PSRO: ITS RELATION TO SPEECH AND LANGUAGE PATHOLOGY AND AUDIOLOGY SERVICES IN MICHIGAN

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY

Debra McLauchlin Osborn

1976

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ABSTRACT

PSRO: ITS RELATION TO SPEECH AND LANGUAGE PATHOLOGY AND AUDIOLOGY SERVICES IN MICHIGAN

By

Debra McLauchlin Osborn

Recent federal legislation establishing the Professional Standards Review Organization (PSRO) mandated physician and non-physician health care practitioners to become involved in the establishment of norms, standards, and criteria for their professions. The Michigan Speech and Hearing Association, through the Ad Hoc Committee on PSRO and the Committee on Community and Hospital Services has been involved during the past year in attempting to establish a system of peer review for speech and language pathology and audiology in the State of Michigan. In order to perform this task, it was necessary that available data relating to these services in Michigan be collected. As a result, a questionnaire was developed which reflected the kind of information needed in drawing up norms and standards for these professions. The questionnaires were distributed to 113 speech and hearing facilities located in Michigan. These facilities included hospitals, university outpatient clinics, outpatient rehabilitation centers, VA hospitals, State homes for the mentally impaired, and private practice clinics.

Fifty-five percent of the questionnaires were returned. The questionnaires were analyzed according to three factors: service provided, clinical setting, and population of the surrounding area.

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The interaction of these factors with the responses to questions concerned with cost of service, number of clients diagnosed and treated, and the duration of treatment was studied. These results may be beneficial to both government supported health programs and private insurance companies for the distribution of their funds to these health programs. The data can also act as an aid to speech and language pathologists and audiologists for the development of areas of clinical significance in their respective fields.

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By

Debra McLauchlin Osborn

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Accepted by the faculty of the Department of Audiology and Speech Sciences, College of Communication Arts, Michigan State University, in partial fulfillment of the requirements for the Master of Arts Degree.

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The author wishes to express sincere appreciation to all of those people without whose help this study and resulting learning experience would not have been possible.

First, I wish to extend personal gratitude to each of my committee members, Dr. Daniel Beasley, Mrs. Elaine Bailie, Dr. Paul Ginsberg, and Dr. Leo Deal, for their academic assistance and encouragement throughout the preparation of this thesis.

Special thanks also goes to the members of the Community and Hospital Services Committee and the Ad Hoc Committee on PSRO of the Michigan Speech and Hearing Association for their help and assistance in devising the questionnaire. Sincere appreciation is offered to Mrs. Doreen Kinnee for her assistance in typing and distributing the questionnaires throughout the state. Most importantly, I wish to thank all of those speech and language pathologists and audiologists throughout Michigan who took the time to fill out the questionnaire and return it.

Finally, I wish to offer my sincere appreciation to my husband, Jeff, for his never ending encouragement, patience, and help throughout the preparation of this thesis.

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CHAPTER I

INTRODUCTION

In 1972, there surfaced a growing concern among members of Congress about the continuing increase in the cost of social security supported health programs. In 1969, it cost the federal government $10,894,842,000 to support Titles V (Maternal and Child Health), XVIII (Medicaid), and XIX (Medicare) of the Social Security Act. By 1972, the increase in cost of these programs exceeded 33% over the United States fiscal year figures of 1969. It was suggested that this cost could continue to escalate in the future unless an effective control mechanism was established by the government (Dale, 1974).

The need to control the increasing high cost of social security supported health programs became a major concern of federal legislators responsible for drafting national health legislation and health policy development. Several cost-control proposals were offered as alternatives by a variety of sponsors (Dale, 1974). One such proposal, offered by Senator Wallace Bennett, called for the establishment of the Professional Standards Review Organization (PSRO). The PSRO involves licensed practicing physicians in the performance of ongoing review and evaluation of health care services covered under Medicare, Medicaid, and Maternal and Child Health Programs in hospitals and health care institutions. The responsibility of physicians comprising PSRO was to assure that health care paid for under these programs was necessary and of a quality

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comparable to professionally recognized standards of care (Michigan PSRO Support Center, 1974).

The "Bennett Amendment" to the Social Security Act was adopted into law as Public Law 92-603 by the ninety-second Congress in October, 1972. This law, as stated by Welch (1973), formed a "basis for greater changes in the practice of medicine than had been provided by any health legislation in the history of the United States" (pg. 291).

Professional Standards Review Organization (PSRO)

Two basic premises most adequately explain the purpose of a PSRO. First, that health professionals are the most appropriate individuals to evaluate the quality of their services, and secondly, that effective peer review at the local level is the soundest method for securing the appropriate use of health care resources and facilities (PSRO Program Manual, 1974).

The PSRO Program Manual (1974) specifies that the Secretary of Health, Education, and Welfare (HEW) is required to designate PSRO geographic areas throughout the United States by January 1, 1974. These initial geographical areas may be altered at any time if the HEW Secretary deems the proprosed changes warranted or necessary. Only a non-profit professional corporation representing a substantial portion of the licensed doctors of medicine or osteopathy, engaged in the practice of medicine or surgery in an established area, may serve as a PSRO. For two years the provisional PSRO will have the opportunity to prove to the HEW Secretary whether or not it can fulfill the function outlined for it. If it does succeed, the provisional PSRO will become a permanent one for that area. If by January 1, 1976, no physician sponsored PSRO

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has been formed in a designated PSRO area, the HEW Secretary can designate any organization the Secretary feels has the professional competence to be a PSRO for that area (such as insurance companies, state or local health departments, and so on) (Welch, 1973; Dale, 1974).

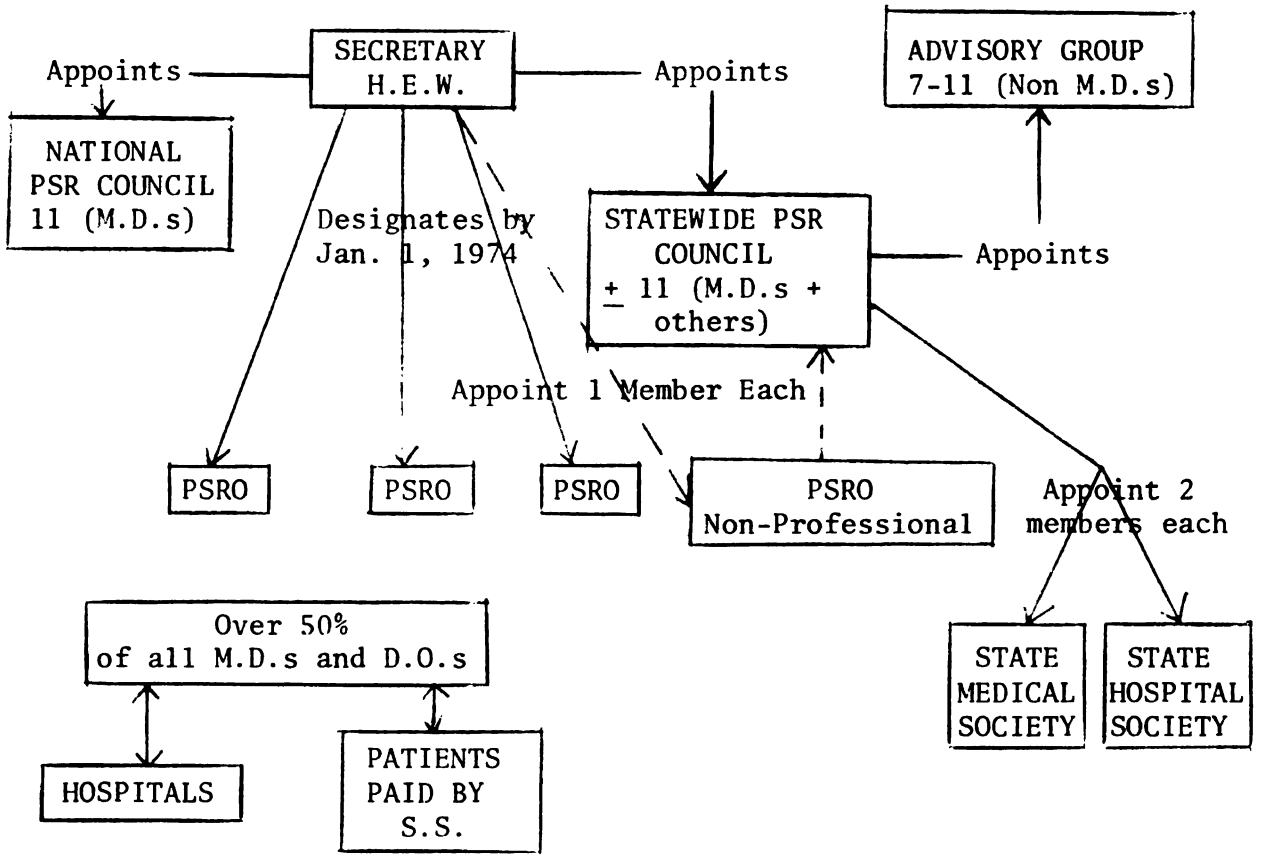
Anatomy of the PSRO

Figure I designates an organizational chart of the Professional Standards Review Organization (Welch, 1973). The primary portions of this PSRO framework are the Secretary of Health, Education, and Welfare (HEW) and the local PSRO. The local PSRO is comprised of physicians and osteopaths ranging from 300 to 2,000 or 3,000 members, depending on the size of the particular area. A state-wide Professional Standards Council is formed when there are three or more PSRO's located in a single state. This state-wide council will be appointed by the HEW Secretary and will be composed of one member from each local PSRO, two physicians recommended by the state medical society, two members recommended by the state hospital association, and four other health care practitioners from the state, of which two are recommended by the govenor of the state (Welch, 1973). The State Council coordinates activities of the state's PSRO's, helps the HEW Secretary in the development of uniform data gathering procedures, and assists in evaluating PSRO performance (Payne, 1973).

An advisory group, comprised of non-physicians and appointed by each state PSRO, will be formed. In addition, the HEW Secretary will appoint a National Professional Standards Review Council, comprised of 11 physicians (Welch, 1973). This council will advise the HEW Secretary, obtain and distribute data, and evaluate the performance of the state's councils and PSRO's (Payne, 1973).

FIGURE I

Anatomy of Professional Standards Review Organizations



Welch, Dr. Claude E., Professional Standards Review Organizations: problems and prospects. The New England Journal of Medicine, 289, 291-295, (1973).

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Duties of PSRO's

As described by Payne (1973), the primary function of the PSRO is to set up guidelines for use in reviewing the necessity and appropriateness of health care services. The various PSRO areas must collect data to be used in providing adequate guidelines from which a system of peer review may be established. Data gathered by the PSRO is to remain confidential.

Initially, PSRO's will be required to review only institutional care. Eventually, they will review professional activities of physicians and other health care practitioners, both institutional and non-institutional. Their primary concern will be in reviewing those services provided and paid for by Medicare, Medicaid, and Maternal and Child Health programs. As Payne (1973) described, PSRO review procedures will be designed to determine whether physicians and health care practitioner's services are medically necessary, whether the quality of their services meets professional standards, and whether the facility in which these services are provided is appropriate.

Non-Physician Health Care Practitioner's Involvement in PSRO Review

Health care is not necessarily limited to physician services but is provided also by practitioners of a wide variety of health care disciplines. In the PSRO Program Manual (1974) non-physician health care practitioners are defined as:

> Those health professionals which (a) do not hold a Doctor of Medicine or Doctor of Osteopathy degree, (b) are qualified by education, experience, and/or licensure to practice their profession, and (c) are involved in the delivery of direct patient care for services which are directly or indirectly reimbursed by the Medicare, Medicaid, or Maternal and Child Health programs. (Chapter Seven, Page 31, Section 730.2)

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As further stated in the PSRO Program Manual (1974), the PSRO is responsible for assuring that non-physician health care practitioners are involved in the establishment of norms, criteria, and standards for their professions. Norms are defined as the numerical or statistical measures of performance, while criteria are those predetermined elements against which the quality of service may be compared. Standards are professionally developed expressions of the range of acceptable variation from a norm or criterion. The establishment of these norms, criteria, and standards remains true for PSRO direct development and also when development is delegated to hospitals. In essence, non-physician health care practitioners will be involved in conducting health care review of their professions, will work with established continuing education programs within their professions, and will participate with physicians in reviewing committee activities where appropriate (PSRO Program Manual, 1974).

Non-physician health care practitioners also have the opportunity to serve on advisory groups to State Professional Standards Review Councils and to the PSRO's in the states which do not have Councils. These advisory groups provide an ongoing and formal mechanism for the input of non-physician health care practitioners, hospital representatives, and other health care facilities into the PSRO.

Role of Speech and Language Pathology and Audiology as a Health Care Profession

As explained by Richard J. Dowling (1974) to Senator Herman E. Talmadge, the professions of speech pathology and audiology are concerned with:

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> ...systems, structures, and functions that make human communication possible, with the causes and effects of delay, maldevelopment, and disturbance of communication, and with the identification, evaluation, and habilitation of individuals with speech, language, and hearing disorders (pg. 1).

In order to be considered "qualified providers" under Medicare and Medicaid regulations, speech pathologists and audiologists must hold a masters degree in their field of specialization and have completed a year of supervised clinical fellowship. These standards are also among those set by the American Speech and Hearing Association (ASHA) for its members in obtaining the ASHA Certificate of Clinical Competence in speech pathology or audiology. Qualified speech pathologists and audiologists serve in clinical settings such as hospitals, university outpatient clinics, outpatient rehabilitation centers, Veterans Administration hospitals, Head Start programs, and private practice (Dowling, 1974).

The American Speech and Hearing Association testimony to the United States Senate Finance Committee in 1972 focused on the issue of peer review as related to PSRO. Support was offered for the concept that all providers of medical and health care services should be held accountable for services rendered (Dowling, 1974). The Association, however, did not support a peer review concept which incorporated evaluation by individuals who did not possess the indepth professional knowledge and skills of the specific service being evaluated. Physician evaluation of non-medical health care services was opposed by the Association (Dowling, 1974). As stated by Dowling (1974), the Association specifically supported a system in which speech pathologists and audiologists review their fields of specialization as related to those services which they provide to Medicare and other recipients.

In 1975, a six month PSRO contract was awarded to the eleven independent health organizations, belonging to the Coalition of Independent Health Professions (CIHP) by the Bureau of Quality Assurance (ASHA, 1975). ASHA was chosen by CIHP to administer the grant under the direction of the Bureau of Quality Assurance (BQA). The BQA is a federal organization responsible for administering the PSRO program throughout the country (ASHA, 1975). The purpose of this contract was to implement an educational program for training health care practitioners in establishing appropriate PSRO screening criteria for their professional specialties and in conducting medical care evaluation studies (Curlee, 1975).

It has been recommended by ASHA that state speech and hearing associations establish committees which will attain norms, criteria, and standards for their areas of practice in the states (Dowling, 1974). The major intention of these committees would be to obtain data related to state services which provide speech, language, and hearing services to recipients of Medicare, Medicaid, and Maternal and Child Health programs. From the compiled date, standards for each state could be devised which would provide a review mechanism for peer assessment of speech pathology and audiology services (Dowling, 1974).

As of August, 1974, ten state speech and hearing associations in the United States have created committees for developing appropriate peer review standards for speech pathology and audiology (Dowling, 1974). In Iowa, the Peer Review Committee of the Iowa Speech and Hearing Association has drawn up a method of reviewing speech pathology and

audiology services. These professional guidelines were presented at the 1974 American Speech and Hearing Convention.

Statement of the Problem

To date, no data base exists which describes speech and language pathology and audiology services administered in hospital and clinical settings in the State of Michigan. In order to provide adequate guidelines from which a system of peer review may be established, norms describing speech, language, and hearing services given to social security supported health programs must be obtained.

With the establishment of PSRO, the need now exists to compile current data related to speech, language, and hearing services in Michigan given under Medicare, Medicaid, and Maternal and Child Health programs. The purpose of the present study was to obtain such data with the assistance of the Michigan Speech and Hearing Association (Ad Hoc Committee on PSRO and Committee on Community and Hospital Services). The data were acquired through the use of a questionnaire. Information relating to the following areas were covered on the questionnaire: type of clinical setting, services offered, location and population served, diagnostic and treatment procedures, types of cases accepted, and costs of services. Based upon the data, suggestions were made for developing standards for use in implementing a peer review system for speech and language pathology and audiology services in the State of Michigan.

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CHAPTER II

PROCEDURES

Subjects

The subjects of this study were 113 facilities in the State of Michigan which provided speech and language pathology and/or audiology services during 1974. These facilities included hospitals, university outpatient clinics, outpatient rehabilitation centers, Veteran's Administration hospitals, state homes for the mentally impaired, and private practice clinics. The names of the facilities were obtained from lists compiled by the Michigan Speech and Hearing Association. With the exception of universities the name of the facility did not always reflect the type of setting which it represented (agency, hospital, private practice, etc.). Due to this inaccuracy, the specific number of facilities in each group to which questionnaires were sent could not be determined.

Questionnaire

A questionnaire relating to speech pathology and audiology services was distributed to the subjects in July, 1975 (see Appendix A). The questionnaire contained 78 questions which were divided into three main sections.

The first section of the questionnaire related to clinical setting information. The questions in this section were used as a means of

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subcategorizing the data. This section contained seven questions concerning the location of the service, population served, and type of clinical setting. The second and third sections related to speech and language pathology and audiology services, respectively. The speech and language pathology section contained 51 questions, whereas the audiology section contained 18 questions. Both sections covered information pertaining to diagnosis and treatment procedures, types of cases accepted, staff make-up and cost of service.

Included with the questionnaire was a cover letter (see Appendix A) which described the purpose of the study and the importance of the information requested on the questionnaire. Directions were given to the directors of the facilities to answer the question using information from the year 1974. Any question that did not apply to a specific facility was to be left unanswered. In order to respond to each specific question, answers could be estimated in cases where accurate data were unavailable.

The questionnaires were mailed to 113 speech and language pathology and/or audiology facilities throughout Michigan. The subjects were allowed three weeks in which to complete the questionnaires; however, the questionnaires were accepted up until a month after this allotted time. During the three week period, members of both Michigan Speech and Hearing Association committees (Community and Hospital Services Committee and Ad Hoc Committee on PSRO) contacted these facilities by phone, explaining the importance of the information needed and answering any questions of the facility representatives. The completed questionnaires were anonymously sent to:

Michigan Speech and Hearing Association

724 Abbott Road

East Lansing, Michigan 48823

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The questionnaires were then analyzed according to three factors: service provided (speech and language pathology or audiology), clinical setting (hospital, agency, private practice, university, 'other'), and the population of the surrounding area (less than 100,000 or greater than 100,000). The interaction of these factors with the responses to questions which concerned cost of service, numbers of cases diagnosed and treated, and duration of treatment were studied.

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CHAPTER III

RESULTS AND DISCUSSION

From the 113 questionnaires distributed to speech and hearing facilities throughout Michigan, a total of 57 were answered and returned. Nine of the total were returned unopened due to the discontinuation of the service or an address change. This left a total of 104 questionnaires reaching the existing speech and language pathology and audiology services. Since 57 of these 104 were returned, a 55 percent response to the questionnaire was obtained.

Only three clinical settings were analyzed. Universities were not among those facilities analyzed because of the small percentage of return received. The facilities who listed themselves as "other" were also not analyzed. Due to the wide diversity of the facilities in this category, it was difficult to study them as a "group". Hospitals, agencies, and private practice were compared since the largest percentage of questionnaires were returned from these settings. Of these three largest responding settings offering speech and language pathology services, hospitals were the largest group with 21 questionnaires returned, agencies were second with 8, while private practice ranked third with 4 responses. In those settings which offered audiological services, 13 hospitals responded, 7 agencies, and 6 private practice clinics.

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Cost of Services

The first area examined dealt with the cost of services provided (Tables 1 - 6). Table 1 reflects the average fee per hour for a speech and language pathology evaluation in the three clinical settings as divided into populations greater than 100,000 and less than 100,000. In populations less than 100,000, the costs were similar. In populations greater than 100,000, the cost varied from $9.78 per hour in an agency to $40.00 per hour in a private practice setting. For the mean values, private practice had the highest cost of $33.75 per hour, which was close to the mean hospital cost of $27.70 per hour. However, these values were comparably greater than the mean cost of $18.64 reflected by service agencies.

Table 2 shows the average fee per hour for an audiological evaluation in the same settings and populations. In populations less than 100,000, agencies had the higher cost of $22.50 per hour for an evaluation with a limited range of $20.00 to $25.00. Hospitals in this group had an average fee of $17.50 per hour but a larger range from 0 to $40.00. No answer was given to this question by the two private practice settings responding in this population group. In urban populations greater than 100,000, there was a greater difference among the clinical settings for the cost of an audiological evaluation. A much larger cost per hour was noted in the private practice setting as compared to the hospitals and agencies. The mean value for these groups showed the hospitals and agencies to have similar fees compared to the private practice group.

Table 3 and Table 4 show the frequency distribution of fees per half hour and hour sessions, respectively, for group and individual speech and language therapy sessions. In the half hour group sessions,

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Table 1. Average fee per hour for a speech and language pathology evaulation according to clinical setting and population size.

Population	Hospital	Agency	Private Practice
Less than 100,000 (range)	27.40 (16.00-40.00)	27.50 (20.00-35.00)	27.50 (20.00-35.00)
Greater than 100,000 (range)	28.00 (15.00-35.00)	9.78 (1.60-15.00)	40.00 (40.00)
Mean (range)	27.70 (15.00-40.00)	18.64 (1.60-35.00)	33.75 (20.00-40.00)

Table

Table 2. Average fee per hour for an audiological evaluation according to clinical setting and population size.

Population	Hospital	Agency	Private Practice
Less than 100,000 (range)	17.50 (0-40.00)	22.50 (20.00-25.00)	N.A.
Greater than 100,000 (range)	26.25 (15.00-35.00	18.33 (0-35.00)	48.00 (40.00-60.00)
Mean (range)	21.88 (0-40.00)	20.42 (0-35.00)	48.00 (40.00-60.00)

N.A. = no answer

Table

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greate than 100,0	
mean	
AGENCY	
less than 100,00	
greate than 100,00	
mean	
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less than 100,00	
greate than 100,00	
mean	

Answers
N.A. = n
n = ( )

Table 3. Frequency distribution of fees per half hour for speech and language treatment according to clinical setting and population size.

	GROUP			INDIVIDUAL			
	less than $10	$10-$20	$20-$30	less than $10	$10-$20	$20-$30	N.A.
HOSPITAL							
less than (7) 100,000	50	50	0	40	60	0	29
greater than (14) 100,000	28	57	14	0	92	8	7
mean	39	54	7	20	76	4	18
AGENCY							
less than (4) 100,000	50	50	0	50	50	0	0
greater than (4) 100,000	0	100	0	67	33	0	0
mean	25	75	0	58	42	0	0
PRIVATE PRACTICE							
less than (2) 100,000	-	-	-	-	-	-	100
greater than (2) 100,000	-	-	-	-	-	-	100
mean	-	-	-	-	-	-	100

Answers expressed in percentages
N.A. = no answer
n = ( )

Table 4. Frequency distribution of fees per hour for speech and language treatment according to clinical setting and population size.

	GROUP				INDIVIDUAL				
	less than $10	$10-$20	$20-$30	$30-$40	less than $10	$10-$20	$20-$30	$30-$40	N.A.
HOSPITAL									
less than (7) 100,000	25	50	25	0	0	80	20	0	29
greater than (14) 100,000	0	57	28	15	0	25	50	25	7
mean	13	53	26	8	0	52	35	13	18
AGENCY									
less than (4) 100,000	100	0	0	0	67	33	0	0	0
greater than (4) 100,000	67	33	0	0	0	0	100	0	0
mean	84	16	0	0	34	16	50	0	0
PRIVATE PRACTICE									
less than (2) 100,000	0	100	0	0	0	50	50	0	50
greater than (2) 100,000	-	-	-	-	0	0	100	0	50
mean	0	100	0	0	0	25	75	0	50

Answers expressed in percentages
N.A. = no answer
n = ( )

Table 3 indicates that a large percentage of fees were less than $20.00 in the hospital setting. All agency group fees in this category were less than $20.00, with 75 percent of the settings ranging from $10.00 to $20.00 per half hour. No answer was supplied to this question by the private practitioners. In half hour individual sessions, 96 percent of the fees in the hospital setting were less than $20.00. Note that more individual fees ranged from $10.00 to $20.00 than the group fees for this category. No agencies charged more than $20.00 per half hour for individual speech and language treatment, but a greater percentage of group fees were at a higher cost than individual fees. None of the private practice settings responded to this question. Table 4 shows the frequency distribution of fees per hour for group and individual speech and language treatment sessions. In group therapy, the largest percentage of hospital and private practice fees for treatment was between $10.00 and $20.00 per hour. Agencies had the largest percentage of fees less than $10.00 per hour. Relative to individual therapy, most hospitals charged between $10.00 and $30.00 which was similar to that of the private practitioners. However, in the agencies there is a greater variation in fees extending from less than $10.00 to $30.00 for individual therapy. It is also important to note that 50 percent of the private practitioners did not respond to this question.

Table 5 and Table 6 show a similar comparison between the frequency distribution of fees per half hour and hour for group and individual aural habilitative or rehabilitative services. As indicated in Table 5, group fees in the hospital setting show all fees to be less than $20.00 with the largest percentage between $10.00 and $20.00. All agency half hour fees were also less than $20.00, but a larger percentage of the fees were

Table

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great than 100,0	
mean	
AGENCY	
less than (100,00	
greate than (100,00	
mean	
PRIVATE PRACTICE	
less than 100,00	
greate than 100,00	
mean	

Answers
N.A. =
n = ( )

Table 5. Frequency distribution of fees per half hour for aural habilitative or rehabilitative services according to clinical setting and population size.

	GROUP				INDIVIDUAL				
	less than $10	$10-$20	$20-$30	$30-$40	less than $10	$10-$20	$20-$30	$30-$40	N.A.
HOSPITAL									
less than (6) 100,000	67	33	0	0	50	50	0	0	37
greater than (3) 100,000	0	100	0	0	0	33	67	0	40
mean	33	67	0	0	25	42	33	0	39
AGENCY									
less than (2) 100,000	50	50	0	0	50	50	0	0	0
greater than (4) 100,000	100	0	0	0	50	50	0	0	40
mean	75	25	0	0	50	50	0	0	20
PRIVATE PRACTICE									
less than (0) 100,000	No response from this population.								
greater than (5) 100,000	-	-	-	-	0	33	67	0	20
mean	No answer				0	33	67	0	20

Answers expressed in percentages
N.A. = no answer
n = ( )

Table 6. Frequency distribution of fees per hour for aural habilitative or rehabilitative services according to clinical setting and population size.

	GROUP				INDIVIDUAL				
	less than $10	$10-$20	$20-$30	$30-$40	less than $10	$10-$20	$20-$30	$30-$40	N.A.
HOSPITAL									
less than (6) 100,000	67	0	33	0	40	20	40	0	37
greater than (3) 100,000	0	0	0	100	0	0	0	100	40
mean	33	0	17	50	20	10	20	50	39
AGENCY									
less than (2) 100,000	0	100	0	0	0	100	0	0	0
greater than (4) 100,000	100	0	0	0	33	0	67	0	40
mean	50	50	0	0	17	50	33	0	20
PRIVATE PRACTICE									
less than (0) 100,000	No response from this population.								
greater than (5) 100,000	-	-	-	-	0	0	33	67	20
mean	No answer.				0	0	33	67	20

Answers expressed in percentages
N.A. = no answer
n = ( )

less than $10.00. No answer was given for group fees by private practitioners. In individual sessions, 33 percent of the hospital fees were greater than $20.00 per half hour. None of the agencies charged over $20.00. Private practice settings greater than 100,000 responded with their range of individual fees between $10.00 and $30.00, with 67 percent ranging from $20.00 to $30.00

In Table 6 the frequency distribution of fees per hour for group sessions indicates a large variation in hospital fees with 33 percent charging under $10.00 and 67 percent charging between $20.00 and $40.00 per hour. The agencies all charged less than $20.00 per hour. No group fees per hour were given by those private practitioners responding to the question. In individual sessions, fees were again largely varied in the hospital setting. Agency fees were also variable but all under $30.00, whereas private practice fees ranged from $20.00 to $40.00 per hour.

Numerous questions were asked about the percentage of revenue obtained for clients with various disorders receiving speech and language pathology services. These disorders included neurological problems, voice problems, delayed language, cleft palate, functional articulation problems, and dysfluency problems. Table 7 through Table 12 reflect the percentage of revenue obtained for these disorders. Table 7 reflects the percentage of revenue obtained for clients with neurological disorders receiving speech and language pathology services. Seventy-one percent of the hospital-treated clients, whose ages ranged from 0 to 25 years, obtained revenue from third party payers. This left only 29 percent of these clients requiring private patient patyment. Likewise, clients in this age range treated by private practitioners used 100 percent

Table 7. Percentage of revenue obtained for clients with neurological disorders receiving speech and language pathology services.

	0 - 25 Years					26 - 64 Years					65 Years & Older				
	G	PI	A	PP	NA	G	PI	A	PP	NA	G	PI	A	PP	NA
HOSPITAL															
less than (7) 100,000	4	11	57	28	43	0	57	13	30	29	90	5	0	5	29
greater than(14) 100,000	20	35	15	30	1	27	47	8	18	1	82	11	2	6	1
mean	12	23	36	29	22	13	52	11	24	15	86	8	1	5	15
AGENCY															
less than (4) 100,000	50	0	35	15	75	50	0	35	15	75	80	10	0	10	75
greater than (4) 100,000	0	0	0	100	75	-	-	-	-	100	-	-	-	-	100
mean	25	0	18	57	75	50	0	35	15	88	80	10	0	10	88
PRIVATE PRACTICE															
less than (2) 100,000	-	-	-	-	100	-	-	-	-	100	-	-	-	-	100
greater than (2) 100,000	5	95	5	0	50	60	20	10	10	50	95	5	5	0	50
mean	5	95	5	0	75	60	20	10	10	75	95	5	5	0	75

G = Government Health Insurance Carriers
PI = Private Health Insurance Carriers
A = Agencies
PP = Private Patient Payments
NA = no answer

Answers expressed as percentages
n = ( )

of their revenue from third party payers. Agencies, however, showed 57 percent of their clients requiring private patient payment, with only 43 percent receiving third party reimbursement. In the 26 to 64 year age range, 76 percent of the clients treated in hospitals and 90 percent treated by private practitioners received third party payment for speech and language treatment of neurological disorders. Clients treated in agencies received 85 percent third party reimbursement. In the 65 year and older age group, 95 percent of these clients treated in hospitals, 100 percent treated by private practitioners, and 90 percent treated by agencies received third party payment. In should be further noted that several of the agencies and private practitioners left this question unanswered.

Table 8 reflects the percentage of revenue obtained for clients with voice disorders receiving speech and language pathology services. Thirty-two percent of the clients whose ages ranged from 0 to 25 years treated in hospitals obtained revenue from third party payers. Note the differences in the amount of third party reimbursement received in hospital settings of less than 100,000 as compared to those hospital settings greater than 100,000. In agencies, clients in this age range received 50 percent of their revenue from third party payers, leaving 50 percent requiring private patient payment. Private practitioners obtained 35 percent of their revenue from third party payers. In the 26 to 64 age range, 48 percent of the clients treated in hospitals and 0 percent by agencies received third party reimbursement. Clients treated by private practitioners received 60 percent of their revenue from third party payers. Of those clients in the 65 year and older age group, 90 percent of those clients treated in hospitals, 90 percent treated by agencies, and 90

Table 8. Percentage of revenue obtained for clients with voice disorders receiving speech and language pathology services.

	0 - 25 Years				26 - 64 Years				65 Years & Older			
	TPP	PPP	O	NA	TPP	PPP	O	NA	TPP	PPP	O	NA
HOSPITAL												
less than (7) 100,000	45	55	0	43	45	55	0	43	90	10	0	71
greater than (14) 100,000	18	82	0	36	51	49	0	29	91	9	0	57
mean	32	68	0	40	48	52	0	36	90	10	0	64
AGENCY												
less than (4) 100,000	50	50	0	75	0	100	0	75	90	10	0	75
greater than (4) 100,000	-	-	-	100	-	-	-	100	-	-	-	100
mean	50	50	0	88	0	100	0	88	90	10	0	88
PRIVATE PRACTICE												
less than (2) 100,000	-	-	-	100	-	-	-	100	-	-	-	100
greater than (2) 100,000	35	65	0	0	60	40	0	50	90	10	0	50
mean	35	65	0	50	60	40	0	50	90	10	0	50

Answers expressed in percentages n = ( )
TPP = Third Party Payment
PPP = Private Patient Payment
O = Other

percent treated by private practitioners received reimbursement for voice disorders.

The percentage of revenue obtained for clients with delayed language is indicated in Table 9. Hospitals and agencies showed a similar mean value of 31 percent and 38 percent, respectively, from third party payment. However, a wide variance in the values is noted in the population groups within these categories. Private practitioners show a larger percentage receiving third party payment in comparison to the other two categories.

Table 10 designates the percentage of revenue obtained for those clients with a cleft palate. In hospitals, 68 percent received third party payment, whereas 50 percent of those clients treated in agencies received third party reimbursement. Again, a variation within the two categories is noted in population groups. Private practitioners did not respond to this question.

The percentage of revenue received for clients with functional articulation disorders receiving speech and language pathology services is cited in Table 11. Hospitals received the least percentage (14 percent) of third party payment. However, 30 percent of their revenue was obtained through "other" sources. These values combined were close to the reimbursement by third party payment received in agencies (38 percent) and in private practice (49 percent) settings.

Lastly, Table 12 gives the percentage of revenue supplied to those clients with fluency disorders. Again, hospitals received the least percentage of payment from third party payers (44 percent) but surpass the two other settings when the "other" category (13 percent) is added to this value. In agencies, 50 percent of the clients received third

Table 9. Percentage of revenue obtained for clients with delayed language receiving speech and language pathology services.

		Third Party Payment	Private Patient Payment	Other	N.A.
HOSPITAL					
less than 100,000	(7)	50	48	2	43
greater than 100,000	(14)	12	79	9	29
mean		31	63	6	36
AGENCY					
less than 100,000	(4)	75	25	0	75
greater than 100,000	(4)	0	100	0	75
mean		38	62	0	75
PRIVATE PRACTICE					
less than 100,000	(2)	80	20	0	50
greater than 100,000	(2)	50	50	0	0
mean		65	35	0	25

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 10. Percentage of revenue obtained for clients with cleft palate receiving speech and language pathology services.

		Third Party Payment	Private Patient Payment	Other	N.A.
HOSPITAL					
less than 100,000	(7)	96	4	0	57
greater than 100,000	(14)	41	56	3	57
mean		68	30	2	57
AGENCY					
less than 100,000	(4)	100	0	0	75
greater than 100,000	(4)	0	100	0	75
mean		50	50	0	75
PRIVATE PRACTICE					
less than 100,000	(2)	-	-	-	100
greater than 100,000	(2)	-	-	-	100
mean		-	-	-	100

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 11. Percentage of revenue obtained for clients with functional articulation disorders receiving speech and language pathology services.

		Third Party Payment	Private Patient Payment	Other	N.A.
HOSPITAL					
less than 100,000	(7)	15	35	50	71
greater than 100,000	(14)	13	78	9	29
mean		14	56	30	50
AGENCY					
less than 100,000	(4)	75	25	0	75
greater than 100,000	(4)	0	100	0	75
mean		38	62	0	75
PRIVATE PRACTICE					
less than 100,000	(2)	0	100	0	50
greater than 100,000	(2)	98	2	0	0
mean		49	51	0	25

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 12. Percentage of revenue obtained for clients with fluency disorders receiving speech and language pathology services.

		Third Party Payment	Private Patient Payment	Other	N.A.
HOSPITAL					
less than 100,000	(7)	62	28	10	29
greater than 100,000	(14)	25	59	16	29
mean		44	43	13	29
AGENCY					
less than 100,000	(4)	100	0	0	75
greater than 100,000	(4)	0	100	0	75
mean		50	50	0	75
PRIVATE PRACTICE					
less than 100,000	(2)	-	-	-	100
greater than 100,000	(2)	53	47	0	0
mean		53	47	0	50

Answers expressed as percentages
N.A. = No answer
n = ( )

party reimbursement and 53 percent of those who were treated by private practitioners received third party reimbursement.

Number of Clients Served During 1974

Information pertaining to the number of clients served during 1974 was also sought. Table 13 designates the average number of clients evaulated in the three age categories by speech and language pathology services. In hospitals, a similar mean number of clients was evaluated in all three age groups. Agencies, however, reflect a greater mean number of clients evaluated in the 0 to 25 and 25 to 64 year age categories than in the over 65 year old category. The number of clients evaluated by speech and language pathologists in a private practice setting was much less than the other two settings. This result might have been due, however, to the fact that only 50 percent of the private practitioners responded to the question.

Table 14 indicates the average number of clients receiving speech and language treatment during 1974. In hospitals, the largest age group treated were those clients between the ages of 26 and 64 years. In agencies, a large number was treated in the 0 to 25 year group, whereas none was treated in the 65 year and older age group. Small numbers were again indicated by those private practitioners responding, with the largest number treated in the 0 to 25 year category.

Tables 15 through 20 designate the number of clients diagnosed and treated within the various disorder groups. Among those were those clients with disorders of aphasia, delayed language, cleft palate, functional articulation, and dysfluency. Of the disorders diagnosed and treated, the largest number of clients who were served fell within the

Table 13. Average number of clients evaluated in 1974 by speech and language pathology services according to clinical setting and population size.

	0 - 25 Years	26 - 64 Years	65 Years and Older	N.A.
HOSPITAL				
less than 100,000 (7)	24.5	51.0	47.3	43%
(range)	(1 - 70)	(9 - 120)	(1 - 120)	
greater than 100,000 (14)	114.2	69.4	78.0	14%
(range)	(5 - 400)	(0 - 300)	(0 - 200)	
mean	69.4	60.2	62.7	29%
	(1 - 400)	(0 - 300)	(0 - 200)	
AGENCY				
less than 100,000 (4)	146.0	95.3	34.3	25%
(range)	(98 - 190)	(60 - 150)	(0 - 100)	
greater than 100,000 (4)	128.3	80.0	0	25%
(range)	(35 - 250)	(0 - 200)	(0)	
mean	137.2	87.7	17.2	25%
(range)	(35 - 250)	(0 - 200)	(0 - 100)	
PRIVATE PRACTICE				
less than 100,000 (2)	5.0	0	1.0	50%
(range)	(5)	(0)	(1)	
greater than 100,000 (2)	33.0	0	0	50%
(range)	(33)	(0)	(0)	
mean	19.0	0	0.5	50%
	(5 - 33)	(0)	(0 - 1)	

Answers expressed as average number
N.A. = No answer
n = ( )

Table 14. Average number of clients treated in 1974 by speech and language pathology services according to clinical setting and population size.

	0 - 25 Years	26 - 64 Years	65 Years and Older	N.A.
HOSPITAL				
less than 100,000 (7)	21.8	53.5	44.3	43%
(range)	(1 - 60)	(4 - 110)	(1 - 115)	
greater than 100,000 (14)	63.3	94.8	80.5	14%
(range)	(1 - 300)	(20 - 318)	(12 - 250)	
mean	42.6	74.2	62.4	29%
(range)	(1 - 300)	(4 - 318)	(1 - 250)	
AGENCY				
less than 100,000 (4)	140.0	10.0	0.0	50%
(range)	(120 - 160)	(0 - 20)	(0)	
greater than 100,000 (4)	67.5	37.5	0.0	50%
(range)	(35 - 100)	(0 - 75)	(0)	
mean	103.8	23.8	0.0	50%
(range)	(35 - 160)	(0 - 75)	(0)	
PRIVATE PRACTICE				
less than 100,000 (2)	5.0	0.0	1.0	50%
(range)				
greater than 100,000 (2)	19.0	0.0	0.0	50%
(range)				
mean	12.0	0.0	0.5	50%
(range)	(5 - 19)		(0 - 1)	

Answers expressed as average number
N.A. = No answer
n = ( )

Table 15. Percentage of clients diagnosed as aphasic during 1974 by speech and language pathology services according to clinical setting and population size.

		0 - 50	51 - 100	101 - 150	151 - 200	greater than 201	N.A.
HOSPITAL							
less than 100,000	(7)	58	14	14	0	14	0
greater than 100,000	(14)	15	39	15	8	23	7
mean		37	26	15	4	18	4
AGENCY							
less than 100,000	(4)	75	25	0	0	0	0
greater than 100,000	(4)	100	0	0	0	0	25
mean		87	13	0	0	0	13
PRIVATE PRACTICE							
less than 100,000	(2)	100	0	0	0	0	50
greater than 100,000	(2)	50	50	0	0	0	0
mean		75	25	0	0	0	25

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 16. Percentage of clients treated with aphasia during 1974 by speech and language pathology services according to clinical setting and population size.

		0 - 50	51 - 100	101 - 150	151 - 200	greater than 201	N.A.
HOSPITAL							
less than 100,000	(7)	57	29	14	0	0	0
greater than 100,000	(14)	14	43	14	22	7	0
mean		36	36	14	11	3	0
AGENCY							
less than 100,000	(4)	100	0	0	0	0	0
greater than 100,000	(4)	100	0	0	0	0	25
mean		100	0	0	0	0	13
PRIVATE PRACTICE							
less than 100,000	(2)	100	0	0	0	0	0
greater than 100,000	(2)	50	50	0	0	0	0
mean		75	25	0	0	0	0

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 17. Percentage of clients diagnosed and treated with delayed language during 1974 by speech and language pathology services according to clinical setting and population size.

	DIAGNOSED				TREATED			
	less than 30	31-70	greater than 71	N.A.	less than 30	31-70	greater than 71	N.A.
HOSPITAL								
less than 100,000 (7)	60	20	20	29	60	40	0	29
greater than 100,000 (14)	66	17	17	14	67	25	8	14
mean	63	19	18	22	64	32	4	22
AGENCY								
less than 100,000 (4)	33	0	67	25	33	0	67	25
greater than 100,000 (4)	25	25	50	0	25	50	25	0
mean	29	13	58	13	29	25	46	0
PRIVATE PRACTICE								
less than 100,000 (2)	100	0	0	50	100	0	0	50
greater than 100,000 (2)	100	0	0	0	100	0	0	0
mean	100	0	0	25	100	0	0	25

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 18. Percentage of clients diagnosed and treated with cleft palate during 1974 by speech pathology services according to clinical setting and population size.

	DIAGNOSED				TREATED			
	less than 30	31-70	greater than 71	N.A.	less than 30	31-70	greater than 71	N.A.
HOSPITAL								
less than 100,000 (7)	100	0	0	14	100	0	0	14
greater than 100,000 (14)	84	8	8	14	100	0	0	14
mean	92	4	4	14	100	0	0	14
AGENCY								
less than 100,000 (4)	100	0	0	25	100	0	0	25
greater than 100,000 (4)	75	0	25	0	100	0	0	0
mean	88	0	12	13	100	0	0	13
PRIVATE PRACTICE								
less than 100,000 (2)	-	-	-	100	-	-	-	100
greater than 100,000 (2)	100	0	0	0	100	0	0	0
mean	100	0	0	50	100	0	0	50

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 19. Percentage of clients diagnosed and treated with functional articulation disorders during 1974 by speech and language pathology services according to clinical setting and population size.

	DIAGNOSED				TREATED			
	less than 30	31-70	greater than 71	N.A.	less than 30	31-70	greater than 71	N.A.
HOSPITAL								
less than 100,000 (7)	100	0	0	14	100	0	0	14
greater than 100,000 (14)	82	9	9	21	84	8	8	14
mean	91	5	4	18	92	4	4	14
AGENCY								
less than 100,000 (4)	50	25	25	0	75	0	25	0
greater than 100,000 (4)	67	33	0	25	67	33	0	25
mean	59	29	12	13	71	17	12	13
PRIVATE PRACTICE								
less than 100,000 (2)	100	0	0	50	100	0	0	50
greater than 100,000 (2)	100	0	0	0	100	0	0	50
mean	100	0	0	25	100	0	0	50

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 20. Percentage of clients diagnosed and treated with fluency disorders during 1974 by speech and language pathology services according to clinical setting and population size.

	DIAGNOSED				TREATED			
	less than 15	16-35	greater than 36	N.A.	less than 15	16-35	greater than 36	N.A.
HOSPITAL								
less than 100,000 (7)	100	0	0	0	100	0	0	0
greater than 100,000 (14)	93	0	7	0	93	0	7	0
mean	97	0	3	0	97	0	3	0
AGENCY								
less than 100,000 (4)	75	25	0	0	75	25	0	0
greater than 100,000 (4)	100	0	0	25	100	0	0	25
mean	88	12	0	13	88	12	0	13
PRIVATE PRACTICE								
less than 100,000 (2)	-	-	-	100	-	-	-	100
greater than 100,000 (2)	100	0	0	0	100	0	0	0
mean	100	0	0	50	100	0	0	50

Answers expressed in percentages
N.A. = No answer
n = ( )

aphasia category (Tables 15 and 16). The fewest number of clients served within a specific disorder group was those with the disorder of dysfluency (Table 20).

The average number of clients evaluated by audiology services and those receiving aural habilitation or rehabilitation is designated in Tables 21 and 22. Table 21 shows the average number of clients evaluated for audiological services in 1974. In hospitals, the 26 to 64 year age range reflected the largest number of clients evaluated. In the agency setting, the 0 to 25 year category showed a much larger number of clients evaluated than in the older age groups. Private practitioners showed a similar number of clients evaluated in the 0 to 25 year old category and the 26 to 64 year old category. Agencies and private practice settings had a high percentage, respectively, not answering the question.

In Table 22 the average number of clients receiving aural habilitative or rehabilitative services during 1974 is shown. In the hospital setting, the largest age group served were those between 26 and 64 years of age. In agencies, the largest age group which received aural rehabilitation was the 65 year and older age category. Private practitioners showed a similar number served in the 26 to 64 year age group as compared to those 65 years and older. A high percentage of no response to the question was reflected in the agency setting.

Duration of Services Provided

The final area of analysis for the study was the duration of the services provided by speech and language pathology services. Table 23 reflects the frequency distribution of the average length of a speech and language pathology evaluation in the three clinical settings according

Table 21. Average number of clients evaluated in 1974 by audiological services according to clinical setting and population size.

	0 - 25 Years	26 - 64 Years	65 Years and Older	N.A.
HOSPITAL				
less than 100,000 (8)	256	348	125	25%
(range)	(0 - 900)	(40 - 1,000)	(50 - 300)	
greater than 100,000 (5)	410	550	158	20%
(range)	(20 - 1,200)	(0 - 1,920)	(0 - 360)	
mean	222	449	142	23%
(range)	(0 - 1,200)	(0 - 1,920)	(0 - 360)	
AGENCY				
less than 100,000 (2)	-	-	-	100%
(range)				
greater than 100,000 (5)	833	83	67	40%
(range)	(250 - 2,000)	(0 - 250)	(0 - 200)	
mean	833	83	67	70%
	(250 - 2,000)	(0 - 250)	(0 - 200)	
PRIVATE PRACTICE				
less than 100,000 (1)	-	-	-	100%
(range)				
greater than 100,000 (5)	713	600	263	20%
(range)	(250 - 1,500)	(300 - 800)	(200 - 400)	
mean	713	600	263	60%
(range)	(250 - 1,500)	(300 - 800)	(200 - 400)	

Answers expressed as average number
N.A. = No answer
n = ( )

Table 22. Average number of clients receiving aural habilitative or rehabilitative services in 1974 by audiological services according to clinical setting and population size.

		0 - 25 Years	26 - 64 Years	65 Years and Older	N.A.
HOSPITAL					
less than 100,000	(6)	39.8	55.8	14.4	20%
(range)		(0 - 120)	(1 - 175)	(0 - 40)	
greater than 100,000	(3)	34.5	139.0	41.5	33%
(range)		(30 - 39)	(70 - 208)	(13 - 70)	
mean		37.2	97.4	28.0	27%
(range)		(0 - 120)	(1 - 208)	(0 - 70)	
AGENCY					
less than 100,000	(2)	-	-	-	100%
(range)					
greater than 100,000	(4)	17.5	32.5	76.0	50%
(range)		(10 - 25)	(15 - 50)	(2 - 150)	
mean		17.5	32.5	76.0	75%
(range)		(10 - 25)	(15 - 50)	(2 - 150)	
PRIVATE PRACTICE					
less than 100,000	(0)	No response for this population.			
(range)					
greater than 100,000	(5)	26.3	45.0	43.8	20%
(range)		(5 - 75)	(20 - 75)	(10 - 100)	
mean		26.3	45.0	43.8	20%
(range)		(5 - 75)	(20 - 75)	(10 - 100)	

Answers expressed as average number
N.A. = No answer
n = ( )

Table 23. Frequency distribution of the length of a speech and language pathology evaluation according to clinical setting and population size.

	HOURS					
	1/2	1	1-1/2	2	greater than 2	N.A.
HOSPITAL						
less than 100,000 (7)	5	39	22	23	11	29
greater than 100,000 (14)	9	50	25	15	1	1
mean	6	45	24	19	6	15
AGENCY						
less than 100,000 (4)	17	30	23	25	5	25
greater than 100,000 (4)	20	26	6	44	4	0
mean	19	28	15	34	4	13
PRIVATE PRACTICE						
less than 100,000 (2)	0	62	38	0	0	0
greater than 100,000 (2)	0	90	10	0	0	50
mean	0	76	24	0	0	25

Answers expressed as percentages
N.A. = No answer
n = ( )

to the two population groups. In hospital settings, a variation was noted in the duration of the evaluation where the larger percentage was at one hour. A variation was also seen in the agency setting with the greater mean percentage showing a two hour evaluation to be the most frequent. In contrast, the private practice settings showed evaluations to be within the 1 to 1 1/2 hour range, with the larger percentage of evaluations being one hour in length.

Table 24 shows the frequency distribution of the average length of a speech and language pathology treatment session in the same settings and populations. In the hospital setting, all sessions ranged from one half hour to 1 1/2 hours, with 69 percent of these sessions lasting one half hour. A slightly larger variation was noted in the agency setting with sessions scheduled between a half hour to two hours. Again the majority of sessions (58 percent) were a half hour long. In contrast, the private practitioners' mean duration of a treatment session ranged from a half hour to an hour, whereby 97 percent of these sessions were one hour in length.

Various questions in this study called for data relating to the average duration of treatment by speech and language pathology services for clients with specific disorders. Tables 25 through 30 reflect the frequency distribution of the duration of treatment for clients with disorders of aphasia, apraxia, dysarthria, alaryngeal conditions (laryngectomees), vocal misuse/abuse and delayed language. In Table 25 clients with the disorder of aphasia who were treated in a hospital showed a mean range of treatment lasting from 0 months to 1 1/2 years. The largest percentage (47 percent) laid within the 4 to 8 month range. The same disorder treated in an agency setting showed a duration from

Table 24. Frequency distribution of the length of a speech and language pathology treatment session according to clinical setting and population size.

	HOURS					
	1/2	1	1-1/2	2	greater than 2	N.A.
HOSPITAL						
less than 100,000 (7)	77	21	2	0	0	14
greater than 100,000 (14)	60	40	0	0	0	0
mean	69	30	1	0	0	7
AGENCY						
less than 100,000 (4)	65	33	2	0	0	25
greater than 100,000 (4)	51	36	1	12	0	0
mean	58	35	1	6	0	13
PRIVATE PRACTICE						
less than 100,000 (2)	0	100	0	0	0	0
greater than 100,000 (2)	5	95	0	0	0	50
mean	3	97	0	0	0	25

Answers expressed as percentages
N.A. = No answer
n = ( )

Table 25. Frequency distribution of the duration of treatment for aphasia by speech and language pathology services according to clinical setting and population size.

	0-3 Mo.	4-8 Mo.	9-12 Mo.	1 - 1-1/2 Years	1-1/2 - 2 Years	greater than 2 years	N.A.
HOSPITAL							
less than (7) 100,000	0	57	14	29	0	0	0
greater than (14) 100,000	29	36	14	21	0	0	0
mean	14	47	14	25	0	0	0
AGENCY							
less than (4) 100,000	0	34	66	0	0	0	25
greater than (4) 100,000	0	33	0	0	33	33	25
mean	0	34	33	0	17	17	25
PRIVATE PRACTICE							
less than (2) 100,000	0	0	50	0	0	50	0
greater than (2) 100,000	0	100	0	0	0	0	50
mean	0	50	25	0	0	25	25

Answers expressed in percentages
N.A. = No answer
n = ( )

4 months to over 2 years. The highest percentage of treatment (34 percent) lasted from 4 to 8 months in agencies. The private practitioners indicated an average range of treatment for this disorder from 4 months to over 2 years. The larger percentage served (50 percent) was similar to the other settings, and the average duration of treatment was 4 to 8 months.

The frequency distribution of the duration of treatment for apraxia by speech and language pathology services is shown in Table 26. A wide variation in the average duration was noted in the hospital setting with the largest percentage within the 4 to 8 month range. Agencies again showed a variation in duration with the majority of treatment lasting from 9 to 12 months. Private practitioners showed the least variation in duration with treatment ranging from 4 months to 1 year. Fifty percent of the apraxic clients treated in this setting received their therapy for a duration of 4 to 8 months, while the remaining 50 percent were treated for 9 to 12 months.

Table 27 shows the frequency distribution of the duration of treatment for the disorder of dysarthria. In hospitals, the greatest percentage of clients (43 percent) were treated for 4 to 8 months, whereas agencies indicated their average duration (50 percent) to be from 9 to 12 months for this disorder. All private practitioners showed their treatment for dysarthria to last from 4 to 8 months.

Tables 28 and 29 reflect the frequency distribution of the duration of treatment for two types of voice disorders. Table 28 represents the average duration of treatment for laryngectomee clients. Both hospitals and agencies showed the largest percentage of treatment lasting from 3 to 6 months for this type of disorder. Private

Table 26. Frequency distribution of the duration of treatment for apraxia by speech and language pathology services according to clinical setting and population size.

	0-3 Mo.	4-8 Mo.	9-12 Mo.	1 - 1-1/2 Years	1-1/2 - 2 Years	greater than 2 years	N.A.
HOSPITAL							
less than 100,000 (7)	0	43	28	0	29	0	0
greater than 100,000 (14)	29	36	21	0	0	14	0
mean	14	40	25	0	14	7	0
AGENCY							
less than 100,000 (4)	0	0	100	0	0	0	75
greater than 100,000 (4)	0	33	0	33	0	33	25
mean	0	17	50	17	0	17	50
PRIVATE PRACTICE							
less than 100,000 (2)	0	100	0	0	0	0	50
greater than 100,000 (2)	0	0	100	0	0	0	50
mean	0	50	50	0	0	0	50

Answers expressed in percentages
N.A. = No answer
n = ( )

Table 27. Frequency distribution of the duration of treatment for dysarthria by speech and language pathology services according to clinical setting and population size.

	0-3 Mo.	4-8 Mo.	9-12 Mo.	1 - 1-1/2 Years	1-1/2 - 2 Years	greater than 2 years	N.A.
HOSPITAL							
less than (7) 100,000	14	57	0	29	0	0	0
greater than (14) 100,000	50	29	7	0	7	7	0
mean	32	43	4	15	3	3	0
AGENCY							
less than (4) 100,000	0	0	100	0	0	0	50
greater than (4) 100,000	33	0	0	0	0	67	25
mean	17	0	50	0	0	33	38
PRIVATE PRACTICE							
less than (2) 100,000	0	100	0	0	0	0	50
greater than (2) 100,000	0	100	0	0	0	0	50
mean	0	100	0	0	0	0	50

Answers expressed in percentages
N.A. = No answer
n = ( )

Table 28. Frequency distribution of the duration of treatment for alaryngeal clients (laryngectomees) by speech and language pathology services according to clinical setting and population size.

	less than 1 mo.	1-3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	greater than 1 year	N.A.
HOSPITAL							
less than 100,000 (7)	0	40	60	0	0	0	29
greater than 100,000 (14)	17	33	33	17	0	0	14
mean	9	36	46	9	0	0	22
AGENCY							
less than 100,000 (4)	-	-	-	-	-	-	100
greater than 100,000 (4)	0	0	100	0	0	0	50
mean	0	0	100	0	0	0	75
PRIVATE PRACTICE							
less than 100,000 (2)	0	50	50	0	0	0	50
greater than 100,000 (2)	-	-	-	-	-	-	100
mean	0	50	50	0	0	0	75

Values expresed as percentages
N.A. = no answer
n = ( )

Table 29. Frequency distribution of the duration of treatment for vocal misuse/abuse by speech and language pathology services according to clinical setting and population size.

	less than 1 mo.	1-3 mo.	3-6 mo.	6-9 mo.	9-12 mo.	greater than 1 year	N.A.
HOSPITAL							
less than 100,000 (7)	0	50	17	35	0	0	14
greater than 100,000 (14)	0	69	23	8	0	0	7
mean	0	60	20	20	0	0	11
AGENCY							
less than 100,000 (4)	0	100	0	0	0	0	25
greater than 100,000 (4)	0	100	0	0	0	0	50
mean	0	100	0	0	0	0	38
PRIVATE PRACTICE							
less than 100,000 (2)	-	-	-	-	-	-	100
greater than 100,000 (2)	0	100	0	0	0	0	0
mean	0	100	0	0	0	0	50

Answers expressed as percentages
N.A. = No answer
n = ( )

practitioners showed all of their clients being treated within the range of 1 month to 6 months. However, there was a high percentage of no response to this question by agencies and private practitioners. For clients with voice disorders due to vocal misuse/abuse, Table 29 indicates a variation from 1 to 9 months for duration of treatment in the hospital setting. The largest percentage of clients treated in this setting (60 percent) were in the 1 to 3 month category. Both agencies and private practice settings designated 100 percent of their average duration of service with these clients to be from 1 to 3 months.

Lastly, Table 30 indicates the frequency distribution of the average duration of treatment for disorders of delayed language. In all settings a wide variation in the average duration of treatment was indicated. Both agencies and private practice settings showed the duration of treatment to be longer as compared to the duration of treatment in a hospital setting.

Table 30. Frequency distribution of the duration of treatment for delayed language by speech and language pathology services according to clinical setting and population size.

	0-3 Mo.	3-6 Mo.	6-9 Mo.	9-12 Mo.	1 - 1-1/2 Years	1-1/2 - 2 Years	greater than 2	N.A.
HOSPITAL								
less than (7) 100,000	0	0	50	25	25	0	0	43
greater than (14) 100,000	26	17	17	17	0	17	8	14
mean	13	8	33	21	12	9	4	29
AGENCY								
less than (4) 100,000	0	0	33	33	0	0	33	25
greater than (4) 100,000	0	0	25	0	25	25	25	0
mean	0	0	29	16	13	13	29	13
PRIVATE PRACTICE								
less than (2) 100,000	0	0	0	0	0	0	100	50
greater than (2) 100,000	0	0	50	50	0	0	0	0
mean	0	0	25	25	0	0	50	25

Answers expressed as percentages
N.A. = No answer
n = ( )

CHAPTER IV

SUMMARY AND CONCLUSIONS

The implications for these compiled data are numerous. First, these data are the first to be gathered in the State of Michigan for speech and language pathology and audiology services. From these data, a more relevant system of guidelines and criteria for developing standards for these professions can be devised to reflect differences which may occur according to various populations, clinical settings, and so on. Particular questions from this questionnaire can also serve as a source for speech and language pathology and audiology facilities for keeping records of their services throughout the year. Such records and data can serve as an influence to government supported health programs and private insurance companies to distribute their available funds in a more efficient manner. By the same token, these data can act as an aid to the speech and language pathologist and audiologist to serve the primary areas of clinical significance within their respective fields.

Although valuable information was accumulated from this study, there were several limitations. First, the length of the questionnaire made it particularly undesirable and difficult for many facility personnel to complete. The speech and language pathology section, containing 51 questions, could have been more effectively condensed. This may have been one factor accounting for a large number of "no

response" answers within the speech and language pathology section. Also, many facilities throughout the state may not have kept accurate records concerning information requested on the questionnaire, a fact which would also contribute to the large number of "no response" answers to questions.

Secondly, since the questionnaires were returned to the Michigan Speech and Hearing Association anonymously, it was not possible to determine which particular facilities did not respond. The facilities identified their service in the questionnaire according to the clinical setting which they felt best described their facility. From the mailing addresses of the various facilities, it was not possible to determine the number of questionnaires sent to each type of clinical setting. Thus, in evaluating the responses of each clinical setting, an accurate determination could not always be made.

It was by no means the intention of this study to generalize the results of these data and apply it to State or National speech and language pathology and/or audiology facilities. The significance of the data was to show what differences and similarities can occur in various populations and clinical settings.

Although many differences were noted between the various clinical settings and population groups in this study, close similarities were also shown in some situations. One such instance concerned the cost per hour for a speech and language pathology evaluation. As was indicated in Table 1, a similar cost was noted in all three clinical settings in populations less than 100,000 with the average fee ranging from $27.40 to $27.50. Other similarities in the data were shown in the average duration of treatment for vocal misues-abuse clients

(Table 29). In all clinical settings and populations, the most frequent duration of therapy ranged from 1 to 3 months.

The data presented in this study are only a small amount of the collected data. Many avenues remain open for futher research such as correlation studies comparing facility personnel, diagnoses and treatment procedures, and cost of services.

This study will hopefully serve as an aid in developing criteria for relevant standards in the professions of speech and language pathology and audiology in relation to PSRO in Michigan. This research can also serve as a basis for the collection of further information with respect to these professions. It was the primary interest of this author that the information collected be used by the Ad Hoc Committee on PSRO of the Michigan Speech and Hearing Association for the purpose of evaluating the existing practiced criteria of these professions and using that information to establish goals for the development of the statewide PSRO. In order to effectively accomplish this task, it is felt that the committee should further inform and educate the professions of speech and language pathology and audiology of the need to establish their own criteria for patient service in their individual facilities. It is felt that PSRO can insure quality patient service at the statewide level only if a system of patient care auditing is established and used at the local level.

LIST OF REFERENCES

"ASHA Administers PSRO Grant". ASHA, 17, 109-110 (1975).

Curlee, Richard F., Letter to PSRO Liaison Representatives of ASHA. January 16, 1975.

Dale, Martin G., PSRO: A primer. J. Amer. Med. Assoc., 223, 157-158.

Dowling, Richard J., ASHA statement to Senate Subcommittee regarding PSRO. (Letter to Senator Herman Talmadge), May 1, 1974.

Dowling, Richard J., Letter to State Association Presidents concerning recent PSRO developments. August 2, 1974.

Michigan PSRO Support Center, PSRO: Professional Standards Review Organization (pamphlet). March, 1975.

O'Neill, John J., Strandberg, Twila E., National Study of United States Hospital Speech Pathology Services. University of Illinois at Urbana - Champaign. January 10, 1975.

Payne, Thomas C., Important to understand what PSRO's mean to you. Medicina, 6-7, (1973).

Peer Review Committee of Iowa Speech and Hearing Association, "Tri-level Peer Review Plan: Disorder Classification System and Example of Professional Service Guidelines". 1974.

United States Department of Health, Education, and Welfare, PSRO Program Manual, March 15, 1974.

Welch, Claude E., Professional Standards Review Organizations: problems and prospects. New England J. Med., 289, 291-295 (1973).

APPENDIX

APPENDIX A

COVER LETTER AND QUESTIONNAIRE

MICHIGAN SPEECH AND HEARING ASSOCIATION

1500 Kendale Boulevard
East Lansing, Michigan 48823

Phone: (517) 332-5691

July 8, 1975

MICHIGAN STUDY OF SPEECH PATHOLOGY AND AUDIOLOGY
CLINICAL AND HOSPITAL SERVICES

Dear Speech and Hearing Professionals:

As you are undoubtedly aware, recent federal legislation has mandated the establishment of the Professional Standards Review Organization (PSRO) to be applied to medical and health care professions. As allied health professions, the areas of speech and language pathology and audiology will also be involved in the establishment of standards and guidelines for speech and hearing services.

As speech pathologists and audiologists, we have the opportunity for direct and indirect input to advisory boards of local PSRO's. In order to effectively represent our profession we must have some criteria or data base which describes the necessity and effectiveness of our services.

The Michigan Speech and Hearing Association, through the Ad Hoc Committee on PSRO (Dan Beasley, Chairperson) in conjunction with the Committee on Community and Agency Service (Elaine Bailie, Chairperson), is attempting to establish a system of peer review for speech pathologists and audiologists in the state of Michigan.

In order to perform the task effectively, it is necessary that the committee have available data pertaining to speech and hearing services in Michigan. To this end, the committee has developed the enclosed questionnaire which reflects the kind of information needed. The committee would be most grateful if you would take a few moments to complete the enclosed questionnaire.

All responses will be treated confidentially. If you have any questions concerning the questionnaire or the project, please do not hesitate to contact myself, Dan Beasley, or Elaine Bailie at (517) 353-8780, Michigan State University.

The questionnaire should be returned by July 24, 1975 to: Michigan Speech and Hearing Association, 724 Abbott Road, East Lansing, Michigan 48823.

Thank you for your time and cooperation.

Sincerely,

Debbie McLauchlin-Osborn
Member, Ad Hoc Committee on PSRO
Michigan Speech and Hearing Association

Elaine Bailie, M.A.
Vice-President for Community and
Agency Service
Member, Ad Hoc Committee on PSRO
Michigan Speech and Hearing Association

Daniel Beasley, Ph.D.
President-Elect
Chairman, Ad Hoc Committee on PSRO
Michigan Speech and Hearing Association

MICHIGAN STUDY OF SPEECH PATHOLOGY AND AUDIOLOGY
CLINICAL AND HOSPITAL SERVICES

This questionnaire is to be completed by a representative of your speech pathology and/or audiology service for the year 1974. For the first question indicate which area (speech pathology, audiology, or both) is being evaluated on the questionnaire. If any of the following questions do not apply to your services, leave blank, or mark "other" or "not applicable" if indicated. Give an estimate or approximation where necessary.

CHECK THE APPROPRIATE ANSWER FOR EACH QUESTION UNLESS OTHERWISE INSTRUCTED.

Section 1: Clinical Setting Information

1. This questionnaire is being evaluated for the service (s) of

   Speech Pathology _____
   Audiology _____
   Both Speech Pathology and Audiology _____

2. Are your speech pathology and audiology services provided for under separate administrative units?

   Yes _____
   No _____
   Not Applicable _____

3. Which of the following best describes your speech pathology and/or audiology setting?

   Hospital _____
   Private Practice _____
   Agency _____
   University _____
   Other (specify)_____

4. In what size city is your hospital or clinic located?

   Less than 10,000 _____
   10,001 - 25,000 _____
   25,001 - 50,000 _____
   50,001 - 100,000 _____
   100,001 - 250,000 _____
   250,000 - 500,000 _____
   500,001 -1,000,000 _____
   Over 1,000,000 _____

5. Which of the following best describes the location of your hospital or clinic?

   Urban _____
   Suburban _____
   Rural _____

6. Rank the following populations in order of frequency treated. (Record "1" for the most frequent, "2" for next most frequent, etc. Record "0" for populations not treated.)

University _____
Rural _____
Industrial _____
Suburban _____
Urban _____

7. What certification does your clinic hold (ETB, PSB, CARF, etc.)?

_____

Section II: Speech Pathology Services (Questions 8-59 for Speech Pathology only)

8. What were the number of patients diagnosed in your setting during 1974 of the three age categories? (Fill in number evaluated)

Age Range	Number Diagnosed (Approximate)
0 - 25 years	_____
26 - 64 years	_____
65 years and older	_____

9. What is the average fee per hour for a speech evaluation at your clinic? _____

10. What percentage of your speech evaluations are:

1/2 hour _____ in length
1 hour _____ in length
1-1/2 hours _____ in length
2 hours _____ in length
More than 2 hours _____ in length

11. What were the number of patients receiving habilitative or rehabilitative services during 1974 for the three age categories? (Fill in number treated)

Age Range	Number Diagnosed (Approximate)
0 - 25 years	_____
26 - 64 years	_____
65 years and older	_____

12. What is the average fee per treatment session for speech pathology?

			Individual	Group
a)	1/2 hour	Less than $10.00	_____	_____
		$10.01 - $20.00	_____	_____
		$20.01 - $30.00	_____	_____
		$30.01 - $40.00	_____	_____
		More than $40.00	_____	_____
b)	1 hour	Less than $10.00	_____	_____
		$10.01 - $20.00	_____	_____
		$20.01 - $30.00	_____	_____
		$30.01 - $40.00	_____	_____
		$40.01 - $50.00	_____	_____
		More than $50.00	_____	_____

13. What percentage of your speech therapy sessions are:

1/2 hour _____ in length
1 hour _____ in length
1-1/2 hour _____ in length
2 hours _____ in length
More than 2 hours _____ in length

14. How many speech pathologists comprise your staff? (including yourself, if applicable)

Part-time_____ Full-time_____

15. How many members of your speech pathology staff hold the following as their highest academic degree?

B.A. _____ M.A. _____ Ph.D. _____

16. How many speech pathologists on your staff hold their Certificate of Clinical Competence (CCC) or are completing their Clinical Fellowship Year (CFY)?

CCC _____ CFY _____

17. How many speech pathologists on your staff are current members of the American Speech and Hearing Association (ASHA) and/or the Michigan Speech and Hearing Association (MSHA)? (Fill in number)

ASHA _____
MSHA _____

18. A medical referral is always required before a patient can be evaluated for speech services --

All of the time _____
Some of the time _____
None of the time _____

19. If some of the time, please explain the circumstances below.

_____

_____

20. How often are progress reports written on patients?

Weekly	_____
Monthly	_____
Tri-monthly	_____
Semi-annually	_____
Annually	_____
Other	_____

21. Estimate the percentage of patients you see on an "inpatient" basis.

0 - 25%	_____
25 - 50%	_____
50 - 75%	_____
75 -100%	_____

22. Estimate the percentage of patients you see on an "outpatient" basis.

0 - 25%	_____
25 - 50%	_____
50 - 75%	_____
75 -100%	_____

23. Of the following problem areas, rank the three most frequently encountered disorders (cerebral palsy; cerebral vascular disease and injury; cleft palate; craniofacial anomalies; diseases and disorders of the central nervous system; diseases, disorders, and trauma of the larynx; mental retardation; others)

1st_____

2nd_____

3rd_____

24. Of the following speech and language disorders, which are the most frequently habilitated or treated at your clinic. (prosody, rhythm, articulation, adult language, child language, voice)

1st_____

2nd_____

3rd_____

25. How many patients in 1974 were diagnosed as "aphasic"?

0 - 25	_____
26 - 50	_____
51 - 75	_____
76 - 100	_____
101 - 125	_____
126 - 150	_____
151 - 175	_____
176 - 200	_____
201 - 225	_____
More than 226	_____

26. How many patients in 1974 that were diagnosed as aphasic were seen for <u>treatment</u>?

0 - 25	_____
25 - 50	_____
51 - 75	_____
76 - 100	_____
101 - 125	_____
126 - 150	_____
151 - 175	_____
176 - 200	_____
201 - 225	_____
More than 226	_____

27. What were the <u>average</u> number of treatment sessions per week for patients diagnosed as aphasic?

1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____
More than 7	_____

28. What was the <u>average</u> duration of treatment (time from initial treatment session until termination of treatment for an aphasic patient)?

0 - 3 months	_____
4 - 8 months	_____
9 - 12 months	_____
1 - 1-1/2 years	_____
1-1/2 - 2 years	_____
More than 2 years	_____

29. What was the average duration of treatment for an apraxic patient?

0 - 3 months	_____
4 - 8 months	_____
9 - 12 months	_____
1 - 1-1/2 years	_____
1-1/2 - 2 years	_____
More than 2 years	_____

30. What was the average duration of treatment for a dysarthric patient?

0 - 3 months	_____
4 - 8 months	_____
9 - 12 months	_____
1 - 1-1/2 years	_____
1-1/2 - 2 years	_____
More than 2 years	_____

31. If your most frequently treated neurological disorder was not aphasia, apraxia, or dyarthria: Fill in this question with the neurological disorder that your clinic most frequently treats. (Omit this question if not applicable)

What was the average duration of treatment for _____?

0 - 3 months	_____
4 - 8 months	_____
9 - 12 months	_____
1 - 1-1/2 years	_____
1-1/2 - 2 years	_____
More than 2 years	_____

32. How often are progress reports written on neurologically disordered patients?

Weekly	_____
Monthly	_____
Tri-monthly	_____
Semi-annually	_____
Annually	_____
Other (please specify)	_____

33. Of those patients with neurological disorders, please estimate the average percentage of revenue obtained through the following sources in the three age categories.

Age Range

a) 0 - 25 years

1. Government health insurance carriers (Medicare, Medicaid, etc.) ____%
2. Private health insurance carriers (Blue Cross and Blue Shield, Travelers, etc.) ____%
3. Agencies (Easter Seal, Crippled Children, V.A., Vocational Rehabilitation) ____%

	4.	Private patient payments	____%
			= 100%
	5.	Cannot determine	____
b) 26 - 64 years	1.	Government health insurance	____%
	2.	Private health insurance	____%
	3.	Agencies	____%
	4.	Private patient payments	____%
			= 100%
	5.	Cannot determine	____
c) 65 years and older	1.	Government health insurance	____%
	2.	Private health insurance	____%
	3.	Agencies	____%
	4.	Private patient payments	____%
			= 100%
	5.	Cannot determine	____

34. What do you estimate to be the average yearly cost of speech treatment for a neuropathological disorder? (Include third party payment and patient payment)

Less than $1,000	____
$1,000 - 2,500	____
$2,500 - 3,000	____
$3,000 - 3,500	____
$3,500 - 4,000	____
$4,000 and above	____

35. Which of the following neurological disorders do you consider to have the "successful treatment rate." (Record "1" for most successful, "2" for next most successful, etc. Record "0" for disorders not treated.)

Aphasia	____
Apraxia	____
Dysarthria	____
Parkinson's	____
Cerebral palsy	____
Myasthenia Gravis	____
Other (please specify)	____

36. (Voice Disorders) Rank the following voice disorders in order of frequency treated. (Record "1" for most frequent, etc., "0" for disorders not treated.)

Vocal misuse-abuse (Benign tumors of vocal folds)	____
Non-organic dysphonia	____
Alaryngeal dysphonia (Laryngectomies)	____
Neurogenic-myogenic dysphonias	____
Other (please specify)_____	

37. What is the average number of hours per week an alaryngeal (laryngectomized) patient is treated?

Less than 1 hour	_____
1 hour	_____
2 hours	_____
3 hours	_____
4 hours	_____
5 hours	_____
6 hours	_____
7 hours	_____
More than 8 hours	_____

38. What is the average duration of treatment for an alaryngeal patient (laryngectomy)?

Less than 1 month	_____
1 - 3 months	_____
4 - 6 months	_____
7 - 9 months	_____
9 - 12 months	_____
More than 1 year	_____

39. What is the average number of hours per week that a "vocal misuse" patient is treated?

Less than 1 hour	_____
2 hours	_____
3 hours	_____
4 hours	_____
5 hours	_____
6 hours	_____
7 hours	_____
More than 8 hours	_____

40. What is the average duration of treatment for a patient with a "vocal misuse" condition?

Less than 1 month	_____
1 - 3 months	_____
3 - 6 months	_____
6 - 9 months	_____
9 - 12 months	_____
More than 1 year	_____

41. Which age groups are most frequently seen for voice treatment? (Record "1" for most frequent, etc., "0" for age groups not treated.)

Prepuberty	_____
Puberty - 20 years	_____
20 - 40 years	_____
40 - 60 years	_____
60 years and older	_____

42. Of those patients seen for voice disorders, indicate average percentage of revenue obtained through the following sources for the three patient age categories.

0 - 25 years	Third party payer	____%
	Private patient payment	____%
		= 100%
26 - 64 years	Third party payer	____%
	Private patient payment	____%
		= 100%
65 years and older	Third party payer	____%
	Private patient payment	____%
		= 100%
	Cannot determine	_____

43. (Delayed Language) How many patients during 1974 were diagnosed as having a delayed language condition?

Less than 10 _____
10 - 30 _____
31 - 50 _____
51 - 70 _____
71 - 90 _____
91 - 110 _____
More than 110 _____

44. How many patients during 1974 were <u>treated</u> with a delayed language condition?

Less than 10 _____
10 - 30 _____
31 - 50 _____
51 - 70 _____
71 - 90 _____
91 - 110 _____
More than 110 _____

45. What was the average age of those patients receiving delayed language treatment?

Under 2 years _____
2 - 3 years _____
3 - 4 years _____
4 - 5 years _____
5 - 6 years _____
6 - 7 years _____
Over 7 years _____

46. Of those patients treated for delayed language, indicate the average percentage of revenue obtained through the following sources:

Third party payment ____%
Private patient payment ____%
Other (be specific)_____
Cannot determine _____

47. What is the average number of hours per week that a delayed language patient is treated?

Less than 1 hour	_____
2 hours	_____
3 hours	_____
4 hours	_____
5 hours	_____
6 hours	_____
7 hours	_____
More than 8 hours	_____

48. What is the average duration of treatment for a delayed language patient?

0 - 3 months	_____
3 - 6 months	_____
6 - 9 months	_____
9 - 12 months	_____
1 - 1-1/2 years	_____
1-1/2 - 2 years	_____
More than 2 years	_____

49. (Cleft palate) How many cleft palate patients were evaluated for speech and language problems at your clinic during 1974?

Less than 10	_____
11 - 30	_____
31 - 50	_____
51 - 70	_____
71 - 90	_____
91 - 110	_____
More than 110	_____

50. How many cleft palate patients were treated for speech and language problems at your clinic during 1974?

Less than 10	_____
11 - 30	_____
31 - 50	_____
51 - 70	_____
71 - 90	_____
More than 90	_____

51. Of those patients with a cleft palate condition seen for speech and language treatment, indicate the average percentage of revenue obtained through the following:

Third party payer	____%
Private patient payments	____%
Other (be specific)_____	
Cannot determine	____

52. (Articulation) What is the average age of patients most frequently evaluated for functional articulation disorders?

Below 4 years _____
4 - 8 years _____
8 - 12 years _____
12 - 18 years _____
Above 18 years _____

53. Do you receive any articulation (functional or organic) referrals from the public schools?

yes _____
no _____

54. How many patients did you evaluate (diagnose) during 1974 with functional articulation problems?

Less than 10 _____
11 - 30 _____
31 - 50 _____
51 - 70 _____
71 - 90 _____
91 - 110 _____
More than 110 _____

55. How many patients did you treat during 1974 with articulation problems?

Less than 10 _____
11 - 30 _____
31 - 50 _____
51 - 70 _____
71 - 90 _____
More than 90 _____

56. Of those patients treated for functional articulation problems, indicate the average percentage of revenue obtained through the following:

Third party payer ____%
Private patient payments ____%
Other (be specific)_____
Cannot determine ____

57. (Dysfluency) How many patients were diagnosed as having fluency problems in 1974?

Less than 5 _____
5 - 15 _____
16 - 25 _____
26 - 35 _____
36 - 45 _____
46 - 55 _____
More than 55 _____

58. How many patients with fluency problems were treated during 1974?

Less than 5	_____
5 - 15	_____
16 - 25	_____
26 - 35	_____
36 - 45	_____
46 - 55	_____
More than 55	_____

59. Of those treated for fluency problems, indicate the average percentage of revenue obtained from the following:

Third party payer	____%
Private patients' payments	____%
Other (be specific)	_____
Cannot determine	____

Section III: Audiology Services (Quesions 60 - 78 for Audiology only)

60. What were the number of patients diagnosed in your setting during 1974 in the three age categories? (Fill in the number evaluated)

Age Range	Number Diagnosed (Approximate)
0 - 25 years	_____
26 - 64 years	_____
65 years and older	_____

61. What is the average fee per hour for a hearing evaluation at your clinic? _____

62. A medical referral is required before a patient can be evaluated audiologically --

All of the time	_____
Some of the time	_____
None of the time	_____

63. If some of the time, please explain the circumstances below:

_____

_____

64. Rank the following physicians according to the frequency with which you receive patient referrals from them. (Record "1" for the most frequent, "2" for the next most frequent, etc.; Record "0" if no referrals are received from any group.)

Neurologists	_____
Otolaryngologists	_____
Pediatricians	_____
General Practitioners	_____
Psychiatrists	_____
Physiatrists	_____
Other (specify)	_____

65. Rank the following according to the frequency with which you refer patients to the following physicians.

Neurologists	_____
Otolaryngologists	_____
Pediatricians	_____
General Practitioners	_____
Psychiatrists	_____
Physiatrists	_____
Other (specify)_____	

66. Are aural rehabilitation services available at your clinic?

Yes	_____
No	_____

67. If the answer to #66 was yes, check the following aural rehabilitation service(s) that your clinic provides.

lipreading	_____
auditory training	_____
speech conservation	_____
hearing and evaluation	_____
other (specify)_____	

68. What was the number of patients receiving habilitative or rehabilitative services during 1974 in the three age categories?

Age Range	Number Treated (Approximate)
0 - 25 years	_____
26 - 64 years	_____
65 years and older	_____

69. What was the average length of a habilitative or rehabilitative treatment session during 1974?

1/2 hour	_____
1 hour	_____
Other (specify)	_____

70. What is the average fee per treatment session for aural rehabilitation?

		Individual	Group
a) 1/2 hour	Less than $10.00	_____	_____
	10.01 - 20.00	_____	_____
	20.01 - 30.00	_____	_____
	30.01 - 40.00	_____	_____
	40.01 - 50.00	_____	_____
	More than $50.00	_____	_____

		Individual	Group
b) 1 hour	Less than $10.00	_____	_____
	10.01 - 20.00	_____	_____
	20.01 - 30.00	_____	_____
	30.01 - 40.00	_____	_____
	40.01 - 50.00	_____	_____
	More than $50.00	_____	_____

71. How many audiologists comprise your staff? (Include yourself if applicable.)

Part-time _____
Full-time _____

72. How many audiologists on your staff hold their Certificate of Clinical Competence (CCC) or are completing their Clinical Fellowship Year (CFY)?

CCC_____ CFY_____

73. How many audiologists on your staff hold the following as their highest academic degree?

B.A._____ M.A._____ Ph.D._____

74. How many audiologists on your staff are current members of the American Speech and Hearing Association (ASHA) and/or the Michigan Speech and Hearing Association (MSHA)?

ASHA _____
MSHA _____

75. How often are progress reports written on patients?

Weekly _____
Monthly _____
Tri-monthly _____
Semi-annually _____
Annually _____
Other (Specify)_____

76. Estimate the percentage of patients you see on an "inpatient" basis.

0 - 25% _____
25 - 50% _____
50 - 75% _____
75 - 100% _____

77. Estimate the percentage of patients you see on an "outpatient" basis.

0 - 25% _____
25 - 50% _____
50 - 75% _____
75 - 100% _____

78. Of the following disorders, rank the three most frequently encountered during 1974. (Otitis Externa, Otitis Media, Mastoiditis, Menieres Disease, Otosclerosis, Conductive Hearing Disorders, Sensorineural Hearing Disorders, Mixed Hearing Disorders, Congenital Anomalies of the ear causing impairment, other.)

1st _____

2nd _____

3rd _____

THANK YOU!!!