INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

- 1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure complete continuity.
- 2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.
- 3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
- 4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.
- 5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.

University
Microfilms
International
300 N. Zeeb Road
Ann Arbor, MI 48106

Csokasy, Judith Hagestrom

A NEEDS ASSESSMENT TO DETERMINE THE EMPLOYMENT POTENTIAL OF A MULTIPLE COMPETENCY HEALTH PRACTITIONER IN SMALL HOSPITALS IN MICHIGAN

Michigan State University

Ph.D. 1983

University
Microfilms
International 300 N. Zeeb Road, Ann Arbor, MI 48106

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark $_\sqrt{}$.

1.	Glossy photographs or pages
2.	Colored illustrations, paper or print
3.	Photographs with dark background
4.	Illustrations are poor copy
5.	Pages with black marks, not original copy
6.	Print shows through as there is text on both sides of page
7.	Indistinct, broken or small print on several pages
8.	Print exceeds margin requirements
9.	Tightly bound copy with print lost in spine
10.	Computer printout pages with indistinct print
11.	Page(s) lacking when material received, and not available from school or author.
12.	Page(s) seem to be missing in numbering only as text follows.
13.	Two pages numbered Text follows.
14.	Curling and wrinkled pages
15.	Other

University
Microfilms
International

A NEEDS ASSESSMENT TO DETERMINE THE EMPLOYMENT POTENTIAL OF A MULTIPLE COMPETENCY HEALTH PRACTITIONER IN SMALL HOSPITALS IN MICHIGAN

Ву

Judith Hagestrom Csokasy

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Vocational and Technical Education

Department of Curriculum and Instruction

ABSTRACT

A NEEDS ASSESSMENT TO DETERMINE THE EMPLOYMENT POTENTIAL OF A MULTIPLE COMPETENCY HEALTH PRACTITIONER IN SMALL HOSPITALS IN MICHIGAN

Ву

Judith Hagestrom Csokasy

The primary purpose of this descriptive study was to explore the employment potential of a multiple competency health practitioner in small hospitals in Michigan. A practitioner with multiple competencies was defined as an individual who uses selected skills and knowledge from two or more allied health occupations.

The subjects for this study were the administrators of small hospitals of 100 bed capacity or less in Michigan. An examination of the data obtained from the needs assessment survey instrument indicated that the majority of the hospital's administrators reported they would choose a job applicant with multiple competencies over a job applicant with a single competency.

In addition, the general findings of the study indicated that:

- 1. The respondents that reported they would not choose an applicant with multiple competencies, did so because of salary expectations.
- 2. Hospital administrators are currently utilizing their employees in more than one area of responsibility. Respiratory therapy and radiology were the highest ranked primary skill areas, while electrocardiogram was the most widely selected secondary skill.
- 3. In the future, the administrators would most like their practitioners with multiple competencies to possess the following skill combinations:

	First Choice of Primary Skill	First Choice of Secondary Skill
Α.	Respiratory Therapy	Electrocardiogram (EKG)
В.	Surgical Technician	Licensed Practical Nurse (LPN)
C.	Medical Technology	Radiology
D.	Radiology	Ultra sonography
Ε.	Physical Therapy Assistant	Respiratory Therapy

- 4. There is no relationship between the bed capacity of the facility or the population service area of the facility and the desire of the administrators to use a practitioner with multiple competencies.
- 5. The respondents were about equally divided concerning the preferred educational preparation of a practitioner with multiple competencies. Half of the respondents desire a regular collegiate program, while the other respondents selected other types of educational experiences.
- 6. The hospital administrators were about equally divided concerning the current credentialing of allied health workers. Forty-one or fifty-five percent of the respondents were satisfied with the current credentialing mechanism. The remaining respondents desired a change in the credentialing process.

This dissertation is dedicated to my parents and my sister Nancy, for all of their love and support shared with me through the years; and to my husband David who never lost faith in my ability to complete the doctoral program.

ACKNOWLEDGEMENTS

With deep appreciation, I wish to thank my committee members:

Professors Donald Meaders, Louis Romano, and Robert Poland. A special thank you to Professors Richard Gardner and Billie T. Rader, who were always ready to offer inspiration and guidance since the beginning of my doctoral program.

I would also like to thank the administration and staff of the School of Allied Health at Ferris State College. Especially Dean Aaron L. Andrews and Acting Dean Duane Addleman, who were both supportive in allowing me to have release time and to utilize college resources.

Appreciation is also extended to my friend and typist,

Norma Larner, who assisted me with editing and provided encouragement
to the end.

TABLE OF CONTENTS

Chapter		Page
I	INTRODUCTION. Growth of Allied Health Occupations. Role of Credentialing. Problems of Small and Rural Hospitals. Responsibility of Allied Health Education. Statement of the Problem. Research Questions. Need for the Study. Significance of the Study. Significance of the Study. Terms and Definitions. Limitations of the Study. Summary of Chapter. Overview of Other Chapters.	1 1 3 4 5 6 7 8 9 10 11 13 14 15
II	REVIEW OF LITERATURE. Credentialing of Allied Health Practitioners. Section I: Historical Development. Section II: The Current State of Credentialing. Multiple Competency Health Care Workers. Needs Assessment. Survey Research Methodology. The Strength of Survey Research. The Weaknesses of Survey Research. Development of the Questionnaire. Summary of Chapter.	16 16 16 23 26 29 34 35 35 36
III	RESEARCH METHODOLOGY. Population. Development of the Instrument. Objectives. Research Questions. Face Validity. Panel of Experts. Profile of Panel of Experts. Review Procedure. Data Gathering. Correspondence. Mailing Sequence. Treatment of the Data. Summary of Chapter.	38 39 39 41 42 44 45 46 46 47

IV	Response Rates	48 49 49 52 52 54 65
	SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS Summary of the Findings Conclusions Recommendations Recommendations Based on the Findings Recommendations for Future Research Reflections Credentialing Information Concerning Multiple Competency Practitioners	68 69 73 74 75 75 77 78 78
APPENDI	CES	
	Appendix A Survey Questionnaire	82 ⁻
	Appendix B Correspondence	86
	Appendix C Names and Addresses of Hospitals	90
	Appendix D Department of Health and Human Sciences Proposed Rules	94
BIBLIO	RAPHY	99
GENERAL	REFERENCES	103

.

TABLES

TABLE		Page
1	Response to Survey by Bed Capacity	49
2	Bed Capacity of the Facility and Willingness of the Administrator to Utilize Multiple Competency Health Practitioners	50
3	Population Service Area and Administrator's Desire to Utilize Multiple Competency Health Practitioners	51
4	Administrators who would Choose Job Applicants with Multiple Competencies	53
5	Reasons why Administrators Avoid Hiring Multiple Competency Health Practitioners	54
6	Administrators Currently Utilizing Health Care Practitioners in More Than One Area of Responsibility	55
7	Skill Areas in which Multiple Competency Practitioners Presently Serve	57
8	Skills Administrators Perceive a Multiple Competency Health Practitioner should Possess with Respiratory Therapy as the Primary Skill	59
9	Skills Administrators Perceive a Multiple Competency Health Practitioner should Possess with <u>Surgical Technician</u> as a <u>Primary Skill</u>	60
10	Skills Administrators Perceive a Multiple Competency Health Practitioner should Possess with Medical Technology as a Primary Skill	61
11	Skills Administrators Perceive a Multiple Competency Health Practitioner should Possess with Radiology as a Primary Skill	62

12	Skills Administrators Perceive a Multiple Competency Health Practitioner should Possess with Therapy Assistant as a Primary Skill	63
13	Additional Desired Skill Combinations for Practitioners with Multiple Competencies	64
14	Methods Preferred by Administrators for Educating a Multiple Competency Health Practitioner	66
15	Preferred Changes in the Credentialing Practices of Allied Health Practitioners	67

LIST OF FIGURES

Figure		Page
1	The Curriculum Development Cycle Using a Needs Assessment Base	33

Chapter I

INTRODUCTION

The outlook for health services and changing health manpower utilization patterns . . . point to an increasing need for personnel who can function in a variety of settings and exercise a wide range of skills. (National Commission on Allied Health Education, 1980:153)

The goal which directed the researcher during this study was to determine the employment potential of a multiple competency health practitioner in small and rural hospitals in Michigan. For use in this study, a multiple competency health practitioner was defined as an individual who uses selected skills and knowledge from two or more allied health occupations. The need for such a person has been identified by various leaders in the health care field (Blayney, 1982; Kinsinger, 1980; Lugenbeel, 1980) and appears to be an outgrowth of the ever changing American health system.

Growth of Allied Health Occupations

The rapid expansion of the health care field and the resultant increase in required certified health occupations reflects the changes in societal attitudes and technological innovations during recent years. Rapid, ongoing changes in scientific and medical knowledge have resulted in advances that have greatly altered the availability and delivery of health care services. For example, the progress from the

discovery of gamma radiation to x-ray diagnosis and therapy led to a diagnostic and therapeutic tool for the physician practitioner. In turn, this has led to the development of a specialty for medical practice (Radiologist) as well as generating a number of allied health occupations (e.g. Radiographer and Nuclear Medicine Technologist).

In the allied health professions, the number and diversity of occupational groups continues to increase. The criteria for establishment of a job category or occupation, reports Martin (1980), have often been based on the discovery of a new medical treatment, a newly discovered disease, new machine, or the need for a new assistant for one of the ever increasing number of physician specialties. The identification of skills and the development of jobs which has resulted in newly created allied health occupations, appears to have come about without overall design, control or coordination. According to Friedman (1981:47), "This has resulted in allied health workers who are narrowly trained and often hired for specific tasks."

As new allied health occupations have emerged, professional organizations have developed to represent the needs and interests of the occupational groups. Such organizations seek to gain recognition and professional identity by increasing educational requirements and raising the levels of professional credentialing. Approximately eight of every ten allied health occupations are now represented by professional associations. (Galambos, 1979:6) The newly formed National Commission of Health Certifying Agencies (1980) warned that the increasing number of allied health professional organizations seeking credentialing had reached a critical level.

Role of Credentialing

Credentialing was originally designed as a mechanism of quality assurance established by a public agency to indicate to an employer and the public that an individual had met specific requirements necessary for the practice of a particular occupation. However, the credentialing process no longer appears to be accomplishing that goal. Potter (1981), of the Michigan Hospital Association, identifies the credentialing mechanism of allied health occupations as the number one "artificial barrier" to effective utilization of personnel in Michigan hospitals. Potter states, "since 60% of the hospital's total operating budget is allocated to payroll, the hospital employer should be involved in the development of credentialing standards for the employee and curricula for educational programs." (personal communication June 6, 1981)

There is a growing concern that as professional organizations have gained status and political power, they have lobbied successfully for state and federal legislation to define not only the educational experiences necessary, but the credentialing mechanism for practice. The result is that professional organizations are having increased power to control the type of credentialing a person must have in order to perform a certain task. This lobbying effort is manifested in the criteria for reimbursement of third party payments (i.e., Medicare and Medicaid). In order for a hospital to be reimbursed for services to a Medicare and/or Medicaid recipient, the specific service must have been performed by a practitioner designated as "qualified" by Medicare and Medicaid essentials. For example, if the hospital expects to be paid for a specific laboratory test, the test can only be performed by a

laboratory technologist credentialed by the National Association of Clinical Laboratory Scientist, the laboratory technicians professional organization. Such rules and regulations exert a powerful influence and limit the ways in which hospitals may effectively utilize their personnel. The members of the American Hospital Association's Council on Human Resources have expressed concern over the restrictions of the flexible use of personnel when they state that:

Credentialing (Licensure) by its very nature restricts the flexible use of personnel. Technology, service requirements, availability and other factors may necessitate a realignment of functions not possible under licensure. In the past, protection functions through licensure laws has led to the fragmentation and proliferation of occupations. Society can no longer afford this waste of resources. (1980:2)

All hospitals are becoming increasingly concerned about the problem of allied health practitioner utilization, but the dilemma appears to be especially serious in the small and rural hospital.

Problems of Small and Rural Hospitals

The problem of maintaining patient services without increasing staffing costs is a troubling problem for all hospitals, but is especially critical in the small hospital. The leaders in organizations advocating credentialing and high levels of practitioner specialization appear to be unaware of what rural America is like. Most small hospitals, says Friedman (1981:48) "maintain adequate services with a minimum number of full time personnel and might benefit from being allowed to utilize their personnel in innovative ways."

As is well documented in small hospitals, personnel are needed for primary care; few can afford to attract full-time staff members who are highly specialized. The National Commission on Allied Health

Education (1980:75) reports "the small hospital needs a core staff to provide basic services, in such areas as laboratory, x-ray and respiratory therapy."

One small hospital administrator explained that her facility solved the problem in staffing by training three staff members with an additional competency. "Using people in this way has enabled our hospital to pay expenses without incurring a deficit in the areas where we utilize a multiple competency practitioner." (Lugenbeel, 1980:74)

Other small hospitals might benefit from employing an allied health practitioner with an additional competency. There appears to be a need for the educational institutions which prepare allied health personnel to explore ways to meet the various staffing needs of the small and rural hospital.

Responsibility of Allied Health Education

The development of allied health education has traditionally followed the demand for new allied health occupations. This has resulted in practitioners who are often trained for specific tasks in response to a new medical treatment or a newly created physician specialty. As these narrowly trained health practitioners proliferated, the delivery of health care has become increasingly specialized and diversified.

The National Commission on Allied Health Education (1980), acknowledging the past traditions of preparing highly specialized practitioners, is concerned that the tendency to create new allied health occupations seems to continue. The commission has called for a

"concerted effort on the part of educators, professional associations and accreditation bodies" (p. 177), to seek alternative ways of meeting health manpower needs.

In response to the expansion of highly specialized practitioners, various leaders in the health care field (Blayney, 1982; Kinsinger, 1980; Lugenbeel, 1980) have called for allied health educators to develop educational programming that would allow a student to develop competencies in more than one allied health occupational role. This would prepare a health practitioner who would be able to function in more than one category of job description.

Thus, the study was undertaken by this researcher to determine if administrators of small hospitals would employ a multiple competency allied health practitioner. A health practitioner who would be prepared to "function in a variety of settings and exercise a wide range of skills". (National Commission on Allied Health Education, 1980:153)

Statement of the Problem

This study sought to answer the general question: What is the potential for employment of health care practitioners with multiple competencies in small hospitals in Michigan? One method proposed by leaders in the field of allied health education to provide more effective utilization of allied health personnel is to prepare health care providers in two or more health occupation areas.

The need for a multiple competency individual has obvious implications for institutions which educate and train allied health practitioners. If such institutions are to provide employees to meet

changing human resource needs, then information must be gathered from health care administrators regarding the specific health practitioner needs of their respective institutions. The National Committee on Allied Health Education and Accreditation of the American Medical Association recently approved the creation of a task force to study the concept of a multiple competency allied health educational program. Prospective employers of multiple competency health practitioners are to be surveyed to ascertain the employment potential of such individuals.

Research Questions

The researcher was directed by the following questions:

- 1. Would administrators of small health care facilities choose job applicants with multiple competencies?
- 2. Do administrators in some small health care facilities avoid hiring a multiple competency health practitioner? If yes, why?
- 3. Do small health care facilities presently utilize health practitioners in more than one primary area of responsibility?
- 4. What are the skill areas in which multiple competency health practitioners presently serve?
- 5. What are the skill areas which administrators of small health care facilities perceive a multiple competency health care practitioner should possess?
- 5. Is there a relationship between the bed capacity of the facility and the desire to utilize a multiple competency health practitioner?

- 7. Is there a relationship between the size of the population service area of the health care facility and the desire to utilize a practitioner with a multiple competency?
- 8. Do the administrators of small health care facilities have a preferred method for the educational preparation of multiple competency health practitioners?
- 9. Do administrators prefer to see any change in the credentialing practices of allied health practitioners?

Need for the Study

In the past few years, the health care delivery system has witnessed a rapid proliferation of allied health specialties, each of which has attempted to identify a unique role for itself. As a consequence, there appears to be insufficient utilization of health care personnel. This factor continues to contribute to the additional cost of delivering health care.

There is evidence of interest in a movement away from the narrow specialization of the past toward a more generalized curriculum resulting in the preparation of a person in health care to perform in more than one competency area.

In the <u>Future of Allied Health Education</u>, the National Commission on Allied Health Education stated:

The outlook for services and changing health manpower utilization patterns . . . point to an increasing need for personnel who can function in a variety of settings and exercise a wide range of skills. Moreover, the fact that the functions of many allied health personnel, indeed most personnel, overlap to a significant extent makes the concept of a generalist both rational and feasible. (1980:153)

The American Hospital Association (AHA) recommends that studies be done in each state to meet the additional needs of health care facilities and workers. A needs assessment which includes gathering data from employers is considered to be the basis of sound curricular revisions. A key spokesman for the AHA states:

Too many curricula are developed by the educators and professional organizations, without sufficient input from the employer or independent practitioner. Job standards developed without employer input often disregard such major factors as cost, productivity, and job satisfaction. (American Hospital Association, 1980:6)

In these times of economic crisis and escalating costs, it is necessary that educational institutions take another look at curriculum content to determine whether or not changes must be made to meet the needs of the employers of various health care institutions.

Significance of the Study

The study was designed to measure the employment potential of a multiple competency health care worker as a first step toward educational program realignment to meet the employer staffing needs in hospitals of 100 bed capacity or less in the State of Michigan.

The data from this study will be of primary interest to the State of Michigan, the Michigan Hospital Association, various state licensing agents, schools of Allied Health within post-secondary institutions, Professional Organizations and individual health care workers.

The data will be reviewed by the Michigan Hospital Association (MHA) Manpower Utilization Committee. The MHA is aware of the employment shortages in many health facilities across the state and of administrators' problems as they attempt to provide qualified health workers to meet patient needs.

Health planning agencies may use the information from this study to assist small hospitals in long-range planning. There is a great need for careful comprehensive planning, but too often, small hospitals lack the finances to support such studies. The challenge of the 1980's in these institutions is to match health services to the changing populations. A multiple competency person could be used in many areas and in varying combinations, depending on the specific need.

State licensing boards and certifying agencies may find these survey results useful to explore expanded job descriptions. The resistance by professional organizations to discuss the multiple competency concept has managed to keep most educational institutions from exploring the idea. As a result, because of the protection of each professional organization directed toward its area of knowledge, most certifying boards of the allied health occupations continue to move their organizations toward more specialization.

Data from the research may be utilized by educators at various educational institutions that are seeking to modify existing programming to meet the needs of currently employed health care practitioners. By means of a continuing educational program, practicing allied health professionals could expand their knowledge base and develop additional occupational skill areas.

Basic Assumptions for the Study

This study was based upon the following assumptions:

1. There are personnel needs which involve change in educational preparation which employers are willing to identify and report.

- 2. A study of this nature, directed to administrators in small and rural hospitals, would provide useful information about the potential employment of a multiple competency health practitioner.
- 3. The respondents to a mailed survey instrument will be forthright, honest, and candid in their responses.

Terms and Definitions

Definitions of key terms used in this study are provided for a common basis of understanding.

- Allied Health A term generally applied to occupations whose primary function is to provide health services or to promote health. (National Commission Allied Health Education, 1980:1)
- 2. Allied Health Personnel -

The term allied health personnel includes individuals trained at the associate, baccalaureate, masters or doctoral degree level in health care related services (including services related to the identification, evaluation, and prevention of diseases and disorders, dietary and nutrition services, health promotion, rehabilitation and health systems management), but who are not graduates of schools of medicine, osteopathy, dentistry, veterinary medicine, optometry, podiatry, chiropractic, pharmacy or nursing (Definition accepted by the National Commission on Allied Health Education and the Board of Directors of the American Society of Allied Health Profession, 1980).

3. Competency - The ability (including knowledges, skills and/or attitudes) to perform a specific task successfully (also called a skill).

4. Credentials - That which gives title to belief or confidence. In Allied Health, it is used as an assurance of quality that practitioners are qualified to perform the roles and functions of their occupations. This can be done by either licensing or certification, which have been defined by the U.S. Department of Health, Education, and Welfare. (1978)

A. Licensure

The process by which an agency of government grants permission to an individual to engage in a given occupation upon finding that the applicant has attained the minimal degree of competency necessary to ensure that the public health, safety, and welfare will be reasonably well protected.

B. Certification

The process by which a non-governmental agency or professional organization grants recognition to an individual who has met certain predetermined qualifications specified by that agency or organization.

5. Hospital - In accord with the provisions of Act 368, Public Acts of 1978, as amended, a hospital is:

a facility offering inpatient, overnight care, and services for observation, diagnosis, and active treatment of an individual with a medical, surgical, obstetric, chronic, or rehabilitative condition requiring the daily direction or supervision of a physician. The term does not include a hospital licensed, or operated by the Department of Mental Health (Directory, Bureau of Hospitals, January, 1981, p. 1)

6. Need - The gap between what is and what ought to be.

(Kaufman and English, 1979:37)

- 7. Needs Assessment A formal process for determining perceived gaps between present and desired outcomes. A critical step to assure that problem-solving process is valid, useful, and important. It gathers information about institutions which are currently in place and operating (such as training organizations, federal or state agencies, schools or school districts) and attempts to identify gaps in societal situations to which alternative methods (such as education or training) might be responsive. (Kaufman and English, 1979:39)
- 8. Multiple Competency Health Practitioner A member of a health care team who possesses skills and knowledge from two or more allied health occupations. For example: Radiology/Respiratory therapy. (Nebraska Department of Education, 1980:1)

Limitations of the Study

This study was limited by those problems related to a mailed survey questionnaire, generalizeability, and the type of information gathered from the hospital administrators.

- 1. Only chief administrators were surveyed. (If employees had been sent the instrument, the data might have been different)
- 2. Since the population for this study were the chief administrators of all hospitals of 100 bed capacity or less in the State of Michigan, the research results may be generalizeable to only those health care facilities in geographic areas which have similar allied health manpower needs.

- This study did not include questions about the utilization of personnel; neither did it include a task analysis.
- 4. This study was not designed to provide futuristic employment projections.

Summary of Chapter

This chapter contains a description of the problems small hospitals face in staffing of allied health personnel. It appears that current practices within the various credentialing agencies are presenting a barrier to allied health administrators as they attempt to alleviate staffing shortages through the innovative and flexible utilization of existing personnel.

Various leaders in the allied health field have stated that they believe that the development of a health practitioner with multiple competencies may be one solution to the staffing problems of the small hospital. The administrators of such facilities could benefit from being allowed to use their allied health personnel to function in two or more allied health specialty areas. Thus, the study was undertaken to measure the employment potential of a multiple competency health practitioner in small hospitals in Michigan.

The research questions focus on the information necessary for allied health educational program planning. The primary goal of the study was to determine whether administrators in small hospitals in Michigan perceive a multiple competency practitioner to be an alternative to conventional allied health staffing practices.

Overview of Other Chapters

In Chapter II, the pertinent literature is reviewed. The first section of the chapter deals with the credentialing of allied health personnel. Section two explores the potential use of a multiple competency health practitioner. The third section explains the importance of a needs assessment as a necessary tool for effective curriculum design, and the last section is related to survey research methodology.

Chapter III contains a description of the research procedures used to gather information concerning the employment potential of multiple competency personnel in small hospitals in Michigan. This includes the methods used for selecting the population, the procedures for developing the survey instrument, and an overview of the treatment of the data.

Chapter IV contains the findings with an analysis of the data gathered from the administrators.

Chapter V contains a summary of the research findings, conclusions, recommendations, and implications for future research. In addition, the researcher presents some reflections on this study and its findings.

Chapter II

REVIEW OF THE LITERATURE

The review of the literature is organized under four major headings: 1) Credentialing of allied health practitioners; 2) Multiple competency health practitioners; 3) Needs assessment as a basis of curriculum design; and 4) Survey research methodology.

Credentialing of Allied Health Practitioners

The credentialing of allied health practitioners is divided into two sections. Section 1 reviews the historical development of the credentialing process, and Section 2 will explore credentialing and its impact upon current allied health employee utilization.

Section I: Historical Development. The following opposing statements by two key spokesmen in national health care are indicative of the controversy surrounding the whole area of accreditation/credentialing of facilities and personnel in providing health care services to the public. Professor Nathan Hersey, research professor of Health Law at the University of Pittsburgh, writes:

The major effect of our mandatory licensing system of professional and occupational specialists in the health field is to establish a rigid categorization of personnel that tends to interfere with the organization of services to meet the demand of patient services. (1964:1)

An opposing view of credentialing is held by J. W. Cashman, a noted Health Systems Analyst, when he states:

Licensure, certification and accreditation have basically similar objectives: to establish standards of quality for medical care services, and through a process of inspection, education, and conciliation, to encourage and assist institutions to meet and maintain the standards and improve the quality of care they provide. (1967:26)

Since the credentialing process is viewed as a major constraint upon the versatile use of allied health personnel, a review of the literature was made to explore the historical development of the credentialing issue. It is important to understand how the credentialing process has become so influential in mandating the qualifications an allied health worker must possess.

A spokesman for the American Hospital Association (AHA) addresses the credentialing issue when he writes about the control credentialing has gained over the third party payment of services to hospitals.

A recent report issued by the Council of Human Resources states:

The economic effects of licensing laws for health and other occupations must be noted. The analysis of increased hospital costs offers some indication of the effect of salary demands where there is legislative recognition of health occupations. Since this is an era of functional and knowledge specialization, the time may come soon when an individual will need four or five licenses to perform a limited service and his salary demands will increase accordingly if present trends are followed. (American Hospital Association, 1980:4)

The earliest effort at public regulation of health care in the United States came in the form of licensing physicians. Shryrock in Medical Licensing in America, 1650 to 1965, found that in 1649 in the Province of Massachusetts, barely twenty years after its original settlement, physicians or others "who were employed at any time about the body of men, women or children, for the preservation of life or health", were licensed. No such persons were to practice "without the advice and consent of such as are skillful in the same art (if such may

be had) or at least some of the wisest and gravest then present."

Those who ignored the regulation could be fined by the court. (1967:ii)

Nearly 160 years passed between passage of the first licensing law in New York in 1760 and 1917 when the last state, Alaska, took action. (Somers, 1969:77) Of the estimated 3,500 physicians in the United States in 1775, only 400 held medical degrees. Substantial changes were not made in the preparation of physicians and the quality of medical education until well into the twentieth century. (Goldstein & Horowitz, 1977:25)

Association (AMA) was becoming concerned about the proliferation of inadequate medical schools and the poor state of basic medical education for physicians. The AMA then began to exert a role in demanding quality education and volunteered to rate medical schools, placing them in three categories on the basis of performance. This move was met with great hostility by the profession and the schools; however, the Carnegie Foundation stepped in to support the position of the AMA on quality education and commissioned Abraham Flexnor, a non-medical educator to do a study of medical education. Flexnor's report was published in 1910 after he visited every medical school in the United States and Canada. In his book, the Flexnor Report, in the chapter titled Reconstruction, he raises questions concerning the rights of states to regulate medical education:

. . . the community through regulation undertakes to abridge the freedom of particular individuals to exploit certain conditions for their personal benefit. Society forbids a company of physicians to pour out upon the community a horde of ill-trained physicians. Their liberty is indeed clipped. Reorganization along rational lines involves the strengthening, not the weakening of democratic principles, because it tends to provide the conditions upon which well-being and effectual liberty depend. (1910:142)

Somers, (1969:232) a medical sociologist cites the publishing of the Flexnor Report as one of the "great dates in recent history of medical care". The Flexnor Report on medical education marked the beginning of the era of scientific medicine and of institutional medicine. This study highlighted the need for reform and generated public concern and action toward improving the poor state of medical schools. Goldstein & Horowitz (1977) believe the Flexnor Report not only resulted in improved education for physicians and in better hospital facilities, but also brought a decrease in the physician/ patient ratio. The end result of the report was AMA's support for a system of self-regulation that ended in the accreditation of medical schools. State legislatures later began establishing medical practice acts which required graduation from an accredited school as the basic qualification to sit for the state physician licensure examination. In 1913 the AMA Council of Medical Education began inspecting hospitals and subsequently published its list of hospitals approved for resident training.

The first involvement of the American Medical Association in accreditation of programs for health care workers, other than physicians came in 1932 when they agreed to cooperate with occupational therapists. Through the next two decades, four more programs were added. The 1960's and 1970's saw a proliferation of accredited programs. Of the

27 sets of Essentials for Program Accreditation developed by the Committee on Allied Health Accreditation and Education (CAHEA) since 1930, "22 percent were adopted before 1960, 22 percent during the 1960's and 56 percent since 1970." (Holstrom, 1976:4)

With the advent of more health practitioners besides the routine physicians, nurses and pharmacists, professional organizations began to demand more autonomy in their education and in setting their own professional credentialing standards. The ratio of physicians and other allied medical workers, as they were then called, was changing. In 1967 the American Society of Allied Health professions was formed to provide a forum for all of the allied health workers to come together to discuss education, public and private accreditation, clinical facilities and the role of the independent practitioner. (Holder, 1981)

As allied health moved into a more cohesive unit, the AMA began to collaborate with the individual organization to comprise the "largest accrediting consortium in the United States with respect to the number of professional organizations, programs and students graduated." (The Allied Health Education Directory, 1979:10) In collaboration with "47 medical specialties and allied health organizations, and with the numerous review committees, CAHEA, of the AMA, accredits programs for 25 allied health occupations."

Some of the criticism directed at the whole process of accreditation/credentialing is directed toward the AMA and their heavy involvement in the process. But there are also other factors in the current status of accreditation which are cause for concern. McNulty states part of the fragmentation and "the fraying around the edges" of the accreditation mechanism is due to:

1) the struggle of professional organizations to gain independence for themselves, 2) the move into specialization and the large increase in numbers of the types of health occupations, and 3) interest of the government in protecting and controlling Medicare and Medicaid to the point of becoming increasingly involved in monitoring services rendered in education and in setting criteria for standards of practice. (1980:66)

The area of increasing specialization of the new and emerging occupations is of vital concern to all health workers. This movement toward specialization is causing health care costs to escalate as new specialists emerge and third party payers attempt to mandate who may perform specific duties. Cohen writes:

perhaps more critical than the number of physicians is the failure within the system to regulate type and number of specialists, their geographic location . . . No single agency has yet accepted responsibility for determining the type and number of specialists and allied health workers needed. (1977:26)

Martin (1980:2) states that in allied health there has been a great variety of specialization. "Often this specialization is based on such things as the discovery of a new technique, a treatment modality, a new discovered disease, a new machine, or a new assistant for one of the physician specialties." Pellegrino, one of the nation's keenest spokesman for the health profession, sums up the conflicts and problems in health care manpower this way:

The real issue is how to bring about some convergence in function and numbers. The present course of unguided proliferation is socially untenable and fiscally unsupportable. (1977:27)

As allied health employees have increased, so have the problems of credentialing such employees. The issues of credentialing is now viewed by many as a primary cause of increased hospital costs. Through

the credentialing process, hospitals are mandated by third party payers to use only employees with certain credentials for certain functions.

In order to protect the public, "the health professions have become obsessed with credentials". (Martin, 1980:10) In addition to the accreditation of educational programs, they turned to licensure by the state and certification by the professions. Licensure was a public sector function in contrast to accreditation which was a private sector function.

Although licensure was accomplished through examinations generally prepared by non-educators, the right to take an exam was based on completion of an educational program that was accredited. This combination established the precedent for private accreditation to serve a public function. (Martin, 1980:18)

Certification was later developed by the professional organizations to examine a health care worker for the competence that identified a specialist. "The allied health professions followed the medical school with three layers of credentialing; namely, accreditation, licensure and certification." (Martin, 1980:12) Many professional organizations promoted legislation to define in detail the area of practical competence and the scope of care to be practiced by each group.

The complex system of credentialing regulation in health care, while fostered by the professions, received sanction of government through state and federal laws. As new professional groups developed expertise, they have demanded increasing authority to govern their educational experience, and their professional competence. They have used the whole credentialing process to increase wages and improve their public image. (Goldstein & Horowitz, 1977) This "inter-professional

fragmentation" of health care education, accreditation and other forms of credentialing also has led to open conflicts between the professions. (Kinsinger, 1980:13)

Section II: The Current State of Credentialing. The federal government has shifted its emphasis away from the production of more manpower to solving the problem of geographical and professional maldistribution of manpower. (Ruhe, 1980) A concensus of opinion is forming that the current laws of licensure of hospital personnel is obsolete and more of a "hindrance than a help." (Clark, 1980) (Kinsinger, 1973)

The whole dilemma of credentialing affects all hospitals, but the small, rural hospital has particular problems in terms of salaries, recruiting and retaining credentialed practitioners. Friedman, interviewing small hospital administrators, writes about their concerns:

If something isn't done the proliferation of the specialty groups will mean the demise of the small hospital. I think people advocating high levels of specialization are simply unaware of what rural America is like . . .

In terms of the claim that more highly trained and educated personnel ensure better quality just does not add up. None of the hospitals in our system have ever been sued and if our care had been so poor I am sure we would have by now . . .

From an employer's point of view, I have seen no correlation between effective outcome and the credentials trend. There is no documentation of whether a person's work is better and will continue to be better because he holds a degree. There has been no study that has proven that all the credentialing results in better patient care. (1981:48-49)

Thus, credentialing is restricting the use of personnel and preventing small hospitals from solving their own problems such as "correction of high turnover rates, job dissatisfaction, relatively low wages and limited upward mobility." (Goldstein & Horowitz, 1977:12)

At a recent Forum on National Accreditation of Allied Health Education, Mr. William Culbertson, an administrator of a small hospital, recounted the following sequence of events involving the certification for emergency services:

Let me tell you about a problem in Ohio and what problems are developing and what I think will eventually happen because of the certification process. About five or six years ago, the federal government gave the state money to establish some type of emergency medical services. Here is what happened.

People riding in the ambulances as volunteers had to be certified in a 90-hour training program to be an EMT.

A second program running 500 hours was introduced. The person is then qualified as a paramedic and can do certain procedures not covered in EMT training.

What has happened to the "good samaritan" who used to help in emergency situations? His status is now questionable.

If an EMT answers your call and does something to save your life that only a paramedic is supposed to do, is he in trouble? Probably, if the results are not perfect, even though you would have died if he hadn't tried to be helpful.

Now, after five years, EMT's have to be recertified every three years. Local squads are having trouble because it again requires 27 hours of training and all squad members' original certificates don't need to be renewed at the same time.

In most instances, the service has been staffed by volunteers, but in cities where the volume of service warrants, it has been staffed with paid employees, usually paramedics.

With the tightening up of the certification process, we will probably see volunteer departments going under and the public demanding a paid service.

In rural areas, where there is a 15 to 30 thousand population in a county, what do you think the response time would be if there is only one squad in the county?

The cost of 365-day, 24-hour-a-day staffing is estimated to exceed \$150,000 per squad.

Because of these problems, unless the rules are changed, I think we will see a demise of volunteer programs. The response time in many areas will increase dramatically. If and when somebody arrives, you will probably be better cared for. The cost of health care will increase.

The certification process seems to be most important in the health care field; it has been a bonanza for the educators; and probably the biggest ally is the medical malpractice situation that exists in the United States today. (Culbertson: 1980:157-158)

In 1977, the National Commission of Health Certifying Agencies (NCHCA) was formed as a voluntary organization to attempt to deal with the complex problems of preparing and certifying health care personnel. The agency recommends case monitoring of the Reagan Administration as it attempts to deregulate health care. Would deregulation mean an end to rule of law; licensure, antitrust and civil rights laws? Each professional group must monitor legislation carefully to protect their interests. A commission report concludes:

Deregulation of health will occur slowly and may only marginally affect the system. Instead of directing hospital administrators who to hire for specific functions, the government will allow administrators their own best judgments as outlined in voluntary agencies, such as the Joint Commission on Accreditation of hospitals. (1980:iii)

Besides the economic changes forecast, there are other issues being discussed on the national scene relating to the whole accreditation/ credentialing process.

- 1. How to measure the competence of an individual. (NCHCA Bulletin, 1980:3) Licensure alone does not guarantee competence. (AHA Guidelines on licensure of Health Care Personnel, 1980)
- 2. Institutional accreditation all of the graduates of certain educational institutions would be considered competent and their credentials would be automatically accepted with no further examination. Romer, (1974) states

the best protection of the quality of health personnel is not licensure, certification of accreditation, but rather educational preparation, both academic and practical.

- 3. Instructional licensure Personnel licensure and licensure of a clinical care facility could merge into a single regulatory program governing both the provision of personal health and medical services. (Somers, 1969; Friedman, 1981)
- 4. How often should legislative bodies review the laws and suggest revision to reflect the current professional or occupational requirements of an entry level health care practitioner. (Kinsinger, 1980) A major component in the effort to introduce greater public accountability into the regulating process is the creation of a mechanism for coordinating, advising, mediating and reviewing functions related to health personnel.

Because of the controversy surrounding the whole issue of allied health accreditation/credentialing, no single summary statement of the review of literature would suffice. The whole field of health care is dynamic and many diverging opinions view the 1980's as a decade of convergence of ideas. The AHA Council on Human Resources (1981:6) commenting on the current state of allied health credentialing says: "Licensure laws should contribute sound solutions and should not substitute obstacles to the delivery of health care." This states succinctly what should be the ideal role of the credentialing process of each health care practitioner.

Multiple Competency Health Care Workers

A thorough review of the literature revealed a paucity of information concerning the use of multiple competency health care personnel in today's system of health care. Munroe and Schumann, writing about small hospitals' need to survive, provide new ideas concerning the distribution, recruitment, retention and utilization of personnel:

In the future, hospitals will need to use nurses, physicians assistants and other allied health professions in innovative ways. Many hospitals will need to use multi-competency technicians to supplement available personnel in departments such as laboratory, radiology, ECG, physical therapy and respiratory therapy. (1980:101)

In a speech on the changing trends in health care, Kinsinger states:

Narrowly trained technicians have multiplied and great new numbers of personnel have been added to the nation's manpower. It is easier to develop a new occupation than to modify one which already exists. A developing idea is to experiment with curriculum that offers the allied health graduate multiple competencies. (1980:11)

The American Hospital Association has developed a task force to study the utilization of multiple competency health care workers. In a discussion with Clark, Chairman of the Task Force, this researcher asked what were the results of a nation-wide survey to study the need for multiple competency personnel. He replied:

The need for multi-competency, or multi-skilled allied health practitioners has become increasingly apparent in underserved small rural hospitals, neighborhood clinics, and private practice settings where a small number but wide variety of medically related tasks are performed. The alternative of employing single-skilled allied health professionals is infeasible, primarily because of difficulties in recruiting and retaining qualified practitioners, either because insufficient work volume makes the salary paid a single-skilled practitioner insupportable or because the volume of work is insufficient to provide job satisfaction or professional challenge for single-skilled practitioners. (Personal Communication, June 7, 1981)

A study done by the American Medical Association and the American Academy of Family Practice and reported by Clark surveyed randomly chosen small hospital and physicians offices nation-wide. The conclusions of the study indicate a strong, developing interest in the concept of a multiple competency worker.

These studies indicate that multi-competency technicians are a viable and important component of the health-care delivery team. They are mainly employed by small, rural hospitals with fewer than 100 beds and by one and two physician practices. The most common methods of training technicians consist of on-the-job training in the hospitals and preceptorial training by physicians, particularly in the rural setting. Hospitals and physicians noted that they would consider hiring technicians if they were available; 50% of the reporting physicians noted that multi-competency technicians are not readily available. (1980:6)

Clark continues, the "bottom line" shows that it is financially more feasible to hire these technicians, and also that there is not always enough work to keep two licensed personnel busy in a small hospital or physician's office. Performance areas most frequently noted by respondents consisted of:

Nursing (office), laboratory, electrocardiogram, medical records (insurance forms, etc.), patient education, vision testing, x-ray, pulmonary function testing, and audiometry. Additional research will be necessary to delineate the tasks, develop a profile and create a definitive job description for the multi-competency technicians. (1980:7)

In a letter of inquiry by the AMA sent to various state medical societies to ascertain their perception of the need for multi-competency trained personnel, most of the South Dakota responses expressed concern for proliferation of another allied health specialty and the problem it would cause in the accreditation process. A writer from North Carolina, who also responded to the AMA survey, wrote:

My own opinion is that training in this area of multiple competencies is neither needed nor desirable. The training in these areas is variable because individual hospitals are so variable. To "formalize" such training would only complicate things. (1980:39)

The National Commission on Allied Health Education (1980) recommends that a few critical questions need to be answered concerning the use of a multiple competency employee. These questions relate to selection of

competency qualifications, how to maintain high quality education without excessive lengthening of preparation, and what are appropriate credentialing mechanisms. J. Douglas Coleman, President of Associated Hospital Services of New York emphasized the need to develop alternative ways of providing personnel. Another aspect of the health care economy that needs careful study is greater use of paramedical and subprofessional personnel . . . "A breakthrough is long overdue". (1978:

In summary, a collaborative approach between education and providers of health services is necessary to supply the allied health workers needed for the future. The health care system needs workers who are competent, efficient and cost effective.

Needs Assessment

Numerous definitions of Needs Assessment may be found by writers in the field of curriculum development. However, in general, the term is used to designate a process for identifying and measuring gaps between what is and what ought to be. Research methods for assessing needs are becoming essential tools for educational decision making and academic planning. Kaufman (1975) defined a needs assessment as a systematic study to identify if a need exists, and if so, to validate the existing need, or gap between "what is" and "what should be".

English and Kaufman in Needs Assessment: A Focus for Curriculum

Development (1979:12) state that the steps to a needs assessment

revolve around a simple model. A need is a gap, or a discrepancy

between two indices. That is, a future desired condition and the

status quo. The concept of a "need" defined as a gap was first used by

Ralph Tyler in his historic work on the development of curriculum at the University of Chicago in the early fifties. In his course on Basic Principles of Curriculum and Instruction, Tyler wrote:

Studies of the learner suggest educational objectives only when the information about the learner is compared with some desirable standards, some conception of acceptable norms, so that the difference between the present condition of the learner and the acceptable norm can be identified. This difference or gap is what is generally referred to as a need. (1950:5-6)

Earlier definitions for "need" included gaps in processes while later work of Kaufman and Corrigan emphasize the concept as relating to only gaps or outcomes. (Kaufman, 1975) The concept of needs assessment was developed into a longer process of systems analysis in the late sixties in Operation PEP 9 (Preparation of Educational Planners) in California. (English and Kaufman, 1979:12)

The need to develop curricula which is relevant is of vital importance in allied health education. There is increasing pressure from members, certifying agencies, professional organizations, and administrators of health care facilities toward developing educational programs which will meet future health care needs.

Curriculum may be defined as "the planned substance for intended learners". (Snelbecker, 1974:141) Finch and Crunkilton in <u>Curriculum</u>

Development in Vocational and <u>Technical Education</u>, define curriculum as:

the sum of the learning activities and experience that a student has under the auspices or directions of the school. (1979:7)

A recent publication of the American Hospital Association supports future planning by realistic assessment of the job market.

too many curriculums are developed by the educators and professional organizations without sufficient input from the employer or independent practitioner . . . disregard such major factors as cost, productivity, and job satisfaction. Since 50% of a hospital's total operating budget is allocated to payroll, employers should be involved in the development of standards and curriculums. (1980:4)

Warren Perry (1978), in his address to the Society of Allied Health Professions, spoke of the health systems of the future which will be largely affected through a revision and restructuring of existing educational programs to accommodate the new requirements of the health system yet to be. A curriculum developer must research the job requirements for effective educational planning. (Mehallis, 1980) Curriculum content must focus on necessary program outcomes so that graduates may obtain gainful employment.

Decaro supports that purpose of needs assessment when he said:

the initial step in establishing any course of study in a technical career (associate degree level) is determining the skills that a graduate must possess for successful employment. There is general agreement that these skills should reflect the needs of the profession in which the graduate is to be employed. At best, needs of a profession are derived from the advice of a panel of experts in the field. At worst, they are based upon the experience of a single consultant or faculty member. Although needs so derived may reflect the skills required by a profession, they have a fairly high probability of being deficient. (1978:31)

Myron (1978:64) proposed that a college has the responsibility to maximize "the congruence between its services and programs and the educational needs and aspirations of all population groups in its service areas."

E. A. Campbell points out that importance of a needs assessment when he says:

Education, to be effective, must serve the people who live, work, and play in a particular environment . . . If the education is to be meaningful and assist the student toward gainful employment, all levels of education must step back and take a long, hard look. Educators should determine if students and community needs are being met. A needs assessment is vital. (1978:40)

The need to relate student learning to employers needs and demands of the job market is extremely important. In order for a needs assessment to be successful, sound curricular planning must follow with a logical, systematic sequence.

English & Kaufman (1975:50) have developed a model entitled The Curriculum Development Cycle Using a Needs Assessment Base. (See Figure 1) The needs assessment base is reality, the base utilized to determine the needs (or outcome gaps, such as employer needs). The needs may be divided into two categories. The non-agreed upon needs are laid aside to be reviewed by the assessment process. The agreed upon needs are placed in priority order. From the priority needs selected for action, the objectives, both for learning as well as management, are developed.

From the two categories of management, curricula is planned and later implemented. During the implementation stage of curriculum development, there is a planned process of formative evaluation. The results of the formative evaluation can serve to revise the implementation process, as needed. When the curriculum is functioning and revisions introduced from the formative evaluation, two types of evaluative process may take place. The authors identify the summative evaluation as one where objectives or accomplishment is assessed. The goal free evaluation consists of assessing the unanticipated results. Information received from both types of evaluation may be used to

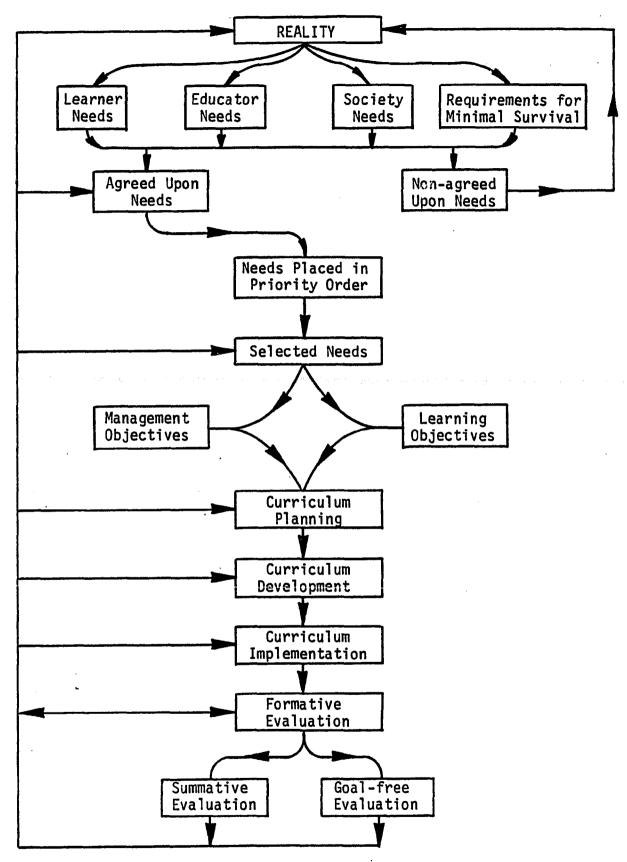


Figure 1. The Curriculum Development Cycle Using a Needs Assessment Base

refine or revise the total system at any point in the development process. This model could be a useful tool for educators in any occupational field as they gather information from a needs assessment and prepare to utilize these data to build relevant curricula.

Survey Research Methodology

The use of surveys as a means of gathering data are useful for descriptive, explanatory, and exploratory purposes. They are used primarily in studies that have individual people as units of analysis. (Babbie, 1975) The survey may serve as an appropriate tool in gathering information under conditions identified by Warwick and Lininger (1975). When the desired information is "reasonable, specific and familiar" to the respondents and when the researcher has considerable prior knowledge of the particular problems and the range of responses likely to emerge. Isaac and Michael (1981:128) include four guiding principles of survey research which are essential for educators to use in assessing needs and setting goals for curriculum planning. These principles state that all surveys should be:

- Systematic Carefully planned and executed to insure appropriate content coverage and sound, efficient data collection.
- 2. Representative Closely reflect the selected population.
- Objective Insure that the data are as observable and explicit as possible.
- 4. Quantifiable Yield data that can be expressed in numerical terms.

There are certain guidelines and concepts the researcher must be aware of when doing survey research. Warwick and Lininger have stated succinctly the strengths and weaknesses of survey research.

The Strength of Survey Research:

- They are useful in getting opinions of populations scattered geographically.
- 2. They are flexible because much information can be obtained.
- 3. Because the same questions are asked each person, there is strength to measurement. Asking each person the same questions allows the researcher to impute the same intent to all respondents giving a particular response.
- Economy and standardization are possible as compared to interviews.
- 5. There is a lack of interviewer bias in the self-administered questionnaire.

The Weaknesses of Survey Research:

- Generally a researcher seldom taps what is most appropriate to many respondents by designing questions that will be at least minimally appropriate to all respondents.
- 2. Tends to be superficial by comparison with interviewing since the research can seldom deal with the content of social life or develop the feel for the total situation.
- .3. Although flexible in one sense (amount of information that can be obtained), surveys require that an initial study design remain unchanged throughout the entire research.

4. There is an artificiality inherent in surveys. Since surveys cannot measure social action, they can only collect self-reports of opinions at a given time. The act of studying a given time may affect the respondent's opinion. (1975:114)

Development of the Questionnaire

The first step in the procedure of developing a questionnaire for survey purposes is to list specific objectives to be achieved by the questionnaire. (Borg & Gall, 1979; Babbie, 1975) Objectives must be defined at the beginning of the study to facilitate decision making regarding each section of the sample construction of the questionnaire, and methods for analyzing the data. (Sheps, 1979)

Once the objectives are established and the survey instrument is designed, prior to mailing the final instrument, it is important to check face validity of the instrument. Individuals or a validity panel from a population similar to the group of subjects chosen for the research, should be selected to check the face validity of the survey instrument. DiVesta, (1954) and Borg & Gall, (1979) state the panel of experts should review the survey instrument for clarity, ease of completing the instrument, ambiguity of questions, and instructions. After the face validity procedure is completed, the questionnaire is ready to be administered to the selected subjects.

Other useful techniques identified by Babbie (1975:131) is to suggest deadline dates for completion of the instrument and the use of green paper for the printing of the questionnaire.

Non-respondents. The telephone call to non-respondents is an effective measure to secure a higher response rate. Warwick and Lininger (1975) see the telephone follow-up as an economical way to ensure a higher response rate. Eckland (1965) advocates the use of the telephone to contact those failing to respond, and Wiseman (1973) found that a telephone follow-up can substantially increase the response rate after the second mailing and result in a more effective instrument return.

Summary of Chapter

The review of the literature included the historical development of allied health credentialing and its influence upon allied health education and the current utilization of personnel. The multiple competency health personnel review covered the potential use of such employees and the personal opinion of key leaders in the field of allied health education concerning their utilization. Also included was a literature review of current information regarding needs assessment as a necessary tool for sound curriculum building. Survey research literature as a means of gathering data for the needs assessment completed the last section of this chapter.

Chapter III

RESEARCH METHODOLOGY

The research for this descriptive study was designed to measure the employment potential of an individual with multiple competencies in small hospitals in Michigan. One method proposed by leaders in the field of allied health education to provide more effective health manpower utilization in small hospitals was to prepare practitioners in two or more allied health occupation areas. An employee with multiple competencies who has the ability to function in two or more occupational specialty areas might be one possible solution to the personnel shortages seen in small hospitals.

Included in this chapter on research methodology is a definition of the population, the process used in the development of the needs assessment survey instrument, data gathering procedures, and an overview of the procedures used for the data analysis.

Population

The population for this study was the chief administrator of every hospital of 100 bed capacity or less in the State of Michigan. All of the hospitals used in the study were licensed by Medicaid and Medicare and as such, function under all constraints and guidelines as mandated by federal regulations. There were a total of 94 hospitals which met these criteria.

Development of the Instrument

The procedure for developing the data gathering instrument included the establishment of the objectives, development of the research questions, and use of a panel of experts to review the instrument.

Objectives

The development of a list of specific objectives to be achieved by the instrument was of vital importance early in the research process.

The survey instrument was designed as a means to gather data to provide information concerning the employment potential of a multiple competency health practitioner. The objectives were:

- To determine if small hospitals would employ a practitioner with multiple competencies.
- 2. To determine if small hospitals were currently utilizing practitioners with multiple competencies.
- 3. To determine what combination of skills small hospitals would like health practitioners with multiple competencies to possess.
- 4. To determine what educational/training experiences small hospitals would like available to train a practitioner in order to develop an additional competency.
- 5. To determine if current credentialing of health care practitioners affect the administrators' decisions to employ persons with multiple competencies?

The survey instrument was then designed with a series of questions to meet the stated objectives. The questions were arranged into three sections.

Section I, Background Information - was designed to gather the demographic information about the health care facility.

Section II, Staffing - was designed to gather information about whether or not small hospital administrators would utilize a person with multiple competencies. Also covered in this section was what combination of skills an administrator would like a multiple competency practitioner to possess. Question number five on the survey instrument was designed similar to the multiple competency technician questionnaire developed by the American Hospital Association Survey of Small and Rural Hospitals. (Clark, 1980:2) All other questions were designed specifically for this study.

Section III, Education/Training - was designed to gather information concerning the administrators' preference for several alternatives to prepare persons with multiple competencies. This section also included a question which asked for preferences regarding the credentialing of institutions or the provision for institutional licensing of employees.

The instrument was printed on a single sheet of 11" x 17" paper and folded to form a standard 8-1/2" x 11" format that provided two pages, front and back, or a total of four sides. It was printed on light green colored paper. (A sample survey instrument is provided in Appendix A)

A general comment section which allowed the administrators an opportunity to express additional comments not covered on the questionnaire was provided. In addition, a section was included where administrators were offered an opportunity to request abstracts of the study by listing their names and addresses.

Research Questions

The study provides information to answer the nine major research questions. The location of the data from specific parts of the questionnaire is shown below.

		Source of Instru	
	Data from Research Questions	Section	Question
1.	Would administrators of small health	2	3
	care facilities choose job applicants		
	with multiple competencies?		
2.	Do administrators in some small health	2	4
	care facilities avoid hiring a multiple		
	competency health practitioner? If		
	yes, why?		
3.	Do small health care facilities	2	6A
	presently utilize health practitioners		
	in more than one primary area of		
	responsibility?		
4.	What are the skill areas in which	2	6B
	multiple competency health practitioners		
	presently serve?		
5.	What are the skill areas which adminis-	2	5
	trators of small health care facilities		
	perceive a multiple competency health		
	care practitioner should possess?		

6.	Is there a relationship between	1		1
	the bed capacity of the facility and		and	
	the desire to utilize a multiple	2		3
•	competency health practitioner?			
7.	Is there a relationship between the	1		2
	size of the population service area		and	
	of the health care facility and the	2		3
	desire to utilize a practitioner with			
	multiple competencies?			
8.	Do the administrators of small health	3		7
	care facilities have a preferred method			
	for the educational preparation of			
	multiple competency health			
	practitioners?			
9.	Do administrators prefer to see any	3		8
	change in the credentialing practices			
	of allied health practitioners?			

Face Validity

The face validity of the survey instrument was checked by using a panel of experts representing a wide range of allied health occupations and expertise.

Panel of Experts

A portion of the panel of experts were selected from a population similar to those subjects to be used in the research study. The remaining panel members were selected because of their interest and background in allied health occupational areas, demographics or survey

instrument design. Considerations for selection of the first group were: 1) Geographical location: the hospitals were near the researcher to allow for personal interviews; 2) Bed capacity: the administrators were from hospitals with bed capacities similar to those used in the study; and 3) Expertise of administrators: the administrators had an interest in and the professional expertise necessary to provide a sound critique of the survey instrument.

The second group, composing the panel of experts, were selected because of their background and interests in: 1) Allied health specialty areas: these people had sufficient knowledge and expertise in the occupational areas which were listed on the survey instrument; 2) Demographics: the person provided assistance with determining the sizes of the population service areas; and 3) Survey instrument design: these experts provided assistance on the design, layout and format of the survey instrument. Included as members of the panel were hospital administrators, Michigan Hospital Association officers and committee members, allied health educational program directors, allied health faculty, persons specializing in demographics and survey instrument development. A total of nineteen persons were involved in checking for validity.

Profile of Panel of Experts

Small hospital administrators (one administrator possessed multiple competencies in radiology and laboratory skills)	2
Michigan Hospital Association Officers	2
Michigan Hospital Association Standing Committee on Small and Rural Hospitals. All members of which administer small hospitals	7
Allied Health Educational Administrators	1
Allied Health Educational Program Directors	2
Allied Health Faculty	. 2
Specialists in Demographics	1
Specialists in Survey Instrument Design	_ 2
Total	19

Review Procedure

The following steps were developed to facilitate the implementation of the survey instrument review procedure.

Step 1: At the first mailing, the panel of experts were requested to complete the survey instrument and submit comments on:

- A. layout and general design
- B. number and arrangement of questions
- C. general instructions to the subjects
- D. ambiguity and sensitivity of the questions
- Step 2: The panel members' responses were noted and changes implemented.
- Step 3: The panel members were again requested to respond to the revised survey instrument and their responses were noted.

Step 4: The final survey instrument reflected the changes as indicated by the reviewers.

Data Gathering

The following procedures were designed to gather the data for the needs assessment.

Correspondence

A survey instrument and cover letter were mailed to the 94 administrators of hospitals of 100 bed capacity or less in the State of Michigan. The names and addresses were obtained from the 1981 Directory of Hospitals published by the Michigan Department of Public Health and were validated for accuracy with the 1982 Michigan Hospital Association Directory of licensed hospitals. (The names of the hospitals are listed in Appendix B)

The cover letter explained the purpose of the study, how the tabulated data were to be used and defined a multiple competency health practitioner. Mr. Donald Potter, Director of Health Policy for the Michigan Hospital Association was instrumental in securing the endorsement and full support of the Michigan Hospital Association Committee on Smaller Hospitals. Reference to this endorsement was included in the first paragraph of the cover letter. (A copy of all correspondence is included in Appendix C)

When the administrators completed the survey instrument and returned it, a thank you letter was mailed. A special follow-up letter prepared for the non-respondents was mailed two weeks after the initial mailing. If the administrators failed to respond two weeks

after the second mailing, a telephone call was made to elicit the information and complete the survey instrument.

Mailing Sequence

The survey instruments and letters were mailed out in the following sequence.

			Number of Si Instruments	
<u>Date</u>		Event	<u>N</u>	<u>%</u>
February 15, 1982		Mailing Survey Instrument and Cover Letter	45 I	48
March 5, 1982	. A.	Mailing Thank You Letter or Survey Instrument and Letter to non-respondents		19
March 20, 1982	A. B.	Telephone Call to Non-respondents Third Survey Instrume Mailed if requested	12 ent	13
Total Returns			75	80

Respondents. The names and addresses of the respondents were noted and thank you letters were mailed immediately.

<u>Non-Respondents</u>. If no reply was received two weeks after the initial mailing, a second letter and survey instrument were sent to the non-respondent. If no response was received two weeks after the second mailing, a telephone call was made to the non-respondents and they were requested to either respond to the survey at that time via the telephone or to complete a third survey instrument which was mailed out immediately.

Treatment of the Data

When the survey instruments were returned, the data were compiled respecting guidelines published in the literature.

Recording of the Data. When all of the survey instruments were returned, the data were recorded on a master survey instrument ready to be tabulated.

<u>Tabulation of the Data</u>. The data were tabulated and organized into tables for visual presentation in Chapter IV.

<u>Statistical Analysis</u>. Since the entire identified population was surveyed, all of the research questions were analyzed using only descriptive statistical procedures.

Summary of Chapter

A mailed survey instrument was the chosen means to gather the data for this needs assessment. The first step in the process of survey instrument development was the establishment of clearly defined objectives. Face validity of the instrument was established by a group of experts within the fields of allied health, allied health education and administrators of health care facilities.

The survey instruments were mailed to the 94 chief administrators of each small hospital of 100 bed capacity or less in the State of Michigan. If the administrators failed to respond to the second mailing, a telephone follow-up was done to encourage the non-respondents to complete the instrument. When the data were tabulated, the analysis was done by using frequency and percentages.

CHAPTER IV

FINDINGS

This chapter presents an analysis of the responses gathered from the Michigan hospital administrators who responded to this survey.

There were a total of 94 persons surveyed in this study which represented the entire population of chief administrators of Michigan hospitals housing a 100 bed capacity or less. The data have been analyzed and are presented in the tables which are arranged to follow in sequence with the research questions. Most of the tables are designed to present the number of responses (N), frequencies (F) and percentages (%) plus totals. Percentages may not total 100% due to errors in rounding off the numbers. Two tables present a matrix diagram for visualization of the diverse responses.

Response Rates

A total of 63 out of 94 survey instruments were returned by mail with an additional 12 administrators responding to a telephone follow-up. Since the response rate to the instrument was voluntary, the number of respondents answering each question will vary.

A total of 75 or eighty percent of the administrators responded to the questionnaire. However, 100 percent of the administrators from the hospitals with 25-49 beds responded while only 62 percent of the administrators from hospitals with 50 to 74 beds responded, as shown in

Table 1. The result of this study was therefore influenced largely by hospitals with greater than 25 but fewer than 100 beds.

TABLE 1
RESPONSE TO SURVEY BY BED CAPACITY

	Number of	Questionnaires	
Number of Beds	Sent	Completed	Percent Completed
Less than 25	8	7	87.0
25- 49 .	29	29	100.0
50- 74	27	17	62.0
75-100	30	22	73.0
Totals	94	75	79.0

The Findings

The nine research questions were used to organize the findings.

The questions were regrouped under three general headings, which follow the sequence of questions on the survey instrument: 1) Background information, 2) Staffing, 3) Education and training of staff.

Section I: Background Information. Two research questions dealt with demographic information. The questions concerning bed capacity of the facility and the population service area of the facility were related to the willingness of the administrators to employ a practitioner with multiple competencies.

RESEARCH QUESTION #1:

Is there a relationship between the bed capacity of the facility and the desire to utilize a multiple competency health practitioner?

The data collected to determine relationships between the bed capacity of the facility and the willingness to hire an individual with multiple competencies is presented in Table 2. The administrators who responded to this question provided responses which showed that 57 or 78 percent would utilize multiple competency health practitioners, while 16 or 22 percent would not. The usage of multiple competency health practitioners by administrators does not appear to change as the number of beds in a facility increase or decrease.

TABLE 2

BED CAPACITY OF THE FACILITY AND WILLINGNESS OF THE ADMINISTRATOR TO UTILIZE MULTIPLE COMPETENCY HEALTH PRACTITIONERS

(N=73)

	Willingness to Utilize a Multiple Competency Healt Practitioner						
Bed Capacity	Would	Employ	Would Not Empl				
of Facility	F	%	F	%			
Less than 25 beds	5	8	2	3			
25- 49 beds	23	31	6	8			
50- 74 beds	13	17	4	5			
75-100 beds	16	22	4	5			
Total	57	78	16	22			

RESEARCH QUESTION #2:

Is there a relationship between the size of the population service area of the health facility and the desire to utilize a practitioner with multiple competencies?

Table 3 presents the data collected representing the two variables: size of population center served and willingness to hire job applicants who possessed multiple competencies. Fifty-seven administrators or 78 percent stated that they would hire a job applicant with multiple competencies. Administrators of service areas of less than 1,000 people were the only group evenly divided, in all other service areas the administrators chose the multiple competency health practitioner much more often.

TABLE 3

POPULATION SERVICE AREA AND ADMINISTRATOR'S DESIRE TO UTILIZE MULTIPLE COMPETENCY HEALTH PRACTITIONERS

(N=73)

	Administrator's Desire to Utilize a Multiple Competency Health Practitioner							
Population of Service	Would	Employ	Would No	t Employ				
Area	F	%	F	%				
Less than 1,000 people	1	Ī	1	1				
1,000 to 10,000 people	21	. 29	4	5				
10,000 to 25,000 people	20	27	6	8				
Greater than 25,000 people	15	20	5	7				
Total	57	78	16	22				

Section II: Staffing. In Section II, the administrators were requested to respond to questions on the survey instrument concerning:

1) Selection of personnel and 2) What skill combinations would they desire a practitioner with multiple competencies to possess.

Selection of Personnel. Two research questions dealt with the selection of personnel. The first question was related to the willingness of the administrators to choose a job applicant with either a single or multiple competency. If the administrators responded that they would choose a job applicant with only the single competency, they were then instructed to go to question 4 on the survey instrument, which requested information concerning the reasons they would not hire a person with multiple competencies.

RESEARCH QUESTION #3: Would administrators in small health care facilities choose job applicants with multiple competencies?

The majority of the respondents stated they would select a health practitioner with multiple competencies. Table 4 illustrates the 74 responses to research question number 3. Fifty-nine or 80 percent of the respondents replied that they would choose a job applicant with multiple competencies. Fifteen or 20 percent stated that they would choose a job applicant with a single competency.

TABLE 4

ADMINISTRATORS WHO WOULD CHOOSE

JOB APPLICANTS WITH MULTIPLE COMPETENCIES

(N=74)

Preference for Job Applicant	· F	%
Would choose a job applicant with multiple competencies	59	80
Would choose a job applicant with single competency	15	20
Tota1	74	100

RESEARCH QUESTION #4:

Do administrators in small health care facilities avoid hiring a multiple competency health practitioner? If yes, why?

A total of fourteen out of a potential fifteen respondents perceived various problems if they were to hire a practitioner with multiple competencies, as shown in Table 5. Seven or 50 percent of those responding to this question felt that salary expectations would be the most serious problem in hiring a multiple competency health practitioner. Two of the variables, union demands and inter-personal relationships, were each selected by four of the administrators.

Four respondents made comments in the category "other". Their comments were: 1) "Scheduling problems--long term problems with competency"; 2) "We have progressed beyond jack-of-all-trades, multiple competencies is not a new concept"; 3) "Individual would work in only most needed specialty-would need only one discipline"; 4) "I

have done it myself and have employed such a person; there is too much conflict about which task to perform first".

TABLE 5

REASONS WHY ADMINISTRATORS AVOID HIRING MULTIPLE COMPETENCY HEALTH PRACTITIONERS

(N=14)

Perceived Problems in Hiring Multiple Competency Health Practitioners	F	Percent of Those Responding to Question
Salary Expectations	7	50
Not as qualified	6	
Credentialing Agencies	5	36
Union Demands	4	29
Inter-personal Relationships	4	29
Other	4	29

^{*}The respondents were requested to select as many of the problems as applied to their personal situation.

Multiple Competency Practitioners. Three research questions dealt with multiple competency practitioners. Research question number five was concerned with the current use of practitioners with multiple competencies. Research questions six and seven dealt with what combinations of skills do such practitioners currently possess, and what combinations of skills would administrators desire a practitioner with multiple competencies to possess in the future.

RESEARCH QUESTION #5:

Do small health care facilities presently utilize health practitioners in more than one primary area of responsibility?

It can be seen from Table 6 that 72 hospital administrators responded to this research question. Forty or 56 percent of the respondents reported that they employ persons with multiple competencies while the remaining 32 or 44 percent do not. In the facilities that reported presently utilizing individuals with multiple competencies, 71 percent of the 75-100 bed category utilize them while 48 percent of the 25-49 bed size category utilize such a person. In the 0-24 and 50-74 bed size categories that reported, 50 percent responded that they do utilize individuals with multiple competencies.

TABLE 6

ADMINISTRATORS CURRENTLY UTILIZING HEALTH CARE PRACTITIONERS IN MORE THAN ONE AREA OF RESPONSIBILITY

										
			j	lospi	tal	Bed	Size	<u> </u>		
Employer Practice	<u>0-</u>	24	25	-49	50-	-74	75-	100	To	tal
	F	%	F	%	F	%	F	%	F	%
Utilize practitioners in more than one area of responsibility	3	50	14	48	8	50	15	71	40	56
Do not utilize practitioners in more than one area of responsibility	3	50	15	52	8	50	6	29	32	44

(N=72)

RESEARCH QUESTION #6:

What are the skill areas in which multiple competency health practitioners presently serve?

Table 7 is a matrix presenting data in support of an answer to research question number 4. A total of 69 administrators listed 33 various skill combinations in which health practitioners with multiple competencies are presently employed. Respiratory therapy and radiology technicians are the most often listed areas for a primary skill with 19 each. There were a number of single entries for primary skills. Electrocardiogram (EKG) was the most often chosen area for a secondary skill with 17 selections.

RESEARCH QUESTION #7:

What are the skill areas which administrators of small health care facilities perceive a multiple competency health care practitioner should possess?

Tables 8 through 13 will be used to illustrate the data from research question 7. Tables 8 through 12 will present the first and second choice of a secondary skill area for the listed primary skill area.

Table 13 is in the form of a matrix and shows the various skill combinations, both primary and secondary skill areas, that were desired by administrators but which were not listed on the survey instrument.

The survey questionnaire listed five primary skill areas:

- A. Respiratory therapy, Table 8
- B. Surgical technician, Table 9
- C. Medical technologist, Table 10
- D. Radiographer, Table 11
- E. Physical therapy assistant, Table 12

The respondents were to choose a first and second choice of the desired secondary skill to accompany the stated primary skill. Based on their

TABLE 7

SKILL AREAS IN WHICH MULTIPLE COMPETENCY PRACTITIONERS PRESENTLY SERVE

(N=41)

Primary Skill

,										,,	
Secondary Skill	Radiology Tech	Respiratory Therapy	Medical Lab	Registered Nurse	Licensed Practical Nurse	Nuclear Medicine	Nurse's Aide	Emergency Med. Tech.	Maintenance	Pharmacist	Total
Flootus and descent (FVC)	2	8	5	1			1				17
Electrocardiogram (EKG)	5	8	2	!		7					
Ultra sonography	\vdash	6				1					86
Pulmonary Function/EKG Nuclear Medicine	4	В	1								5
	4		3			2		-			5
Radiographer Medical Lab	2	2	3								4
Central Supply				-	2						
Pulmonary Function		3									3
Ultra sonography/Nuc. Med	2										3
Respiratory Therapy	3		7	-							2
Surgical Technician					1			1			2
Anesthesia				7							
Audiometry							1				1
Building Security									7		1
Emergency Medical Tech					1						1
Employee Development				1							
Health Education				i							l i
Materials Management	1			<u> </u>							1 i -
Patient Education				1							j
Purchasing Agent				<u> </u>						1	1
Radiographer/EKG			7								1 1
Weight Control				1							1
Total	19	19	11	8	4	3	2	1	1	1	69

projections of future health service needs, the respondents were asked if there were other competency combinations they would desire for their facility and these data are presented in Table 13.

Since the data for research question 7 is presented in 6 tables, a summary of those findings is presented for clarification. When respiratory therapy was listed as the primary skill, forty-seven percent of the respondents chose electrocardiogram (EKG) as the first choice of a secondary skill. Sixty-three percent of the respondents selected a licensed practical nurse as their first choice of secondary skill to accompany the primary skill of surgical technician. Fifty-one percent of the respondents chose radiology as their first choice of a secondary skill to accompany the primary skill of medical technology. When radiology was listed as the primary skill, fifty-three percent of the respondents selected ultra sonography as the first choice of a secondary skill.

Forty-seven percent of the respondents selected respiratory therapy as the first choice of secondary skills to accompany the primary skill of physical therapy assistant.

The matrix presented in Table 13 shows that the most commonly listed primary skill area was registered nurse (RN) and licensed practical nurse (LPN). The most commonly selected secondary skill was patient education.

Respiratory therapy as a primary skill is shown in Table 8.

Twenty-three or 47 percent of the respondents selected electrocardiogram as their first choice for a secondary skill, while nuclear medicine and ultra sonography was listed by only one individual in each case. Twenty administrators or 49 percent selected electrocardiogram as their second choice while none of the respondents selected the variables nuclear medicine or ultra sonography.

No respondent selected "other" as a first choice, while 2 persons or 5 percent selected it as a second choice and listed electrocardiogram and nursing as their need.

TABLE 8

SKILLS ADMINISTRATORS PERCEIVE A MULTIPLE COMPETENCY HEALTH PRACTITIONER SHOULD POSSESS WITH RESPIRATORY THERAPY AS THE PRIMARY SKILL

	First	Choice	Second Choice		
Secondary Skill	F	%	F	%	
Electrocardiogram	23	47	20	49	
Pulmonary Function	20	41	17	41	
Laboratory	4	8	2	5	
Nuclear Medicine	1	2	0	0	
Ultra sonography	1	2	0	0	
Other	0	0	2	5	

(N=49)

Surgical technician as a primary skill is shown in Table 9.

Twenty-seven or 63 percent of the respondents selected licensed practical nurse (LPN) as their first choice for a secondary skill, while only one, or two percent, individual selected the variable electrocardiogram. In the second choice, twenty-two or 73 percent of the administrators selected central supply, while only one individual selected the variable "other" and listed obstetrics.

TABLE 9

SKILLS ADMINISTRATORS PERCEIVE A MULTIPLE COMPETENCY HEALTH PRACTITIONER SHOULD POSSESS WITH SURGICAL TECHNICIAN AS A PRIMARY SKILL

(N=43)

	First	Choice	Second Choice		
Secondary Skill	F	%	F	%	
Licensed Practical Nurse	27	63	5	17	
Central Supply	15	35	22	73	
Electrocardiogram	1	2	2	7	
Other	0	0	1	2	

Table 10 illustrates medical technology as a primary skill area. In the first choice category, twenty or 51 percent of the administrators selected radiology, while one of the responding administrators selected the variable electrocardiogram. One of the respondents selected the variable "other" which was listed as toxicologist.

TABLE 10

SKILLS ADMINISTRATORS PERCEIVE A MULTIPLE COMPETENCY HEALTH PRACTITIONER SHOULD POSSESS WITH MEDICAL TECHNOLOGY AS A PRIMARY SKILL

(N=39)

	First	Choice	Second Choice			
Secondary Skill	F	%	F	%		
Radiology	. 20	51	4	13		
Electrocardiogram	11	28	9	28		
Nuclear Medicine	4	10	7	22		
Pulmonary Function	3	8	7	22		
Respiratory Therapy	1	3	4	13		
0ther	0	0	1	3		

Radiology as a primary skill is portrayed in Table 11. Twentyfour or 53 percent of the respondents selected ultra sonography as their
first choice for a secondary skill area, while no respondent selected
the skill of pulmonary function, respiratory therapy or "other".

Fifteen or 41 percent of the administrators selected nuclear medicine
as their most desired second choice for a secondary skill, while no
respondent selected pulmonary function or "other".

TABLE 11

SKILLS ADMINISTRATORS PERCEIVE A MULTIPLE COMPETENCY HEALTH PRACTITIONER SHOULD POSSESS WITH RADIOLOGY AS A PRIMARY SKILL

(N=45)

•	First	Choice	Second Choice		
Secondary Skill	F	%	F	%	
Ultra Sonography	24	53	5	14	
Medical Technology	11	24	6	16	
Nuclear Medicine	6	15	15	41	
Electrocardiogram	4	9	8	22	
Respiratory Therapy	0	0	3	8	
Pulmonary Function	0	0	0	0	
Other	0	0	0	0	

Physical therapy assistant is presented as the primary skill in Table 12. Eighteen or 47 percent of the respondents selected respiratory therapy as their first choice for a secondary skill, while four or 10 percent of the individuals selected the variable "other" and listed occupational therapy assistant and ultra sonography. In the second choice category, twelve or 43 percent of the administrators selected respiratory therapy, while only 2 individuals selected medical technology.

TABLE 12

SKILLS ADMINISTRATORS PERCEIVE A MULTIPLE COMPETENCY HEALTH PRACTITIONER SHOULD POSSESS WITH PHYSICAL THERAPY ASSISTANT AS A PRIMARY SKILL

(N=38)

	First	Choice	Second Choice		
Secondary Skill	F	%	F	%	
Respiratory Therapy	18	47	12	43	
Electrocardiogram	11	29	10	36	
Medical Technology	5	13	2	7	
Other	4	10	4	14	

TABLE 13

ADDITIONAL DESIRED SKILL COMBINATIONS FOR PRACTITIONERS WITH MULTIPLE COMPETENCIES

(N=21)

Primary Skill Area

Secondary Skill Area	LPN/RN	ω Medical Records	Physical Therapy	Patient Education	Audiometry	Business Office Superv.	Medical Lab	Nuclear Medicine	Occupational Therapy	Pharmacy Technician	Pulmonary Function	Respiratory Therapy	Speech & Language Pathology	Statistician	Ultra sonography	Tota 1
•	二	₹	<u>4</u>	Ьа	Au	Bu	Me	N	0	Ph	Pu	Re	Sp	St	5	T ₀
Patient Education	3	3														6
Audiometry & Visision	}		,		,								,			
Testing	<u> </u>		1		1								1			3
Medical Lab	11	<u> </u>									1	1				3 2
Discharge Planning				1												2
Quality Assurance	11	1	<u> </u>													2
Radiographer	11	L	L													2
Certified Athletic	•	ļ	_					1								_
<u>Trainer</u>	↓		1													1
Certified Orth	<u> </u>	<u> </u>							1							
Community Health Aide	<u> </u>			1												1
Computer	<u> </u>	1	L_	<u> </u>	L.,											
Exercise Physiology	<u> </u>		1_													1
Infection Control	11	<u> </u>														1
Library Skills			<u> </u>											1		1
LPN		<u> </u>					1]
Medical Records		_					L.	<u> </u>					<u> </u>			
Occupational Therapy			1													1_1_
Personnel Director						1	<u>L</u>									1
Purchasing Agent			<u> </u>				<u> </u>			1_			<u> </u>			1
Respiratory Therapy	1				<u> </u>								<u> </u>	<u> </u>		1
Speech Aide					1							L	<u> </u>			1 1
Staff Education		_		1				<u> </u>		_		<u> </u>	<u> </u>		<u> </u>	
Ultra sonography		<u></u>		<u> </u>				1	_							1
Total	9	5	4	3	2	1	1	1	1	1	7	1	1	1	1	7
																

Table 13 presents a matrix diagram of the respondents desired combinations of their perceived future needs for multiple competency personnel. A total of 21 administrators listed 29 or 33 separate sets of skills. The most commonly listed primary skill was LPN/RN (9) and the most commonly listed secondary skill was patient education (6). In addition, there was a wide range of other primary and secondary skill areas indicated, which reflect the diverse needs of the individual small hospital.

Section III: Education and training needs. This section of the survey instrument requested information related to research questions number 8 and 9. The administrators were requested to respond to the preferred method of education preparation of a practitioner with multiple competencies. The second question in this section dealt with information concerning the professional credentialing process as it influences effective employee utilization.

RESEARCH QUESTION #8:

Do the administrators of small health care facilities have a preferred method for the educational preparation of multiple competency health practitioners?

Table 14 illustrates the responses of research question number 8.

They were asked to select a first and second choice to the types of educational experience they preferred in order to prepare multiple competency health practitioners. Sixty-seven people selected a first choice, while only 54 selected a second choice. Thirty-five or 52 percent of the respondents who listed a first choice selected regular collegiate level programming as the preferred method to prepare multiple competency health practitioners. Twenty-two or 41 percent of those who listed a second choice desired that a multiple competency health

practitioner should be prepared through classes in their facilities offered by an outside institution. Only four or 6 percent of those responding felt that training should be provided by their own in-house staff, while five or 9 percent of those giving a second choice stated that regular collegiate level programming was the desired method to train a multiple competency health practitioner. Two administrators selected the variable "other" and stated: 1) "depends on position to be trained for" and 2) "based on individual needs."

TABLE 14

METHODS PREFERRED BY ADMINISTRATORS FOR EDUCATING
A MULTIPLE COMPETENCY HEALTH PRACTITIONER

(N=67)

	First	Choice	Second	Choice
Educational Experience	F	%	F	%
Regular Associate or Baccalaur- eate level collegiate programs	35	52	5	9
Continuing education programs in your geographic area	19	28	21	39
Trained by an outside insti- tution that presents classes in your facility	7	10	22	41
Trained by your in-house staff	4	6	6	11
Other	2	3	0	0

RESEARCH OUESTION #9:

Do administrators prefer to see any change in the credentialing practices of allied health practitioners?

The preference of administrators for changes in the credentialing practice of allied health practitioners is shown in Table 15. Fortyone or 55 percent of the administrators responding felt that there was no need to change the present credentialing process for allied health practitioners. Nine or 12 percent of the administrators would prefer a credentialing process to allow hospitals to certify the competency of their employees.

Three or 4 percent of the administrators responded with written comments to the variable "other": 1) "I support the Michigan Hospital Association position"; 2) "A uniform credentialing process or state credentialing with common guidelines to allow people to be recognized for responsibilities, educational requirements and consider consumer needs", and 3) "There should be another way to look at people."

PREFERRED CHANGES IN THE CREDENTIALING PRACTICES
OF ALLIED HEALTH PRACTITIONERS

(N=75)

Credentialing Practice	F	%
No change in the credentialing process	41	55
Educational institution accreditation	24	· 33
Hospital institution licensure	9	12
Other	3	4
Total	77	104

Chapter V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS

The primary purpose of this descriptive study was to explore the employment potential of a health practitioner with multiple competencies in small hospitals in Michigan. For use in this study, a multiple competency health practitioner was defined as an individual who uses selected skills and knowledge from two or more allied health occupations. The need to explore the potential employment of the practitioner with multiple competencies is supported by various leaders in allied health education. While many institutions appear to be suffering from a shortage of allied health workers, the lack of personnel seems to be most acute in the small hospital.

The small hospitals provide for consumer health care needs which are often considered to be routine and rather limited in scope. These services, however, are being performed by highly skilled technicians, who because of the requirements of credentialing agencies, are narrowly specialized. Large hospitals and medical centers have sufficient case loads to be able to use the required specialized allied health personnel, but small hospitals often do not have sufficient case loads to fully utilize the same category of personnel.

The administrators of these facilities could benefit from being able to use their allied health personnel in flexible ways that would

permit them to function in two or more health specialty areas. Not only would this allow the small hospital to remain economically viable, but more importantly would enable the facility to offer a full range of essential services despite the limited number of available health practitioners in the various specialty areas.

It was established through a review of current literature that on a national scale, a personnel shortage exists in small hospitals. It was necessary, therefore, to confirm through descriptive data, whether hospital administrators in Michigan perceived the multiple competency health practitioner as an alternative to conventional staffing practices.

The subjects for this study were the administrators of small hospitals of 100 bed capacity or less in Michigan. An examination of the data collected from the needs assessment survey instrument, indicated that the majority of the hospital administrators reported they would choose a job applicant with multiple competencies over a job applicant with a single competency.

To obtain the data needed for making recommendations on the employment potential of a health practitioner with multiple competencies, nine research questions were examined. The remainder of this chapter focuses on the findings from the research questions, the conclusions based on the findings, recommendations, and the personal reflections of the researcher.

Summary of the Findings

ķ.

In Chapter IV was presented the findings from the data collected for the needs assessment. These data are now summarized by research questions as follows:

RESEARCH QUESTION #1:

Is there a relationship between the bed capacity of the facility and the desire to utilize a multiple competency health practitioner?

There does not appear to be a relationship between the bed capacity of their respective health facilities and whether or not the administrators would employ a health practitioner with multiple competencies.

RESEARCH QUESTION #2:

Is there a relationship between the size of the population service area of the health care facility and the desire to utilize a practitioner with multiple competencies?

There does not appear to be a relationship between the population service area of the facility and the desire of the administrators to employ a practitioner with multiple competencies.

RESEARCH QUESTION #3:

Would administrators of small health care facilities choose job applicants with multiple competencies?

The administrators had a positive response to the choice of a job applicant with multiple competencies. Fifty-nine or eighty percent of the respondents stated they would select a health practitioner with multiple competencies, rather than a practitioner with a single competency.

RESEARCH QUESTION #4:

Do administrators in some small health care facilities avoid hiring a multiple competency health practitioner? If yes, why?

Approximately 20 percent of the administrators indicated they would avoid hiring a practitioner with multiple competencies. Salary

expectations were selected by the seven or fifty percent of those who responded to this question. The second highest reason stated for not hiring such a practitioner was that they believed the practitioner with multiple competencies was not as qualified as the practitioner with a single competency.

RESEARCH QUESTION #5:

Do small health care facilities presently utilize health practitioners in more than one primary area of responsibility?

Fifty-six percent of the hospital administrators responded that they were currently utilizing a practitioner in more than one area of responsibility. Forty-four percent of the administrators responded that they did not utilize their personnel in more than one area of responsibility.

RESEARCH QUESTION #6:

What are the skill areas in which multiple competency health practitioners presently serve?

Hospital administrators are currently using their employees in varying combinations. Respiratory Therapy and radiology were the highest ranked primary skill areas. Electrocardiogram followed closely by ultrasonography were the most widely utilized secondary skills. The administrators listed thirty-three various skill combinations which their allied health practitioners presently possess. The diverse skill combinations on the matrix diagram (see page 57) reflect the highly individualized employment needs of each institution.

RESEARCH QUESTION #7:

What are the skill areas which administrators of small health care facilities perceive a multiple competency health care practitioner should possess?

The skill areas which administrators would like their practitioner with multiple competencies to possess are as follows: Forty-seven percent of the respondents chose electrocardiogram as their first choice of a secondary skill to accompany the primary skill area of respiratory therapy. When surgical technician was listed as the primary skill, sixty-three percent of the respondents selected licensed practical nurse as their first choice of a secondary skill. Fifty-one percent of the administrators would like the secondary skill of radiology to accompany the primary skill of medical technology. When radiology was listed as the primary skill, fifty-three percent of the respondents chose the secondary skill of ultrasonography as their first choice. Forty-seven percent of the respondents selected respiratory therapy as their first choice of a secondary skill to accompany the primary skill of physical therapy assistant. To accompany the primary skill of registered or licensed practical nurse, the administrators desired the practitioner to develop the secondary skill of patient education.

RESEARCH QUESTION #8:

Do administrators of small health care facilities have a preferred method for the preparation of a multiple competency health practitioner?

Fifty-two percent of the administrators preferred, as a first choice, to have a multiple competency health practitioner educated in a regular collegiate program. Continuing education programs was the second most often selected variable in the first choice category.

RESEARCH QUESTION #9:

Do administrators prefer to see any change in the credentialing practices of allied health practitioners?

The administrators' response to the credentialing issue was mixed. Forty-one or fifty-five percent desired no change in the credentialing mechanism of allied health practitioners. However, forty-nine percent would like to see a change. Their responses were divided between educational institution accreditation and hospital institutional warranty.

Conclusions

Based upon the findings of this study, the following conclusions were formulated:

- 1. Administrators of small health care facilities would choose a job applicant who possessed multiple competencies.
- 2. The bed capacity of the health care facility was not related to the desire to utilize a multiple competency health practitioner.
- 3. The population service area of the health care facility was not related to the desire to utilize a practitioner with multiple competencies.
- 4. Those administrators who would not hire health practitioners with multiple competencies indicated that the multiple competency practitioner would expect a higher salary than one with a single competency.
- 5. A. Small hospital administrators who utilize health practitioners in more than one area of responsibility were utilizing them in a wide variety of skill combinations.
 - B. Administrators of small hospitals were currently utilizing the employees in more than one area of responsibility.

The most common combination was the primary skill of respiratory therapy and radiology with the secondary skill of electrocardiogram.

- 6. Small hospital administrators preferred future health practitioners to be prepared to function in more than one occupational area.
- 7. The respondents were about equally divided concerning the preferred educational preparation of a practitioner with multiple competencies. Half of the respondents desire a regular collegiate program, while the other respondents selected other types of educational experiences.
- 8. The hospital administrators were about equally divided concerning the current credentialing of allied health workers, while some of the respondents were satisfied with the current credentialing mechanism. The remaining respondents desired a change in the credentialing process. No concensus was reached on any particular changes to be made.

Summary

Based on the findings of this study, it is clear that the administrators of small hospitals were currently utilizing health practitioners in more than one occupational area and would prefer to hire a job applicant who possessed multiple competencies. In addition, these same administrators preferred a traditional collegiate educational experience to prepare a practitioner with multiple competencies, but were divided on the need to alter the present credentialing practices.

RECOMMENDATIONS

This section on recommendations includes: 1) recommendations based on the findings, and 2) recommendations for future research.

Recommendations Based on the Findings

1. Allied health educational institutions should implement programs to provide educational experiences for allied health practitioners to develop multiple competencies. According to the conclusions drawn from the research findings, there is a mixed response as to which type of educational program is desired. A pre-service educational program or continuing educational experiences may be developed to meet the individualized needs of the hospitals.

The model designed by English and Kaufman, which is presented in Chapter II of this study, would be one possible guide to follow in program development. The model would be applicable to either a regular pre-service associate or baccalaureate degree program or a continuing education program offered in the geographic area of the health care facility.

A continuing education program could be designed to serve two potential population groups:

- A. Since the administrators reported that they were currently utilizing their employees in more than one occupational competency area, this group of employees may desire to update their dual skill areas.
- B. There may be employees currently working in the hospitals who would desire to develop an additional competency

through continuing education experiences designed to meet their specific needs.

A pre-service educational program could be designed to serve those students who, upon entering college for the first time, desire to enter into a curriculum designed to prepare a multiple competency health practitioner.

2. The response of the administrators appear to group the desired competency skill areas into a logical cluster of skills which would enable a curriculum to be developed in an organized and cohesive format. A curriculum developer should consider the following primary and secondary skill combinations as selected by the administrators.

	st choice of mary skill	First choice of secondary skill
Α.	Respiratory Therapy	Electrocardiogram (EKG)
В.	Surgical Technician	Licensed Practical Nurse (LPN)
c.	Medical Technology	Radiology
D.	Radiology	Ul trasonography
E.	Physical Therapy Assistant	Respiratory Therapy

- 3. Hospital Associations should utilize the data from this study in order to be able to assist the small hospital in utilizing their employees more effectively. An understanding of what other hospitals are doing may prove helpful to the hospital administrator seeking solutions to staffing problems.
- 4. The specific professional organizations representing the various allied health occupational skill areas should review

these data as they establish or recommend the criteria for the credentialing of allied health practitioners.

Recommendations for Future Research

- 1. Further research should be conducted to specifically identify the combinations of skill areas which would have the greatest demand by potential employers. This exploratory study has identified a wide range of possible occupational combinations, but new research is required to identify those combinations most highly desirable. Once a study of this type is completed, a task analysis should be conducted to determine actual employment skills.
- 2. Further research should be conducted to explore the possible conflicts within the credentialing mechanism. The literature seems to indicate that the constraint of credentialing is a factor which inhibits administrators from using their personnel in flexible ways. Most of the administrators' responses to the survey questionnaire indicated a desire not to change the current credentialing process. What are the factors that influence these data?
- 3. The study should be replicated in other states that have similar allied health manpower needs as those in Michigan. The literature seems to indicate that effective employee utilization is a nation-wide problem. A data base ought to be established in other states concerning utilization of allied health personnel and to determine if a multiple competency health practitioner would be a relevant solution to their perceived needs.

4. This study should be replicated in three to five years to determine if the utilization and/or desire for multiple competencies health practitioners has changed. This information would be useful to schools of allied health as they prepare graduates for future employment. Included in such a study should be the reasons why some administrators would avoid hiring a practitioner with multiple competencies. The barriers listed by some of the administrators may make it difficult for the practitioner to find employment in all hospitals.

Reflections

The researcher offers the following reflections on this study and its findings. The two subjects discussed in this section include 1) the issue of credentialing, and 2) key persons on the national scene of allied health education who are involved with multiple competency health practitioners.

<u>Credentialing</u>. The mixed response of the administrators to the question on the survey instrument which dealt with the credentialing of allied health workers, was a surprise. A more direct mandate for change of the credentialing process was expected.

In discussion of the findings with various members of the panel of experts, it was agreed that the current state of credentialing of allied health practitioners is a major barrier to effective employee utilization. A possible reason for the mixed response of the administrators could be their own professional background. In Michigan, many of the small hospital administrators are, themselves, credentialed allied

health practitioners. The administrators' personal involvement in the credentialing process may have unconsciously introduced bias into the way they perceived the credentialing process of allied health personnel should be conducted.

There are now activities taking place on the national scene which may remove the barriers of credentialing of allied health practitioners. President Reagan has recently assigned a task force to revise the Conditions of Participation for hospitals. The proposed changes will be a part of the Department of Health and Human Services' plan to reduce Medicare and Medicaid requirements and to simplify regulations relating to small hospitals. Guidelines already proposed would permit more flexible use of personnel and would allow the hospital administrators to make decisions as to who may be qualified to perform certain tasks. These newly proposed rules were released in January, 1983 and the Department is now requesting responses from all interested parties. (A copy of the guidelines are enclosed in Appendix D) If these guidelines are accepted, it would appear they would greatly facilitate the use of health practitioners with multiple competencies.

Information Concerning Multiple Competency Practitioners. The most difficult part of developing this study was the lack of information concerning allied health practitioners with multiple competencies. Because this entire subject is relatively new, there was little in the literature to provide information. Much time and effort was spent in contacting key people in the field of allied health education. The following information may be of help to the reader who is interested in pursuing the concept of a multiple competency practitioner.

As of this writing, I am aware of two programs in the United States which are currently offering educational experiences to prepare health practitioners in more than one allied health occupational area. Information about these two programs, located in Illinois and Alabama, may be obtained from contacting the following:

Archie Lugenbeel, Project Director Rural Allied Health Manpower Project The School of Technical Careers Southern Illinois University Carbondale, Illinois

Keith Blayney, Dean
Multiple Competency Clinical Technician
Program
School of Community and Allied Health
University of Alabama in Birmingham
Birmingham, Alabama

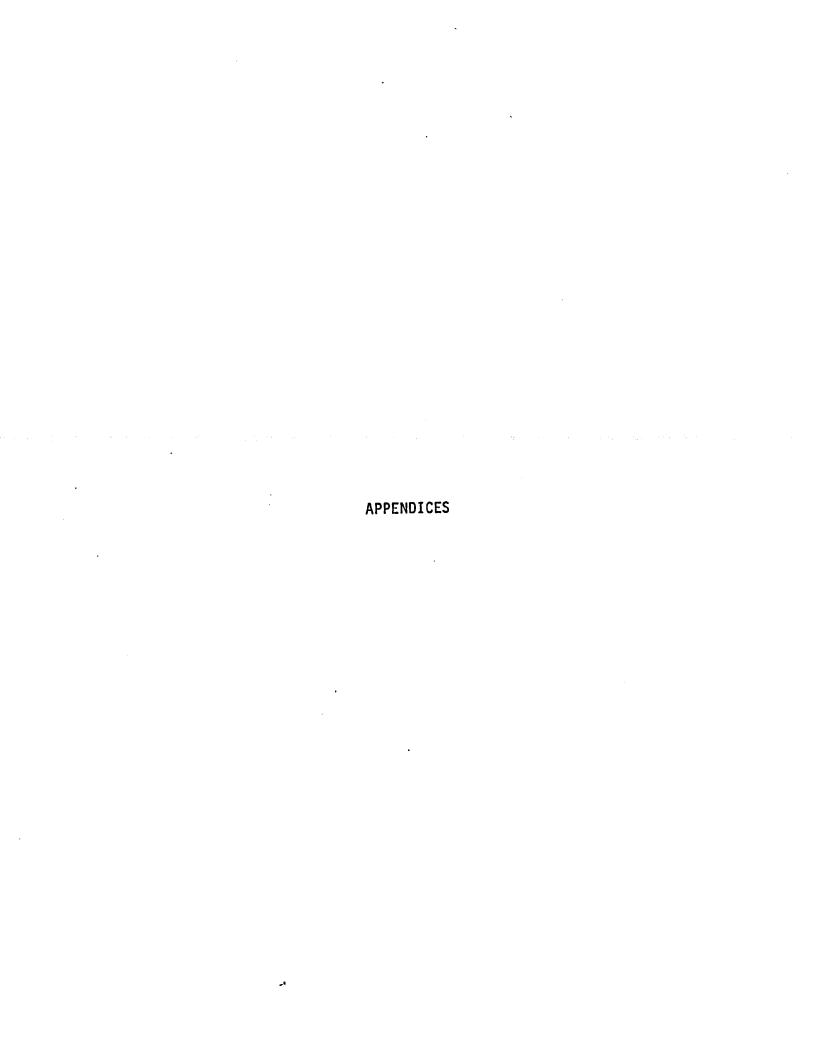
The Committee on Allied Health Education and Accreditation (CAHEA) of the American Medical Association has developed a task force to study the use of practitioners with multiple competencies. The director of this project, Dr. Clark, was willing to share the mission statement of the committee. He also provided me with the study and results completed by CAHEA and the American Academy of Family Practice concerning the role of multiple competency practitioners. His address is:

Dr. Wallace Clark, Assistant Director Department of Allied Health Education and Accreditation American Medical Association 535 N. Dearborn Chicago, Illinois

Dr. Robert Kinsinger, Vice President of the Kellogg Foundation, provided information that was helpful concerning the initial concept of the practitioner with multiple competencies. The foundation was

instrumental in funding Blayney's original work in Alabama. You may contact Dr. Kinsinger at the following address:

Dr. Robert Kinsinger, Vice President W. K. Kellogg Foundation Battle Creek, Michigan



APPENDIX A

SURVEY QUESTIONNAIRE

MULTIPLE COMPETENCY ALLIED HEALTH PERSONNEL SURVEY all responses will be kept strictly confidential

	GENERAL DIRECTIONS:	Please complete ALL sections that apply by filling in the blank or placing an "X" in the appropriate box. Your frank response is very important in order that the School of Allied Health may plan relevant programs.							
•		SECTION I — BACKGROUND INFORMATION							
١.		beds in your facility? (Not including Long Term Care beds)							
	□ 0 - 24 □ 25 - 49	50 - 74							
2.	Your facility is located in a	population service area of:							
	less than 1,000 people								
	1,000 to 10,000 people								
	☐ 10,000 to 25,000 people								
	more than 25,000 peop	le							
	SECTION II — STAFFING								
	USES SELECTED SKILLS	PLE COMPETENCY PERSON: A MEMBER OF A HEALTH CARE TEAM WHO AND KNOWLEDGE FROM TWO OR MORE TRADITIONAL HEALTH OCCU- E: RADIOLOGY/RESPIRATORY THERAPY.							
3.	If you had to choose between	een two job applicants would you choose:							
	A professionally trained (Go to Question 5)	individual who possess multiple competencies and is credentialed in each skill area.							
	 A professionally trained Question 4) 	individual who possess one competency and is credentialed in only that area. (Go to							
4.	If you would not hire a perso areas? (Check as many as	on with multiple competencies, is it because you anticipate problems in the following apply)							
	Union demands								
	☐ Salary expectations								
	☐ Credentialing agencies								
	Qualifications of applica	nt							
	☐ Inter-personal relationsh	lips among employees							
	Other	(please specify)							
	If you answered Question 4	***************************************							
	,	, radio go to accument of							

5. Please identify the secondary skill area that would most closely match your needs for a Multiple Competency Technician with the specified primary skills. Identify your first and second choices ONLY by placing a 1 and 2 in the appropriate space. SECONDARY SKILL AREA PRIMARY SKILL AREA ☐ EKG A. Respiratory Therapy Lab ☐ Nuclear Medicine Pulmonary Function Ultra Sonography Other Other ☐ LPN B. Surgical Technician EKG ☐ Central Supply Other _ ☐ Other ☐ EKG ☐ Radiology C. Medical Technologist Radiology
Nuclear Medicine ☐ Pulmonary Function Respiratory Therapy Other ☐ Other ☐ EKG D. Radiographer ☐ Ultra Sonography☐ Medical Technology Nuclear Medicine
Pulmonary Function
Respiratory Therapy Other ☐ Other ☐ EKG E. Physical Therapy Assistant Medical Technology Respiratory Therapy Other ☐ Other

F.	Based on your projections of future health services, are there other competency combinations that you woul prefer for your facility? (e.g. Audiometry, Medical Records, Patient Education, Vision Testing) If so, pleas identify in the space below.					
	PRIMARY SKILL AREA	SECONDARY SKILL AREA				
	· · · · · · · · · · · · · · · · · · ·					
6.	A. Do you currently employ anyone with multiple competencies?	:				
	☐ Yes - How many?(Proceed with Question 6)					
	☐ No (Go to Question 7)					
	B. Identify their Primary and Secondary Skill Areas.					
	PRIMARY SKILL AREA	SECONDARY SKILL AREA				
_	<u>and a surface of the surface of the</u>					
	C. Identify, problems, if any in employing multiple competency per	rsonnel.				
_						
	SECTION III - EDUCATION/TRAI	NING				
7.	In reality, the restraints of accreditation, licensure and certification of educationally. Assuming, however, that there were no restraints of competency employees, how would you like to see them prepared and second choices ONLY by placing a 1 and 2 in the appropriate	on the educational preparation for multiple for your particular facility? Identify your first				
	☐ Trained by your in-house staff.					
	☐ Trained by an outside educational institution that presents class	ses in your facility.				
	Continuing education programs in your geographic area.					
	☐ Regular associate or baccalaureate level collegiate programs.					
	Other (please specify)					

8.	Professi effective	onal credentialing of Health Care Employees continues to be widely discussed. In order to have more health manpower utilization in your facility would you prefer to see:
		cational Institutional Accreditation - The educational institution would certify graduates as competent and e would be no national examination.
	☐ Hosp	pital Institution Licensure - Through a self-designed system a hospital would certify that their employees competent and there would be no national examination.
	□ No o	change in the credentialing process of health personnel.
	☐ Othe	er (please specify)
	٠	
9.	Would	you like an abstract of the results from this study?
	□ No	
	☐ Yes	- Name
		Title
		Address
		CityZip
Co	mments	and/or suggestions:
_		
Th	IANK YO	OU FOR YOUR COOPERATION

A PRE-ADDRESSED STAMPED ENVELOPE IS PROVIDED FOR YOUR CONVENIENCE

Judith A. Csokasy Ferris State College School of Allied Health Big Rapids, Michigan 49307 APPENDIX B

CORRESPONDENCE



6215 West St. Joseph Highway Lensing, Michigen 48917 (517) 323-3443 Petric E. Ludwig

February Fourth 1 9 8 2

Judith A. Hagestrom-Csokasy 7420 East Nine Mile Road Big Rapids, MI 49307

Dear Judy:

I am pleased to convey to you the support provided by the Michigan Hospital Association Committee on Smaller Hospitals relative to your dissertation survey instrument and the general topic to which it is directed.

As expected, the Committee was concerned about the potential complexity and time associated with completion of the survey instrument, however, after close examination it was not felt that the instrument was excessively complex or would require significant amounts of time on the parts of administrators to appropriately complete it. The Committee was most supportive of your research and you should feel free in your cover letters associated with distribution of the survey instrument to point out that the instrument has been reviewed by the Michigan Hospital Association Committee on Smaller Hospitals and endorsed in its intent and completion encouraged.

I should also point out that several of the Committee members had some recollection of receiving a similar survey in the not too distant past. They were not sure whether the survey came from an educational institution or an individual investigating the similar area, however, you should be aware that there are apparently similar interests out there somewhere.

I have attached to this letter the copy of the survey instrument that you sent as it looks like a workup that you may be able to use in your final draft. I have made a couple of changes on the document with my pen that will provide clarity in terms of understanding on the part of hospital administrators from my perspective.

Judith A. Hagestrom-Csokasy February 4, 1982 Page Two

Best wishes to you with your work and if I can be of further help to you on this entire topic, please advise me and I will do whatever I can to help you out. I would most certainly be interested in receiving a copy of your final work and also offer to serve as a reviewer of initial drafts of your dissertation if you think that would be helpful.

With best regards,

Donald P. Potter

Director

Department of Health Policy Development

DPP:11w

Enclosure

Dear

The School of Allied Health at Ferris State College with full support of the Small Hospital Committee of the Michigan Hospital Association is conducting a survey to determine the projected need and current utilization of multiple competency health care workers for the states small hospital systems. As a Michigan Health Care Leader, your response is invaluable for the future preparation of Michigan's health professionals.

For purpose of this study, a health care worker with multiple competencies is defined as:

A member of the health care team who uses selected skills and knowledge from two or more traditional health occupations and professions. (For example: radiology and clinical laboratory skills).

The enclosed questionnaire should be completed and returned in the stamped self-addressed envelope no later than April 8. Your individual responses will be kept in strictest confidence as the results will only be presented in the form of tabulated totals. If you desire an abstract copy of the results, please complete the appropriate section at the end of the questionnaire.

Thank you for your cooperation in this most worthwhile project.

Sincerely,

Judith A. Csokasy Associate Professor

Enclosure

cac: 3/8774

MULTIPLE COMPETENCY HEALTH PERSONNEL QUESTIONNAIRE

Thank you for responding to the recent questionnaire concerning multiple competency health personnel from the School of Allied Health at Ferris State College. The responses you gave will soon be analyzed and will provide valuable information for the future planning of Michigan's Health Care System.

If you requested an abstract it will be mailed to you as soon as the tabulated data is available.

Sincerely,

Judith A. Csokasy Associate Professor

gv/2 0404

APPENDIX C

NAMES AND ADDRESSES OF HOSPITALS

					LICENSED BED	* CERTIFI	CATIONS *
COUNTY	FACILITY NAME	STREET ADDRESS	CITY	ZIP CODE	CAPACITY	MEDICARE	MEDICAID
Alger	Munising Memorial Hosp.	Sand Point Road	Munising	49862	40	x	x
Allegan	Allegan General Hospital	555 Linn Street	Allegan	49010	71	x	x
-	Community Hospital	130th Avenue	Douglas	49406	31	X	X
	Pipp Community Hospital	411 Naomi Street	Plainwell	49080	45	X	X
Arenac	*Standish Community Hosp	805 West Cedar	Standish	48658	81	X	x
Baraga .	*Baraga County Memorial	770 N. Main Street	Lanse	49946	67	x	x
Barry	Pennock Hospital	1009 W. Green Street	Hastings	49058	92	x	x
Benzie	Paul Oliver Memorial Hosp	224 Park Avenue	Frankfort	49635	40	, x	x
Berrien	Unity Hospital	1301 Main Street	Buchanan	49107	42	x	x
	Community Hospital	541 N. Main Street	Watervliet	49098	70	X	X
Calhoun	Battle Creek Sanitarium	197 N. Washington	Battle Creek	49017	75	x	х.
	Oaklawn Hospital	200 N. Madison St.	Marshall	49068	77	X	X
	Albion Dept. of Hospitals	809 W. Erie Street	Albion	49224	89	x	X
Cass	Lee Memorial Hospital	420 W. High Street	Dowagiag	49047	74 .	x	x
Charlevoix	Beaver Island Hed Ctr		St. James	49782	3		x
	Charlevoix Hospital	Lake Shore Drive	Charlevoix	49720	44 =	X	X
Clare	Clare Osteopathic	104 W. Sixth Street	Clare	48617	64	x	x
Clinton	Clinton Memorial Hosp.	805 S. Oakland Street	St. Johns	48879	76	x	x
Dickinson	Anderson Memorial	Main Street	Norway	49870	19	x	X
Eaton	Eaton Rapids Comm Hosp	1500 S. Main Street	Eaton Rapids	48827	41	x	X
	Hayes Green Beach Hosp	321 E. Harris	Charlotte	48813	46	x .	X
Genesee	Wheelock Memorial Hosp	7280 State Road	Goodrich	48438	53	x	X
Gladwin	Gladwin Hospital	455 S. Quarter St.	Gladwin	48624	42	x	x

<u>.</u>								•
•								
			•		270	LICENSED	* CERTIFICATIONS *	
	COUNTY	FACILITY NAME	STREET ADDRESS	CITY	CODE	BED CAPACITY	MEDICARE	MEDICAID
	Gogebic	Grand View Hospital	U S 2 Box 708	Ironwood	49938	72	x	x
	Gd Traverse	Traverse City Osteo Hosp	550 Munson Avenue	Traverse City	49684	81	x	x
	Hillsdale	Hillsdale Comma Hith Ctr	168 S Howell Street	Hillsdale	49242	86	x	x
	Houghton	Calumet Public	205 Osceola	Laurium	49913	70	x	x
	Huron	Huron Memorial Hospital	1100 S. Van Dyke	Bad Axe	48413	93	x	x
		Scheurer Hospital	170 N. Caseville Rd.	Pigeon	48755	47	X	X
		Harbor Beach Comm Hosp	First & Broad Street	Harbor Beach	48441	67	X	X
	Ingham	Mason General Hospital	800 E. Columbia St.	Mason	48854	42	x	x
	lonia	Belding Comma Osteo Hosp	1534 W. State Street	Belding	48809	56	x	x
		Ionia County Mem Hosp	479 Lafayette Street	Ionia	48846	77	x	X
	losco	Tawas St. Joseph Hosp	M-55 and Court St.	Tawas City	48763	65	x	x
	Iron	Crystal Falls Comm Hosp	Michigan and Third	Crystal Falls	49920	35	x	x
	••••	Iron County General Hosp	Ice Lake Road	Iron River	49935	38	x	x
	Jackson	Jackson Osteo Hosp	121 Seymour Avenue	Jackson	49202	75	x	x
	Kalamazoo	Franklin Community Hosp	13326 North Blvd.	Vicksburg	49097	50	x	x
	Kalkaska 3	* Kalkaska Hem Hlth Ctr	Box 37 419 S. Coral	Kalkaska	49646	21	x	x
	Kent	Mary Free Bed Guild	235 Wealthy St., S.E.	Grand Rapids	49503	80	x	x
	Leelanau 3	Leelanau Memorial Hosp	High Street	Northport	49670	94	x	x
	Lenavee	Addison Comm Hosp Auth	421 N. Steer Street	Addison	49220	24	x	x
		Herrick Memorial Hospital		Tecumseh	49286	76	X	x
		Morenci Area Hospital	Sims Highway	Morenci	49256	33	X	x
		Thorn Hospital	458 Cross Street	Hudson	49247	25	X	X
•	Livingston	Brighton Hospital	12851 Grand River	Brighton	48116	63		X

	FACILITY NAME	STREET ADDRESS	CITY	ZIP	LICENSED BED CAPACITY	* CERTIFICATIONS *	
COUNTY						MEDICARE	MEDICALD
Luce	* Helen Newberry Joy Hosp	502 W. Harrie	Newberry	49868	74	x	x
Mackinac	Mackinac Strts Hlth Ctr	220 Burdette Street	St. Ignace	49781	21		x
Macomb	Harrison Community Hosp	26755 Ballard Road	Mt. Clemens	48043	96	x	X
	Community Hosp Foundation		Almont	48003	48	X	X
	McNamara-Warren Comm Hosp	4050 E. Twelve Hile	Warren	48089	54	X	X
	Kern Hospital	21230 Dequindre	Warren	48091	54	X	X
Manistee	Memorial Hosp of Manistee	Rogers Memorial Hwy	Onekena	49675	24	x	X
	West Shore Comm Hosp	1465 E. Parkdale Ave	Manistee	49660	95	. X	X
Mason	Memorial Hosp-Mason Co	One Atkinson Drive	Ludington	49431	95	x	x
Mecosta	Mecosta Memorial Hosp	122 Pierce Street	Stanwood	49346	36	x	X
	Mecosta Co Gen Hosp	405 Winter	Big Rapids	49307	74	x	X
Menominee	Menominee Co-Lloyd Hosp	1110 Tenth Ave	Henominee	49858	78	x	x
Montcalm	Sheridan Community Hosp	301 N. Main Street	Sheridan	48884	42	х	x
	Tri County Comm Hosp	M 46 West	Edmore	48829	30	X	X
	* Kelsey Memorial Hospital	4th and Washington	Lakeview	48850	94	X	X
Muskegon	Heritage Hospital	3020 Peck Street	Muskegon Hgts	49440	46	x	x
Newaygo	Gerber Memorial Hosp	South Sullivan St	Fremont	49412	87	x	X
	Grant Community Hospital	41 Lake Street	Grant	49327	32	x	X
Oakland	Madison Community Hosp	30671 Stephenson Hwy	Madison Hgts	48071	37	x	X
	Straith Memorial Hosp	23901 Lahser Road	Southfield	48075	45	x	X
Oceana	Oceana Hospital Assn	611 E. Main Street	Hart	49420	36	x	x
	Lakeshore Community Hosp	72 S. State Street	Shelby	49455	35	x	X
0gemaw	Tolfree Memorial Hospital	335 E. Houghton Ave	West Branch	48661	92	x	x
Ontonagon	La Croix Hospital	Main Street	White Pine	49971	18	x	X
	Ontonagon Memorial Hosp	Seventh Street	Ontonagon	49953	41	X	x

	FACILITY NAME	STREET ADDRESS	CITY	Z1P CODE	LICENSED BED CAPACITY		
COUNTY						HEDICARE	MEDICAID
Otsego	±Otsego County Memorial	825 N. Center Street	Gaylord	49735	76	x	x
Ottawa	Zeeland Comma Hospital	129 Taft Street, S.	Zeeland	49464	61	x	X
Presque Is	Russell Memorial Hosp	201 North Pine	Onaway	49765	17	x	x
•	*Rogers City Hospital	555 N. Bradley Hwy	Rogers City	49779	95	X	Χ.
St. Clair	River District Hospital	4100 S. River Road	St. Clair	48079	68	x	x
	Yale Community Hospital	420 North Street	Yale	48097	39	X	X
St. Joseph	Sturgis Hospital	916 Myrtle Avenue	Sturgis	49091	94	X	X
-	Three Rivers Hospital	214 Spring Street	Three Rivers	49095	72	X	X
Sanilac	Deckerville Comm Hospital	3559 Pine Street	Deckerville	48427	25	X	x
	McKenzie Memorial Hosp	120 Delaware Street	Sandusky	48471	49	X	X
	*Marlette Community Hosp	2770 Main Street	Marlette	48453	91	X	X
Schoolcraft	Schoolcraft Memorial Hosp	520 Main Street	Manistique	49854	55	x	x
Tuscola	Caro Community Hospital	401 N. Hooper Street	Caro	48723	50	x	X
	Hills & Dales Gen Hosp	4675 Hills Street	Cass City	48726·	65	X	x
Van Buren	South Haven Comm Hosp	955 S. Bailey Street	South Haven	49090	82	x	X
Washtenaw	Saline Community Hospital	400 W. Russell	Saline	48176	82	x	X
	Chelsea Community Hosp	775 S. Main Street	Chelsea	48118	97	x	X
Wayne	Dearborn Hedical Center	10151 Michigan Avenue	Dearborn	48126	65	x	x
	Lynn Hospital	25750 W. Outer Drive	Lincoln Park	48146	76	X	X
	Redford Community Hosp	25210 Grand River Ave	Detroit	48240	72	X	X
	Sidney A Sumby Mem Hosp	234 Visger Road	River Rouge	48218	93	X	. X

^{*} LICENSURE INCLUDES LONG TERM CARE UNIT

APPENDIX D

DEPARTMENT OF HEALTH AND HUMAN SCIENCES PROPOSED RULES

§§ 60.592-2, -3, -4, and -5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(4) Dates of startups and shutdowns of the closed vent systems and control devices required in §§ 60.592-2, -3, -4,

(e) The following information pertaining to all compressors and fugitive emission sources subject to the requirements in §§ 80.592-2, -3, -4, and -7 shall be recorded in a log that is kept in a readily accessible location:

in a readily accessible location:
(1)(i) A list of identification numbers
for fugitive emission sources that the
owner or operator elects to designate for
no detectable emissions under the
provisions of §§ 60.592-2(e), -3(i), and

(ii) The designation of these sources as subject to the requirements of \$\$ 00.592-2(e), -3(i), or -7(f) shall be signed by the owner or operator.

(2) A list of source identification numbers for pressure relief devices required to comply with \$ 60.592-4.

required to comply with § 60.592-4.
(3)(i) The dates of each compliance trequired in §§ 60.592-2(e), -3(i), -4, and -7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the source during each compliance test.

(4) A list of identification numbers for fugitive emission sources that are in vacuum service.

(f) The following information pertaining to all valves subject to the requirements of §§ 60.592-7 (g) and (h) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for

(1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the expected date for monito, ing each valve.

(g) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in § 60.592–2(d)(5) and § 60.592–3(e)(2) and an explanation of the design criterion; and

(2) Any changes to this criterion and

the reasons for this change.
(h) The provisions of §§ 60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

(Sec. 114 of the Clean Air Act as amended (42 U.S.C. 7414).)

§ 60.597 Reporting requirements

(a) An owner or operator electing to comply with the provisions of §§ 60.593-1 and -2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(b) The provisions of § 60.8(d) do not apply to affected facilities subject to the provisions of this subpert except that an owner or operator shall notify the Administrator of the schedule for the initial performance tests 30 days before the initial performance tests.

(Sec. 114 of the Clean Air Act as amended (42 U.S.C. 7414))

[FR Doc. 83-95 Filed 1-3-63; 846 am] BRLING CODE 6606-66-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Parts 405, 480, 482, 483, 484, 485, 486, 487, and 488

Medicare and Medicaid Programs; Conditions of Participation for Hospitals

AGENCY: Health Care Financing Administration (HCPA), HHS. ACTION: Proposed rule.

SUMMARY: We are proposing a general revision of the Conditions of Participation for hospitals. The Conditions are those requirements that hospitals must meet in order to participate in the Medicare and Medicaid programs (titles XVIII and XIX of the Social Security Act). This proposed rule is part of the Department's regulatory relief efforts and is designed to reduce Federal requirements, simplify and clarify regulations, and provide maximum flexibility in administration, while protecting patient health and safety. PATE: To assure consideration. comments should be submitted by March 7, 1963.

ADDRESS: Address comments in writing to: Administrator, Health Care Financing Administration, U.S. Department of Health and Human Services, Attention: BPP-519-P, P.O. Box 17073, Baltimore, Maryland 21235.

In addition please address a copy of your comments on the information collection requirements to: Office of Information and Regulatory Affairs, Office of Management and Budget, Room 3206, New Executive Office Building, Washington, D.C. 20503, Attention: Desk Officer for HHS.

In commenting, please refer to BPP-519-P.

If you prefer, you may deliver your comments to Room 309-G. Hubert H. Humphrey Building, 200 Independence Ave.. Weshington, D.C., or to Room 132, East High Rise, 6325 Security Boulevard, Baltimore, Maryland 21207.

Comments will be available for public inspection as they are received, beginning approximately three weeks after publication, in Room 309–G of the Department's Office at 200 Independence Ave., S.W., Washington, D.C 20201, on Monday through Friday of each week from 8:30 a.m. to 5:00 p.m. (202–245–7830).

FOR FURTHER INFORMATION CONTACT: Alan Spielman, Acting Director, Division of Standards and Certification, OCP. BPP, 1-D-3 Dogwood East, 1840 Gwynn Oak Avenue, Baltimore, Md. 21207 (301) 504-3775.

SUPPLEMENTARY IMPORMATION:

A. Beckground

Conditions of Participation (Conditions) is the term used for the requirements that hospitals must meet in order to participate in the Medicare and Medicaid programs. These requirements are based on section 1861 (e), (f), and (g) of the Social Security Act (the Act); the utilization review provisions in section 1814(u)(f), 1801(k), 1903(g) of the Act; and the general rulemaking authority in sections 1102 and 1871 of the Act.

The current requirements for participating hospitals are presented as 21 Conditions, containing 125 Standards, and are located in the existing Federal regulations at 42 CFR Part 405, Subpart J. There has been no substantial revision of the Conditions since they were first published in 1965, despite changes in the state of the art.

On June 20, 1980, the Department published a notice of proposed rulemaking (NPRM) proposing a revision of the hospital Conditions (45 FR 41794). Subsequent to this publication, HCFA initiated a process of regulatory reform as part of the Secretary's efforts to reduce the burden of Federal regulations. Therefore, the June 20, 1980 NPRM was not prepared for final rule. We established criteria for reviewing the existing Conditions applicable to hospitals. Those criteria are as follows:

- Requirements should be necessary to protect the health and safety of patients.
- 2. The Conditions should contain only provisions authorized by the statute.
- 3. Requirements should not unnecessarily overlap with similar

requirements enforced by other Faderal, State, or local government programs. 4. Requirements should permit

 Requirements should permit maximum flexibility for facility compliance.

As a result of our review, we have decided to proceed with another proposed rule. These proposals are intended to simplify and clarify requirements, to focus on patient care, to emphasize outcome rather than the means used to achieve those ends, to promote cost containment while maintaining quality care, and to achieve more effective compliance with Federal requirements. The basic function of the Conditions in protecting patient's health and safety has been maintained, and in some areas, such as the new Conditions, and Standards that have been elevated to Conditions, enhanced. We have considered and, as appropriate. provided for the comments received to the 1980 NPRM. In developing the final rule, we will base our decisions on this proposed rule, and on comments specifically submitted in response to its publication.

B. General Approach to Proposed Rule

The hospital industry is heavily regulated in this country. In addition to Federal regulations, hospitals are subject to substantial State inspection through licensure programs. Further, nationally recognized standards of practice are well accepted and are adhered to generally through the voluntary accreditation process. Recognizing the scrutiny under which hospital care is provided, we believe it is appropriate to eliminate unnecessary regulation in the existing conditions of participation. We also believe that it is important to modernize the regulations in light of significant changes in the organizational structure of hospitals and the dramatic technological advancements since 1965. At the same time, we are aware that it is necessary to impart sufficient flexibility into the regulations to allow their application to both the smallest rural facility and to the most modern urban hospital centers. Therefore, in the framing of these proposals, we used the following approach.

1. First, we were careful to assure that our attempts to eliminate unnecessary regulation, and provide hospitals with greater flexibility, would not adversely affect patient health and safety. Consequently, in our view, cartain key additions and modifications would be necessary to underscore the hospital's accountability for the services it provides. For example, we are proposing a new Condition, Quality Assurance (§ 482.21) that would require that the

hospital actively evaluate its services. The Condition is sufficiently flexible to permit a variety of assessment mechanisms and plans, but would place responsibility on the hospital for ensuring that quality of care is an. ongoing goal. Further, we would clarify that the hospital is accountable for its services provided under contract. In recognition of high patient-risk areas, we are proposing to elevate cartain Standards to the Condition level (e.g., Surgical Services, Anesthesia Services, Infection Control). This would place greater emphasis on the certification process in these areas.

2. Generally, we replaced most prescriptive administrative requirements with language that was stated in terms of expected outcome. For example, mandatory committees and committee meetings would be deleted from the governing body and medical staff Conditions (\$\frac{5}{2}\$ 482.12 and 482.22). Instead, the objective that was intended, e.g., good and direct governance, would be stated in postive terms.

3. Next, we would balance the need for personnel to have certain credentials against hospital accountability and flexibility in determining personnel requirements. Recognizing that personnel achieve competency through many routes (education, training, and experience), we would frequently place the responsibility on the hospital for choosing its own staff and delineating staff responsibilities (e.g., Radiology, Medical Records).

This in no way diminishes our interest in high standards for hospital personnel. When, in our view, specific degrees or experience would be necessary to the provision of safe care the Condition would-clearly state those requirements.

4. In most Conditions, we would delete specific references to adequate and safe facilities in favor of a general comprehensive statement under the physical environment Condition (§ 482.4). In those areas of the hospital requiring special concern for safe practices, such as Nuclear Medicine services and Radiologic services, we would maintain specific language to assure additional protection.

5. We would delete most of the references to "Departments" by using the more encompassing term "services". This would be done in order to clarify that a hospital's organizational structure would not determine whether or not services would be subject to the Conditions. Further, use of the term "services" would avoid any implied suggestion that hospitals should organize their services into formal "Departments".

We believe that the numerous proposed modifications and deletions to the regulations would result in an improved set of Conditions of Participation. We believe that the proposed language of the regulations offers better protection to our beneficiaries. At the same time, hospitals, when functioning properly, should be administratively unburdened by the Conditions of Participation. We would like to mention, however, that hospitals accredited by the ICAH (the majority of the 5200 accredited hospitals) will be affected by [CAli's similar efforts to lessen overly prescriptive requirements while increasing administrative flexibility. The ICAH's revised standards will focus, as do our proposed Conditions, on provision of quality care more than on the means of achieving it. Although we comment on each draft of JCAH's proposed revisions, JCAH's efforts are not directly linked to ours; that is, the adoption of new JCAH standards will be unrelated to the possible implementation of new Medicare Hospital Conditions.

C. Proposed Revisions

- 1. Compliance with State and Local Laws. Section 1801(e)(7) of the Act addresses State and local licensure requirements. If State or local laws provide for the licensing of hospitals, the Act requires the hospital to be licensed or to be approved by the appropriate State or local licensing authority as meeting the standards for licensure. Current regulations at 42 CFR 405.1020 restate these statutory requirements and expand upon them by requiring compliance with all relevant laws (e.g., laws relating to staff licensure. postmortem examinations. communicable diseases). We are proposing to revise these regulations (see § 482.11) by simply restating statutory requirements and deleting other requirements. The regulations would also require hospitals to comply with applicable Federal laws.
- 2. Governing Body. Under the revised Condition relating to the governing body (see proposed § 482.12) we would make these changes:
- a. Bylaws, meetings, committees, liaison. The current provisions regarding bylaws, meetings, committees, and lisison (42 CFR 405.1020(a)-{d}) would be deleted since we consider them unnecessarily prescriptive. We believe that it is not necessary for Federal regulations to address these specific administrative issues. Rather, these provisions should fall under the

discretion of individual facility management

b. Medical Staff. Current regulations (42 CFR 405.1021(e)) specify the details of the relationship between the overning body and the medical staff. We are proposing to revise these regulations to indicate simply that the medical staff must be accountable to the governing body and be organized under bylaws as required by Section 1861(e)(3)

of the Act. (See proposed § 481.12(a).) c. Hospital Administrator. Regulations at 42 CFR 406.1021(f) and (g) specify that the governing body must appoint a hospital administrator. describe the qualifications for this position, and specify the details of how the administrator should perform this function. We are proposing to revise these regulations by eliminating education and experience requirements applicable to an administrator. Proposed regulations at § 482.12(b) would simply require the Governing Body to appoint an Administrator or Chief Executive officer responsible for administration of the hospital. The functions would remain, but the detail of how to accomplish the tasks would be deleted.

d. Physician Services. Section 1861(e)(4) of the Act mandates that every patient be under the care of a physician. Current regulations (at 42 CFR 405.1021(h)) require that a hospital have policies to assure patients are under the care of a physician. We are proposing (see § 482.12(c)) to require that patients actually be under a physician's care, not merely to require that the hospital have an established policy. We would also relocate current requirements for a health history and physical examination to this Standard because these are the responsibility of

the attending physician.

The term "physician", as it is defined in § 482.3, would include all practitioners provided for by Section 1861(r) of the Act. Thus, the use of the term "physician" in regulations will be consistent with its use in the statute. However, individual hospitals would retain the authority to determine who

has admitting privileges in their hospital e. Physical Plant. Current regulations at 42 CFR 405.1021(i) require that the governing body be actively involved in maintaining the physical plant. We are proposing to delete this requirement as the intent of the Standard (a safe and effective physical plant) is met through other regulations. (See Physical Environment in current 42 CFR 405.1022. and proposed 42 CFR 482.41.)
f. Institutional Planning. Sections

1861(e)(8) and 1861(x) of the Act require a hospital to have an annual operating budget and capital expenditure plan.

Current regulations at 42 CFR 405.1021(j) expand upon the statutory requirement. We are proposing (see proposed § 482.12(d)) to modify the regulations by simply incorporating the basic provisions contained in the statute.

g. Contracted Services. The use of contracted services in hospitals has increased dramatically since 1965. Today, services frequently provided through contractual arrangements include nursing, pharmacy, emergency, dietary, laboratory, and radiology. Our concern regarding these contracted services is twofold. First, although the services might be subject to survey under other Conditions (e.g., § 482.23, Nursing; § 482.25 Pharmacy), it is difficult to survey for all aspects of these services when thy are not provided on the hospital premises. For example, hospital food may be prepared elsewhere, and certain ancillary services may be provided off-site.

Second, comments received as a result of the 1960 NPRM highlighted the fact that there does not appear to be a clear understanding, or acceptance, of the hospital's responsibility for services provided under contract. We would clarify that the hospital has ultimate responsibility for services, whether they are provided directly, such as by its own employees, or by leasing, or through arrangment, such as formal contracts, joint ventures, informal agreement, or shared services. Because many contracted services are integral to direct patient care and are important aspects of health and safety, a hospital cannot abdicate its responsibility simply by providing that service through a contract with an outside resource. For purposes of essuring adequate care, the nature of the arrangment between the hospital and the "contractor" is irrevelant.

As a result of the increased reliance on contracting for temporary nursing personnel by hospitals, we would include specific requirements to ensure that hospitals provide adequate supervision and evaluation of the clinical activities of non-employee censed nursing personnel (see § 482.23(b)(6)). This would ensure that contracted nursing employees are required to perform at the same level of competence as nurses employed directly by the hospital.

h. Discharge Planning. We are proposing (see § 482.12(f)) to add a new Standard that requires discharge planning. We believe this requirement is important since discharge planning has been linked to decreased rates of hospital readmission

3. Quality Assurance. Many of the current regulations specify procedural requirements that hospitals must follow

to assure quality care (e.g., organizational characteristics, committee functions, personnel). These requirements are currently located in several of the Conditions (e.g Governing Body and Medical staff). We believe a focused requirement would better address quality of care. Therefore, we are proposing to establish a new Condition on Quality Assurance at § 482.21. We would require that the hospital establish a hospital-wide quality assurance program aimed at identifying and correcting patient care problems. Specifically, we would require that the hospital-

(a) Have a written quality assurance plan:

(b) Evaluate all organized services nosocomial infections, and medication

(c) Evaluate all surgery; and

(d) Document deficiencies and take appropriate remedial action.

4. Medical Staff. Current regulations at 42 CFR 406.1023 provide specific requirements for medical staff, such as requiring very detailed bylaws committees, meetings, anti staff qualification. In proposed § 482.22 we would delete those provisions that we now believe to be overly prescriptive or unnecessary and modify others as follows:

a. In proposed § 482.22(a)(1) and (2) we use the term "medical staff", not "physicians". This would grant maximum flexibility to the hospital in granting privileges and organizing its professional staff. Nurse practitioners and nurse-midwives for example, could be granted staff privileges. This reflects the present hospital trend of extending patient care responsibilities to

practitioners other than physicians. We note that proposed § 482.12(c) would require each patient to be under the care of a physician. In that case, "physician" would be interpreted as defined in section 482.3 of this regulation; that is, a doctor of medicine, osteopathy, dentistry, or other discipline

cited in that section

b. We would delete the Standard regarding staff responsibilities to support hospital policies since such detail is not necessary for Federal regulations. We would, however, retain the requirement that bylaws be enforced (proposed \$ 482.22(b)).

c. We would delete the Standard on securing autopsies since autopsie depend on the consent of next-of-kin, except when legally mandated.

d. We would delete requirements regarding consultations. There is no indication that consultations, which are the direct responsibility of the attending physician, are being improperly conducted.

e. We would combine and simplify requirements regarding staff appointments, staff qualifications, and staff officers (see current 42 CFR 405.1023(d), (e), and (h)). Proposed regulations would require: (1) a well organized medical staff accountable to the governing body for the quality of medical care given to patients; (2) periodic appraisals of members of the staff; (3) the granting of clinical privileges only to those legally. professionally, and ethically qualified: and (4) and individual physician with responsibility for the organization and conduct of the medical staff. These requirements would be maintained since there is evidence that a strong and responsible medical staff organization is positively related to the provision of quality care.

f. The requirements regarding "other staff" (current 42 CFR 405.1023(g)) would be deleted since they are prescriptive without an apparent relationship to patient health and safety.

g. The requirement on bylaws would be simplified. Proposed regulations would require bylaws that enable the medical staff to carry out its responsibilities, and include a statement of qualifications for admittance to the stuff and responsibilities of each category of medical staff.

h. Requirements on various specified committees (current 42 CFR 405.1023(j)-(o)) would be deleted as unnecessary and overly prescriptive. For example, the medical staff should have flexibility in determining whether a medical records committee is necessary. Also, the issue of quality of care that formerly gave rise to the tissue committee (current 42 CFR 405.1023(o)) is now provided for under a new Condition, Quality Assurance (proposed § 482.31). i. Requirements concerning meetings

(current 42 CFR 405.1023(p)) would be deleted. These meetings, such as those focusing on review of clinical work, were intended to assure quality of care. That intent would be provided for under the new quality assurance Condition (proposed \$ 482.21).

Requirements regarding medical stuff departments and chiefs of services that are in current 42 CFR 405.1023(q) and (r) would be deleted as unnecessary and not affecting health and safety.

5. Nursing Services. Section 1881(e)(5) of the Social Security Act requires that a hospital provide 24-hour nursing services. Current regulations at 42 CFR 405.1024 implement this requirement. Several of the requirements of this Condition are overly prescriptive. inflexible, and, in some areas

overlapping. We are proposing to replace the Condition statement with the statutory language that requires 24-hour nursing care given or supervised by a registered nurse. We are proposing to retain requirements on organization staffing, administration of drugs, and delivery of care. We would delete Standards on working relationships and staff mentings because we believe these issues are best addressed by the individual hospitals (see proposed § 482.23). Section 949 of Pub. L. 98–499 provides

authority to HCFA to temporarily waive the statutory 24-hour registered nursing service requirements for rural hospitals of 50 or fewer beds. Regulations implementing this law have been issued

separately. 6. Medical Records. Section 1861(e)[2) of the Act requires that a hospital maintain clinical records on all patients. Regulations at 42 CFR 405.1026 currently implement this requirement. This Condition consists of 10 Standards and 32 factors, many of which overlap, are inflexible, and are overly prescriptive. In addition, parts of this rule have been made obsolete by changes in technology. In proposed § 482.24 we are recommending the following changes, the majority of which are intended to focus on outcome-related requirements. rather than process-oriented requirements:

a. Preservation.—We would remove the reference to statute of limitations and require retention of medical records

for 5 years.
b. Personnel.—We would delete all specific credential requirements for medical records personnel. We have seen no evidence that specific credential activities be maintained and that requirements are indispendable in assuring the quality of the medical records

c. System Details .- We would modify these requirements to retain the requirements that the hospital maintain a system ensuring prompt location of a patient record by diagnosis and procedure; that the content of the medical record contains sufficient information; and that the appropriate person sign the medical record

7. Pharmacy. Current regulations at 42 CFR 405.1027 mandate that pharmaceutical services be administered in accordance with accepted professional principles and recognized standards of practice to assure safe, accurate pharmacological regimes for patients. As currently written, this Condition limits the hospital's ability to establish its own system for the control and administration of drugs. We are proposing (see § 482.25) to eliminate many of the specific and

prescriptive details. We would also modify the personnel Standard to specify that if the hospital does not have a staff pharmacist, a designated individual must have responsibility for the day-to-day operations of the pharmacy services. We would also specify that when a pharmacist is not available, drugs may be removed only by personnel designated by the medical staff or pharmacy.

8. Radiology. Regulations at 42 CFR 405.1029 provide that basic radiology services must be available to patients and that these services be provided in accordance with professionally approved standards for safety and personnel qualifications. We are proposing (see proposed § 482.28) to revise the Condition statement to define more specifically what constitutes radiological services. We would retain the basic factors relating to safety hazards. We are proposing to revise the personnel Standard to require that only a qualified radiologist, either full or parttime, supervise the department and interpret films that require specialized knowledge. The present language had been interpreted by some to mean that a rediologist must interpret or reinterpret every film. Proposed language would also make it clear that the radiologist needs to sign reports only of his or her interpretations.

We are proposing to allow the medical staff and the individual responsible for radiological services to designate who is qualified to use rediological apparatus. We would also modify the Standard on signed reports to require that records of departmental radiological reports and films be preserved for five years. Specific references to fluoroscopy and radium would be deleted since the term radiology includes these items

9. Laboratories. Current regulations at 42 CFR 405.1028 specify requirements to onsure the health and eafety of patients who are furnished laboratory services in hospitals. Under current rules, and these proposed rules, if a hospital arranges for laboratory services from an outside laboratory, the outside laboratory must be a Medicare approved hospital or independent laboratory.

The main thrust of the proposed revisions to this Condition is to consolidate similar factors, clarify the intent, and establish uniformity in clinical laboratory requirements. The Standards affected by the consolidation are: adequacy of laboratory services, clinical laboratory examinations, availability of facilities and services. laboratory report, tissue examination,

and reports of tlasue examinations. The revision would also consolidate all personnel requirements in a single Standard in order to eliminate the ambiguity in qualifications end clarify the responsibilities of the laboratory director. Of particular note is the distinction between those laboratory aervices that can be directed by a laboratory specialist qualified by a doctoral degree and those laboratory services that, by their nature, must be under the direction of an individual at the physician level. Additionally, the preference for American Society of Clinical Pathologists registry would be eliminated in order to permit fair competition for technologist positions by otherwise qualified non-registered professionals.

We propose to delete the requirement for routing urinalysis and hemoglobin or hematocrit on admission of each patient. HCFA has requested Medicare insurance curriers to stop automatic payments for a variety of clinical tests which have sometimes been routinely performed on all Medicare admissions. This deletion would ensure that the regulations would be consistent with reimbursement actions. Requirements on participation in staff, departmental, and clinicopathic conferences would be deleted as unnecessarily prescriptive. We believe such conferences should be subject to administrative discretion based on the needs of the individual facility.

HCFA is coordinating, with the Food and Drug Administration and the Centers for Disease Control of the Public Health Service, future revisions of the regulations concerning blood banking, personnel proficiency testing, and quality control. When this process is completed, joint proposals will be published and the public will be afforded the opportunity to comment specifically on these various issues.

10. Food and Dietetic Services.
Current regulations at 42 CFR 405.1025 provide for the existence of a professionally staffed dietary department integrated into the hospital. We are proposing to retain a Condition on food and dietetic services, but to delete requirements that are overly prescriptive and details that are no longer necessary. (See proposed § 482.28.)

a. References to requirements for policies and procedures and the supervision of the staff would be deleted

b. The specific details on the organization of the department would be deleted.

c. The detailed requirements for the facilities of the dietary department

would be deleted, and we would provide for a general statement under physical environment (proposed § 482.41(c)(4)) that the kitchen and dietetic services areas must be well-ventilated and properly equipped and maintained. d. The specific details relating to therapeutic diets would be deleted.

therapeutic diets would be deleted.

e. The requirement that the director of dietetics participate in meetings with other department heads would be deleted.

We believe that this revision would not lower the quality of the dietetic services. Regulations at proposed § 482.28(a) would still require a full-time employee to serve as director of the food services and would continue to require a qualified dietitian on a full-time, part-time, or consultation basis.

11. Utilization Review. Current regulations at 42 CFR 405.1035 discuss the requirements for a hospital utilization review plan. We are proposing (see § 482.30) to replace the language in the current regulation with language from the statute. This would eliminate the overly prescriptive and detailed specifics. The revised rule would require the review of admissions. durations of stay, and professional services, with respect to medical necessity and for the purpose of promoting the most efficient use of facilities and services. Reviews would be conducted by a hospital committee or outside group and written notification of findings made to the patient, the physician, and the institution. The regulations would also specify who can make final determinations and the timeframe for notification of these decisions. Finally, we would retain a provision found in current regulations that prohibits the committee's review from being conducted by a physician who was professionally involved in the case being reviewed or who is financially interested in the hospital. (See current 42 CFR 405.1035(e)(3) and proposed \$ 482.30(b)).

12. Physical Environment. Section 1851(a)(9) of the Act permits the Secretary to mandate requirements for hospitals relating to the health and safety of patients. Some of these requirements are found in current regulations under 42 CFR 405.1022, which address physical environment and related Standards. This proposed rule would provide for the following

a. Current 42 CFR 405.1022(a) contains many details regarding the functional features of the physical plant. We are proposing to revise the requirements to state that the condition of the physical plant and overall hospital environment must be developed and maintained so

that the safety and well-being of all patients are maintained. We have deleted specific reference to isolated power since requirements pertaining to isolated power are contained in the Life Safety Code. We would retain the elements addressing emergency power, gas, water, lighting, and obstacle-free corridors. All other elements and details would be deleted as redundant.

b. Current 42 CFR 408.1022(b) mandates that hospitals comply with the 1907 edition of the Life Safety Code (LSC). We are proposing to maintain this Standard but revise it to update to the 1991 edition. The 1991 LSC is more flexible since it contains more options for compliance than previous editions. A "grandfather clause" would provide for facilities meeting the 1967 edition of LSC.

c. Regulations at 42 CFR 405.1022(d) require the hospital to provide adequate facilities for diagnostic and therapeutic services. We would modify this provision by specifically requiring hospitals to provide adequate facilities for all services, not just diagnostic and therapeutic services. (See proposed § 482.41(c)).

13. Infection Control. Current regulations at 42 CFR 405.1022(c), under the Condition Physical Environment, discuss the sanitary environment of the hospital. In the United States nosocomial (originating in a hospital) infections occur in approximately 5% of the patients admitted to acute-care hospitals. This prolongs hospital stay by several days on the average, and leads to more than an extra billion dollars a year in direct hospital charges. Because of the enormity of the problem, we are proposing (see § 482.42) to elevate infection control provisions to the level of a separate Condition of Participation. This proposed revision would place more accountability on hospitals to prevent, control, and report hospital infections, and less emphasis on the number of persons necessary to accomplish the task. The revision would delete the current requirement for an infection control committee and instead would require designation of an infection control officer(s). This flexibility would give hospitals the option of retaining existing committees, but hospitals with limited staff could comply by the designation of one person. We are also proposing to require that the hospital keep a log to identify problems and that improvement be made when problems are identified.

14. Complementary Services. Current regulations at 42 CFR 405.1031 consist of four Standards that represent five different services of the hospital. These

BIBLIOGRAPHY

BIBLIOGRAPHY

- Allied health education directory. (8th ed.) Chicago: American Medical Association Publications, 1979.
- American Hospital Association, Report by the Council on Human Resources. Unpublished article. March, 1980: 2-6.
- Babbie, E. R. The practice of social research. Belmont, CO: Wadsworth Publishing Co., 1975.
- Blayney, K. The multiple competency allied health technician. The Journal of Medical Sciences, 1982, 19 (1), 1.
- Borg, W., & Gall, M. Educational research. New York: Longman Publications, 1979.
- Campbell, E. A. Needs assessment: A vital tool. <u>Industrial Education</u>, 1978, 3, 37-42.
- Cashman, J. W. Medicare: Standards of service in a new program.

 American Journal of Public Health, 1967, 30, 25-30.
- Clark, W. G. Multi-competency technicians in allied health education: An update. Paper presented at the Annual Meeting of the American Society of Allied Health Professions, Memphis: November, 1980.
- Clark, W. G. Personal communication, June 7, 1981.
- Cohen, H. S. New directions in regulating health manpower. 1977, Louisville, KY: University Press of Kentucky, 1977.
- Culbertson, W. E. Control, criteria and change: An employer's critical view of the accreditation process. National Forum on Accreditation of Allied Health Education, Cincinnati, OH., April, 1980.
- DeCaro, J. A methodology for determining skills needed in a technical career. Journal of Studies in Technical Careers, 1978, $\underline{1}$, 30-34.
- Directory of hospitals, Bureau of Care Administration. Michigan Department of Public Health. January, 1981.

- Divesta, F. Problems in the use of questionnaire for studying the effectiveness of programs. <u>Educational and Psychological Measurement</u>, 1954, 14, 138-150.
- Eckland, B. K. Effect of prodding to increase mail-back returns. Journal of Applied Psychology, 1965, 40, 165-169.
- English, F., & Kaufman, R. <u>Needs assessment: A focus for curriculum development</u>. Washington, D.C.: Association for Supervision and Curriculum Development, 1975.
- Finch, C., & Crunkilton, J. <u>Curriculum development in vocational</u> and technical education. Boston: Allyn and Bacon, 1979.
- Flexnor, A. Medical education in the United States and Canada.

 Bulletin No. 4. Washington, D.C.: Science and Health Publications,
 1910.
- Friedman, E. The dilemma of allied health professions credentialing. Hospitals, 1981, 54, 45-51.
- Galambos, E. C. <u>Implications of lengthened health education: Nursing</u> and the allied health fields. Atlanta: Southern Regional Board, 1979, 5-8.
- Goldstein, H. M., & Horowitz, M. <u>Health personnel: Meeting the</u>
 <u>explosive demand for medical care</u>. Germantown, MD: Aspen Systems
 Corporation, 1977.
- Hersey, N. The inhibiting effect upon innovation of the prevailing licensure system. New York: New York Academy of Sciences, March, 1964.
- Holder, L. Allied health perspective in the 1980's. <u>Journal of Allied Health</u>, 1981, <u>10</u>, 5-13.
- Holstrom, E. I., etal. Women and minorities in health fields: A trend analysis of college freshman. vol. I freshman interested in the health professions. Washington, D.C.: American Council on Education, Policy Analysis Service, 1976 (ED 138 147).
- Isaac, S., & Michael, W. <u>Handbook in research and evaluation</u>. San Diego: Edits Publishers, 1981.
- Kaufman, R. Needs assessment What is it and how to do it. San Diego: UCIDTS, 1975.
- Kaufman, R., & English, F. <u>Needs assessment: Concept and application</u>. Englewood Cliffs, NJ: Educational Technology Publications, 1979.

- Kinsinger, R. E. <u>Future trends in allied health: Unresolved issues</u>. Paper presented at the AMA Symposium on Allied Health, Chicago: 1980.
- Kreml, B. Employer perspective collaborative approach to entry level employment of health care personnel. American Hospital Association, October, 1981.
- Lugenbeel, A. G. <u>Rural allied health manpower project, a solution</u>
 for rural <u>america's allied health manpower problems</u>. Carbondale:
 Southern Illinois University, 1979.
- Lugenbeel, A. G. Rural trained technicians stay rural. <u>Hospitals</u>, 1980, <u>5</u>, 74-75.
- McNulty, E. Accreditation of allied health education programs:

 Perceptions of health care providers. Cincinnati, OH: National
 Forum on Accreditation of Allied Health Education. April, 1980.
- Martin, S. Health professional education and accreditation: A futuristic view. National Forum on Accreditation of Allied Health Education. Cincinnati, OH: April, 1980.
- Mehallis, M. <u>Employer needs assessment at Broward Community College</u>. in <u>Technical Education Yearbook</u>, Ann Arbor, MI: Prakken Publishing, 1980.
- Munroe, S., & Schuman, J. Small rural hospitals must innovate in the '80s. <u>Hospitals</u>, 1980, <u>53</u>, 99-101.
- Myron, G. <u>Implementing community based education</u>. San Francisco: Josey-Bass, Inc., 1978.
- National Commission for Health Certifying Agencies, Washington, D.C., 2 (1), Sept., 1980.
- National Commission on Allied Health Education. The future of allied health education. San Francisco: Josey-Bass, 1980.
- Nebraska Department of Education. <u>Multiple competency technician</u>, 1980.
- Pellegrino, E. The allied health profession: The problems and potentials of maturity. <u>Journal of Allied Health</u>. 1977, Summer, 27-29.
- Perry, J. W. The next decade: Issues and challenges. <u>Journal of Allied Health</u>, 1978, 7, 16-25.

- Potter, D. Personal communication, June 6, 1981.
- Potter, D. Personal communication, February 4, 1982.
- Roemer, R. Trends in licensure, certification, and accreditation: Implications for health-manpower education in the future. Journal of Allied Health. 1974, Winter, 3.
- Ruhe, W. AMA involvement in allied health. Speech delivered at the 50th Anniversary Symposium on Allied Health. Chicago, IL: April, 1980.
- Sheps, C. Health services and professional education-vested interests versus public need. <u>Journal of Allied Health</u>, 1979, 8, 15-23.
- Shryrock, R. H. <u>Medical licensing in america 1650 1965</u>.

 Baltimore, MD: John Hopkins Press, 1967.
- Snelbecker, G. E. <u>Learning theory</u>, instructional theory and <u>psychoeducational design</u>. New York: McGraw-Hill, 1974.
- Somers, A. <u>Hospitals regulation: The dilemma of public policy</u>.

 Industrial Relations Section of Princeton University, Princeton,
 NJ: 1969.
- Tyler, R. W. Basic principles of curriculum and instruction. <u>Syllabus</u> for Education 305, Chicago: University of Chicago Press, 1950.
- Wiseman, F. Factor interaction effects in mail survey response rates. <u>Journal of Marketing Research</u>, 1973 10 (3), 17.
- Warwick, D. & Lininger, C. The sample survey: Theory and practice.

 New York: McGraw-Hill Book Co. 1975.
- U.S. Department of Health, Education and Welfare, Supply of health manpower: 1970 profiles and projections to 1990.
 Washington, D.C.: 1978.

GENERAL REFERENCES

GENERAL REFERENCES

- A report on allied health personnel. U.S. Department of Health Education and Welfare. Publication No. (HRA) 80-28. Nov., 1979.
- Accreditation manual for hospitals. Joint Commission on Accreditation of Hospitals, 1982.
- An interim staff report on policy and legal implications of health occupational licensure. Project latrogenesis, Sacremento, CA: Department of Consumer Affairs, 1978.
- Babbie, E. R. Survey research methods. Belmont, CA: Wadsworth Publishing Co., 1973.
- Blayney, K. Where in health are medical assistants and where in health are they going? The Professional Medical Assistant, 1977 10, 37-40.
- Brooking, W. J. <u>Post-secondary education</u>. Unpublished paper. Department of Health Education and Welfare, Washington, D.C.: 1978.
- Cathcart, R. H. Solving the 1976 health issues today. <u>Journal of Allied Health</u>, 1976, <u>5</u>, 7-13.
- Dick, W. & Carey, L. Needs assessment and instructional design.

 <u>Educational Technology.</u> 1977, 11.
- Etzel, M. Effects of alternative follow-up procedure on mail survey response rates. <u>Journal of Applied Psychology</u>, 1974, <u>59</u>(2), 40-42.
- Greenfield, H. Allied health manpower: Trends and prospects.

 New York: Columbia University Press, 1969.
- Hogness, J. R. Allied health past and present: The state of the art. 50th Anniversary Symposium on Allied Health. Chicago, IL: April, 1980.
- Job description and organizational analysis for hospitals and related health services. U.S. Department of Labor, Revised, Washington, D.C.: 1971.

- Jonas, S. <u>Health care delivery in the United States</u>. New York: Springer Publishing Co., 1978.
- Kinsinger, R. E. What this country doesn't need is a left carotid artery technician or a career-based response to the "new careers."

 Journal of Allied Health, 1973, 2, 10-15.
- Kreml, B. Employer perspective Collaborative approach to entry level employment of health care personnel. American Hospital Association, October, 1981.
- Lenning, O. Academic program planning: New directions for institutional research. San Francisco: Josey-Bass, 1980.
- Lugenbeel, A. G. Rural allied health manpower project, a solution for rural america's allied health manpower problems.

 Carbondale, IL: Southern Illinois University, 1979.
- Multi-competent clinical assistant apprenticeship. Developed by the Society for Advanced Medical Systems with the Support of the United States Department of Labor, Bureau of Apprenticeship and Training. Contract No. 99-8-1409-42-25, May, 1980.
- Riesman, C. K. Trends in health care delivery and consequences for health occupations. Smith College, Oct. 1980.
- Rogatz. P. Directions of health system for a new decade. <u>hospitals</u>, 1980, 53, 67-70.
- Stamper, J. H. Curriculum development: Assessing education needs. Journal of Allied Health, 1978, 7, 42-48.
- The allied health professions personnel training act of 1966, as amended. Department of Health, Education and Welfare, Washington, D.C.: 1966.
- The inhibiting effect upon innovation of the prevailing licensure system. Paper presented to New York Academy of Sciences, New York: March, 1964.
- Watson, K., Dick, W., & Kaufman, R. Deriving competencies: Concensus versus model building. <u>Educational Researcher</u>, 1981, <u>10</u>, 5-13.