected to so much piecemeal and uncoordinated regulation. Hardly any aspect of hospital operation—from the width of the corridors and the number of fire extinguishers to the method of cost finding and accounting, and the overtime pay of the orderly—escapes the scrutiny of some public officials (Somers, 1973, p. 28).
The Population Ecology Model

Organizational theory provides us with some predictions regarding the response of health care organizations in the presence of multiple, fragmented financial regulatory units. The more complex and differentiated an organization's environment, the more likely it is that the organization will itself become more differentiated internally (Thompson, 1967). Because the environmental elements in this instance relate to fiscal and administrative services, we would expect administrative and accounting components to multiply. We would also expect to see increased numbers of administrative assistants, controllers, bookkeepers, auditors, financial managers, and at lower administrative level, increased number of filing clerks, statistical aides, record room librarians, ward coordinators and computer technicians. We would also expect the size and composition of the hospital's boards of directors to reflect these changes in the broader institutional environment. In all, "organizations will tend to map the complexity of environmental elements into their own structures" (Scott, 1983, p. 106). Special roles, committees, and task forces are created to handle environment units, i.e., develop applications for funding, prepare progress reports, develop comprehensive plans and maintain liaison.

All of these developments are applicable if we assume that the unit of analysis is the individual hospital or medical care organization, and that the appropriate level of analysis is that of the single organization in relation to its surrounding environments. A different approach, rapidly gaining attention among organizational
analysts, is applicable not only to a single organization but to populations of organizations. In the population ecology approach, attention is focused on the distribution of forms within a particular organizational type—for example, hospitals—and on the manner in which this distribution changes over time (Aldrich, 1979; Hannan and Freeman, 1977). The presumption is made that the adaptation of organizations to their environments occurs not only at the level of the individual organization (e.g., as a specific hospital attempts to adapt its structure and activities to take into account changes in its local environment), but at the population level, as some types of units thrive and multiply while other types shrink and expire.

The population ecology model, originally developed from the natural selection model of biological ecology, explains organizational change by examining the nature and distribution of resources such as materials, technology, funds and information in organizations' environments. Environmental pressures make competition for resources the central force in organizational activities. A focus on selection invites an emphasis on competition.

Organizational forms—specific configurations of goals, written rules of operation, boundaries, and activities—are the elements selected by environmental criteria. Change may occur either through the creation of new forms, the elimination of old ones, or through the modification of existing forms. "Organizational forms presumably fail to flourish in certain environmental circumstances because other forms successfully compete with them for essential resources. As long as the resources which sustain organizations are finite and populations have unlimited capacity to
expand, competition must ensue" (Hannan & Freeman, 1977, p. 940). Environmental niches are distinct combinations of resources and other constraints that are sufficient to support an organizational form. Organizational forms, then, are organized activity systems oriented toward exploring the resources within a niche (Aldrich, 1979).

The three stages of variation, selection and retention constitute a general model of organizational change, which explains how organizational forms are created, survive, or fail, and are diffused throughout a population. Although the general perspective is labeled the "population ecology model," the term "natural selection" is used occasionally to emphasize the perspective’s intellectual heritage.

**Variation**

Variation within and between organizations is the first requirement for organizational change, and there must also be variation within the environment if externally directed change is to occur. Some variations arise through member’s active attempts to generate alternatives and seek solutions to problems. The rational selection model of traditional organizational theory focuses on such planned variations. The population ecology model (or natural selection model), however, is indifferent to the ultimate sources of variation, as planned and unplanned variation both provide raw materials from which the selection of organizational forms can be made. The general principle is that the greater the heterogeneity and number of variations, the more the opportunities for a close fit to environmental selection criteria (Aldrich, 1979).
Two types of variation create the possibility of external selection pressures affecting the direction of organizational change. First, there are variations among organizations in their overall form, such as between bureaucratic and non-bureaucratic, or capital intensive and labor intensive organizations. There are also variations between public and private agencies, or between center-based agencies and mobile service teams, or between group practiced and self practiced service providers. Variation is likely to be introduced into an organizational population whenever new organizations are created. Increasing exposure to ideas from other societies or regions, improved communication and transportation technology, and new legislation and regulations, are conditions that often promote the creation of new organizations.

A second type of variation affecting organizational change is variation within organizations. Turnover in membership, and especially leadership, is an example of internal variation. Voluntary associations typically select a new slate of officers on a periodic basis. The more open the process, the greater the likelihood that the organization will present a set of activities to the environment slightly different from the preceding period. New officers have different priorities, possess different skills and make new kinds of mistakes.

Selection

According to the population ecology model, the selection of new or changed organizational forms occurs as a result of environmental selection criteria. The first and purest form of environmental selection is the selective survival or elimination of
entire organizations. Organizations either are fit for their environment, or they fail. If selection criteria favor administrative rationality in organizational control structures, then we might observe that non-bureaucratically structured organizations fail, leaving only bureaucracies. Studies of business corporations show that environmental selection of entire organizations occurs most often with small businesses, organizations not subsidized by governments and voluntary associations. Large businesses rarely disappear (Aldrich, 1979). In addition, organizations that come under the protection of various national, regional, or local governments have low failure rates such as public hospitals, social services agencies, schools and various nationalized industries (Aldrich, 1979). Less complete forms of selection, however, exist for all organizations; particular structures or activities may be eliminated, added, or modified without the destruction of the existing form. As is the case in organic evolution, selection among organizations is on the basis of relative rather than absolute advantage.

The second type of selection is that of advantageous activities that are happened upon in the normal course of their performance over time. Variations in task performance that prove successful will be selected if they occur frequently enough and there exists a mechanism for retaining the process. Such selection will be facilitated if there are persons in the organization with capability of remembering the successful activity, or if the organization's files permit easy review of past actions. The process of selection of variations across occasions may occur indirectly through the selective promotion to leadership roles of persons whose past behavior has been
most adaptive and successful in a given environment (Campell, 1969).

Retention

The retention state can be interpreted as the stability in organizational forms or in specific structures and activities of individual organizations. Retention of successful adaptations in social systems depends upon the transmission of knowledge from one generation to the next. Knowledge of previous successful forms is institutionalized in the socialization apparatus of societies and in the cultural beliefs and values defended by dominant organizations and institutions. Material culture rather than oral tradition now carries societal traditions and history. Written records, machinery, the physical and material components of cities, and the general capital improvements in a society represent the externalization of past successful adaptations to its environment. Lenski documented the long-term trend in the advance of technology, and the increase in the scale and complexity of social structures (Lenski, 1975). Clearly, social retention systems are much more complex in industrial as compared to pre-industrial societies.

External pressures for retaining a given organizational form or structure include all the environmental factors that originally selected the form, structure or activities. For example, cost containment pressures on hospitals, competitive pressures on business firms, member pressures on voluntary associations and political pressures on public agencies help explain the retention of past structures in these organizations (Aldrich, 1979).
Shared interorganizational beliefs that induce common perceptions among persons and information processing and transmitting organizations may assist in the retention of a limited range of organizational forms. Hospitals, rehabilitation centers, training and educational institutes, consulting firms, and trade or professional associations promote specific procedures and organizational forms that become part of the culture of an organizational population. Some procedures catch the popular fancy and spread to most organizations, where they become entrenched and imbedded in the organizational methodology. An example of this is the spread of divisional as opposed to functional forms of departmentalization that occurred after World War II in the United States (Aldrich, 1979).

Characteristics of bureaucracy can be thought of as contributing to the retention of a specific organizational form. Documents and files are the archetypal characteristic of bureaucracy. As the material embodiment of past practices, they are ready references for appropriate procedures and normal contingencies. Specialization and standardization of roles limit member discretion and thus protect organizations against random variation. Formalization and an official hierarchy of authority circumscribe the exercise of role discretion, limiting opportunities for variation. Bureaucratic administrative structure and procedures thus help preserve the integrity of organizational forms, increasing the probability of their retention, if environmental selection criteria are met.

Variation, selection and retention thus constitute the three stages of the organizational change process. Variation generates the raw materials from which
selection, by environment or internal criteria, is made; retention mechanisms preserve the selected form. When the three conditions of the model are met, an evolution in the direction of better fit to the selective system becomes inevitable (Campbell, 1969).

The Application of Environmental Theories to the Study

Environmental theories, particularly, the population ecology theory, provide a theoretical guideline for organizing the case materials of the study. Occupational therapy and vision rehabilitation are rehabilitation services of similar nature. In each profession, different forms of organizations developed out of its unique social and economic backgrounds. Moyer and others (1992) identified four broad models in human services in terms of financial structure. They are the business model, the medical model, the charity model and the public provider model (Moyer et al., 1992). Each model has its eligibility standards for services and procedures of services. Models can be changed when environmental factors change.

Organizational Forms

The four models in human services can be viewed as four different organizational forms for the provision of human services. These four models can be described based on their major organizational characteristics such as the nature of payments, the nature of services, the individuals who provide services, forms and settings of services, procedures of services and documentation process (see Table 1).
### Table 1

**Models in Human Services and Major Organizational Characteristics**

<table>
<thead>
<tr>
<th>Models</th>
<th>Business model</th>
<th>Medical model</th>
<th>Charity model</th>
<th>Public provider model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natures of payments</td>
<td>Fees</td>
<td>Insurance; fees</td>
<td>Private; charity</td>
<td>Public funds</td>
</tr>
<tr>
<td>Natures of services</td>
<td>For profit</td>
<td>For profit</td>
<td>Nonprofit</td>
<td>Nonprofit</td>
</tr>
<tr>
<td>Licensing service providers</td>
<td>Required</td>
<td>Required</td>
<td>Not required</td>
<td>Preferred</td>
</tr>
<tr>
<td>Use of volunteers</td>
<td>Preclude</td>
<td>Preclude</td>
<td>Use extensively</td>
<td>Use</td>
</tr>
<tr>
<td>Physician referral</td>
<td>Required</td>
<td>Required</td>
<td>Not required</td>
<td>Not required</td>
</tr>
<tr>
<td>Forms of Services</td>
<td>Self practice</td>
<td>Self or group practice</td>
<td>Group practice</td>
<td>Group practice</td>
</tr>
<tr>
<td>Setting of services</td>
<td>Clinics; community</td>
<td>Hospitals; med. ctr. client home</td>
<td>Rehab. Ctr. itinerant</td>
<td>Rehab. Ctr.</td>
</tr>
<tr>
<td>Service procedure</td>
<td>Varies</td>
<td>Follow insurance guideline</td>
<td>Flexible</td>
<td>Flexible</td>
</tr>
<tr>
<td>Documentation</td>
<td>Varies</td>
<td>Specified; Standardized</td>
<td>Varies; minimal</td>
<td>Varies</td>
</tr>
</tbody>
</table>
The business model is the oldest among the four. The business model assumes that the consumers of services and goods recognize the inherent value of the commodity purchased. Thus, fees for services are the economic basis of most service industries. Individuals typically pay at least a portion of the expenses related to the receipt of medical and rehabilitation services and supplies. The service providers are licensed health care professionals who usually engage in private practice.

The medical model is commonly seen in the delivery of human services to individuals with disabling conditions. For example, occupational and physical therapy services are generally provided in medical settings such as hospitals and clinics. Third party payments from private and public insurance programs predominate. The professionalism demanded by these payment mechanisms results in licensing and certification standards that preclude the use of volunteers or other providers who lack the prescribed credentials. Both group practice and private practice are common forms of services. However, service procedures must strictly follow insurance guidelines and the documentation of services is specified and standardized.

The charity model is commonly seen in the delivery of rehabilitation services to people who are blind and visually impaired. Organizations that provide vision rehabilitation services are largely nonprofit, charitable institutions that rely on private giving and indirect tax support. Services are unevenly distributed depending on population density. Volunteerism is widely promoted in this model because adequate funding is often unavailable. There are few highly organized, government enforced, preservice requirements such as state licensure and certification. Accreditation of
service agencies is more important than licensing individual practitioners in the agencies. Procedures of service are flexible, and documentation of such services is minimal.

Finally, the public provider model has typically arisen in response to deficits in services provided by charity agencies. The public providers, such as state rehabilitation agencies, state schools for the blind and the Veterans Administration, typically operate under a civil service structure that may emphasize the recruitment and promotion of employees with generalized qualifications. Some state agencies purchase services from private nonprofit charities that are expected to comply with state rules concerning staff certification and program accreditation. Professionals are usually employed by the public agencies and engage group practice. The service procedures are also flexible. The documentation process varies.

According to population ecology theory, for a population of organizations to exhibit variation of form is the first step in organizational change. Environmental factors apply pressure for the organizations to select those forms that meet the requirements of the environment. If the organizations adapt, and retain the effective forms, they survive. Otherwise, they are likely to fail. For example, occupational therapy experienced the change from the business model to the medical model when the form of payment changed from self payment to third party payment. The economic factors were identified as the major environment selection criteria.
Environmental Factors

Economic factors, particularly the payment source, are viewed as the major environmental factors affecting rehabilitation services. Payment may take several different forms such as self payment, third party payment, government grant and charity funds. Nevertheless, different forms of payments impose different requirements on rehabilitation services. For example, third party payments require that the service providers possess minimum qualifications and follow insurance guidelines in making service decisions. However, services supported by Charity funds are more flexible and volunteers are extensively used.

Political factors include the development of new legislation and regulations that involve the delivery and funding of human services. Because governments became the major third party payers for human services, any change in the eligibility standards for services and availability of funding will affect human services. Both health care professionals and consumers actively lobby for or against new regulations to protect their own group interests.

Demographic changes also affect health and human services. The aging of the population has a direct impact on the human services system. A growing number of the elderly who have multiple disabling conditions need rehabilitation services or training in order to live independently. A large number of handicapped children need human services when they study in schools. Many rehabilitation professions such as occupational therapists are in great demand to provide services to children in the
school settings.

Consumers (patients/clients) play an increasingly important role in the delivery of human services. They want more freedom in the selection of services and more participation in the treatment and training process. They argue that consumers, not the professionals, are the best judges of their own interests. In addition, there are increasing numbers of organizations that now serve as representatives of such interests.

Other health care professions share the same economic and political environments with the rehabilitation services. Moreover, they compete directly with one another for resources such as staff, clients, funding, technology, and information. Environmental pressures make such competition for resources a central force in organizational activities.

In addition to having an impact on rehabilitation services, the above environmental factors interact one and another. For example, the aging population and the increasing needs for rehabilitation services require more financial supports. When the traditional financial sources can not support service needs of a growing number of clients, new legislation and regulations will likely be initiated and pushed by both the consumer groups and the professional organizations to develop new financial sources and provide needed services. The lack of financial supports will also intensify the competition for sources among alternative health care providers. On the one hand, the environmental factors shape the way the service providers perform their services. On the other hand, service providers can also make efforts to shape the environment such as developing new legislation and related resources.
Environmental Factors

Figure 1. Theoretical Diagram of the Relations Among Environmental Factors and Organizations.

Figure 1 is a representation of the major factors in operation with respect to rehabilitation services. The environmental factors, both directly and interactively with one another, apply pressures on the rehabilitation professions. These populations of
organizations, in response, respond by selecting and retaining those organizational forms that facilitate their survival.

The case study of occupation therapy presented in chapter IV describes how the economic and other environmental factors have shaped the pattern of occupational therapy services and have guided the development of the occupational therapy profession under the medical model. If vision rehabilitation services are subject to similar environmental pressures, it is reasonable to expect that similar changes will happen to the vision rehabilitation. The case study on vision rehabilitation presented in chapter V will discuss these possible changes.
CHAPTER III

RESEARCH DESIGN AND DATA SOURCES

Research Design

A case study is "a method of studying social phenomena through the thorough analysis of an individual case" (Theodorson and Theodorson, 1969, p. 38). Case studies are in-depth analyses of single or a few communities, organizations, or persons’ lives. They involve detailed and often subtle understandings of the social organization of everyday life and persons’ experiences (Miller, 1992). According to Robert E. Park (1917), case studies should emphasize how persons’ lives and the organization of communities are shaped by general social processes and structure (Miller, 1992). Case studies were also influenced by anthropological studies of nonindustrial communities. These studies analyzed how social systems were maintained and adapted to changing environmental circumstances. For example, structural functionalists have used case studies to analyze the consequences of organizational activities and relationships for maintaining organizational systems (Blau, 1955; Gouldner, 1954; Sykes 1958).

The case study method gives a unitary character to the data being studied by interrelating a variety of facts to a single case. It also provides an opportunity for the intensive analysis of many specific details that are often overlooked by other methods.
such as survey and experiment. In sociological research, case materials have served
the purposes of illustration, concept and hypothesis development, hypothesis testing
and prediction (Foreman, 1971).

Park's approach to case studies has been modified and refined over the years,
particularly by Everett C. Hughes (1970), who developed a comparative approach to
work groups and settings. Comparative case studies include the more or less
unsystematic comparative strategies that rely on an admixture of techniques such as
historical studies, selective interviewing, observation, and the casual use of archival
data. In detective-like fashion, comparative case studies probe here and there,
assembling as many pieces of information as are available into a general view of the
phenomenon of interest (Walton, 1973).

Setting of Two Case Studies

This study examines, from an environmental perspective, the development of
two professional rehabilitation services--occupational therapy and vision rehabilitation--
in the United States from their beginning to the present. Although the case materials
do cover the early development of two professional services, the focus is on the
changes that have taken place during the last thirty years.

Research Questions

With respect to occupational therapy, the historical data and literature were
gathered and organized to answer a single, central research question: What was the
impact of third party payment on the provision of occupational therapy services? To answer this question, the major elements of the question must first be described. What is the pattern of occupational therapy services? What are the major third party payment sources? What is the reimbursement mechanism? What adaptations were made by occupational therapists to meet the environmental pressure represented by the rapid changes in the payment system? The answers to these related questions will provide a solid foundation for answering the central research question.

In the case study of vision rehabilitation, the major concerns are the kinds of adaptations that vision rehabilitation will likely be required to make in order to receive third party payments. Furthermore, if vision rehabilitation implements those adaptations, what are the potential impacts of third party payment on vision rehabilitation services in view of the experience of occupational therapy?

**Subjects**

Generally speaking, the subjects of a case study "may be a person, a group, an episode, a process, a community, a society or any other unit of social life" (Theodorson and Theodorson, 1969, p. 38). In this comparative case study, the subject for the case study on occupational therapy is the profession of occupational therapy. The case materials will focus on the adaptations made by occupational therapists to meet environment requirements and the pattern of occupational therapy services shaped by the third party payment. The subject for the second case study is the profession of vision rehabilitation. The case materials are organized to analyze
the adaptations vision rehabilitation will probably make to get third party payment and potential impact of such payment on vision rehabilitation services.

Data Sources

Three forms of data were used in this research: (1) secondary data such as historical studies, government reports, and previous surveys and statistics relative to both occupational therapy and vision rehabilitation services; (2) a national survey on third party payment within vision rehabilitation; and (3) interview data, gathered either face to face or through telephone interviews with professionals and related experts from major national, state or local organizations and government departments.

Secondary Data

The major secondary data sources included the following journals and reports published in the last twenty years:


7. *Hospital and Community Psychiatry*.


**Survey Data**

Primary data were collected by a national survey on third party payment within vision rehabilitation services. The survey was designed by Paul Ponchillia, Mary Wilson, Kelly Bowen and Tiehan Liu from Western Michigan University and was conducted in the summer of 1991 (See Appendix A for a copy of the instrument). The respondents to the survey were directors of rehabilitation agencies that provide personal adjustment services and low vision services in the United States. The names of directors were obtained from the *Directory of Services for the Blind and Visually Impaired Persons in United States*, which was published by the American Foundation for the Blind in 1988. The survey questionnaires were mailed out to the directors in late July 1991. A follow-up was done in early October. A total of 103 valid questionnaires were returned out of a total of 150 that were mailed out, for a response rate of 69%. Survey data were coded by Tiehan Liu and processed by the means of SPSSX program at Western Michigan University.
Interviews

Face to face or telephone interviews within rehabilitation professionals, experts, and representatives from major national, state or local organizations or government departments were carried out to collect the most current information on legislation, regulation, annual reports and statistics on the research topic. The interviews were conducted in the period from July 1991 to March 1993. They included:

1. G. Plunkett, political consultant, the American Foundation for the Blind (AFB) in Washington DC;

2. K. Kirchner, director of the department of social research of AFB in New York City;

3. L. Rosen, director of AFB’s Library in New York City;

4. I. Silvergleit, director of research information and evaluation division, the American Occupational Therapy Association, Rockville, MD;

5. D. Dennis, program administrator, legislative and political affairs division, the American Occupational Therapy Association, Rockville, MD;

6. G. Arsonal, Office of Special Education and Rehabilitation Services, Rehabilitation Services Administration, U.S. Department of Education in Washington DC;

7. R. Cooper, chairman, department of occupational therapy, Western Michigan University;

9. S. Suterko, former professor, department of blind rehabilitation, Western Michigan University.
CHAPTER IV

A CASE STUDY OF OCCUPATIONAL THERAPY

Historical Development of the Reimbursement System

The case study of occupational therapy starts with a brief review of the history of occupational therapy in relationship to reimbursement. "Historically, the reimbursement method for occupational therapy has driven its delivery system" (Foto, 1988a, p. 564). An understanding of the history and directions of reimbursement in the United States and of the depth of influence these reimbursement trends had on the development of occupational therapy will provide a useful perspective.

The history of occupational therapy may be divided into three stages based on the development of its reimbursement system. The first stage was the institution of health insurance, which began in 1920s and was not completed until the late 1950s when federal government employees came under a health insurance program. The second stage covered the events leading up to and following the initiation of Medicare and Medicaid in the 1960s. The third, and current, stage began with Medicare’s prospective payment system (Baum, 1985).

The occupational therapy profession was born out of the Moral Treatment movement in the second half of the 19th century. Moral Treatment signified a change from the custodial care of mentally ill people to care based on the "law of love"
Adolph Meyer, whose work preceded the profession, linked occupational therapy to Moral Treatment by describing diseases as problems of adaptation, the appropriate use of time as the remedy for habit deterioration, and occupational therapy as the means of teaching the structuring of time (Meyer, 1922). Meyer's philosophy of occupation in mental health strongly influenced the philosophy and history of occupational therapy as a whole (Hopkins & Smith, 1978).

In the decades following the civil war, although occupational therapy was still in its infancy, the philosophy of Moral Treatment, as used in mental health, was already declining. This decline was largely due to a shift in popular thought from a moral-emotional model to a technological-pathological approach in which the scientific method was embraced (Bockoven, 1971). This happened in spite of the established efficacy of Moral Treatment. Mental health also shifted to an organic, pathology-based frame of reference in the early 1900s (Bockoven, 1971).

This shift in popular philosophy affected not only mental health practice but the entire medical community. The Flexner Report, published in 1906, marked a change in the philosophy underlying medical treatment. Generated by the American Medical Association in an effort to upgrade the quality of medical schools (Feldstein, 1987), the Flexner Report emphasized a unifactorial, biomedical, scientific model of disease. As a result, medicine shifted to more scientific, laboratory-based concepts (Waitzkin, 1978).

On October 17, 1917, the National Society for the Promotion of Occupational Therapy was founded. The purpose of the society was to provided information and
assistance to all who are desirous of teaching the work or who are interested in it (Dunton, 1967). In 1923, the name of the society was changed to its present form, the American Occupational Therapy Association (AOTA).

Among many traditions that continue to the present, there are three that seem particularly important considering current developments. The first is education. In 1917, the National Society worked hard to establish an educational structure and to develop a body of knowledge that is the backbone of the occupational therapy profession. The second tradition is the occupational therapists' long standing relationship with medicine and physicians. The discipline was founded by a doctor, William Rush Dunton, and physicians tenaciously adhered to the need for a medical prescription and/or referral to occupational therapy for their patients. Seventy years later, when third party payers are involved in paying for service, therapists are still feeling the effects of this long established hierarchy and are struggling for the right to work with doctors rather than under them.

The third tradition is the integral role that the profession has given to women. The earliest practitioners were nurses and their nurturing skills were seen as beneficial for working with the mentally ill. Indeed, early occupational therapy schools were open only to "refined and intelligent young women" (Partridge, 1921, p. 64). Obviously the tradition has continued, since in 1990, about 94% of all registered occupational therapists were women (AOTA, 1991).
The First Stage (1920s-1950s)

The payment source for occupational therapy was no different from that of regular medical services in this first stage. Fee-for-service was the primary form of payment. However, public support furthered such new professions as occupational therapy, public health nursing, and social work, helping them to establish their place in society and their usefulness on the health care team. The Public Health Service had been started in 1912 to protect the health of all citizens, and health care, which was beginning to include rehabilitation concepts, was now considered a human right. The Smith-Bankhead Bill of 1920 became the basic federal vocational rehabilitation law. It not only established public acceptance of rehabilitation and the services of such professional groups as occupational therapy, but also led the way for other, more expanded, legislation (Woodside, 1971). In 1923, the Federal Industrial Rehabilitation Act made it a requirement for every general hospital dealing with industrial accidents or illness to adopt occupational therapy as an integral part of its treatment (AOTA, 1967).

Health insurance programs were also established in this stage. The Federal Employees Health Benefit Program began in the 1920s and was not completed until the late 1950s. This program was implemented by over two hundred private plans. The coverage of specific services such as occupational therapy and the settings in which they may be provided, was determined by each plan.
The financial constraints of The Great Depression years, however, precipitated a significant turning point in the development of the occupational therapy profession. During the depression years, "the doctor was the first expense to be avoided and the last creditor to be paid" (Rerek, 1971, p. 232). From 1929 to 1933, medical care spending fell 33% in spite of the fact that charges and fees were lowered. Those seen today as the "consumers" of a health "product" often served then in a role vital to the maintenance and perpetuation of the "product" (Black, 1969).

Under strong environmental pressure, the first goal for the AOTA was the survival of the young profession. In the middle of the 1930s, the AOTA asked the American Medical Association to establish standards for training institutions, and to take over the accreditation of occupational therapy schools. It was this decisive step that formally placed occupational therapy in the position of a medical ancillary (Rerek, 1971). The choice made by the organization radically affected its developmental process and direction. This action, although it achieved its purpose of survival, limited the nonmedical practice opportunities for the future in that occupational therapy was now tied to the health care industry by both educational standards and financial concerns.

From the 1940s to the 1960s, occupational therapy was involved in the rehabilitation movement, which was triggered by the return of World War II disabled veterans. New antibiotic medications and advanced methods in surgery helped injured soldiers survive their wounds, and rehabilitation helped them to function independently with the resulting disabilities. During this time, association with the
rehabilitation movement also made occupational therapists somewhat "uncomfortable with their simple operating principle that it was good for disabled people to keep active" (Mosey, 1971, p. 235). New treatment methods (e.g. orthotics, vocational evaluation, neuromuscular facilitation), borrowed from other professions, were added to the occupational therapists' treatment repertoire at a pace so rapid that it was nearly impossible to assimilate these changes into the profession's theoretical base (Mosey, 1971).

Concerning autonomy, the profession of occupational therapy, if anything, allied itself even more closely with the medical profession during the first stage. Little was said about occupational therapy as the primary method of treatment. The role of an ancillary seemed to be willingly accepted.

**The Second Stage (1960s-1980)**

The development of the rehabilitation movement during the 1960s was accompanied by changes in payment for health care services. Before this, health insurance had been based in local, private systems. However, increases in the cost of medical care began to exceed the limitations of this system. National health insurance was debated, but payment for health care was installed instead as an employee benefit, and controlled by private industry. The American Medical Association successfully campaigned against national health insurance, in conjunction with organized labor, which wanted to retain health insurance as a bargaining tool (Somers & Somers, 1961). The medical profession fought national health care
coverage because it viewed involvement of the federal government as a critical intrusion in the hallowed doctor-patient relationship, and believed that it would lead to the increasing bureaucratization of medicine (Luft, 1978). However, by the middle of the 1960s, physicians no longer had enough political power to stop government-supported health insurance, in part due to the increased political power of consumer groups (Freidson, 1975). With more support for government involvement in health care, Medicare and Medicaid were born in 1966. With their advent, the established traditions of payment and organization in health care were permanently altered (Freidson, 1975).

The profession of occupational therapy was originally one of those innovations in health care designed to meet the broader human needs of patients, frequently at some inconvenience to the prevailing system. At that time, many therapists worked directly in the community and neighborhood facilities (Diasio, 1979). The Great Depression struck a crippling blow, after which occupational therapists operated chiefly in the confines of larger institutions. It was not until Medicare and Medicaid, which would allow the development of occupational therapy in community health care for the elderly and the poor (Diasio, 1971).

In addition, the specialty of community and social psychiatry emerged, which in its most innovative form acknowledged that not all the problems were intrapsychic or organic in origin nor could treatment methods focus solely on these intrapsychic or organic components. Occupational therapists took a giant step away from the medical model when they defined function and dysfunction as their professional
parameters of concern. Therapists, once again, started working directly in the community.

Although at first there was increased role blurring in therapeutic community teams, therapists often found it possible in the freer atmosphere to innovate and grow away from their traditional roles. In the process, occupational therapists became more confident of their contributions, increasingly sought rationales for practice, and developed primary therapy roles for themselves. Therapists began to press for and obtained more adequate patient-to-therapist ratios, which in turn improved the scope and quality of treatment services. Personnel shortages were appraised more realistically, and therapists responded by increasing their teaching, supervisory, administrative, and consultative activities.

Another important change in this stage was that therapists began to assimilate the knowledge base of the behavioral sciences. They found it possible to relate more to behavioral science models than they previously had been able to relate to the medical model. This change in emphasis, which occurred at the same time that occupational therapists again began working directly in the community, reinforced more strongly than before the conviction that patients' problems could not be cast solely in medical terms. Occupational therapists worked hard to develop a unique body of knowledge and skills—a body that was not shared by others in rehabilitation.

From the 1960s to the early 1980s, occupational therapy continued to enjoy a political climate that was generally favorable to health care. (Davy, 1984). However, costs began to escalate as health care facilities took advantage of available
capital. Consequently, Congress set limits on Medicare reimbursement as part of the Tax Equity and Fiscal Responsibility Act of 1982. In the following year, the Social Security Amendments of 1983 were enacted, which set the stage for the phasing in of the prospective payment and diagnosis-related group (DRG) forms of reimbursement (Russell, 1989).

The Third Stage (Since 1983)

In this stage, three major environmental factors have had great impacts on the development of occupational therapy. The first was the Community Mental Health Center movement, the result of which occupational therapy in mental health became an "endangered species" (Neeman, 1988, p. 329). Second, was the enactment of Public Law 94-142 in 1975 and its subsequent amendments in the 1990s. These legislative efforts expanded occupational therapy to educational areas. The most important factor was the cost containment effort of the late 1970s and 1980s and the inception of Medicare's prospective payment system. This created opportunities for developing occupational therapy in the community, but at the same time imposed strict reimbursement procedures that affected the practice and management of occupational therapy. The examination of these environmental factors and their impacts on occupational therapy in this stage is the main part of this case study. The following sections will describe the social background out of which the legislation emerged, the natures and mechanisms of reimbursement sources, and the impacts of reimbursement sources on occupational therapy services.
An Overview of Legislation and Funding Sources

In the last 20 years, environmental factors, especially third party payment, have great impacts on occupational therapy services. Legislation and government regulations played an important role in shaping the pattern of occupational therapy. To better understand the legislation and regulations, it is necessary to examine the major changes and megatrends in the social environment.

Megatrends in the Social Environment

The first major change was the transformation of the medical model into a medical-social-psychological model (Wolinsky, 1988). There was a fundamental change of the leading causes of death from acute and infectious diseases such as influenza, tuberculosis and diarrhea in the 1900s to chronic diseases such as heart disease, cancer and stroke at present (Wolinsky, 1988). Short term medical care in the hospital changed to long term, even life-time, health management in a client’s home environment. Corresponding to this change, more emphasis was placed on social and psychological factors such as life style, stress management, and family and community ties. In short, they came to realize the social world around a person played a primary role in preventing disease.

A second major change referred to the rapidly growing cost of health care and the related cost containment efforts. High cost is a major problem in medical services in the U.S.. In 1990, health care expenditures reached $666 billion, which amounted
to 12.2% of the gross national product (Levit, Lazenby, Cowan & Letsch, 1991). Government intervention and the "technological imperative" were believed to contribute to the problem. However, great efforts have been made to control skyrocketing health care cost. Such cost containment efforts affected the forms of health care organizations as well as the procedures of health care services.

A third major change was the movement from a fee-for-service system of payment to a managed care system of reimbursement (Foto, 1988a). A managed care system referred to an insurance plan that incorporates the features of selective contracting with providers, financial incentives for subscribers to use the network providers, and utilization review of service. All of these elements were designed to control medical cost. With the introduction of the contract-based reimbursement, health planning for subscribers became possible for the first time. The network provider structure and the utilization review process allow for a more precise needs assessment and the development of special services. In effect, third party carrier becomes the operator of a closed delivery system. Within the health care industry, this changeover from fee-for-service to a managed care system was viewed as a transfer of power from physician and hospital to business and the insurance industry (Foto, 1988a).

The fourth change was the movement from institutional help to self-help (Gray, 1982). During the 1970s, Americans began to disengage from institutions that had disillusioned them and began to relearn the ability to take action on their own. Self-help and self-responsibility were concepts that re-emerged during the 1970s and
continue to the present. This was particularly true in the health care arena. People became much more concerned with nutrition, pollution, physical fitness, alternatives to traditional medical care, preventive medicine, wellness programs, stress management, and holistic health.

The fifth change was the decentralization of power (Gray, 1982). In a reversal of centralization, decision-making power began to be returned to local organizations and communities. Local initiatives and solutions occurred when the grass roots connection had the strength and interest to develop policies and programs. Decentralization created more centers of power and implementation, and this in turn meant more opportunities for individuals. However, it also meant more choices. The community mental health center movement was one good example that allowed the recovery of mental illness in the family and community environment rather than in a state mental hospital.

The sixth change was the movement toward participatory consumer decision making. It has been finally recognized that peoples' personal or work lives were affected by decisions that are part of the decision-making process. The contemporary health care manager or leader is a facilitator who asks growth-enhancing questions rather than one who gives orders. Such a manager realizes that participation builds skills, understanding, commitment and acceptance.

The seventh change is the fact that the population of the United States is aging. In 1900, people over age 65 accounted for approximately 4% of the population—less than one person in twenty five. In 1990 one in eight Americans, or
12.6% of the population, was 65 years or older—a increase of more than thirty percent (Hooyman & Kiyak, 1991). The growth in the numbers and in the proportion of older people, especially the oldest-old, will require that both public and private policies affecting employment, housing and retirement, health care, and social services be modified to meet the needs and expand the opportunities for productivity of those who are living longer.

In sum, the above megatrends provided a general social background from which the legislation and regulations were made. These environmental changes affected not only the formation of new legislation and regulations, but also the operation of health and rehabilitation services.

In the last 30 years, occupational therapy services were greatly influenced by three major acts of legislation. They were the Community Mental Health Center Act of 1963, the Education of All Handicapped Children Act of 1975 and Medicare’s prospective payment system and related amendments.

The Community Mental Health Center Act of 1963

The first major piece of legislation that had great impact on occupational therapy in the last 30 years was an outgrowth of the community mental health center movement. The original clients for occupational therapists were people who had mental illness. Thus, any change in mental health services affected occupational therapy. In 1963, the Community Mental Health Act brought about a dramatic shift in care focus. Large numbers of patients were discharged from state hospitals,
presumably to receive care in community-based facilities. This law was passed during a time period characterized by both idealism and belief in the unlimited potential of the United States. Deinstitutionalization seemed a humane and caring policy to mental health workers and lawmakers alike. It was thought that community living would be more pleasant and less restrictive to the individual, as well as therapeutically beneficial. Shadish (1984) noted that policies are implemented to the extent that they are consistent with extant social structures and ideologies. Thus, it may be said that deinstitutionalization was a logical outgrowth of the time (Bonder, 1987).

Since the landmark Community Mental Health Center Act was passed in 1963 more than two billion dollars of federal assistance has been channeled into community-based mental health, alcohol, and drug abuse services. Those funds, combined with funds from state and local governments, dramatically expanded the availability of public mental health care in the last three decades.

However, while political administrations may create new policies, their continuation on a long-term basis is tenuous (Fairweather, Sanders, & Thornatzky, 1974). With the Omnibus Budget Reconciliation Act of 1981, the federal involvement in community mental health services changed. Federal funds for community mental health centers were cut by 37% between 1981 and 1983 (Goplerud & Walfish, 1983). Combining CMHC funds with the funds of other previously categorical health and human services into block grants to states, the Omnibus Act also shifted the responsibility for fiscal and programmatic oversight of community mental health, alcohol, and drug abuse services to the states. Consequently, human services
throughout the community faced with sharp cutbacks in funds. In addition, service mandates changed as both state and local funding agencies asserted their priorities.

In the last decade, the budget issue was the major topic, particularly at the state level. The impact of high levels of unemployment resulted in massive deficits in state treasuries across the nation. With the required increasing costs to support the unemployed and their families, more states had no alternatives but to reduce state services or lay off employees. Among the areas of budget most vulnerable to reduced financing were mental health and education (Ethridge, 1984). As far as the future is concerned, government financing will continue to be reduced at both federal and state levels, and an expectation of returning to the funding level of mid-seventies is highly unrealistic (Ethridge, 1984).

Although the financial constraint may have had negative impact on occupational therapy, the therapists tried to develop their distinctive characteristics in response to the environmental pressure. One was occupational therapists' strong and lengthy commitment to functional performance and the skills of daily living. The second was occupational therapists' knowledge of, and belief in, the interaction of bio-psycho-social factors in human performance and adaptation. Both represented valid and appropriate models for the development and leadership of innovative rehabilitation, and activity services in a variety of settings.
The Education of All Handicapped Children Act of 1975

The second major piece of legislation that had great impact on occupational therapy was the Education of All Handicapped Children Act (Public Law 94-142), now known as the Individuals with Disability Education Act. The Education of All Handicapped Children Act was signed into law in 1975. It requires that any public school system receiving federal assistance provide handicapped children with a free appropriate education in the least restrictive environment. Federal grants were given to state and local education programs and related services for handicapped children. The special education and related services a child receives must be identified on the basis of a comprehensive evaluation and described in an individual education plan (IEP), which must be developed jointly by school staff and parents.

Public Law 94-142 defines "related services" as

Transportation and such developmental, corrective, and other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation and medical and counseling services, except that such medical services shall be for diagnostic and evaluation purpose only) as may be required to assist a handicapped child to benefit from special education and includes the early identification and assessment of handicapped conditions in children (P.L. 94-142, 1977, p. 22676).

Occupational therapy has been included in P.L. 94-142 as one of the related services to be provided for meeting the individual needs of students, thereby enhancing their potential for learning. The law states that occupational therapy includes: (1) improving, developing or restoring functions impaired or lost through illness, or deprivation; (2) improving ability to perform task for independent
functioning when functions are impaired or lost; and (3) preventing, through early intervention, initial or further impairment or lost of function (Gilfoyle & Hays, 1979).

The provisions of such special education programs and related services increased the cost of special education for handicapped children. Following the passage of the landmark federal legislation, special education programs and budgets expanded dramatically. When PL 94-142 was enacted in 1975, the federal share for financing the cost of special education and related services was set at 40% of the average per pupil expenditure as established nationwide. Since the law took effect, however, the federal financial contribution has been less than 10% of the cost for serving handicapped children, straining the financial resources of school systems (Kreb, 1991).

A study conducted by the Rand Corporation in 1981 reported that the federal contribution was less than 7% of an average total expenditure for special education and related services of $3,500 per child. The study indicated that the average state contribution covered 26%, with the remaining 67% provided by local funds. The fact was that the law (PL 94-142) created opportunities for expanding occupational therapy services in the school system, but there was not sufficient funding to implement the law.

**Medicare’s Prospective Payment System and Related Amendments**

The third piece of major legislation that greatly influenced occupational therapy was Medicare’s prospective payment system and related amendments.
Established by Congress in 1965 as Title XVIII of Social Security Act, Medicare is by far the largest single payer for occupational therapy. The primary beneficiaries of the program are the nation’s elderly (sixty-five years of age and older) who are disabled, and some people with end-stage renal disease. In 1990, an estimated 20% of the occupational therapy profession served Medicare beneficiaries in hospital inpatient and outpatient settings, physician’s offices, skilled nursing facilities, comprehensive outpatient rehabilitation facilities, hospices, and through home health agencies (AOTA, 1991). The program consists of two parts: Part A--Hospital Insurance Program--that pays for hospital, skilled nursing facilities, home, and hospice care; and Part B--Supplementary Medical Insurance Program--that covers hospital outpatient, home health, physician, and other professional services.

Until October 1983, Medicare paid hospitals on a retrospective basis for reasonable costs incurred in providing specific services. This retrospective payment method fostered a sharp increase in Medicare hospital costs (Scott, 1984). In 1965, health care accounted for 6% of America’s gross national product. By 1982, it had reached 10.4%. The federal government’s role in financing health care has grown from $3.6 billion in 1965 to $84.2 billion in 1982. Government is now the single largest payer of health care costs. In the Medicare program, spending for inpatient hospital services accounted for 67% of the total dollars spent on Part A and B benefits in 1982. Studies predicted that if no cost containment measures were taken, the Medicare trust fund would face insolvency by 1990 (Scott, 1984).
In 1983, Congress adopted a significant change in the Medicare program. Along with measures to ensure the solvency of social security system into the next century, Congress approved a system of prospective payment for hospital inpatient services, whereby hospitals were paid a fixed sum per case according to a schedule of diagnosis related groups (DRGs). Under the prospective payment system, if hospitals spend more money on patients than they receive in the DRG rates, they must absorb the loss. Conversely, the opportunity exists for hospital to increase their profits if they reduce costs and stay under the DRG rates. Other third party payers, such as state Medicaid systems and insurance companies, also adopted this method of payment. This prospective payment system had great impact not only on hospital-based occupational services, but also on many different areas of occupational therapy.

The coverage of occupational therapy in the original Medicare program emphasized impatient, institutional care, and permitted only the minimum reimbursement for outpatient occupational therapy, and then only when furnished under extremely restrictive conditions. In the last three decades, occupational therapists made great legislative efforts to expand the coverage, specifically, the coverage on home health care and comprehensive outpatient rehabilitation facilities. Mallon (1981) described in detail the persistent legislative efforts for expanding occupational therapy coverage in the 15 years after the Medicare legislation was enacted in 1965.

Two successful efforts did expand the coverage of occupational therapy. The Omnibus Reconciliation Act of 1980 classified occupational therapy as a primary or
qualifying service under the home health benefit and established comprehensive outpatient rehabilitation facilities as providers under Medicare, Part B. Then in 1986, Congress passed the Occupational Therapy Medicare Amendments in response to the need for more community-based treatment. These amendments extended full coverage to occupation therapy services under Medicare, Part B. Payment was authorized for patients in skilled nursing facilities, rehabilitation agencies, home health care, and private practice (AOTA, 1989).

Efforts to expand coverage of occupation therapy services were also made at the state and local level. For example, the Connecticut Occupational Therapy Association undertook from 1979 to 1982 to obtain payment mandated by state legislation for occupational therapy. As a result of the enactment of Connecticut Statue, Chapter 681, Section 38-174q, occupational therapists working in Connecticut may be reimbursed for services rendered on those hospital or medical insurance policies written in Connecticut only (Herden, 1984). The Michigan Occupational Therapy Association is currently working on the amendment to Michigan’s no fault automobile insurance legislation for the coverage of occupational therapy.

Nature and Mechanism of Reimbursement

Public Funds and Private Funds

Payment for occupational therapy services was derived from a variety of sources including federal, state, private and commercial insurance, plus some out of
pocket payment. If the payment sources are divided into two categories, third party payment and self payment, about 95% of payment sources of occupational therapy services come from third party payers. Only 4% was self payment. Among third party payments, 80% came from public payment sources and 20% was private payment (see Table 2).

Table 2
Reimbursement Sources for Occupational Therapy Services

<table>
<thead>
<tr>
<th>Sources</th>
<th>Registered OTs %</th>
<th>Certified OT Assistants %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Cross/Blue Shield</td>
<td>8.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Other Private Insurance</td>
<td>8.9</td>
<td>11.7</td>
</tr>
<tr>
<td>Medicare</td>
<td>20.0</td>
<td>23.6</td>
</tr>
<tr>
<td>Medicaid</td>
<td>12.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Vocational Rehab. Agency</td>
<td>1.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Worker’s Compensation</td>
<td>--</td>
<td>8.9</td>
</tr>
<tr>
<td>Other Federal Programs</td>
<td>13.0</td>
<td>3.4</td>
</tr>
<tr>
<td>State/local Programs</td>
<td>27.4</td>
<td>26.3</td>
</tr>
<tr>
<td>Self Paying</td>
<td>--</td>
<td>4.3</td>
</tr>
<tr>
<td>Other</td>
<td>9.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Total Employed</td>
<td>23970</td>
<td>38900</td>
</tr>
</tbody>
</table>

From Table 2 we can see that government, at the federal, state and local levels, was the major third party payer of occupational therapy services. Thus, any changes in governmental regulations and policies on reimbursement will have substantial effects on occupational therapy services. "Major health care system in the next decade will be shaped by those who pay the bills rather than by those who provide the services" (Petite & Anderson, 1986, p. 53).

Insurance Program and Grant Program

Third party funds for occupational therapy services were available through two basic kinds of payment systems: insurance programs and grant programs. Insurance programs such as Medicare, Medicaid, Workers Compensation, and private plans paid service providers after the service was delivered. Grant programs such as Education for All Handicapped Children Act (Public Law 94-142), Community Mental Health Centers, the Older Americans Act, and Social Security Title XX--Social Services included occupational therapy as part of an overall program for a specified population. These two types of payment system were vastly different. Insurance programs were highly structured, with stringent guidelines regarding which services were covered, in what settings, and by whom. Grant programs were more flexible, allowing state or local entities to provide specially designed programs as long as they met broad national goals.
Physician Prescription and Professional Certification

There were also two general prerequisites for reimbursement of occupational therapy services: (1) physician prescription or referral, and (2) professional certification or license in occupational therapy. In Medicare, "All the services needed by a patient must be prescribed by a physician and furnished pursuant to a written plan of care initiated by the physician and developed in consultation with the appropriate therapist" (AOTA, 1984, p. 335). In both Medicaid and the Education of All Handicapped Children Act, physician prescription was also a requirement for reimbursing occupational therapy services. As a matter of fact, physician prescription and referral for treatment was generally seen as the essential element in procuring third party reimbursement for occupational therapy services (Herden, 1984). "In the effort of pursuing state licensure for occupational therapists, compromises such as the addition of physician referral have to be made" (Davy & Peters, 1982, p. 430).

In 1986, The American Occupational Therapy Association (AOTA), together with The American Medical Association, accredited 61 educational preparation programs for registered occupational therapists (OTRs) and 58 educational programs for certified occupational therapy assistants (COTAs) in the United States. Certification is provided by a certification board, which operates independently from the AOTA, and which administers a national qualifying examination. Candidates who pass the examination are then certified as a qualified practitioners. In 1990, there were 38,900 OTRs and 9,500 COTAs. (AOTA, 1991).
State and local programs were the major payment sources for occupational therapy services. In order to determine the qualifications of the health care providers, and therefore, their eligibility for payment of their services, a growing number of states required state licensure for OTRs and COTAs. By 1992, 46 states as well as Puerto Rico and the District of Columbia licensed or regulated occupational therapy practice (Low, 1992). The majority of states with licensure acts required that practitioners be graduates of an accredited educational program in occupational therapy, show evidence of successful completion of field requirements, and pass a qualifying examination in the field.

**Adaptation and Impact**

The previous sections reviewed the general environmental forces, especially the three major reimbursement sources that exist for the profession of occupational therapy. The nature and mechanisms of reimbursement were also described. This section will examine the impacts of third party payments on the forms, the settings and the procedures of occupational therapy services.

**General Pattern and Development**

Hospitals were the major settings for medical services, and occupational therapy was one part of medical services. Thus, any change in hospitals and the delivery of medical services affected occupational therapy. Table 3 indicates that the total number of U.S. community hospitals declined from 6,382 in 1984 to 6,174 in 1989.
## Table 3
Services in U.S. Hospitals

<table>
<thead>
<tr>
<th>Service</th>
<th>Hospitals Offering Services (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapy</td>
<td>26.3</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>69.8</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>--</td>
</tr>
<tr>
<td>Speech Pathology</td>
<td>21.2</td>
</tr>
<tr>
<td>Rehab Outpatient Services</td>
<td>--</td>
</tr>
<tr>
<td>Hospice</td>
<td>--</td>
</tr>
<tr>
<td>Home Care</td>
<td>--</td>
</tr>
<tr>
<td>Organized Outpatient Department</td>
<td>--</td>
</tr>
<tr>
<td>Health Promotion</td>
<td>--</td>
</tr>
<tr>
<td>Total number of hospitals</td>
<td>6549</td>
</tr>
</tbody>
</table>


At the same time, outpatient rehabilitation and home health care showed substantial growth. These trends could be attributed in part to the rising health care costs and hospital reimbursement changes (The American Hospital Association, 1989). Although the number of hospitals declined, the number of hospitals that offered occupational therapy services increased from 2,858 to 3,186 during the same period. The number of registered occupational therapists (OTRs) increased from 8,487 in
1973 to 38,900 in 1990, a four fold increase. The number of certified occupational therapy assistants (COTAs) increased from 2,010 in 1973 to 9,500 in 1990, another four fold increase (AOTA, 1990). Therefore, occupational therapy as a profession expanded rapidly and steadily.

Two major factors contributed to the expansion of occupational therapy services. The first was the set of favorable political and financial conditions. From the 1960s to the early 1980s, occupational therapy continued to enjoy a political and financial climate favorable to health care (Davy, 1984). Although Medicare’s prospective payment system (PPS) set limits on Medicare reimbursement, the overall impacts of the PPS on occupational therapy were positive. The PPS created an opportunity for occupational therapists to expand services in community and home settings. The second factor was that organized occupational therapists made great efforts in developing new legislation that covered more occupational therapy services and state licensure laws that made it possible for occupational therapists to receive third party reimbursement.

Setting of Services

The growth of occupational therapy services was not balanced in all service areas. Some areas, such as community services, home health care and services in school systems, expanded rapidly. Other areas, such as psychiatric hospitals and community mental health centers, saw very little increase or even a decrease of occupational therapy services (see Table 4 and Table 5). The distribution and the
Table 4

Primary Employment Setting for Registered Occupational Therapists (by Year)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Registered Occupational Therapists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatric Hospital</td>
<td>13.8</td>
</tr>
<tr>
<td>Community Mental Health Center</td>
<td>4.2</td>
</tr>
<tr>
<td>Home Health Agency</td>
<td>0.9</td>
</tr>
<tr>
<td>Private Practice</td>
<td>1.3</td>
</tr>
<tr>
<td>School Systems (private &amp; public)</td>
<td>11.0</td>
</tr>
<tr>
<td>College/University</td>
<td>7.0</td>
</tr>
<tr>
<td>General Hospital</td>
<td>20.5</td>
</tr>
<tr>
<td>Pediatric Hospital</td>
<td>2.9</td>
</tr>
<tr>
<td>Rehab Hospital/Center</td>
<td>13.4</td>
</tr>
<tr>
<td>Public Health Agency</td>
<td>1.6</td>
</tr>
<tr>
<td>Skilled Nursing Home/Intensive Care Facility</td>
<td>6.2</td>
</tr>
<tr>
<td>All Other</td>
<td>18.7</td>
</tr>
<tr>
<td>Total</td>
<td>99.9%</td>
</tr>
<tr>
<td>Total Employed</td>
<td>8487</td>
</tr>
</tbody>
</table>

Table 5

Primary Employment Setting for Certified Occupational Therapy Assistants (by Year)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Certified Occupational Therapy Assistants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatric Hospital</td>
<td>22.6</td>
</tr>
<tr>
<td>Community Mental Health Center</td>
<td>4.0</td>
</tr>
<tr>
<td>Home Health Agency</td>
<td>0.2</td>
</tr>
<tr>
<td>Private Practice</td>
<td>0.3</td>
</tr>
<tr>
<td>School Systems (private &amp; public)</td>
<td>3.6</td>
</tr>
<tr>
<td>College/University</td>
<td>1.5</td>
</tr>
<tr>
<td>General Hospital</td>
<td>15.1</td>
</tr>
<tr>
<td>Pediatric Hospital</td>
<td>1.5</td>
</tr>
<tr>
<td>Rehab Hospital/Center</td>
<td>9.5</td>
</tr>
<tr>
<td>Public Health Agency</td>
<td>0.5</td>
</tr>
<tr>
<td>Skilled Nursing Home/Intensive Care Facility</td>
<td>22.8</td>
</tr>
<tr>
<td>All Other</td>
<td>18.9</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
<tr>
<td>Total Employed</td>
<td>2010</td>
</tr>
</tbody>
</table>


The change in occupational therapy services is displayed in Table 4 and Table 5. The percentage of occupational therapy professionals (both OTRs and COTAs) who...
worked in the psychiatric hospitals and community mental health centers decreased steadily in the last 20 years. By comparison, the occupational therapy professionals who worked in the home health agencies and private and public school systems increased greatly. The number of private practiced occupational therapy professionals also increased. These figures are, of course, consistent with the previous data on hospitals.

**Occupational Therapy in Mental Health**

"The continuing shift of mental health services from state administration and state facilities to community and local administration in small group settings dramatically affected the traditional occupational therapy service delivery pattern" (Ethridge, 1984, p. 81). Some analysts warned that the practice of occupational therapy in the mental health area was endangered. The percentage of general hospitals that offered occupational therapy services increased from 45.4% in 1984 to 51.6% in 1989. During the same period of time, however, the percentage of nonfederal psychiatric hospitals that offered occupational therapy services decreased from 85% to 71% (See Table 6). Occupational therapy departments of large state facilities at one time accounted for many of the employment sites for the therapists. These proportions decreased steadily. AOTA's member data survey in 1990 also showed that the percentage of occupational therapy professionals who worked in the mental health area steadily decreased from 1973 to 1990 (See Table 4 and Table 5).
Table 6

Percentage of Occupational Therapy Units in U.S. Hospitals

<table>
<thead>
<tr>
<th>Hospital Type</th>
<th>Hospitals Offering OT Services (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1973</td>
</tr>
<tr>
<td>All hospitals</td>
<td>26.3</td>
</tr>
<tr>
<td>Federal</td>
<td>49.3</td>
</tr>
<tr>
<td>psychiatric</td>
<td>92.9</td>
</tr>
<tr>
<td>general</td>
<td>45.9</td>
</tr>
<tr>
<td>Nonfederal</td>
<td>24.8</td>
</tr>
<tr>
<td>psychiatric</td>
<td>79.1</td>
</tr>
<tr>
<td>TB &amp; other respiratory</td>
<td>49.1</td>
</tr>
<tr>
<td>long term general</td>
<td>74.3</td>
</tr>
<tr>
<td>short term general</td>
<td>17.8</td>
</tr>
<tr>
<td>nongov’t not for profit</td>
<td>22.3</td>
</tr>
<tr>
<td>investor-owned for profit</td>
<td>5.3</td>
</tr>
<tr>
<td>state &amp; local government</td>
<td>13.4</td>
</tr>
<tr>
<td>Total number of hospitals</td>
<td>6549</td>
</tr>
</tbody>
</table>


In 1973, one out of five registered occupational therapists (OTRs) and one out of four certified occupational therapy assistants (COTAs) worked in the mental health area (AOTA, 1991). By 1990, only one in twenty OTRs and one in twelve COTAs remained in the mental health area (AOTA, 1991). Twenty years ago, an expert
predicted that occupational therapy would fail in the area of working with the mentally ill (Woodside, 1971). The development of occupational therapy in the last two decades supported this prediction. What made such a rapid change of occupational therapy in the mental health area? Woodside pointed out that there were many other health care professionals who also worked with mentally ill patients. Nurses worked with patients to improve their activities of daily living. Psychologists, social workers and vocational counselors assisted clients in work evaluation and training, and job placement. Recreation therapists, music therapists, art therapists, activity therapists, and dance therapists provided services or therapies that looked very similar to those of occupational therapists. In short, occupational therapists could not adequately explain their uniqueness to the third party payers who were concerned with the rising cost of health care and the overlapping of professional services.

Decreasing government financial resources for mental health services also played an important role in the decline in the number of occupational therapy professionals in the mental health area. In the community mental health center movement, the federal role was one of providing construction and operational funds to new centers to initiate a program of mental health services on a community basis throughout the nation. The operational funding was to be for a limited period of time. Moreover, it was to be on a declining basis with the ultimate goal that the centers, to the maximum extent feasible, would become completely independent of Federal support (Kiefer, 1979).
AOTA's member data survey of 1990 also indicated that the average annual income of occupational therapists who worked in the community mental health centers was among the lowest of all occupational therapists (AOTA, 1991). With decreasing funding for mental health services, increasing competition from other health and rehabilitation professionals and the lowest annual income in the occupational therapy profession, many therapists have obviously preferred working in more structured clinic settings such as general hospitals or medical centers (Ethridge, 1984).

Occupational therapists in the mental health area tried to develop strategies to adapt to the environment pressure. The therapist was called upon to be more than a specific discipline practitioner, and to become the general case manager, providing professional consultant services. Increasing numbers of therapists are now looking toward private practice for the delivery of services rather than specialized agency employment. Therapists are learning from psychologists and counselors who have fought fiercely for recognition, state licensure, and third party reimbursement. In sum, occupational therapy as a professional discipline had to move more and more to the consultative, community-oriented, independent, private-practice model of service delivery, to avoid being superseded entirely by those from associated professional fields who were willing to adjust to a new model (Ethridge, 1984).

**Occupational Therapy in the School Systems**

In direct contrast to the situation in mental health, occupational therapy in the schools grew rapidly. The number of occupational therapy professionals who worked...
in school systems nearly doubled during the 1980s. In the school year of 1988-89, 4,207 occupational therapists were employed in the school system (See Table 7). In the school year of 1986-87, 1294 new positions for occupational therapists were needed. It was the most needed professional of that school year. The number of occupational therapists in schools increased at an average annual rate of 10% from 1982 to 1989.

As increasing numbers of occupational therapists were employed in school systems, the percentage of registered occupational therapists in school systems among all OTRs increased from 11% in 1973 to 18.6% in 1989. The percentage of certified occupational therapy assistants who worked in the schools also increased, from 3.6% in 1973 to 17% 1989 (Also see Table 4 and Table 5). This rapid expansion of occupational therapy in school systems was mainly brought about by the implementation of the Education of All Handicapped Children Act of 1975, the Education of Handicapped Act of 1986 and the Individual With Disability Education Act of 1990. However, a lack of funding to implement these acts meant that many school systems could not hire the number of occupational therapists they needed. Therefore, in many cases, occupational therapists had to serve more students than their regular work load. The strategy taken by the therapists in these situations was to adapt the service procedure by reducing the traditional one-on-one services and increasing consultation services. "The consultation relationships of school staff, families and occupational therapists emerged as a paramount role in implementing occupational therapy school-based programs" (Gilfoyle & Hays, 1979, p. 576).
Table 7
Number of Occupational Therapists Employed in School Systems, by School Years (1982-89)

<table>
<thead>
<tr>
<th>Year</th>
<th># of OTs employed</th>
<th># of OTs needed</th>
<th># needed as % of employed</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982-83</td>
<td>2,382</td>
<td>488</td>
<td>20.5</td>
<td>--</td>
</tr>
<tr>
<td>1983-84</td>
<td>2,488</td>
<td>544</td>
<td>21.7</td>
<td>+4.5</td>
</tr>
<tr>
<td>1984-85</td>
<td>2,886</td>
<td>293</td>
<td>10.2</td>
<td>+16.0</td>
</tr>
<tr>
<td>1985-86</td>
<td>3,120</td>
<td>506</td>
<td>16.2</td>
<td>+8.1</td>
</tr>
<tr>
<td>1986-87</td>
<td>3,533</td>
<td>1,294</td>
<td>36.7</td>
<td>+13.2</td>
</tr>
<tr>
<td>1987-88</td>
<td>3,938</td>
<td>713</td>
<td>18.1</td>
<td>+11.5</td>
</tr>
<tr>
<td>1988-89</td>
<td>4,207</td>
<td>699</td>
<td>16.6</td>
<td>+6.8</td>
</tr>
</tbody>
</table>


Occupational Therapy in Community and Home Health Care

During the last decade, Medicare’s prospective payment system had profound impacts on the medical and health services in general and occupational therapy service in particular. One of the major changes under Medicare’s prospective payment system was a decline in the average length of hospital stay and an increase in the use of outpatient services, home care and health promotion (See Table 3). On the one hand, the prospective payment system put financial pressure on hospitals, which may have
reduced funding for and referrals to occupational therapy. On the other hand, the prospective payment system created opportunities for the expansion of occupational therapy services in the communities and in home care. AOTA’s survey of 1985 showed that some occupational therapy activities greatly decreased under the prospective payment system, including the number of inpatient referrals to occupational therapy, funding for continuing education or seminars for occupational therapy staffs, the average length of hospital stay for occupational therapy treatment, and the number of inpatient occupational therapy treatments. Those areas where occupational therapy activities increased under the prospective payment system included patient transfers to alternate treatment settings, occupational therapists’ involvement in hospital discharge planning activity, the number of discharged patients referred to home health occupational therapy, the number of discharged patients referred to skilled nursing facilities, and the number of outpatient occupational therapy treatments (see Table 8).

With this change from institutional services to community and home services, growing numbers of occupational therapy professionals began to work in home health agencies or engaged in private practice. The percentage of professional occupational therapists, including both registered occupational therapists and certified occupational therapy assistants, who worked in home health agencies or private practice increased from about 2% in 1973 to 11% in 1990. (See Table 4 and Table 5).
Table 8

Impacts of Medicare Perspective Payment System on Selected Occupational Therapy Activities* (percentage of facilities responding)(N=1044)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Increases</th>
<th></th>
<th></th>
<th>Decreases</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under PPS</td>
<td>Not under PPS</td>
<td>Under PPS</td>
<td>Not under PPS</td>
<td></td>
</tr>
<tr>
<td>Patient transfers to alternate treatment setting</td>
<td>66.7</td>
<td>39.9</td>
<td>1.5</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Number of referrals to OT</td>
<td>32.0</td>
<td>29.9</td>
<td>32.4</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>OT documentation</td>
<td>41.7</td>
<td>47.9</td>
<td>1.1</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Funding for continuing education/seminars for OT staff</td>
<td>4.7</td>
<td>7.3</td>
<td>32.0</td>
<td>23.8</td>
<td></td>
</tr>
<tr>
<td>Average length of hospital stay (patient treated in OT)</td>
<td>2.7</td>
<td>4.5</td>
<td>73.0</td>
<td>40.7</td>
<td></td>
</tr>
<tr>
<td>OT involvement in hospital discharge planning activity</td>
<td>37.0</td>
<td>31.6</td>
<td>5.5</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Number of discharged patients referred to home health OT</td>
<td>55.9</td>
<td>25.2</td>
<td>3.3</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Number of discharged patients referred to nursing facility</td>
<td>60.2</td>
<td>23.4</td>
<td>2.0</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Number of inpatient OT treatment</td>
<td>32.6</td>
<td>33.8</td>
<td>44.5</td>
<td>16.7</td>
<td></td>
</tr>
<tr>
<td>Number of outpatient OT treatment</td>
<td>56.8</td>
<td>41.0</td>
<td>13.7</td>
<td>5.7</td>
<td></td>
</tr>
</tbody>
</table>

*The survey asked respondents, based on their experience with PPS implementation, to indicate whether activity in the listed areas had increased, shown no change, decreased, did not apply, or was unknown. Those areas listed above showed at least a 20% increase or decrease.

Source: Gray, M.S. (1985, June 1). Occupational therapy use rises under PPS. Hospitals, p. 60-61.
Organizational Forms of Services

Third party payments also had an impact on the organizational form of occupational therapy services. Twenty years ago, the overwhelming majority of occupational therapists were employed in hospitals or rehabilitation centers. They were employees of medical and health care agencies, and services were provided in the hospitals or clinics. However, the reimbursement sources have changed since the mid-1970s. The school systems with tight budgets could not hire the number of occupational therapists they needed. Mental health agencies suffered significant budget cuts. Hospitals, under fiscal pressure, tried to move patients to rehabilitation units or to home health agencies as early as possible.

Under the new situation, a new organizational form of occupational therapy service emerged: the self employed occupational therapists who provided services through contracts. The percentage of registered occupational therapists (OTRs) who were self employed increased from 12% in 1977 to 26% in 1990. The percentage of OTRs who engaged in private practice also increased, from 2% in 1977 to 8% in 1990 (See Table 9). The use of independent contractors or "contract" therapists had advantages for both home health agencies and for individual therapists. It was cost effective for the home health agencies because they did not provide these self-employed therapists with fringe benefits, annual sick or educational leave, or equipment. Moreover, the staff could be expanded or contracted to meet agency needs without making expensive commitments to full time employees. Contract
Table 9

Self-employed and Private Practice Occupational Therapists

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Registered Occupational Therapists

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Self-employed*</th>
<th>Private practice**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered OTRs</td>
<td>8487</td>
<td>38900</td>
</tr>
<tr>
<td>%</td>
<td>12.3</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Certified Occupational Therapy Assistants

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>5373</th>
<th>6500</th>
<th>9500</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>5373</th>
<th>6500</th>
<th>9500</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Self-employed*</th>
<th>Private practice**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number COTAs</td>
<td>2011</td>
<td>5373</td>
</tr>
<tr>
<td>%</td>
<td>8.0</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*Question asked:  Are you self-employed (that is, are you paid either on a contractual basis or directly by your patient/client or his agent)?

**Chosen as a primary employment setting.


therapists also maintained high productivity level, and the home health agency was reimbursed for their services by third party reimbursers at a rate that includes the therapist's fee and the home health agency's overhead. Thus, the cost of providing occupational therapy services was completely funded by third party reimbursement.
As an independent contractor, the therapist could have a flexible schedule, allowing time to develop other practice or interest areas such as office practice, graduate work, consultation, teaching, or raising a family. In addition, the therapist could benefit from all the other advantages of self-employed status. Hiring contracted therapists was also one of the best strategies for schools or mental health agencies that had very tight budgets.

Procedure of Services

Third party reimbursement affects the ways in which occupational therapy services are provided. Specifically, third party reimbursement affects the definition of occupational therapy, the practice of occupational therapy, the technology used in the treatment and the role played by occupational therapists in the treatment.

The definition of occupational therapy has, most clearly, been shaped by changing reimbursement patterns. What occupational therapists do is defined at least in part by what is reimbursed. In addition, what is not covered is outlined so that therapists do not perform non-covered services (or at least they do not define what they do in a non-covered manner). "The Guidelines for submitting Claims for Outpatient Occupational therapy Services" in the Medicare Outpatient Physical Therapy and Comprehensive Outpatient Rehabilitation Facility Manual (Department of Health and Human Services, 1989), defines the services that are covered under Medicare Part B. One important feature of this document is its definition of what constitutes occupational therapy. Simply put, if it is not in the Guideline, it is not
reimbursed. Therefore, clinicians cannot perform or document services that are not in the guidelines if they wish to obtain reimbursement under Medicare Part B. Because this document is becoming a standard used by most insurance companies, its significance in defining the content of occupational therapy is substantial.

Because the descriptions of the coverage available in various practice areas are used by occupational therapists in documenting their services, occupational therapists must now treat within the boundaries of these descriptions. Clinicians may therefore find themselves changing or limiting their modes of treatment to comply with reimbursement restrictions. "Many times, because of a patient's lack of health insurance, we must turn even the most appropriate treatment candidates away from our department" (Burke and Cassidy, 1991, p. 174). Not only the frequency but also the nature of treatment has changed. Clinicians are now asked to provide diagnosis-based treatment protocols that will guarantee coverage for services. These protocols may or may not fit in with individual patient needs (Burke and Cassidy, 1991).

The current climate of cost containment may also have an effect on available treatment technology. Aaron and Schwartz (1984) speculated that in the case of high-technology equipment, the demand will be fully met in some cases, while in others, constraints on expenditures will reduce either quality or quantity. This could lead to greater access to technology for those who can pay and less access for the poor (Aaron & Schwartz, 1984).

Traditionally, occupational therapy services were provided directly by a therapist to a patient on one-to-one basis. However, financial pressures may force therapists
to change this mode of treatment. In school systems, the shortage of therapists is so
great that it is difficult to meet the demands for occupational therapists. Occupational
therapists are developing "transdisciplinary treatment", meaning that the occupational
and physical therapists tell the teacher what to do or write out the treatment plan to
be carried by the teacher. In the mental health area, under the pressure of competition
from other health practitioners and financial restraint, occupational therapists are also
moving toward the services pattern of consultation and supervision.

Documentation Process

Documentation requirements may seem trivial when compared with the complex
and, at times, overwhelming degrees of disabilities that patients present. However,
responsibility for proper documentation of services is as important as the selection of
the most effective treatment approach or the provision of the best clinical care. This
is because documentation is the only tangible evidence of the critical link between the
therapist's clinical reasoning and the patient's functional performance outcome. It
also is critical for the reimbursement for services to the therapists. Improper
documentation could result in a claim being denied or returned to the provider for
additional information, thus jeopardizing the patient's access to further treatment.

Government policies to control rising health care cost also resulted in an
increase in the number of denials of payment of services. "When reimbursement is
denied or delayed, it is often due to insufficient documentation--either the
documentation lacks technical accuracy or lacks details supporting medical necessity"
(Allen and Foto, 1989, p. 793). Many technical errors could be traced to improper coding for diagnosis and treatment (e.g., the diagnosis on the bill differs from the diagnosis of concern to the occupational therapist). Studies showed that hospital documentation and occupational therapy documentation procedures increased due to the tightening control of health cost (Gray, 1985).

Summary

The case study of occupational therapy provided materials and evidence that described how environmental factors affected organizational change and development. First, third party payment affected the development process of occupational therapy and the overall pattern of occupational therapy services. The specific relationship between occupational therapists and physicians, the distribution of occupational therapists across different settings, and the overall growth of the occupational therapy profession were among the outcomes of environmental selection.

The Great Depression in the late 1920s and early 1930s was a special historical situation in which many professions and businesses struggled to survive. Adaptation also had to be made by the therapists to survive the crisis. AOTA asked physicians to take over the training of occupational therapists and the accreditation of occupational therapy schools. Thus, occupational therapists lost their professional independence and even their identity.

In the rehabilitation movement from the 1940s to the 1960s, occupational therapists enjoyed a favorable political and financial climate and developed the
uniqueness of occupational therapy at both the clinical and the theoretical level. The cost containment effort pushed the development of self help movements, fitness programs, and preventive medicine. This social environment created needs and opportunities for occupational therapy services.

With the structural change of third party payment sources, especially Medicare’s prospective payment system and the Education of All Handicapped Children Act, occupational therapists no longer confined themselves to hospital or clinical settings. They worked in the communities or school systems, and became self employed service providers or contractors working with home health care agencies. Many became independent professional health care practitioners. As a result, they wanted their services to be reimbursed by third party payments based on their own qualifications. The variety of third party reimbursement sources created the opportunities for occupational therapists to work in various settings. It was environmental factors that initially forced occupational therapists to become assistants of physicians. It was also environmental factors, especially third party reimbursement, that pushed occupational therapists to get rid of physicians’ control and achieve their own professional independence.

Second, Under the leadership of AOTA, occupational therapists, as professionals, made great efforts in establishing state licensing laws to ensure their professional status and qualifications for receiving third party payments. Great efforts were also made in developing new legislation at both federal and state levels to extend coverage of third party reimbursement for occupational therapy services. For
example, the Omnibus Reconciliation Act of 1980 (PL 96-499) contained amendments that expanded coverage for home bound occupational therapy services. "The enactment of these amendments expanding reimbursement for occupational therapy culminated 15 years of effort by AOTA" (Mallon, 1981, p. 231).

Third, the more complex and differentiated an organization’s environment, the more likely it is that the organization will itself become more differentiated internally. With the cost containment efforts and increasing denial of payment for services, occupational therapists spent increasing time and effort in dealing with the complex, specialized, and fragmented reimbursement process. Very often, occupational therapists found it was more efficient to let the secretary or accountant, who knew the reimbursement procedure, perform the billing work.

Fourth, in the population ecology model, variation, selection and retention are the three stages of the organizational change process. There were various organizational forms of occupational therapy services, from federal or state funded agencies to private agencies, from occupational therapy departments in hospitals to self employed or contracted service providers, from group practices to private practices. Each of these organizational forms has its own characteristics for providing services. It is the environmental forces, especially the reimbursement sources, that select those forms of organization that fit the environment requirement. Medicare prospective payment system pressures hospitals to shorten patients’ hospital stays and moves occupational therapy services to the community or patient’s home. Self employed or contracted occupational therapists are the best organizational form for
the provision of occupational therapy services in the community and clients' homes. In addition, the increased occupational therapy services in school systems also demand a cost effective and flexible form of occupational therapy services. Contracted occupational therapists meet these agencies' needs. Therefore, it is environmental factors that have helped to select the specific organizational forms of occupational therapy services. As long as the prospective payment system remains in effect, these organizational forms of services will probably be maintained. The number of self-employed occupational therapists and contracted occupational therapy service providers will likely continue to increase. Moreover, when there is a fundamental change in the reimbursement of health care services such as national health insurance, new forms of organization will emerge to meet the new environment requirement.
CHAPTER V

A CASE STUDY OF VISION REHABILITATION

The second case study describes the development of vision rehabilitation and assesses the impact of the changing reimbursement system on vision rehabilitation services. There exist various forms of organizations serving the visually impaired population. The most common form of organization is the center-based blindness agency that offers comprehensive personal adjustment training (including orientation and mobility, rehabilitation teaching) and low vision services. Veterans Administration hospitals, state training agencies for the blind, and many private blindness agencies also belong to this category. Some of these organizations provide only one type of professional service such as low vision services or orientation and mobility training. Vision rehabilitation professionals can be employees of blindness agencies, clinics and schools. They may also be self employed and engage in private practice. Blindness agencies or individual practitioners may be nonprofit or for-profit in nature. Since visual impairment is a handicap of low incidence, visually impaired people tend to spread out in different geographic areas. Therefore, home service is one of the common forms of services. The individual professionals who perform home services may also be employees of a blindness agency or school systems or a self employed specialists.
The vision rehabilitation profession consists of three major groups of professionals: rehabilitation teachers, orientation and mobility specialists, and low vision specialists (such as ophthalmologists, optometrists and other low vision technicians).

Rehabilitation teachers were the original group of blind rehabilitation professionals. The first rehabilitation teachers (individuals were also known as home teacher of the blind or rehabilitation teachers of the blind), worked in Philadelphia in the 1880s, and their services were provided on a voluntary basis (Hanson, 1976). During the first decades of the various programs (1893-1940), rehabilitation teachers assumed a wide diversity of roles, including instruction in Braille and salable crafts, friendly visiting, distribution of talking book machines, and determining eligibility for financial assistance. It appears that then, as now, rehabilitation teachers were assigned duties as the need arose rather than given assignments exclusively related to the area of rehabilitation teaching (Hanson, 1976). The Cosgrove Report, a study of rehabilitation teachers, later classified the major activities of rehabilitation teachers as counseling, teaching personal management skills and communication skills, assisting clients to participate in community activities, and assisting clients to find jobs (Cosgrove, 1961).

One of the important characteristics of rehabilitation teachers in the early years was that many were themselves visually impaired. For example, of the fifty rehabilitation teachers interviewed for the Cosgrove Report, forty-seven were legally or totally blind (Cosgrove, 1961). This unique feature of early rehabilitation
personnel affected not only the rehabilitation services but also the development of the profession. On the one hand, the visually impaired rehabilitation teachers understood the special feelings and needs of being blind. They could communicate with their clients easily and set good role models for clients in adjusting to vision loss and in daily life management. On the other hand, the professional standards of rehabilitation teaching services were a major concern for the profession. Other professionals, such as social workers, occupational therapists and physical therapists, provided similar services to the visually impaired clients. Professional standards became crucial when various rehabilitation services providers competed for the same financial resources. As the Cosgrove Report indicated,

the established services for the blind were thus challenged during the depression of the 1930s by the professional standards that were being set up in the rapidly expanding social welfare services whose work was closely related to services for the blind (Cosgrove, 1961, p. 83).

The leaders in work for the blind recognized that they must meet the challenge of higher personnel standards. In 1936, The American Association of Workers for the Blind (AAWB) began to establish basic standards in the field of rehabilitation teaching. Certificates were issued to those home teachers who met the standards. Since then, the professional organizations related to rehabilitation teaching have undergone many changes, and the effort to certify rehabilitation teaching professionals continues to the present.

Orientation and mobility specialists were the second group of professionals working with the blind. Although training in the use of dog guides and in mobility
with short canes was available in the U.S. early in this century, systematic orientation and mobility training did not start until the late 1940s and early 1950s when a large number of veterans blinded in the World War II needed mobility services. Richard Hoover, a distinguished ophthalmologist, developed a system of long cane travel skills (Bledsoe, 1987). Using Hoover's system, the veteran administration hospital in Hines, Illinois, trained the first generation of orientation and mobility instructors in the early 1950s. The services provided by an orientation and mobility instructor include: training clients in awareness of their physical environment through their senses of smell, hearing, and touch, teaching clients to protect themselves using their hands and arms to detect obstacles, and teaching clients to travel safely and independently, with or without a long cane (U.S. Department of Labor, 1991).

Professional standards of mobility training were also a major concern for the first generation of orientation and mobility professionals. A conference was held in Gloucester, Massachusetts in 1953 to discuss the issue of professional standards of mobility training. Participants included not just practitioners in work with the blind but also specialists in physical education, physical medicine, ophthalmology, and clinical psychology (Koestler, 1976). Suterko, one of the pioneers in the field of orientation and mobility, recalled that a recommendation was made by the conferees that standards of orientation and mobility training should be established by the American Academy of Ophthalmology to promote the orientation and mobility training to a higher professional level. However, this recommendation was not approved by the Office of Vocational Rehabilitation (OVR) that sponsored the original
mobility training programs (Suterko, 1993). In addition, the field of work for the blind was not yet ready to accept the advanced principles and standards the participants were eager to promulgate (Koestler, 1976). Thus, although there was no guidance for mobility training from ophthalmologists, orientation and mobility professionals continued their own efforts at developing professional standards for mobility training. In the early 1960s, orientation and mobility training programs were established at Boston College, Western Michigan University and California State University in Los Angeles, to meet the overwhelming demand for mobility instructors.

Low Vision was a fairly new and rapidly growing professional area, compared to rehabilitation teaching and orientation and mobility training. It was introduced in the early 1950s by progressive agencies in several major cities. Low vision services include, functional and clinical low vision evaluation, the prescription of low vision devices, and training in the use of vision with and without devices. Low vision services were provided by ophthalmologists, optometrists or other low vision specialists, typically located in low vision clinics that were affiliated with medical centers, university hospitals, or blindness agencies.

Historical Development of Reimbursement System

The reimbursement system of vision rehabilitation can be divided into three historical stages, based on the major changes in the reimbursement system. The first stage was the early development of the vision rehabilitation profession to the early 1970s. The second stage started from 1973 when vision rehabilitation services first
received vocational rehabilitation funds. The third and current stage began in the late 1980s and early 1990s when third party payments of insurance nature became available for some components of vision rehabilitation services.

**The First Stage**

In the first stage of the reimbursement system, except for the veterans administration training program, virtually all payments for vision rehabilitation services (rehabilitation teaching, orientation and mobility training, and low vision services) were from private sources such as individual and corporate donations, bequests and legacies, product sales and investment income. "Traditionally, vision rehabilitation services have been offered to clients/students at no cost" (Piqueras, 1992, p. 11). Most rehabilitation agencies were private, non-profit in nature, and provided extensive voluntary services.

**The Second Stage**

The second stage in the development of vision rehabilitation started in 1973 when vision rehabilitation services received funding under the Vocational Rehabilitation Act and its amendments. Until 1973, vocational rehabilitation programs emphasized the employability of blind and the placement of the blind people in industry. Thus, most vision rehabilitation services were not covered (Jenkins, 1987). The Vocational Rehabilitation Act of 1973, however, placed an increased emphasis on the general rehabilitation of people with severe handicaps. A handicapped
individual was defined as a person "who has a severe physical or mental disability which seriously limits his functional capacities (mobility, communication, self-care or work skills) in terms of employability" (Whitten, 1974, p. 39). According to this definition, rehabilitation teaching, orientation and mobility, and low vision services were eligible to receive vocational rehabilitation funding. The service coverage was further expanded in the Comprehensive Rehabilitation Services Amendments of 1978. The vocational rehabilitation program would provide comprehensive rehabilitation services to improve the ability of severely handicapped people to live independently within their families or communities without reference to a vocational goal (Galvin, 1978).

With the growth of vision rehabilitation services, a need for better coordination of services, and more effective leadership in the development of vision rehabilitation profession, the two professional organizations in the field, the American Association of workers for the Blind (AAWB) and the Association for Education of the Visually Handicapped (AEVH), merged in 1984 into a new national organization, the Association for Education and Rehabilitation of the Blind and Visually Impaired (AER). These AER members came from a variety of different professional backgrounds. They were administrators, special education teachers and counselors, as well as vision rehabilitation professionals. By 1991, AER had a total of 5071 members in the United States. Among those members, 152 were certified rehabilitation teachers and 710 were certified orientation and mobility specialists (Richardson, 1992). It is not known how many rehabilitation teachers and orientation
and mobility specialists actively worked in the blindness field but did not have AER certificates.

The Third Stage

Although there was not a single event or piece of legislation that signified the change in the reimbursement system for vision rehabilitation, a new type of payment for vision rehabilitation did become available in the late 1980s and early 1990s. Some components of vision rehabilitation services started to receive Medicare and Medicaid payments. In 1990, the Health Care Financing Administration extended funding for vision rehabilitation services to Medicare-eligible persons by viewing vision loss as physical impairment. In 1991, the state of Oregon made Medicaid available for school-based orientation and mobility training. Some private rehabilitation agencies have also procured third party payments for vision rehabilitation services through other health care providers such as occupational therapists. A voucher system was an experiment to reform the service procedure under the Vocational Rehabilitation Act. These and other new reimbursement resources and mechanisms indicated a major change of reimbursement system of the vision rehabilitation services and the beginning of a new stage.

Having briefly reviewed the history of vision rehabilitation, we can see that the professions of occupational therapy and vision rehabilitation developed along different lines. Early in its history, occupational therapy followed the medical model of service delivery and was tied to the health care industry by educational standards and
financial concerns. Vision rehabilitation, in contrast, was born out of voluntary and philanthropic services and was originally supported by private financial sources. As it had for occupational therapy, the Great Depression and the associated financial pressure also challenged the young vision rehabilitation workers to establish professional standards for services. In the early development of orientation and mobility, there was even a recommendation that orientation and mobility training should be guided by ophthalmologists. However, the profession of vision rehabilitation did not follow the medical model in educational standards, the provision of services, and reimbursement. The unique background of the early vision rehabilitation and its special philanthropic financial supports made it more compatible for vision rehabilitation professionals to follow the charity model and the public provider model and work under the vocational rehabilitation system.

Nevertheless, the environment has changed and so have the sources of reimbursement for vision rehabilitation services. Third party payments have recently begun to emerge as a potential source for vision rehabilitation services. To assess the possible impact of third party reimbursement (such as Medicare and Medicaid) on vision rehabilitation services, we must first understand the existing payment system and examine the impact of the new payment system in relation to it. The next two sections will describe the major legislation related to vision rehabilitation services and the nature and mechanism of the reimbursement system as it exists today.
An Overview of Legislation and Funding Sources

Environmental Factors

Both vision rehabilitation and occupational therapy shared the same social environment. The environmental factors reviewed in the case study of occupational therapy also affected the legislation related to vision rehabilitation. Among these factors, the self-help movement, participatory health care management, and the aging population, had particular effects on the vision rehabilitation services and related legislation.

The self-help movement pushed the development of independent living programs under Title VII of the Rehabilitation Act of 1973 and its amendments of 1978, and the reauthorization of the rehabilitation act of 1992. Activists from the self-help movement hold that the disabled persons must rely primarily on their own resources and ingenuity to acquire the rights and benefits to which they are entitled (DeJong, 1980). Living independently includes managing one’s affairs, participating in the day-to-day life of the community in a manner of one’s own choosing, fulfilling a range of social roles including productive work, and making decisions that lead to self-determination and the minimization of nonproductive physical and psychological dependence on others (Nosek, 1988).

Participatory health care management, or health care consumerism, is a movement that argues consumers have the sovereignty to determine how services are organized on their behalf. In this view, disabled persons (consumers), not
professionals, are the best judges of their own interests. In the blindness field, consumer groups such as the National Federation of the Blind, have had powerful influence on legislation related to the visually impaired population. The most recent example is the reauthorization of the Rehabilitation Act in which consumers were given more freedom in the selection of rehabilitation services (Megivern, 1992). A voucher system of purchasing rehabilitation services is also promoted by the visually impaired consumers.

In recognition that the growing population of elderly is in need of vision rehabilitation services, legislative efforts have also targeted the Medicare-eligible elderly. Nelson (1991) reported that the number of severely visually impaired older persons will increase from 2.6 million in 1990, to 3.2 million in 2000, and to 5.9 million in 2030. Thus, in the 40-year period between 1990 and 2030, the number of elderly Americans who are severely visually impaired will probably increase by 127%. Furthermore, the over-85 age group is the fastest growing population in the country, and one in four among this group is severely visually impaired. Clearly, such growth in the aging population will result in great demands for vision rehabilitation services.

In financing vision rehabilitation services, the federal budget deficit and the efforts toward the cost containment of health care services are making it very difficult to extend any new coverage of Medicare to vision rehabilitation services. All these environmental factors affected and will affect legislation on vision rehabilitation services.
In the previous case study on occupational therapy, the three major pieces of legislation--the Community Mental Health Center Act of 1963, the Education of All Handicapped Children Act of 1975 and Medicare's prospective payment system of 1983--shaped the overall pattern of occupational therapy services. Compared to occupational therapy, vision rehabilitation has historically received funding from more diverse sources including private donations, product sales, investment incomes, government grants (vocational rehabilitation funds and P.L. 94-142), and, recently, third party payments such as Medicare and Medicaid.

Several studies were conducted in the 1980s on the funding sources for vision rehabilitation services (Kirchner, 1984 & 1985). Kirchner reported that the most frequently covered component (by commercial health insurance companies) was the clinical low vision evaluation. A total of 27% of the survey respondents reported receiving reimbursement for clinical low vision evaluation, while only 16% received compensation for training, and 10% reported receiving compensation for devices. Related services were also reimbursed, but at even lower proportion--8% for rehabilitation counseling and 6% for orientation and mobility training (Kirchner, 1984). Medicaid coverage also varied widely from state to state. The survey also examined reimbursement for vision rehabilitation services by state vocational rehabilitation agencies. All state vocational rehabilitation agencies are funders of vision rehabilitation. Some of these agencies are also providers of vision rehabilitation services. Among the low vision clinics surveyed, vocational
rehabilitation agencies were the major funders of some components of vision rehabilitation services.

In addition to the above funding sources, Medicare and Medicaid provided reimbursement to more than 40% of the low vision clinics surveyed. Reimbursement was also received from some service clubs such as the Lions, the Veterans Administration, public education systems, and on a limited basis, private commercial insurance. To a lesser degree, reimbursements were received from Workers Compensation, Title XX of the Social Security Act, the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), Health Maintenance Organizations (HMOs), and Federal Employees Health Benefits Program (Kirchner, 1985). Clearly, there was extraordinary variety in the sources of support for vision rehabilitation services.

Traditional Private Supports

Private donations, bequests, endowments and United Way funds, historically, have been the major financial supports for vision rehabilitation services. The fund raising efforts of private rehabilitation agencies for the blind have always been successful in the past. However, these traditional funding sources appear to be decreasing. In 1979, persons with incomes of over one million dollars (in 1991 dollars) donated over 7% of their after-tax income to charities. In 1991, the figure is less than 4% (Barringer, 1992). Studies also show that Americans have not been as generous to charities in their wills as they previously were. For example, in 1976,
for all bequests of a least half a million dollars, 10% were left to charity; in 1986 the number had decreased to 6.3% (Barringer, 1992). Carl Augusto, president of the American Foundation for the Blind, indicated that blindness no longer attracts the attention and the dollars it once did. AIDS, homelessness, drug abuse: they are grabbing the headlines and also grabbing the funding (Augusto, 1992).

Rehabilitation Act of 1973

Since the Rehabilitation Act of 1973, vocational rehabilitation funds have been the major payment source for all components of vision rehabilitation services including rehabilitation teaching, orientation and mobility, and low vision. With the increasing demands for rehabilitation services from the aging population and the pressure from visually impaired consumers for more freedom in the selection of rehabilitation service, the reauthorization of the rehabilitation act in 1992 increased the funding in the area of independent living services for elderly blind persons. The original Title VII, Part C of the rehabilitation act was redesignated as Chapter Two of Title VII, which guarantees a base grant of $225,000 to every state serving elderly blind persons. Moreover, the consumer focus is evident throughout the new law. There are provisions intended to assure active client involvement in the development and implementation of the Individualized Written Rehabilitation Plan (Megivern, 1992).

Although federal vocational rehabilitation funds increased every year, many states often have difficulties matching the federal funds (80% federal and 20% state)
because of the budget crises that have occurred. With the required increasing costs to support the unemployed and their families, many states have had no alternatives but to reduce state services and lay off employees. "State vocational rehabilitation agencies for the blind, separate agencies for the blind, and state schools for the blind are constantly under pressure to either merge or to extinguish" (Augusto, 1992, p. 473).

In Ohio, for example, state budget cuts imposed during 1991 and 1992 amounted to 8.9%. This degree of funding cuts resulted in a loss of $1.6 million in state monies, and reduced the amount of federal funds the Rehabilitation Services Commission (RSC) earned by $5 million. The underfunding of the RSC has let approximately $19 million in federal funds available to Ohio go unused (Ohio Rehabilitation Service Commission, 1993).

Through hiring freezes and early retirements, nearly 300 employees have left the RSC. Moreover, it is predicted that if the hiring freeze continues over two more years, additional staff reductions will be necessary, and 8-12 field offices will be closed. The end result is the capacity to serve Ohioans with disability will be decreased from 30,000 to 25,000 persons per year and an increase in waiting lists for services by 50% to 100% (Ohio Rehabilitation Service Commission, 1993).

The Education of All Handicapped Children Act of 1975

This legislation had great impact not only on occupational therapy, but also on some components of vision rehabilitation services. The legislation covered all or part
of the clinical low vision evaluations, training and devices for children. Moreover, orientation and mobility training was one of the related services to be provided for meeting the travel needs of visually impaired students. Therefore, many school systems found themselves in the position of hiring full time mobility specialists or purchasing mobility services from blind rehabilitation agencies or individual orientation and mobility specialists.

Legislative Activities

In the case study of occupational therapy, one of the successful strategies employed in dealing with environment pressures was to attempt to shape the environment itself. On the one hand, third party reimbursement substantially affected the definition and procedure of occupational therapy services. On the other hand, the therapists could push the development of new legislation designed to extend the coverage of occupational therapy services or provide new reimbursement sources.

Because of the decline of traditional private financial support for vision rehabilitation services and shrinking vocational rehabilitation funds resulting from the state budget cuts, vision rehabilitation professionals are under pressure to develop new reimbursement sources for services of the visually impaired. One major potential source is third party payment of an insurance nature such as Medicare, Medicaid and other commercial insurance programs.

In 1990, the Health Care Financing Administration (HCFA) made a significant breakthrough when it extended funding for vision rehabilitation services to Medicare-
eligible persons by viewing vision loss as a physical impairment. In order for these vision rehabilitation services to be reimbursable, however, they must be deemed medically necessary and reasonable. Vision rehabilitation training, therefore, can be reimbursed only if billed through a doctor's office or in a hospital/rehabilitation facility (Fletcher & Weinstock, 1991).

Several other attempts were also made to cover various aspects of the vision rehabilitation services through legislation. These efforts included requests to fund the components of vision rehabilitation services as well as funding only specific components. Many federal legislators initiated efforts to expand Title XVII of the Social Security Act (Medicare) to include payment for low vision evaluation, devices, and training. In 1977, the late Congressman Claude Pepper (D-FL) introduced legislation to amend the Medicare program to include services provided in a rehabilitation facility for persons who are blind or visually impaired. This would have included services provided by orientation and mobility specialists and rehabilitation teachers. Such services could be provided at a rehabilitation facility, in a hospital or nursing home, and on a home health care basis. This effort failed.

Congresswoman Barbara Mikulski (D-MD) introduced legislation in 1983 that called for two modifications of Medicare legislation--reimbursement for eye examinations under Medicare when provided by a state-licensed practitioner and the same coverage for the clinical low vision evaluation for patients who are legally blind. The first modification became an amendment to the existing Medicare legislation. The second modification was supported by numerous groups such as the American
Optometric Association, the American Council of the Blind, and the American Foundation for the Blind. However, it was lobbied against by the American Academy of Ophthalmology because it did not include coverage for people with partial sight. As a result, it was not included in the amendments that were presented to Congress.

In 1983, when Title XVIII of Social Security Act legislation (Medicare) was amended to include occupational therapists as reimbursable under Part A of Medicare, efforts were also made to include orientation and mobility specialists and rehabilitation teachers as service providers for people with visual impairments. These efforts also failed.

In 1986, Congressman Edward R. Roybal (D-CA) commended Congress for working toward the establishment of a U.S. Health Program (H.R. 200). He recommended that H.R. 200 also include vision rehabilitation services and devices to people with severe visual impairments. He also argued for the inclusion of orientation and mobility and rehabilitation teaching services in the medical and other services category. Again, efforts failed.

A recent change in the Medicare Law allows the Secretary of Health and Human Services to determine which professions may be considered eligible for reimbursement. The law states that reimbursement is possible for physical and other health care practitioners, physicians assistants, midwives, psychologists, nurses, clinical sociologists, occupational therapists, physical therapists, respiratory therapists, or any other practitioners as may be specified by the Secretary. Orientation and mobility specialists and rehabilitation teachers might be defined by the Secretary as
falling into this last category. Efforts have been made by vision rehabilitation service organizations, including Association for Education and Rehabilitation of Blind and Visually Impaired (AER) and the American Foundation for the Blind, to request the Secretary of Health and Human Services to issue regulations that identify orientation and mobility and rehabilitation teaching therapists as qualified practitioners for reimbursement. To date, the request has not gone through to the Secretary of HHS. The response from Medicare headquarters was that orientation and mobility and rehabilitation teaching services were not considered as medically necessary and reasonable and that the services were not prescribed by physicians. Therefore, these services could not be reimbursed by Medicare (Plunkett, 1993).

The federal budget crisis was, of course, one of the major reasons for these unsuccessful legislative efforts. It is extremely difficult, given the current situation, to expand any new coverage of any health services under the Medicare program. In addition, Rosenbaum, executive director of the Carroll Center for the Blind, argued that hospice was not a medically necessary service, but it was covered by Medicare. Therefore, it should still be possible to get Medicare payment for vision rehabilitation services (Rosenbaum, 1992). However, as Plunkett, a political consultant in the blindness field pointed out, there was a disagreement among vision rehabilitation professionals on the issue of third party payment. Some were for it, some were against it. Without the joint efforts from the professionals in the blindness field, the legislative efforts on developing third party payment would not be successful (Plunkett, 1993). This situation is compounded by the fact that, compared to
occupational therapists, there are relatively small numbers of vision rehabilitation professionals.

Nature and Mechanism of Payment System

Private Funds and Public Funds

Before 1973, vision rehabilitation services were primarily funded by private sources. Federal and state funds had been available for vision rehabilitation services since the Vocational Rehabilitation Act of 1973. However, as recently as 1982, it appeared that the major financial support for vision rehabilitation still came from private sources. Kirchner's study (1983) of funding sources for 195 private agencies serving blind and visually impaired persons in 1982 showed that an average of only 23% of total funding sources for the agencies came from federal, state or local government, while 78% was still from private sectors such as product sales (38%), bequests and legacies (10%), investment income (10%), individual direct mail solicitation (5%), the United Way (4%), endowments (3%) and fees (2%) (Kirchner, 1983).

In the last decade, however, there may have been a structural change in the funding sources for vision rehabilitation. The survey on third party payment of vision rehabilitation services conducted at Western Michigan University in 1991 showed that an average of 60.2% of the total funding sources for personal adjustment services (including rehabilitation teaching, orientation and mobility, and counseling) came from
federal and state governments, 31.9% was from the private sources and 7.9% was out-of-pocket payment. In financing low vision services, 12.1% of all payments were third party payments such as Medicare and Medicaid. Another 44.4% came from other federal and state programs, and 10.4% was self payment. It is clear that the government is playing an increasingly important role in the financing of vision rehabilitation services (See Table 10).

Table 10

Funding Sources for Low Vision (LV) and Personal Adjustment (PA) Services (N=92)

<table>
<thead>
<tr>
<th>Sources</th>
<th>LV 1991</th>
<th>PA 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Programs</td>
<td>14.4</td>
<td>21.8</td>
</tr>
<tr>
<td>State Programs</td>
<td>30.0</td>
<td>38.4</td>
</tr>
<tr>
<td>Medicare/Medicaid</td>
<td>12.1</td>
<td>--</td>
</tr>
<tr>
<td>Private Insurance</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Self Paying</td>
<td>32.9</td>
<td>7.9</td>
</tr>
<tr>
<td>Other</td>
<td>10.4</td>
<td>31.9</td>
</tr>
<tr>
<td>Total</td>
<td>99.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Grant Program and Insurance Program

Both occupational therapy and vision rehabilitation services receive government funding through two different programs: grant programs and insurance programs. While occupational therapy services are primarily funded through insurance programs, vision rehabilitation services are primarily funded through a grant program deriving from the Rehabilitation Act of 1973. The state vocational rehabilitation agency purchases/or provides services directly to persons with handicaps for the purpose of achieving vocational rehabilitation. Nationwide conformity with respect to process and service provision is assured by the Rehabilitation Act of 1973 through a grant-in-aid mechanism whereby funding is provided to state agencies’ contingent on approval of their respective state plans. Funding is based on state populations and per capita incomes with a matching formula of 80% federal and 20% state funds.

In this system, rehabilitation counselors play a key role in any individual rehabilitation program, from the preliminary investigation, accumulation of client data, and formulation of a vocational rehabilitation diagnosis, to the planning, arranging and provision of services. The areas and length of training are flexible, depending on the client’s needs. While there is no requirement of professional license for the service providers, more and more agencies serving the blind prefer that new orientation and mobility specialists and rehabilitation teachers be certified by the AER. Furthermore, under a grant program such as the vocational rehabilitation system, visually impaired clients do not have much freedom to choose their service providers. They must...
receive services from the designated rehabilitation agencies in the state where they live.

In contrast to such grant programs, insurance programs such as Medicare, Medicaid and other commercial insurance programs are not currently available for most components of vision rehabilitation services. Such programs are highly structured, with stringent guidelines regarding which services are covered, in what settings, and by whom. Physician's prescription or referral is a general precondition for reimbursement of services. Professional license or certification is also a requirement for service providers. Under an insurance program, clients still have the right to choose service providers, although such rights are more and more restricted.

Having briefly reviewed the funding sources and reimbursement mechanisms, we can see the payment system of vision rehabilitation is a mixture of various models. The traditional charitable supports, supplemented by vocational rehabilitation funds, indicated that the vision rehabilitation reimbursement system is a combination of the charity and public provider models (see Chapter II). However, third party payments such as Medicare, Medicaid and other commercial insurance have recently started to become available for some components of vision rehabilitation services. This new type of payment may bring about new changes in the service model of vision rehabilitation. Occupational therapy set an example for vision rehabilitation on how third party payment affects the service system. In the next section we will access the possible impact of the new reimbursement on vision rehabilitation services.
Adaptation and Impact

General Pattern and Development

Just as the three major acts of legislation and their related funding sources have shaped the overall pattern of occupational therapy services in the last 20 years, the nature and mechanism of the funding sources for vision rehabilitation have helped to develop a unique service system for the visually impaired. A brief review of the Directory of Services for Blind and Visually Impaired Persons in the United States, published by the American Foundation for the Blind in 1988, described the major features of vision rehabilitation agencies (see Table 11). Vision rehabilitation service providers were listed in two major categories: rehabilitation agencies and low vision centers/clinics. Rehabilitation agencies provided comprehensive services such as counseling, professional training, reading, rehabilitation, recreation, employment, and low vision services. Low vision centers usually specialized in low vision services.

Among a total of 261 rehabilitation agencies, 154 agencies provided one or all of the professional vision rehabilitation services such as rehabilitation teaching, orientation and mobility, and low vision services. The majority (83%) of agencies were private, nonprofit, and many of them (62%) used volunteers. The 1991 Western Michigan University survey further indicated that vision rehabilitation agencies were generally small with less than one million dollars annual budget, and serving about four hundred clients a year (See Table 12).
### Table 11

**Summary of Vision Rehabilitation Agencies**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of agencies</td>
<td>261</td>
<td>100</td>
</tr>
<tr>
<td>Number of agencies that provided O&amp;M RT and LV services</td>
<td>154</td>
<td>59</td>
</tr>
<tr>
<td>Type of agencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal or State</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Private, nonprofit</td>
<td>127</td>
<td>83</td>
</tr>
<tr>
<td>Unspecified</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Using volunteers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of agencies that use volunteers</td>
<td>96</td>
<td>62</td>
</tr>
<tr>
<td>Unspecified</td>
<td>48</td>
<td>38</td>
</tr>
<tr>
<td>Total number of low vision centers/clinics</td>
<td>184</td>
<td>100</td>
</tr>
<tr>
<td>State</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>111</td>
<td>60</td>
</tr>
<tr>
<td>Unspecified</td>
<td>66</td>
<td>36</td>
</tr>
<tr>
<td>Average number of full time members per agency (persons)</td>
<td>33</td>
<td>--</td>
</tr>
<tr>
<td>Clinic hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By appointment</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>1-30 hours/week</td>
<td>85</td>
<td>46</td>
</tr>
<tr>
<td>31-40 hours/week</td>
<td>62</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 12

Background Information of Rehabilitation Agencies

<table>
<thead>
<tr>
<th>Type of Agency</th>
<th>Annual Budget (median) (1,000)</th>
<th>Clients served (median)</th>
<th>PA Fee (mean)</th>
<th>LV fee (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All agencies (N=103)</td>
<td>$850</td>
<td>407</td>
<td>$35/hr</td>
<td>$73/hr</td>
</tr>
<tr>
<td>Federal or State (N=11)</td>
<td>$1,700</td>
<td>315</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Private (N=92)</td>
<td>$828</td>
<td>426</td>
<td>$35</td>
<td>$73</td>
</tr>
<tr>
<td>Received third party payment</td>
<td>$1,250</td>
<td>750</td>
<td>$41</td>
<td>$81</td>
</tr>
<tr>
<td>Not receive third party payment</td>
<td>$600</td>
<td>413</td>
<td>$33</td>
<td>$49</td>
</tr>
<tr>
<td>Provided personal adjustment (PA) services only (N=48)</td>
<td>$720</td>
<td>300</td>
<td>$34</td>
<td>--</td>
</tr>
<tr>
<td>Provided PA &amp; low vision (LV) services (N=44)</td>
<td>$1,150</td>
<td>775</td>
<td>$38</td>
<td>$74</td>
</tr>
</tbody>
</table>


A low vision clinic is usually headed by an ophthalmologist or an optometrist with the help of other low vision technicians. Among 184 low vision centers/clinics listed in the Directory, 60% were nonprofit. Because of the low incidence of visual impairment, most low vision clinics opened for business less than 40 hours a week.

The several pieces of legislation and government regulation also appear to have had differential impacts on the various types of vision rehabilitation professionals.
The Education of All Handicapped Children Act of 1975 (P.L. 94-142) created job opportunities in school systems not only for occupational therapists, but also for orientation and mobility specialists. The legislation guarantees visually impaired students the right to the most appropriate educational services in the least restrictive environment. Public schools have experienced a great influx of visually impaired students because of P.L. 94-142, and specialized personnel, such as orientation and mobility specialists, have had to be hired to serve the growing population. By 1980, the number of budgeted orientation and mobility vacancies in public schools was greater than in any other employment setting. Approximately 21% of all orientation and mobility positions were in public schools in 1970, 24% in 1973, 32% in 1980 and 34% in 1985 (Uslan, Hill & Peck, 1989).

**Charge Fee or Not?**

As discussed earlier, the traditional charity support and vocational rehabilitation funds affected the nature of rehabilitation services for the blind and the way the services were organized and delivered. Free services and the use of volunteers were the major feature of the service system for the blind until the recent past. When third party payment of an insurance nature became available for vision rehabilitation services, it challenged the old tradition of free service and imposed new certification requirements on service providers that may preclude using volunteers.

Traditional service providers simply do not charge any fees for services, let alone adapt their services procedure to procure third party reimbursement. These
private service providers want to maintain the long tradition of free services. When many agencies were founded, their main functions were to provide blind people with sustenance and some substitute for idleness. Today, their functions include a wide variety of rehabilitation services with the goal of socially integrated, and often economically productive independent living. No tradition dies easily, regardless of the pressures placed on it.

The 1991 Western Michigan University survey of directors of blindness agencies (Ponchilia, P., Wilson, M., Bowen, K., & Liu, T., 1991) showed that the directors of those small agencies that received neither federal/state funds nor third party reimbursement for their services were less interested in third party payment and in the licensing of the vision rehabilitation practitioners (See Table 13 and Table 14). These small agencies were the traditional private, non-profit agencies, primarily funded by private financial support, that provided various voluntary services. These agencies may feel the pressure of increasing needs for services, but they appear to try and maintain the tradition of free services and solve the pressure of growing need within the existing funding structure. This may be a practical and effective strategy for small agencies to deal with the issue.

In comparison to the small agencies, the directors of medium and large agencies that received federal/state funds or third party payments for their services were more interested in getting third party payment and in licensing vision rehabilitation practitioners (see Table 13 and Table 14). Those agencies hired different types of rehabilitation professionals, served clients with different disabilities and received
<table>
<thead>
<tr>
<th>Agency</th>
<th>Agree or strongly agree %</th>
<th>Neutral %</th>
<th>Disagree or strongly disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All agencies (N=103)</td>
<td>90</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Federal/state (N=11)</td>
<td>91</td>
<td>--</td>
<td>9</td>
</tr>
<tr>
<td>Private (N=92)</td>
<td>90</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Received third party payment</td>
<td>98</td>
<td>--</td>
<td>2</td>
</tr>
<tr>
<td>Not received third party payment</td>
<td>79</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Size of agencies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>81</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Medium</td>
<td>100</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Large</td>
<td>100</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Funding structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No federal/state funds</td>
<td>74</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>1-79% funds from fed/state</td>
<td>95</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Over 80% funds from fed/state</td>
<td>96</td>
<td>4</td>
<td>--</td>
</tr>
</tbody>
</table>

* Question: if it were available we would take advantage of third party payments for rehabilitation and clinical low vision services.

Table 14

Attitude Toward Licensing Vision Rehabilitation Practitioners*  
(By Type of Agency)

<table>
<thead>
<tr>
<th>Agency</th>
<th>Agree or strongly agree</th>
<th>Neutral</th>
<th>Disagree or strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>All agencies (N=103)</td>
<td>62</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Federal/state (N=11)</td>
<td>45</td>
<td>37</td>
<td>18</td>
</tr>
<tr>
<td>Private (N=92)</td>
<td>64</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Received third party payment</td>
<td>74</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Not received third party payment</td>
<td>51</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Size of agencies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>59</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td>Medium</td>
<td>64</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>Large</td>
<td>78</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Funding structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No federal/state funds</td>
<td>39</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>1-79% funds from fed/state</td>
<td>71</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Over 80% funds from fed/state</td>
<td>76</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>

* Question: Rehabilitation practitioners will need to be licensed to receive third party payment.

payment from different sources. They felt the financial pressure, saw the alternative payment sources as a possible solution to the increased need, and were ready to make the necessary adaptation to get those payments. These agencies appear to be the driving force behind the development of third party payment in vision rehabilitation.

For Profit or Nonprofit?

The next direct impact of third party payment is on the very goal of vision rehabilitation services. Profit seeking is one of the key economic principles followed by physicians and mainstreamed rehabilitation practitioners such as occupational therapists and physical therapists in providing their services. Because of their unique set of funding sources and historical background, most vision rehabilitation agencies are private, nonprofit agencies. Services are provided based on clients’ needs, not on their ability to pay or on their access to insurance coverage. Indeed, one of the accreditation standards for blind agencies stated that within the limitations of agency resources and policy, no services should be denied to anyone unable to pay (Koestler, 1966).

One advantage of nonprofit service is that the arrangement of the training schedule and the length of services are flexible depending on the clients’ physical and psychological conditions. This flexibility has proven to be very important for vision rehabilitation practitioners who work with mentally retarded or multiply handicapped clients. It takes time to perform a good functional low vision evaluation in which clients try different devices, see objects from different angles, and work under
different lighting conditions. The disadvantage of nonprofit services is that there is no competitive pressure on the service providers to perform their jobs in the most efficient and effective ways. Accountability is also a major issue.

Third party payment will more than likely open the door for profit making vision rehabilitation services. Insurance companies will almost certainly impose more restrictive conditions on the length and procedures of services. In other words, the services provided must be accountable. Moreover, insurance payment is not just given to a specific group of service providers. It is given, through competition, to those qualified service providers that follow the required reimbursement procedures. The improvement in the quality of services and the increase in competitive ability is the key to receiving third party payment. Those service providers who provide good services will get more clients and earn more money. Therefore, a major impact of third party payment on vision rehabilitation is the development of for-profit services.

Adapt or Die?

Environmental theories suggest that organizations adapt to their environments by changing their structure. The case study of occupational therapy demonstrated that an adaptation was made in order to achieve the survival of the organization. During the Great Depression of the early 1930s, occupational therapists chose to sacrifice their independence to save their professional organization and their services. In the battle for state licensure and third party payments, occupational therapists had to make compromises, such as the addition of physician referral in the reimbursement policies.
With respect to vision rehabilitation, the service providers are currently not in an "adapt or die" situation. Traditional funding sources such as private donations, bequests, United Way funds, product sales and investment income, are still available for vision rehabilitation services, although it is clear that these funding sources are decreasing. In addition, the vocational rehabilitation funds, mandated by law, are still the major financial support for vision rehabilitation services. Moreover, vocational rehabilitation funds have the advantages of both comprehensive and flexible rehabilitation services to the visually impaired. In this system, rehabilitation counselors and service providers work as teams. They exchange information in the training process, and modify the rehabilitation plan as necessary to achieve the best outcome of rehabilitation.

If the experience of occupational therapy is any indication, the service procedure based heavily on third party payments would form a different relationship between medical doctors and rehabilitation service providers. A doctor's prescription or referral is the precondition for reimbursement, although most doctors know very little about vision rehabilitation. Thus, such a system would probably lack the coordination between doctors and rehabilitation service providers in the rehabilitation process. In addition, flexibility in the length and the scope of evaluation and training under the vocational rehabilitation system would be limited by third party payers.

The adaptation an organization makes, therefore, depends on both the external pressure and internal cause. "External cause is the condition of change and internal cause is the basis of change. External cause becomes operative through internal
cause" (Mao, 1972, p. 213). The increasing needs for vision rehabilitation services from the aging population and handicapped children, the decline of traditional financial support, and federal and state budget crises, are all external causes that pressure the vision rehabilitation providers to make changes. However, any changes must be made through internal cause, that is, tradition, structure and the service standards that exist in the organization. When a small, nonprofit agency, funded primarily by private sources, is able to serve its clients while following its traditional service standard, there is not an urgent need for adaptation or a fundamental change. However, when external pressures become so strong that the agencies cannot perform their task and meet the established service standards, adaptation or change must be made.

Adaptations have already been made by some agencies serving the blind to procure third party reimbursement. A report from the Committee of National Council of Private Agencies for the Blind indicated that several agencies or clinics serving the blind had been successfully billing Medicare and Medicaid for many years. These agencies billed Medicare and Medicaid for orientation and mobility, rehabilitation teaching and even low vision services, all through occupational therapy (Rosenbaum, 1992). The requirement for this reimbursement mechanism is that the agency must have certified occupational therapists as their staff members.
Form and Setting of Services

Population ecology theory suggests that organizations responding appropriately to environmental criteria are positively selected and survive, while others either fail or change to match environmental requirements. In the case study of occupational therapy, the changing environmental factors, specifically third party payments, brought an increase in the numbers of community and home health care agencies and self-employed occupational therapists in private practice. The decreasing funding sources for mental health services and increasing competition for such funding drove the occupational therapists away from the mental health agencies. Thus, third party payments are among the selective forces that make some forms of agencies and services thrive and develop, and other forms of organizations and services decline or cease to operate.

The current vision rehabilitation delivery system is shaped by the currently available funding sources. Vocational rehabilitation funds are given to agencies serving the blind through subcontracts. Private donations, bequests and United Way funds are usually given to agencies serving the blind, not to the individual practitioners. That is why center-based agencies are a more popular form than individual practice in the vision rehabilitation delivery system.

In terms of quality services, blind training centers also appear to provide the best, most comprehensive, and most cost effective services, if clients can come and stay in the center during the training period. However, many visually impaired people
are home bound clients and services must be provided in the their homes. Therefore, itinerant service usually can not achieve the ideal training result because the necessary frequency of training can not be maintained. Furthermore, itinerant services usually cost more than center based services.

According to the results of the 1991 survey (Ponchilia, P., Wilson, M., Bowen, K., & Liu, T., 1991), among private agencies serving the blind, 40% of their services were provided at the agencies, 50% were delivered at client’s home or in the community, and 10% were provided both at the agency and in the home. This can be compared to the government sponsored agencies, where 72% of services were provided in the agency, 13% at the client’s home or community, and 15% at both sites (See Table 15).

When insurance payments become available to vision rehabilitation services, the numbers of self-employed and private practice vision rehabilitation professionals are likely to increase. Under the current vision rehabilitation delivery system established through vocational rehabilitation funds, accessibility to services is one of the problems, especially for those home bound clients. Because vocational rehabilitation funds are administrated by state, the visually impaired clients in one state can only receive services provided by blindness agencies in that particular state, regardless of the distance between the client’s home and the agencies. If clients seek services from agencies in neighboring states, they have to pay for the services themselves. Blindness agencies in a state may provide itinerant services to its state residents, but these itinerant services may involve considerable travel distance, high
### Table 15

<table>
<thead>
<tr>
<th>Type of Agency</th>
<th>Number of Agencies</th>
<th>Service Center</th>
<th>Client's Home or Community</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>103</td>
<td>43%</td>
<td>46%</td>
<td>11%</td>
</tr>
<tr>
<td>Federal or state</td>
<td>11</td>
<td>72</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Private</td>
<td>92</td>
<td>40</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Provided only personal adjustment (PA) services</td>
<td>48</td>
<td>38</td>
<td>57</td>
<td>5</td>
</tr>
<tr>
<td>Provided PA &amp; low vision services</td>
<td>44</td>
<td>42</td>
<td>41</td>
<td>17</td>
</tr>
</tbody>
</table>


cost, and consequently, cannot maintain the necessary frequency of services. Under a third party payment system, all qualified practitioners could be reimbursed for their services. Thus, they would be more likely to be locally available. This, in turn, would allow visually impaired people to access the nearest services without worrying about state boundaries. Such flexibility would, of course, allow more timely service schedules, minimized travel distance, and more cost effective provision of services to those home bound visually impaired clients who live far away from their state’s service center. This form of service would almost certainly be expanded under the
insurance payment. In other words, third party payment would help to select private practice as an organizational form in the provision of services to a special group of clients.

**Procedure of Services**

Third party payment as an environmental factor helps to select not only the form of organizations serving the visually impaired people, but also the procedures of services. In occupational therapy's case study, third party payment sets the definition of reimbursable occupational therapy services and guides occupational therapists to provide certain types of services and with certain types of technology.

**Definition**

Vision rehabilitation services receive payments of different types and natures. Each type of payment has its own definition and standard for services. Traditional financial supports for vision rehabilitation, such as bequests, endowments and investment income, are philanthropic in nature. Agencies funded by such traditional sources provide various forms of free services to visually impaired people. Vocational rehabilitation funds have their own eligibility standards for services. The applicant must be an adult who is legally blind. Once an applicant is considered eligible, a rehabilitation counselor will refer the case to the service providers and the client will receive free rehabilitation services.
Insurance payments would add a different service standard to vision rehabilitation. Medicare payment, for example, requires a medical professional's prescription and referral. It also sets specific limits on the length, the frequency, and the setting of services. Because Medicaid is a state administered program, different states have different eligibility standards for services. Other government funded insurance programs such as CHAMPUS and Worker's Compensation and private insurance programs such as Blue Cross and Blue Shield have their own requirements for payment.

Insurance payment may expand the sources of financial support for vision rehabilitation, but it may also bring the restriction of services. Like occupational therapists, vision rehabilitation practitioners may find themselves changing or limiting their modes of treatment to comply with reimbursement restriction.

**Evaluation and Training Process**

Insurance programs often have strict requirements on evaluation and treatment process. In the case study of occupational therapy, one of Medicare's requirements is that "the services furnished to a beneficiary must be reasonable and necessary for treatment of the individual's illness or injury" (Andersen, 1988). Where an individual's improvement potential is insignificant in relation to the extent and duration of therapy services required, such services would not be considered reasonable and necessary and would be excluded from coverage.
Vision rehabilitation is one part of the vocational rehabilitation system. Vocational rehabilitation has established its own evaluation and training process. The normal evaluation and training process under the vocational rehabilitation system may not be considered as reasonable and necessary by insurance programs. For example, the six to eighteen month long extensive evaluation process used in the vocational rehabilitation system is seldom considered as "reasonable and necessary" by most insurance programs. Moreover, insurance programs do not put restrictions only on the length of services. They also require the specification of how services are provided. In the vocational rehabilitation system, vision rehabilitation practitioners do not have a standard procedure for the evaluation and training of their clients. In orientation and mobility training, different mobility specialists may even design different training plans that require different lengths of training period. Under the vocational rehabilitation system, this is not a problem. However, a third party payment program might well require that mobility specialists must follow the insurance guidelines in provision of services.

Technology

Traditional vision rehabilitation services usually do not involve high technology equipment. Although there are laser canes, mowat sensors and other electronic travel devices, the long cane remains the most commonly used travel device in orientation and mobility training. Daily living skills training also uses regular kitchen facilities, with some simple adapted devices for the visually impaired.
Communication skills training uses telephones, tape recorders, and tools for writing Braille. Low vision services, which are the most expensive components in vision rehabilitation, involve basic optometric equipment, magnifiers, telescopic sunglasses, and closed circuit television. It is in part for these reasons that the cost for vision rehabilitation services in general remains relatively low. The WMU survey results (Ponchilia, P., Wilson, M., Bowen, K., & Liu, T., 1991), indicated that the average charge was $35 per hour for personal adjustment services and $73 per hour for low vision services (See Table 12).

However, the development of vision rehabilitation technology is proceeding at such a rapid pace that many techniques become outdated before they are widely used. The typewriter has been largely replaced by the personal computer. The Perkins Brailler has been replaced by "Braille and Speak," an electronic typing device that can save documents and produce both print and Braille. Nomad, with its auditory and tactile outputs, enables a blind person to read maps independently. With an adapted computer and a modem, a blind person can sit at home and read an electronic newspaper and encyclopedia, do a literature search, and use banking services such as online bill paying and transferring funds from one account to another. All these new changes and new ways of communications were not available to the visually impaired as recently as five years ago. They enable visually impaired people to live and work more efficiently and more independently.

Under the vocational rehabilitation system, agencies serving the blind are not likely to be motivated to adopt new technology and new designs because there is little
competition among service providers to improve the quality of their services. The lack of financial support is another reason for an agency's slow response to new technology. When insurance payments become available to vision rehabilitation services, because they will be under competitive pressure, the service providers will be increasingly forced to adopt new technology and equipment and to improve the quality of services.

**Documentation Process**

From the case study of occupational therapy, it is clear that therapists spend increasing time and effort on a documentation process that requires technical accuracy and details supporting medical necessity. When insurance payments become widely available to vision rehabilitation services, the vision rehabilitation professionals will probably face the same situation, an increase in time and effort devoted to the documentation process.

At present, under the vocational rehabilitation system, vision rehabilitation practitioners write service reports in various forms. Because vocational rehabilitation funds are administrated by individual states, different states may have different requirements for the documentation process. Rehabilitation counselors authorize a specific number of hours of services and set the guidelines for training. Following this guideline, vision rehabilitation practitioners will further design a detailed training plan, provide related training and services, and report to the counselor who made the referral about the outcomes of the service to the clients.
Under the insurance program, the vision rehabilitation practitioners, undoubtedly, will required to prepare service reports to those third party payers, such as Medicare, Medicaid, and private insurance programs. This documentation will almost certainly include a standardized description of referral sources, qualifications of service providers, and an explanation of reasonability and necessity of the services.

Summary

Vision rehabilitation is a relatively young profession. Vision rehabilitation services grew rapidly only after the second World War. In the last 40 years, various environmental factors both directly and indirectly influenced the vision rehabilitation service delivery system. Some of the major environmental factors included legislation, government regulations, third party reimbursement, new technology and equipment, the aging of the population, and the self-help and the independent living movement. Based on the nature of reimbursement sources, the history of vision rehabilitation was divided into three stages. In the first stage, the agencies serving the blind were primarily funded by private sources. The nature of agencies was private, nonprofit, and most the services were provided to the clients free of charge. Professional license was not a requirement of the service providers and the documentation process was minimal. The second stage started with the Rehabilitation Act of 1973 when vocational rehabilitation funding was available for vision rehabilitation services. At that point, vision rehabilitation became one component of the overall vocational rehabilitation system. Many private, nonprofit
agencies subcontracted with the state rehabilitation agency to provide comprehensive rehabilitation services. The professional certification of service providers was preferred but not required. The third stage has only recently begun, and is indicated by the appearance of third party payment for some vision rehabilitation services.

From population ecology's perspective, environmental forces select those forms of organizations that best meet the requirements of the environment. The pattern and development of vision rehabilitation services were shaped by the reimbursement sources. Charity funds selected small or medium, nonprofit agencies in providing free and voluntary services to the visually impaired clients. Self-employed and private practiced service providers did not fit the charity model. Licensing of individual vision rehabilitation practitioners was not a requirement in performing their jobs under charity model. The orientation and mobility professionals had the opportunity to join ophthalmologists as the eye care professionals and achieve higher level of professionalism, but they did not take the opportunity. One could speculate that this decision was made because they could survive without professional license under the charity model. In effect, there was no environmental force to push orientation and mobility professionals to make an adaptation and work under ophthalmologists' control. In contrast, occupational therapists had to join physicians and work as their assistants in order to survive the financial crisis during the period of the Great Depression. It was the environmental force that shaped the pattern of services and guided the development of a profession.
The environment continues to change. Traditional private sources of financial supports are decreasing for vision rehabilitation. Budget crises across the states makes financing of vision rehabilitation services even more difficult. Vision rehabilitation is under pressure to seek financial sources from third party payers. There are no national policies for reimbursing the components of vision rehabilitation services by insurance programs, such as Medicare, but individual states or individual agencies have already billed some components of vision rehabilitation services through insurance programs.

In September of 1991, the state of Oregon modified its Medicaid program on school-based health services. Medicaid-eligible children in the school system may receive orientation and mobility training under the vision services.

Vision services shall be provided by licensed ophthalmologists or optometrists for services within the scope of their licensure, or trained orientation and mobility specialists licensed by TSPC (Teachers Standards and Practices Commission) basic licensure with a certificate of accomplishment in Visual Impairment, or certification in orientation and mobility (Oregon Department of Human Resources, 1991, p. 9).

Such orientation and mobility training must be required by students’ individual education plan (IEP). The two requirements of reimbursing orientation and mobility training in this insurance plan are the certification in orientation and mobility and the students’ IEP. A medical doctor’s prescription and referral are not required.

The initiation of insurance payments for vision rehabilitation started a new stage in the development of vision rehabilitation service system. Based on
environmental theories and the experience of occupational therapy, one can expect that there will be changes in the organizations that serve the blind and visually impaired.
CHAPTER VI

DISCUSSION

This comparative case study reviewed the impact of environmental factors, particularly, third party payment, on two rehabilitation professions, occupational therapy and vision rehabilitation. From the information presented, it appears that environmental factors shaped the models of both rehabilitation services and affected the development of both rehabilitation professions.

The case study of occupational therapy described how third party payments helped to select the organizational forms of services, distributed occupational therapists in different service settings, and defined service procedures. It also set requirements on the qualifications of occupational therapists and documentation process. The financial crisis during the Depression period forced occupational therapists to adapt and work under physician control. Thus, occupational therapy experienced a change in the model of services, from the business model to the medical model. Occupational therapy became one part of medical services which were reimbursable by third party payers.

The case study of vision rehabilitation described how the major financial sources such as charities and vocational rehabilitation funds helped to form the service models of vision rehabilitation, basically a combination of the charity model and the
public provider model. Under these models, the services were provided on a nonprofit basis. Volunteers were extensively used by the service agencies. Licensing of rehabilitation practitioners and physician referral were not required for the delivery of services. The service procedures and documentation were flexible. However, the service system of vision rehabilitation is currently under pressure to deal with a changing environment. The traditional funding sources are on the decrease and the demands for service are on the increase. Third party payment is beginning to emerge as a new type of payment which may help move the profession of vision rehabilitation in a new direction.

According to the population ecology theory, environmental factors select those forms of organizations that best meet the requirements of the environment. Specifically, there are four basic models of human services: the business model, the medical model, the charity model and the public provider model (See Figure 1). Each model has its organizational characteristics in the delivery of services. To speculate about the change in the model of vision rehabilitation in the future, it is necessary to review how environmental factors have shaped the service model of occupational therapy and understand how these environmental factors may or may not shape the model and pattern of vision rehabilitation services.

First, the payment source was viewed as a major environmental selection criterion. Fee for services was the primary form of payment in the early development of occupational therapy. There were no other payment sources available such as insurance or grant for occupational therapy services at that time. It was obvious that
when people could not afford to purchase occupational therapy services during the Depression years, the profession of occupational therapy was in danger. Occupational therapists had to find a way for survival. They requested physicians to establish standards for training of occupational therapy professionals and to work under physicians' control. Occupational therapy became a part of the medical model.

Compared to occupational therapy, vision rehabilitation services have traditionally been supported by a variety of financial sources including charity funds, government grants and self payments. Although charity funds are decreasing, they are still available for the vision rehabilitation services. Demanded by the providers of charity funds, free services and the use of volunteers can be expected to continue. Vocational rehabilitation funds, mandated by law, are likely to continue to be the major financial source for all components of vision rehabilitation services. Corresponding to this form of payment, group practice and serving clients at rehabilitation centers can be expected to continue. Third party payments such as Medicare and Medicaid have only just become available for some components of vision rehabilitation services in recent years. Third party payment with its requirements on the qualifications of service providers and specifications for both service procedures and the documentation process, will likely promote higher professionalism and make self practice fiscally possible.

In view of the continuing availability of the traditional payment sources, a rapid change of vision rehabilitation from the charity and the public provider model to the medical model and the business model is not likely to happen in the near
future. The multiple financial sources will help to select multiple organizational forms of vision rehabilitation services blended with service procedures and reimbursement mechanisms from the charity model, the public provider model and the medical model. No single service model is likely to prevail in vision rehabilitation because no single form of financial support is strong enough to provide the needed services to the visually impaired clients.

However, under the "blended model" of vision rehabilitation, service providers will probably experience an ethical dilemma between reimbursement-driven practices and the humanistic values of vision rehabilitation. Throughout its professional development, vision rehabilitation has continued to remain strongly oriented to the individual client. The client's goals are used to form the basis of treatment and training, and the client's active involvement is typically enlisted to ensure a successful outcome. It follows that if vision rehabilitation practitioners were to create individually designed, personally meaningful training programs, then they must spend considerable time and energy getting to know each client as a person. In this way, the practitioner could best determine what was needed. This is the traditional vision rehabilitation service supported by charity and vocational rehabilitation funds.

As the third party payers pay more of the vision rehabilitation service costs, the training plan will be dictated somewhat less by the clients' needs and somewhat more by administrative directive. Thus, vision rehabilitation professionals will be expected to practice in an economically defined health care environment where issues of reimbursement of services are highly valued. Indeed, such issues are among the
key factors to be considered when making evaluation and training decisions. Occupational therapists and many other health care providers have experienced this dilemma in serving their clients. Vision rehabilitation providers, with their long tradition of free services, may be placed in the position of having to make service decisions that may be against their tradition. Charity support and insurance programs are financial systems that have different, even conflicting natures. Vision rehabilitation providers will be hit harder by such ethical dilemmas.

Second, it has been clear that the political efforts made by rehabilitation professions have helped to shape their environments. In the last thirty years, occupational therapists made great legislative efforts in developing new financial sources for occupational therapy services and in licensing occupational therapy professionals. In vision rehabilitation, however, the multiple funding sources have made it much more difficult for the professionals to take joint political actions in achieving their goals. Service providers supported by traditional charity funds preferred to continue their efforts in fund raising and to provide free and voluntary services. They were not interested in developing third party payment for vision rehabilitation. Some were even opposed to such legislative efforts. In addition, vision rehabilitation is a much smaller professional group with only 2,000 professionals, compared to occupational therapy with over 50,000 professionals in 1990 (AOTA, 1991). The small size of the profession, compounded by internal fragmentation, explained why most of the legislative efforts for extending Medicare coverage for vision rehabilitation service or licensing vision rehabilitation professionals have not
been successful. In 1992, 46 states licensed or regulated occupational therapy practice (Low, 1992). There is no licensing law to regulate vision rehabilitation practice in any state.

Third, demographic changes, particularly, the aging of the American population, will have impacts on both occupational therapy and vision rehabilitation. However, there is a difference between the forms of financing occupational therapy and vision rehabilitation services. Occupational therapy services are provided under the medical model. Medicare and Medicaid are entitled insurance programs that help the elderly to pay the bills for receiving occupational therapy services. The elderly are insured to receive needed occupational therapy services. Vision rehabilitation services, in contrast, are not covered by insurance programs, but are supported by government grants such as vocational rehabilitation funds and other funds. The difference is that in the budget crisis, governments at both federal and state level may first cut grant programs. If this is the case, vision rehabilitation and the visually impaired elderly will suffer such budget cuts first. For example, an old, blind person may fall down and broke his bones. Because he was insured, he is eligible to receive medical and occupational therapy services which may cost several thousands of dollars. The cost will be paid by the entitled insurance program. However, the government will not pay the few hundred of dollars on training the same person to learn the mobility skills that will help him avoid falling down. This is a major problem of the U.S. health care system. Under this system, the aging of the
population will have greater impact on vision rehabilitation than it will on occupational therapy.

Fourth, consumers of health and human services play an increasingly important role in shaping the forms by which services are provided. In the field of blindness, consumer groups such as the National Federation of the Blind (NFB) and the American Council for the Blind (ACB), have great influence on the service delivery system through legislation and regulations. Like the vision rehabilitation professionals, these blind consumer groups are also divided by their philosophy of blindness and their attitudes concerning the service system for the blind. For example, the National Federation of the Blind fought against the accreditation standards for agencies serving the blind because some of the accreditation standards were viewed as limiting the performance of blind people. The Federation also disagreed with some of the accreditation standards that could prohibit a blind person to be a orientation and mobility instructor. Such disagreements among consumer groups on the forms and procedures of vision rehabilitation services, together with the multiple forms of financial support, will help to maintain a service model that blended with different natures of services and different mechanisms of reimbursement.

Fifth, the environmental selection of the best form of organizations is made through competition. Competition for resources among health care professions drives every profession to provide its clients with unique services that no other profession can provide. Occupational therapists did not develop such uniqueness in serving mentally ill patients and they failed in that area. Many third party payers such as
Medicare do not pay duplicative services provided by similar rehabilitation practitioners (Foto, 1988b). For example, if occupational therapists provide upper extremity exercises and physical therapists provide lower extremity exercises and gait training, then only physical therapy would be covered because physical therapy could also have provided the upper extremity exercises. "Services are not considered duplicative in cases where both services involved have unique treatment goals that lead to distinct functional outcomes" (Allen, Foto, Moon-Sperling, & Wilson, 1989, p. 796). Even if rehabilitation teachers and orientation and mobility specialists are identified by third party payers as qualified allied health practitioners, many of their services will be considered as duplicative (such as training on eating skills, personal management skills, and part of basic mobility training) because occupational therapists are also qualified to provide these services to people with various disabilities, including visual impairment. Vision rehabilitation professionals, therefore, still may not be eligible to receive third party payments unless they provide services that no other rehabilitation professionals can provide. The competition with other rehabilitation professionals for third party payments may well force vision rehabilitation professionals to develop their uniqueness in serving the visually impaired people.

Competition for resources with other health care professions will also make the vision rehabilitation professionals develop accountable services. In fact, accountability of services is precondition for receiving third party payment, because third party payers have to know the unit of service (by hours, by visit, or by
occurrence) for which they will pay. In processing the licensing law proposal on vision rehabilitation practitioners in Tennessee, the state legislature posed such questions as what the reasonable length of mobility training was for a regular client. Under the traditional private support and vocational rehabilitation funds, accountability of vision rehabilitation services was not a requirement. Individual practitioners may design training plans that involved different devices and techniques and require different lengths of training time. It is true that individual training plans can be different depending on the physical, psychological and mental conditions of a particular client, but broad and categorical measurements will become increasingly necessary. Diagnosis Related Groups (DRGs) are used by Medicare to pay hospitals and physicians for medical services. The ICD-9 (International Classification of Diseases) Diagnosis Codes are used to pay occupational therapy services. What is the similar code that third party payers may use to pay for vision rehabilitation services? Vision rehabilitation professionals have to develop accountable service standards and work out a reasonable code in order to receive third party payments. Without such standards and a standardized diagnostic code, other professions such as occupational therapists will be eligible for the payments under their own code.

Licensing of professionals is another requirement for receiving third party payment. Vision rehabilitation professionals have made efforts in developing state licensing laws, but these efforts have not yet been successful. The alternative route for obtaining professional license is to restructure the training program of vision rehabilitation professionals. The establishment of a joint training program for
occupational therapists and orientation and mobility specialists provides such an opportunity. The graduates are certifiable by American Occupational Therapy Association (AOTA) and are also qualified to provide orientation and mobility services that are reimbursable by third party payments. In this case, orientation and mobility professionals have had to adapt. While they lose their identity as independent orientation and mobility specialists, they gain the opportunity to join the mainstreamed rehabilitation professionals who have higher professionalism, enjoy more lucrative salaries and entrepreneurial career opportunities. They are also qualified to receive a variety of third party payments for their services.

The competition with other rehabilitation services will, therefore, push vision rehabilitation professionals to develop unique and accountable services. They must make themselves qualified health care providers through licensing law. If they fail in these efforts, they will lose not only the potential of future payment sources, but also the opportunity for professional growth and development. Other qualified health care professionals will provide their own accountable and unique services to the visually impaired clients and, may eventually, take over the field of vision rehabilitation.

In sum, third party payment was viewed as a major environmental factor that has great potential to shape the vision rehabilitation system. Other environmental factors such as political actions, demographic changes, consumers’ demands and competition pressure from other health care professions, also had direct and indirect links to the economic factor. All these environmental factors represent a changing
environment for vision rehabilitation. New opportunities for vision rehabilitation professionals to upgrade their services and achieve higher professionalism will appear. However, threats also exist that they may lose their professional field to other competing health care professions. Vision rehabilitation must evaluate its position in the health care system and formulate proactive strategies to survive and develop in the changing environment.
Appendix A

Third Party Payment to Blindness Agencies and Low Vision Clinics Questionnaire
Third Party Payment to Blindness Agencies
And Low Vision Clinics Questionnaire

1. What is your job title? ________________________________

2. Which best describes your agency? (please circle the appropriate answer)
   A. private/non profit;
   B. private, clinical/for profit;
   C. private, hospital/for profit;
   D. state;
   E. federal;
   F. other.

3. What was the approximate annual budget, fiscal year 1989-90, for your agency? $_______________.

4. Have you ever received 3rd party reimbursement for your services to a blind or visually impaired person?
   A. yes
   B. no, (if no, disregard question 5.)

5. If yes, was the source:
   A. medicare
   B. medicaid
   C. private insurance
   D. other (please specify)__________________________.

6. What was the approximate number of people who received services from your agency in fiscal year 1989-90? _____________(persons).

7. What is the major service area of your agency?
   A. within county;          B. surrounding counties;
   C. within state;          D. neighboring states;         E. unlimited

8. What are the major services provided by your agency?
   A. personal adjustment training (orientation and mobility, rehabilitation teaching, counseling and non clinical low vision services, etc.);
   B. clinical low vision services;
   C. both
If you answered A, please answer section A of this survey, 
If you answered B, please answer section B of this survey, 
If you answered both, please complete the entire survey.

Section A: Personal Adjustment Services

9. Approximately what percentage of your clients received training from:
   A. orientation & mobility services ________%
   B. rehabilitation teaching services ________%

10. Among the clients who receive personal adjustment services, approximately what
    percentage of them were trained:
    A. in the agency _____%
    B. in their home or satellite center _____%
    C. both _____%

11. What is the average fee per hour for rehabilitation services? $_______ per hour.

12. Please estimate the percentage of funding for personal adjustment training from
    each of the following sources (1989-90 fiscal year end):
    A. federal _______%
    B. state _______%
    C. third party payer _______%
    D. self paying _______%
    E. other sources _______%

Please go to Section C and complete the remaining portion of this questionnaire.

Section B: Low Vision Services

13. Is an ophthalmologist directly involved in the clinical low vision evaluations in
    your clinic?
    A. yes     B. No

14. Is an optometrist directly involved in the clinical low vision evaluations in your
    clinic?
    A. yes     B. No

15. Among the clients who receive low vision services, what percentage of them
    were trained:
    A. in the clinic _______%
    B. in their home _______%
16. What is the average fee per hour for low vision services? $________per/hour.

17. Please estimate the percentage of funding for low vision services from each of the following sources (89-90 fiscal year):
   A. federal _____%
   B. state _____%
   C. third party payer _____%
   D. self paying _____%
   E. other _____%

Please go to Section C and complete the remainder of the questionnaire.

**Section C:** Please circle the following questions with:
1=strongly agree; 2=agree; 3=neutral; 4=disagree; 5=strongly disagree

18. Developing the third party payment sources for blind rehabilitation services is not a major issue for our agency/clinic.

19. If it were available we would take advantage of third party payments for rehabilitation services and clinical low vision services.

20. Rehabilitation practitioners will need to be licensed to receive third party payment.

21. Knowing that medicare & other third party funders might restrict an individual's rehabilitation program in terms of length and type of services, I would relinquish some control to procure the additional funds.

22. I feel that blind rehabilitation services should be provided in a hospital setting in order to increase potential for third party reimbursement.

23. I am in support of licensure of blind rehabilitation practitioners (RT, O&M, Counselor, etc).

24. I would be willing to provide rehabilitation services under the prescription of a medical doctor.
25. I would spend a great deal of effort to have legislation passed providing third party payment for blind rehabilitation services

26. I would be willing to accept less than the usual pay per hour for services in order to procure third party payment.

27. Briefly describe any innovative methods through which you have procured third party reimbursement

28. Additional comments are welcomed:
Appendix B

Human Subjects Institutional Review Board Approval
Date: June 27, 1991
To: Liu Tiehan
From: Mary Anne Bunda, Chair
Re: HSIRB Project Number: 91-06-15

This letter will serve as confirmation that your research protocol, "Present Status of Third Party Reimbursement for Blind Rehabilitation Services" has been approved under the exempt category of review by the HSIRB. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application. You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The HSIRB notes that you are part of a team research project with Mary A. Wilson, Kelly Bowen, and Paul E. Ponchillia. This memo verifies that you are listed as a primary co-investigator on this project. The Board wishes you success in the pursuit of your research goals.

xc: Paul Ponchillia, Blind Rehabilitation

Approval Termination: June 27, 1992
BIBLIOGRAPHY


141


Hanson, T. (1976, September). Rehabilitation Teachers--who are we? *The New Outlook, p. 299*.


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.


