

REVIEW ARTICLE

STATUS OF THE NEW HEALTH CARE PROVIDERS: THE PHYSICIAN'S ASSISTANTS

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There is no consensus in the medical profession on the definition, title or function of the health care providers generally referred to as physician's assistants. Their common denominator essentially is that these persons are performing medical tasks that previously only licensed physicians were permitted to perform. The concept that there should be no strict licensure of these new health care providers has generally been rejected because medical practice acts are framed essentially in terms which make diagnosis, prescription and treatment without a license misdemeanors and subject to fine and imprisonment. Supervising physicians would be guilty of aiding and abetting in the illegal practice of medicine. This study reviews existing state laws referable to these persons and examines a few judicial decisions bearing on the subject. The existing laws are identified as being primarily regulatory or delegatory in nature. Twenty-nine states have statutes protecting physician's assistants and their supervising physicians from engaging in illegal medical practice; twenty-one do not.

THE POSITION OF THE ASSISTANT IN THE SYSTEM

Need for Physician's Assistants

Throughout the United States there continues to be an urgent need for a more effective health care delivery system. The purpose of this study is to focus on the legal considerations occurring as a result of the attempts to improve aspects of the delivery problem related to shortages or maldistribution of physicians. The following are some of the interrelated factors related to physicians which contribute to frustration of efforts to perfect the system. The shortage and maldistribution of physicians have not lessened during the last decade.¹ As of 1970, the ratio of phy-

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sicians to population was 166 per 100,000 and only 150 of these were considered active. Furthermore, only 127 of these 150 physicians were engaged in direct patient care and 95 were engaged in private practice. Because the foregoing are national statistical figures, they do not adequately portray conditions in rural and core-city areas. Although the shortage of physicians in rural areas has been a problem for years and continues to grow, the shortage of physicians in the core-city areas is a relatively recent development. The following example illustrates this point. A 55-block area of Harlem in New York City in 1971 contained 60,000 people and 5 practicing physicians, while this same 55-block area 25 years earlier contained 25,000 people and 50 practicing physicians.² Moreover, there is a growing recognition of health care as a right of all citizens regardless of social and economic status and, as an accompanying result, there has been an increased demand for health services.³ The costs of medical care have rapidly risen and the demand for health services along with increased costs can be expected to continue as health insurance expands, thus making the physician problems identified more acute.⁴

In the past few years, more and more health professionals recognized that certain health services could be provided by persons with substantially less training than the physician. This has been demonstrated most recently by the Army and Air Force medics and the Navy hospital corpsmen.⁵ At the same time, similar types of persons have been and are being used throughout the world.⁶ The trend in using such persons has also been enhanced by the recognition that people seeking medical care can be classified as well, worried well, early sick and sick.⁷ Obviously, only the sick and the early sick need to be seen initially by a physician. Thus, within less than a decade, new types of health care providers are emerging as one of the potential answers in the quest to create a better health care delivery system.

Types of Assistants

There is no consensus in the medical profession related to the definition or title or functions of these health care providers. Their common denominator essentially is that these persons are performing medical tasks that previously only licensed physicians were permitted to perform. Although the physician's assistant is emerging as the term most widely used to apply to these persons, other nomenclature currently in use includes the following: Medex, physician's associate, medical specialty assistant, orthopedic assistant, paramedic abortionist, surgeon's assistant, child health associate, family planning specialist, pedi-

atric nurse practitioner, nurse midwife, ambulance paramedic, mental health assistant, and the list continues seemingly endlessly. Dr. Alfred Sadler, who has directed Yale's Physician's Associate Program and who has become a recognized authority in this area, has suggested the term "new health practitioner" as the generic name for these non-physician health personnel.⁸ Whenever the term physician's assistant is used in this paper, it will refer to anyone who is performing medical tasks previously limited to physicians.

Two national organizations have attempted to provide a uniform definition and such uniformity is necessary for lateral mobility from one area of the country to another. The National Academy of Sciences and the Association of American Medical Colleges have arrived at almost identical categories of assistants. The following describes the general categories:

"The Type A Assistant. This type is capable of approaching the patient, collecting historical and physical data; organizing these data and presenting them in such a way that the physician can visualize the medical problem and determine appropriate diagnostic or therapeutic procedures; and coordinating the roles of other more technical assistants. While he functions under the general supervision and responsibility of the physician, he might, under special circumstances and under defined rules, perform without the immediate surveillance of the physician. He is, thus, distinguished by his ability to integrate and interpret findings on the basis of general medical knowledge and to exercise a degree of independent judgment.

"The Type B Assistant. While not equipped with the general knowledge and skills relative to the whole range of medical care, this type possesses exceptional skill in one clinical specialty, or, more commonly, in certain procedures within such a specialty. In his area of specialty, he has a degree of skill beyond that normally possessed by a Type A assistant and perhaps beyond that normally possessed by physicians who are not engaged in the specialty. Because his knowledge and skill are limited to a particular specialty, he is less qualified for independent action. An example of this type of assistant might be one who is highly skilled in the physician's functions associated with a renal dialysis unit and who is capable of performing these functions as required.

"The Type C Assistant. The assistant is capable of performing a variety of tasks over the whole range of medical care under the supervision of a physician, although he does not possess the level of medical knowledge necessary to integrate and interpret findings. He is similar to a Type A assistant in the number of areas in which

he can perform, but he cannot exercise the degree of independent synthesis and judgment of which Type A is capable. This type of assistant would be to medicine what the practical nurse is to nursing."⁹

Training Programs

From the beginning the concept of the role of the physician's assistant has always been of one who is performing tasks which have been delegated to him by a physician and which are being performed by him under the supervision and control of the physician. Thus, an individual physician could train his own assistant informally in his own practice.¹⁰ There are now, however, several formal training programs and their number is increasingly expanding nationally.

The first of these programs was started in 1965 at Duke University in North Carolina. The program is still known as the Physician's Assistant Program and has served as a model for other such programs. This is a two-year program and the first nine months are spent learning the basic sciences: biochemistry, anatomy, pharmacology, physiology, medical terminology, the history, philosophy and ethics of medicine, epidemiology, clinical medicine, radiology, patient evaluation, basic laboratory procedures, animal surgery, human growth and development, microbiology, chemistry and electrocardiography. The last fifteen months are spent in clinical rotations. The graduated assistant is prepared to take detailed patient histories, perform comprehensive physical examinations and collect clinical and diagnostic data by performing intricate technical procedures such as gastric analyses, arterial punctures, lumbar punctures, pulmonary function studies, bone marrow biopsies, blood counts and urinalyses. He also learns to perform the following time-consuming therapeutic tasks: administration and regulation of intravenous fluids, application and removal of casts, and redressing and evaluation of postoperative incisions.¹¹ The first two classes were composed entirely of ex-military corpsmen and most of them held only high school diplomas. Today, half of the class holds college degrees while most of the others have had at least two years of college. Admission requirements now include at least one college-level course in both chemistry and biology and at least 2,000 hours of direct patient contact on the job.¹² Yale University, Bowman-Gray School of Medicine and the University of Alabama have programs modeled after Duke's program.

The Medex program is another type of training program which has continued to expand nationally. This program is composed of ex-

military corpsmen. The first Medex program began in 1970 at the University of Washington in Seattle. The program consists of three months of intensive training at the University followed by a one-year internship usually with the future employing physician. The concept of the program was to provide a helper for the rural areas. The first class received \$500 per month during the 15-month program. Each physician had agreed in advance to pay the Medex from \$8,000 to \$12,000 per year after the internship.¹³ The unique feature of this program has been that no one is trained unless a physician will hire him. Currently this program has been established in New Hampshire, Utah, California, Alabama and North Dakota.

There are several programs which are limited almost exclusively to nurses. Two of them were first established at the University of Colorado by Dr. H. K. Silver. The pilot program for the pediatric nurse practitioner originated in 1965. A survey of its members by the Academy of Pediatrics revealed that 50 percent of a pediatrician's time is spent with the well child. The report concluded that the role of the nurse could be expanded to include much of well-child care and, in addition, the examination and treatment of simple pediatric illnesses.^{14, 15} The typical program consists of three to four months of intensive pediatric training followed by one year of on-the-job training. The great majority of these programs will not accept a candidate unless a job is already awaiting.

The second program started at the University of Colorado is called the Child Health Associate Program. The child health associate will be able to practice pediatrics under the direction of a pediatrician and will be able to go considerably further in the diagnosis and treatment of specific illnesses than the pediatric nurse practitioner. The applicants must have had two years of undergraduate work before enrolling in this three-year program. Their first year is spent in the basic sciences; their second year is spent in clinical work. A baccalaureate degree in science is then awarded. Their third and final year is spent completing an internship in pediatrics.¹⁶

The nurse midwife has formally been in existence since 1925. Nurse midwives currently must complete nurse's training and then complete nurse midwifery training. Their role is expanding to encompass the care of the entire reproductive system of the well female patient and not just the pregnant patient.¹⁷ Individual medical specialties have also begun to recognize the potential use of similar health providers and have begun training programs. Such programs include the OB-GYN nurse practitioner, the orthopedic assistant, the urology assistant and the surgical assistant.

Acceptance and Use

There are few empirical studies available to determine just how readily physicians as a whole are willing to accept the physician's assistant. The studies that have been made tend to indicate that there is a willingness to delegate duties. In 1966, 1,345 Wisconsin physicians were surveyed.¹⁸ Fifty-five percent of family practitioners, 66 percent of pediatricians and 64 percent of internists indicated a need for such health care providers. Forty-two percent of family practitioners, 41 percent of pediatricians and 44 percent of internists indicated a willingness to use them in their practices.

The American Society of Internal Medicine surveyed 3,425 active internists to determine which elements of their practices they would be willing to delegate to physician's assistants.¹⁹ Sixty percent were willing to delegate the taking of the patient's history, 65 percent were willing to allow them to make home visits, 70 percent were willing to allow them to instruct the patient, 43 percent were willing to allow them to make nursing-home visits and 34 percent were willing to allow them to take pap smears.

The American Academy of Pediatrics performed a similar survey of 5,799 pediatricians.²⁰ Seventy percent favored delegation of such activities as recording patient histories and counseling on child care, feeding and development. Fifty percent felt the assistants could make home visits in follow-up cases of acute illness and chronic disease. Twenty-five percent favored delegating well-child examinations, 20 percent sick-child examinations and 32 percent visits to newborns while in the hospital.

In 1971, 637 doctors living in the 27-county area of the Susquehanna Valley Regional Medical Program (Pennsylvania) were surveyed on the proper use of physician's assistants.²¹ "Few physicians thought that taking a routine medical history, supporting vital functions in the absence of a physician, operating diagnostic and therapeutic instruments, carrying out laboratory examinations, and performing diagnostic activities were inappropriate duties."²² Fifty-six percent of the physicians felt that identifying and ordering laboratory and radiological studies were inappropriate and 48 percent felt that prescribing a therapeutic regimen under a physician's supervision was also inappropriate. "Physicians apparently feel the actual decision-making power regarding medical diagnosis and the prescription of a therapeutic regimen are activities which should be least readily delegated to an assistant."²³ Fifty-five percent presently were employing someone who was performing

one or more of the possible duties of a physician's assistant although the person lacked formal training.

Statements and other surveys by major health professional groups have indicated a need for physician's assistants.^{24, 25} It has been pointed out, however, that paramedical personnel should work under the supervision of a physician rather than in place of physicians.²⁶ Others have expressed the opinion that "physicians should participate in the performance of job-task analysis to assure that training is directed toward the development of skills that will be useful on the job."²⁷ It is also pointed out that the physician will be more prudent in the selection process as well as more stimulated to delegate because of his personal involvement.

The most reliable indication as to the acceptance of the physician's assistant would be a study as to their dispersion in the health field. Such studies are just beginning to be made and published. Thus, it is still too early to determine whether physician's assistants have become an element in the development of a more effective health care delivery system.

Duke University is maintaining a long-range evaluation of its graduates beginning with its early classes.²⁸ Duke University produces the Type A physician's assistants although some have specialized in a particular area of medicine. By 1973, 109 had graduated. However, many had stayed near areas of prosperous practices, often because their pay demands could not be met otherwise.²⁹ Most frequently, they work with a physician in a large practice who desires more free time. This physician is usually a family practitioner or an internist. Some are helping other centers to set up their programs. Today, there are 42 other training centers producing Type A assistants.^{30, 31}

A number of programs train their graduates for certain regions. For example: the University of Alabama supplies them for its Appalachian region, Mississippi, Tennessee and South Carolina. The University of Utah supplies them for Colorado, Wyoming, Nevada and Arizona.³² California graduated its first class of nineteen in 1972.³³ Additional programs were planned to begin operation during 1973 in medical schools at the University of South Carolina, Howard University and the University of Hawaii.³⁴ Although the Medex have been dispersed primarily in rural areas, a number are working in urban and suburban areas. The trend to use them more and more in urban settings has begun.³⁵

Many of the pediatric nurse programs, like the Medex program, will only train those who have jobs awaiting and when hired, their duties have included interviewing, counseling, assessing and managing com-

mon pediatric health problems.³⁶ One study revealed that pediatricians, already overburdened, were not looking for a means to increase their patient load. In effect, they anticipated that the effect of the pediatric nurse practitioner would be to improve the care already being delivered to families and to reduce pediatric waiting time.³⁷

There have been a number of surveys on consumer acceptance and they have generally been favorable.^{37, 38} One study at a health center located in a low-income housing project evaluated the pediatric nurse practitioner who managed all the well-child care for 110 infants.³⁹ Only two mothers asked to see the physician after being seen by the practitioner. During this study, the rate of failure to keep appointments dropped from an average of 60 percent per session to an average of 20 percent. Other reports have revealed similar positive findings of acceptance.^{40, 41}

LEGAL STATUS

Study Procedure

This study reviews the legal status of health care providers generally referred to as physician's assistants. A thorough search of the statutes of each of the fifty states and the District of Columbia was made to determine which states had enacted legislation specifically pertaining to physician's assistants. Twenty-nine states had passed this type of statute. These statutes have been analyzed as to their methods of providing guidelines by which the professional activities of these new medical persons may be regulated.

General Medical Licensure

Prior to implementing the concept of the physician's assistant, the public must be assured of continued high quality health care. "Traditionally, quality control has been attempted through the process of state licensing."⁴² However, licensing has not protected the public from dishonest and incompetent practitioners.⁴³ As a result, in the beginning, a number of commentators⁴⁴ and organizations, including the American Medical Association and the American Hospital Association, felt that there should be no strict licensure of these new health providers so that there could be sufficient time without restrictions to explore completely the uses of such people. Nevertheless, the favoring of the status quo of licensing physician's assistants soon was rejected because "Medical practice acts are framed in essentially the following terms: 'The following things shall be considered the practice of medicine: diagnosis,

prescription, and treatment. Anyone who performs these acts without a license is guilty of a misdemeanor and is subject to fine and imprisonment. Except:' and then there follows a list of persons who may perform acts falling arguably within this definition without being guilty of unlicensed practice."⁴⁵ In all states, therefore, such a person as the physician's assistant would be guilty of the illegal practice of medicine and his supervising physician would be guilty of aiding and abetting in the illegal practice of medicine. Without statutory authority, their only defense would be limited to the doctrine of "custom and usage".⁴⁶ This defense essentially would be that physicians of a particular area had so often delegated certain medical tasks that such delegation was considered good and acceptable medical practice in that particular area. It would be up to the court to accept this doctrine. However, even if the courts were to accept this doctrine there would still be the practical question as to just how long it takes for a practice to become a custom. A number of cases serve to illustrate the problems.

In *Magit v. Board of Medical Examiners*, 57 Cal 2d 74, 366 P2d 816, 17 Cal Rpt 488 (1961), the Supreme Court of California found Dr. Magit guilty of employing an unlicensed person to practice medicine and guilty of aiding and abetting persons in the illegal practice of medicine. Dr. Magit had hired three anesthesiologists to assist him. These physicians, though foreign-born, had had all of their education as anesthesiologists in the United States. They were not, however, licensed to practice in California. Dr. Magit knew they were unlicensed but relied on legal advice from the attorney of the hospital that authorizing unlicensed persons to administer anesthetics was not illegal. The court held:

"In absence of some statutory basis for an exception, such as those with respect to nurses and persons engaged in medical study or teaching, one who is not licensed to practice medicine or surgery cannot legally perform acts which are medical or surgical in character, and supervision does not relieve an unauthorized person from penal liability for the violation of statutes which like, section 2141 of the code, prohibit the unlicensed practice of medicine." 366 P2d 820.

Dr. Magit also submitted an affidavit by 55 physicians familiar with the hospital where the three had administered the anesthetics. Each affidavit read: "It is the common practice in the State of California for persons not licensed to practice medicine and surgery to administer anesthetics and to give hypodermic injections." 366 P2d 821. The court found this affidavit too vague because it did not specify what persons other than licensed physicians commonly administered anesthetics.

Consequently, the affidavit did not constitute substantial evidence of a custom existing with respect to these three physicians.

In *O'Reilly v. Board of Medical Examiners*, 66 C2d 381, 426 P2d 167, 57 Cal Rpt 7 (1967), U.S. cert. denied 390 U.S. 944 (1968), the court held that the United States Information and Educational Exchange Act did not preempt California's statutory requirement for medical licensure. Dr. O'Reilly's hospital was participating in this exchange program to provide training in general and traumatic surgery for qualified foreign medical students. Dr. O'Reilly had been chosen to head the program at this hospital. Neither of the exchange students was licensed under the California statute nor did they fall within any of its exceptions. Dr. O'Reilly was guilty of the violation of the statute by employing and aiding and abetting these physicians in the unlicensed practice of medicine.

In *Whittaker v. Superior Court of Shasta County*, 438 P2d 358, 66 Cal Rpt 710 (1968), the California court found Whittaker, a former medical corpsman functioning as a surgical assistant, guilty of practicing medicine without a license for operating a cranial saw during a brain operation. His supervising physician, Dr. Stevenson, was also found guilty of aiding and abetting the illegal practice of medicine.

Delegatory Statutes

Thus, these cases clearly forewarn that liabilities could face the supervising physician and his physician's assistant without state licensure. Some exponents have felt that the physician's assistant readily could be included among the exceptions to each of the medical practice acts so long as he was functioning under the supervision and control of a physician. Seven states have passed the general delegatory statute by so amending their medical practice act to include the physician's assistant as an exception. These states are Alaska,⁴⁷ Arkansas,⁴⁸ Colorado,⁴⁹ Connecticut,⁵⁰ Delaware,⁵¹ Kansas⁵² and Montana.⁵³ Kansas and Colorado passed their statutes in 1964 and 1963, respectively, when the concept of the physician's assistant had hardly begun to evolve. Kansas' statute is illustrative of this general delegatory statute:

"The practice of the healing acts shall not be construed to include the following classes or persons. . . Persons whose professional services are performed under the supervision or by order of or referral from a practitioner who is licensed under the act."⁵⁴

This type of general delegatory statute does foster the idea of those who feel that there should be a minimum of restrictions so that the concept of the physician's assistant can be fully explored. From a prac-

tical standpoint, there is a legitimate need for experimentation to determine which medical tasks are appropriate for these nonphysicians. Under such a statute no attempt is made to define a scope of practice. The decision of just what an assistant may or may not do is left up to the supervising physician.⁵⁵

Special Regulatory Acts for Assistants

Many others feel that the regulation and control of the assistant should not be left exclusively to the supervising physician, but that the state board of medical examiners which represents organized medicine should regulate and control.⁵⁶ (A state board of medical examiners sets its state's licensure qualifications for physicians.) Alabama,⁵⁷ Arizona,⁵⁸ California,⁵⁹ Florida,⁶⁰ Georgia,⁶¹ Idaho,⁶² Iowa,⁶³ Maryland,⁶⁴ Michigan,⁶⁵ New Hampshire,⁶⁶ New Mexico,⁶⁷ New York,⁶⁸ North Carolina,⁶⁹ Oklahoma,⁷⁰ Oregon,⁷¹ South Dakota,⁷² Utah,⁷³ Vermont,⁷⁴ Virginia,⁷⁵ Washington,⁷⁶ West Virginia⁷⁷ and Wyoming⁷⁸ have all passed regulatory authority statutes for physician's assistants. (See Appendix 1) Though these statutes reduce the flexibility inherent in the general delegatory statutes, they do provide more protection to the public because the physician's assistant must meet a minimum educational standard set by the regulatory agency which almost always is the board of medical examiners. Some statutes have created an advisory committee to the board of medical examiners. Colorado⁷⁹ also has a regulatory authority statute. This statute, however, regulates only one particular type of assistant, the child health associate. This statute also establishes licensure requirements. Nebraska⁸⁰ has passed legislation giving the University of Nebraska Medical School the power to establish a physician's assistant program. Nothing, however, has been passed concerning their legality.

The regulatory board establishes the rules and regulations with respect to the education and employment requirements of physician's assistants. Alabama, California, Florida, Georgia, Idaho, Iowa, North Carolina, Oregon, South Dakota, Virginia, Washington, West Virginia and Wyoming also require board approval of the physician and the way in which he will use the assistant. Colorado, New York, South Dakota and West Virginia are the only ones specifying an age limit. South Dakota requires the applicant to be at least 18 years old while the other three require the applicant to be at least 21. California, Colorado, Florida, Georgia, Iowa, New Mexico, New York, North Carolina, Oregon, Virginia, Washington and Wyoming also limit the number of physician's assistants per supervising physician. California, Colorado,

Florida, Iowa, New Mexico, North Carolina, Oregon, South Dakota, Virginia, Washington and West Virginia require annual certification renewal. New York requires biannual certification renewal.

With the exception of Colorado and Kansas, the other 27 states passed their statutes after 1969. California's regulatory statute, passed in 1970, has been the model for many of the other regulatory statutes. Its board of medical examiners is the regulatory agency and is assisted by an advisory committee. The board has power to make rules and regulations which have the force of legislation. The board must approve the education program, each physician's assistant and the employing physician. It also requires submission of a job description. So far, there has not been very much information available as to which programs the board has approved. One program that has been approved is the Medex program. The first graduates of this program finished in the fall of 1973.⁸¹ In 1973, South Dakota passed a regulatory-type statute. So far, it is the most detailed and the most comprehensive. Other states may likely model their statutes after this one.

Little more than half of these statutes are phrased in terms which implicitly infer diagnosis, prescription and treatment without actually using these or related words. A growing number of them are using more explicit terms. Colorado's child health associate law states that the child health associate practices pediatrics and that the child health associate may prescribe drugs. The statutes of Alabama, California, Florida, Iowa, New York and Wyoming all use the phrase "perform medical services". Georgia's statute uses the vague phrase "provide patients' services". Michigan's statute uses the phrase "perform selected acts or functions in the practice of medicine", while West Virginia's uses an almost identical phrase "perform selected tasks in the practice of medicine". Delaware's statute uses the phrase "rendering medical, surgical, or health services". Oklahoma's statute states that the activity of the physician's assistant requires an understanding of diagnosis and treatment of disease. South Dakota's statute states that the assistant to primary physicians can perform selected diagnostic and therapeutic tasks. It then delineates the tasks which the assistant to a specialist can perform. Virginia's statute states that a physician can delegate certain acts which constitute the practice of medicine but limits the acts to those which are educational, diagnostic, therapeutic or preventive in nature; it does not include the establishment of a final diagnosis or treatment plan nor does it include the prescribing or dispensing of drugs.

Another of the questions raised by these statutes is what does supervision and control encompass. Such supervision could be over-the-

shoulder or could be on the premises, or could be remote from the physician so long as the physician's assistant could communicate with him.⁸² Depending on the statute that he is under, the physician could adopt any one of these three interpretations of supervision. Most of the statutes merely use the phrase "under the supervision and control of the physician". Although Arkansas' statute is phrased in terms of "direct control" and Georgia's "personal control", both can be construed as coming within these three interpretations. Alabama specifically requires the "physician's direct personal, physical supervision" if the assistant is performing optometry. Florida's statute attempts to define supervision as "except in cases of emergency, supervision shall require the easy availability or physical presence of the licensed physician". Iowa's statute specifically states that supervision shall not be construed as requiring personal presence, except if promulgated by rules and regulations. New York and Washington have similar provisions. South Dakota states that supervision may be by personal contact or indirect contact by telephone or radio. Under the regulatory statutes the boards will probably be active in providing more explicit definitions.

The statutes, except for Colorado's child health associate law, are in general terms so as to apply to any category fitting within the description of a physician's assistant. The literal reading of Colorado's general delegatory statute would apply to the child health associate. The proponents of the child health associate wanted and were able to get a very detailed statute dealing solely with the child health associate. The statute also sets up licensure requirements.⁸³ Several states have passed specific legislation creating pilot programs for ambulance paramedics.⁸⁴ These statutes provide paramedics with a legal basis for the practice of medicine.

From a practical standpoint, it would be very difficult to get specific legislation for each type of worker who would fit the description of the physician's assistant. Getting legislation through state legislatures has often proven to be a very slow and tiresome process. Also, there still may be other types of physician's assistants created since this area is still in the process of evolving. Therefore, the statutes rightly have been in general terms so that as many as possible could be protected and able to function without being liable for the unlawful practice of medicine.

Most of the statutes are phrased in terms of the physician's assistant, especially those passed in 1972 and 1973. The nurse practitioners have maintained that there is a difference between them and the physician's assistants. They view the physician's assistant as one who is performing highly technically oriented duties⁸⁵ and are, in fact,

assisting the physician. In particular, the nursing profession maintains that nurse practitioners are an extension of the nursing profession and are not members of a new profession. Therefore, many are lobbying for legal coverage under the nurse practice act.

California passed its Physician's Assistant Act in 1970, using only that term. In 1972, the Act was amended to include and to develop the concept of the nurse practitioner.⁸⁶ Arkansas' general delegatory statute specifically provides that a registered nurse can also function under the supervising physician. Vermont's physician's assistant act also provides that licensed nurses may perform, as nurses, any medical tasks delegated by a physician at any time, but they are not required to register as physician's assistants are. The School of Nursing at Syracuse University and the School of Nursing at the University of Maryland have incorporated the program of the nurse practitioner as part of their regular nursing curriculum. The School of Nursing at the University of Michigan will incorporate its program in its regular nursing curriculum beginning with the entering freshman class of 1975.⁸⁷ Michigan's new physician's assistant statute literally anticipates the coverage of such a person as the nurse practitioner or the nurse midwife. "'Physician's Assistant' means a person who is qualified by training, education or experience to perform selected acts or functions in the practice of medicine or osteopathy under the direction of a physician."⁸⁸ The act also establishes a nine-member advisory committee to approve programs of training. One of its members must be from the board of nursing. Instead of looking to this act for possible coverage, directors⁸⁹ of the Pediatric Nurse Practice Program were looking for coverage under the Nurse Practice Act.⁹⁰ That Act is in such vague terms that it could be construed not to deny the pediatric nurse practitioner from caring for the ambulatory patient. Nevertheless, the directors were very aware that if the law were challenged it may not be so interpreted. Therefore, they were working for a revised Nurse Practice Act.

Though nurse midwives have been officially organized since 1925, they have been unsuccessful in getting all legislatures to pass specific legislation. They, too, like many of the others with nursing backgrounds want to maintain a separate legal identity from the physician's assistants.

In 1971, Arizona passed a statute which provided that the medical practice act does not apply to "any person acting at the direction or under the supervision of either a doctor of medicine or . . ." ⁹¹ During that same year, the Arizona Attorney General issued its opinion on pediatric nurse practitioner programs.⁹² The opinion concluded that

the pediatric nurse practitioner would be violating both the medical and nursing practice acts. The delegatory amendment did not cover such a nurse since it contained the limiting phrase "so long as he is acting in his customary capacity". The opinion concluded that "certain statutory changes must be enacted to permit these activities".⁹³ None of the other state delegatory amendments contain this limiting phrase. Therefore, no other court or attorney general should give such an interpretation to these amendments. In 1972, Arizona amended its statute to provide for a regulatory-type statute which did not contain that phrase. Although the statute is phrased in terms of the physician's assistant, it would appear that the statute now covers the pediatric nurse practitioner, that is, if such a program has been approved by the regulatory board.

The overriding purpose of getting these statutes passed was to protect these new health care providers from the illegal practice of medicine. From a legal viewpoint, it is unfortunate that some of these health providers may not be able to avail themselves of this protection because of the wording of the statutes. Furthermore, if this is true, it is unfortunate that the legislation has been phrased in terms of the physician's assistant and that the legal side has unwittingly found itself also caught up in this semantic confusion. The legal side should be concerned solely with their legality and not with their nomenclature.

Examination and Certification

Certification will also greatly affect career mobility. This is especially true, because our society is such a mobile one and, secondly, because every state sets its own certification and licensing requirements. Although 29 states have passed some form of certification requirements, the problem of moving between them has not been resolved. The most effective mobility is among the states which have the general delegatory amendments that only require these new health care providers to work under the supervision and control of a licensed physician.⁴⁷⁻⁵³ Of the states having regulatory statutes, South Dakota's statute is the only one which anticipates providing for reciprocity from incoming out-of-staters.⁹⁴ Colorado's child health associate law also provides for reciprocity for incoming child health associates from other states.

The National Board of Medical Examiners, which administers the national examination for physicians, has developed a national certification examination for physician's assistants. Obviously, the effect of such an examination would be an important and much needed step in

unifying this area, especially with the backing of an organization such as the National Board of Medical Examiners. The primary financial source used to develop the examination was a grant of \$425,000 from the National Institutes of Health.⁹⁵

One of the basic purposes of this examination is to identify those individuals who have not achieved "minimum acceptable proficiency in relation to core knowledge and skills".⁹⁶ Eligibility for the examination has been limited to graduates of primary care physician's assistant training programs approved by the AMA Council on Medical Education and, in the case of nurse practitioners, programs of at least four-months duration within a nationally accredited school of medicine or nursing that trains pediatric or family nurse practitioners.^{97, 98} Some have felt that this limitation was necessary in the initial administering of the examination in order to confirm the effectiveness of the examination by having a reasonably controlled population.⁹⁹ Others representing many of the nondegreed physician's assistants voice concern that the eligibility will not be widened. The American Academy of Physician's Assistants, formerly the American Academy of Physician's Associates, has overwhelmingly supported the examination.¹⁰⁰ This group, whose members are eligible to take the test, was founded in 1968 by the Duke University Physician's Associates and publishes the "P.A. Journal". The eligibility controversy has been resolved, at least for the 1974 examination, since the nondegreed assistants with four or more years of experience since January 1, 1970 also qualify to take the exam.¹⁰¹

The first examination was administered on December 12, 1973 to 880 candidates in 38 test centers across the country.¹⁰² The test will be given annually in December. Seventy-five percent of the physician's assistants eligible to take the examination registered. Almost 100 percent of the Medex eligible to take the examination registered, while approximately 10 percent of the eligible nurse practitioners registered. A further breakdown of the 880 candidates revealed that 538 had been trained as physician's assistants, 265 had been trained as Medex and 77 had been trained as nurse practitioners. Evaluations of the examination concluded that the "statistical analysis of the examination indicated that it was reliable and moderately difficult for the group of examinees who took it".¹⁰³ In analyzing exam performance in relation to biographical data, it was found that those who had already completed the training program and who had acquired clinical experience scored significantly higher than those without such experience. The evaluators concluded that: "This finding provides evidence of the construct validity of the examination since it appears to be measuring

knowledge and skills that are relevant to practice and that increase with clinical experience.”¹⁰⁴ Surely, developing and administering a national examination is an essential step in their acceptance as well as in their certification and licensing, but the pertinent question that still remains to be answered is whether the states will accept and make use of such certification.

Liability for Assistants' Practice

The statutes which have been passed so far have only relieved the physician's assistant from the illegal practice of medicine and his supervising physician from the aiding and abetting of one in the illegal practice of medicine. Although none of these statutes have relieved either from their possible negligence, there is the possibility that without these statutes, the courts may follow the precedent of Washington's court which allowed an inference of negligence to be drawn from the fact that the defendant was not licensed to perform her task under any statute. In *Barber v. Reinking*, 68 Wash 2d 122, 411 P2d 861 (1966), the defendant was a licensed practical nurse who administered a polio booster shot to the two-year old plaintiff. The boy suddenly moved and the needle broke off in his right buttock. Only registered nurses could administer such hypodermic injections. The court stated:

“In accordance with the public policy of this state . . . that one who undertakes to perform the services of a trained or graduate nurse must have the knowledge and skill possessed by a licensed registered nurse. The failure of Nurse Reinking to be so licensed raises an inference that she did not possess the required knowledge and skill to administer the inoculation in question.” 411 P2d 863.

The court also held that although it was the custom and practice for practical nurses to administer inoculations, such a custom and practice was in violation with the statutes. Evidence concerning custom and practice was therefore inadmissible as a defense.

Between the physician and his assistant there are three possible negligent liabilities. The physician's assistant is liable for his own negligence; the physician is liable for his own negligence in supervising and controlling; and the physician is liable under the doctrine of *Respondeat Superior** for the negligence of his assistant.

There are two possible standards of due care which can be applied to the physician's assistant. He could be held to the standard of the

*Literally: “Let the master answer.” This is the legal doctrine causing the employer to be held liable in certain cases for his employee's negligent acts which occur when the employee is acting within the scope of his employment.

ordinary physician practicing in that community. Alternatively, he could be held to the standard of the ordinary physician's assistant practicing in the community. There should be no difference in either of the standards since the physician's assistant performs functions traditionally performed by physicians. If there is a difference between the two, this would defeat the entire purpose of creating these new health providers. The underlying hypothesis is that persons with less training than physicians can perform some medical tasks traditionally limited to physicians just as adequately as if these tasks were performed by the physician. Under either standard, it would appear that expert testimony would be required in the same manner as required in negligent cases against physicians.

In addition to having the common consent problem (that is, making certain the patient knows he has given his permission for the performance of a particular act to his person), the physician's assistant must also make certain that the patient is consenting to being treated by a physician's assistant and not by a physician.¹⁰⁵ Without such consent, some courts may construe this to be assault and battery.

The physician's assistant is also under a duty to refer.¹⁰⁶ Since he will usually see the patient first, he must make the decision whether the patient's condition is solely within his scope of practice. In *Cooper v. National Motor Bearing Co.*, 136 Cal App 2d 299, 288 P2d 581 (1955), an industrial nurse was held liable for failing to diagnose whether she herself should have treated the condition or whether she should have sent the patient to the physician.

The physician's own negligence will most often arise concerning whether he has sufficiently supervised and controlled his assistant and whether he has properly delegated. It seems that a physician could introduce evidence to show that he could reasonably believe that the assistant needed less supervision or that the task was properly within the assistant's competence. The physician would also be under a duty to use due care in the selection of his assistant.

Because of the known dread among physicians concerning possible malpractice suits, at least one commentator felt that the doctrine of *Respondeat Superior* should not apply to the physician at the present time.¹⁰⁷ There is the very real possibility that physicians may hesitate to employ such assistants if they are also held liable for the assistant's negligent acts as well as for their own. No statute has removed this vicarious liability. To the contrary, several have explicitly included such liability. Florida's and Utah's statutes state that the physician shall be responsible for the acts and omissions of his assistant. Virginia's statute states that the physician shall be fully responsible for

the acts of his assistant. South Dakota's statute also explicitly states that the physician shall not be relieved of his professional and legal responsibility for the care and treatment of his patients. New Mexico's statute states that the physician shall be liable for the acts and omissions delegated to his assistant and that the assistant will be liable for his own acts and omissions.

The impact of possible malpractice suits arising from the hiring of physician's assistants has lessened somewhat because insurance companies have expanded coverage in this area.¹⁰⁸ Insurance companies have expanded coverage to physicians hiring physician's assistants and have separate policies available for the assistants themselves.

CONCLUSION

The advent of the physician's assistant movement clearly depicts another example in which medicine has left the law lagging behind. Out of necessity, health professionals have attempted to experiment with a new group of health care persons. Yet, even these professionals have been unable to delineate clearly what they have created, how they are to train them, what they should have them do, or even what they should call them. Though this movement is growing rapidly, it still is too early to predict just what its impact will be on the medical profession. It takes time for physicians themselves to become acquainted with the assistants and to use or to reject their services. It will take time to evaluate the effect these assistants are having on our health care delivery system.

One reason for having physician's assistants is to free the physician to care for patients who really need his services. However, a major concern is the apparent tendency to train physician's assistants and deploy their services in the areas and for the people having the greatest need for the best and most astute service available. Some may reply to this concern by saying even limited service is better than no service. Such a reply would, however, simply be another example of patching a troubled delivery system—an approach the concept of the physician's assistant seeks to eliminate.

Although it is the function of medicine to create and experiment with such persons, it is, nevertheless, the function of the law to determine their legality. Since their concept has always been in terms of being dependent on the supervision of a physician, 29 states have enacted statutes which protect physician's assistants and their supervising physicians from engaging in the illegal practice of medicine. More than three-fourths of these statutes attempt in some way to deal

with licensing, accreditation and certification. Twenty-one states and the District of Columbia still do not have such statutes. However, if the trend continues as it has in the past three years, these states may rapidly enact such legislation. Without such legislation, physician's assistants in these states are functioning illegally.

One of the major problems that has hampered the movement in its relation with the law is that there has been no one, unifying national group speaking for it. Therefore, the force that naturally flows from such unity is lacking in obtaining statutes that could be more effectively written concerning licensing, accreditation and certification. Such statutes would readily enable mobility between the states.

As time passes, it may prove quite unfortunate that many of the states have used the term "physician's assistant" to describe this category of persons who may perform medical tasks previously limited only to physicians. Because of such labeling, some persons being trained from the nursing profession are not availing themselves of the protection of these statutes even though there may be no other statute protecting them from the illegal practice of medicine. This is especially unfortunate when the statute requires prior approval of the training programs. Therefore, under such a statute, they may have already lost their protection because they are not graduates of an approved program. Finally, what this movement clearly delineates is that our whole rigid system concerning the scope of medicine may be quite outmoded. The medical profession, at this time, is trying to cope with the dilemma that recognizes that some medical tasks may be performed by non-physicians, but has yet been unable to define which tasks these are. Therefore, the law naturally reflects this confusion. Some states have plunged ahead and have attempted legally to accommodate these changes while others have taken no action.

Appendix I

STATES HAVING PASSED PHYSICIAN'S
ASSISTANTS STATUTES

<u>State</u>	<u>Type</u>	<u>Passed</u>	<u>Found</u>
Alabama	Regulatory	1971	Ala. Code § 297 (22mm)
Alaska	Delegatory	1972	Alaska Stat. § 08.64.170
Arizona	Regulatory	1972	Ariz. Rev. Stat. Ann. § 32-1421 (9)
Arkansas	Delegatory	1971	Ark. Acts § 72-604 (2) (p)
California	Regulatory	1970	Cal. Bus. & Prof. Code § 2511- 2522
Colorado	Delegatory	1963	Col. Rev. Stat. Ann. § 91-1-6 (3) (m)
	Regulatory	1969	Col. Rev. Stat. Ann. § 91-10-3 (2) (a)
Connecticut	Delegatory	1971	Conn. Gen. Stat. Ann. § 20-9
Delaware	Delegatory	1971	Del. Stat. § 1731 (d) (6)
Florida	Regulatory	1971	Fla. Stat. Ann. § 458.135
Georgia	Regulatory	1972	Ga. Code § 84-62
Idaho	Regulatory	1972	Idaho Code § 54-1806 (d)
Iowa	Regulatory	1971	Iowa Acts § 148 B.1-B.10
Kansas	Delegatory	1964	Kan. Stat. Ann. § 65-2872 (g)
Maryland	Regulatory	1972	Md. Ann. Code § 122 (b) (6)
Michigan	Regulatory	1973	Mich. Comp. Laws Ann. § 338.371-379
Montana	Delegatory	1970	Mont. Rev. Code § 66-1012 (2) (1)
New Hampshire	Regulatory	1971	N.H. Repts. § 329.21
New Mexico	Regulatory	1973	N.M. Stat. Ann. § 67-5-3.3
New York	Regulatory	1971	N.Y. Ed. Law § 6530; N.Y. Pub Hlth Law § 3700
North Carolina	Regulatory	1971	N.C. Gen. Stat. § 90.18 (13)
Oklahoma	Regulatory	1972	Okl. Stat. Ann. § 519-523
Oregon	Regulatory	1971	Oreg. Rev. Stat. § 677.612
South Dakota	Regulatory	1973	S.D. Comp. Laws Ann. § 36-4A
Utah	Regulatory	1971	Utah Code Ann. § 58-12-40
Vermont	Regulatory	1972	Vt. Repts. § 1725-1729
Virginia	Regulatory	1973	Va. Code § 54-281.4
Washington	Regulatory	1971	Wash. Laws 1971 1st. ex. sess. Chpt. 30
West Virginia	Regulatory	1971	W.Va. Code Ann. § 30-3A
Wyoming	Regulatory	1973	Wyoming Stat. § 33-338.1

REFERENCES

1. (a) Only one source was to the contrary: Ann Arbor News, November 15, 1973, p. 1. "Dr. C. C. Edwards, Assistant Secretary for Health in the Department of Health, Education, and Welfare, said the \$3.5 billion program has eased concern about a doctor shortage during the last 10 years and now threatens to create a doctor surplus." He said the problem was maldistribution.
(b) Recent laws which have provided for these new health workers have justified them on the basis of the shortage, as well as the maldistribution, of physicians. For examples, see references 57, 59 and 60.
2. Schneider, J. "Manpower Problems in Obstetrics and Gynecology: Statistics and Possible Solutions." *Clinical Obstetrics and Gynecology* 15:293-294, 1972.
3. Department of Health, Education, and Welfare, Office of the Assistant Secretary for Health and Scientific Affairs. Report on Licensure and Related Health Personnel Credentialing, June 1971, p. 107.
4. Id.
5. Zentmyer, R. "Training of Allied Personnel: A Practical Approach." *Clinical Obstetrics and Gynecology* 15:333, 1972.
6. See reference 3, id.
7. Garfield, S. R. "The Delivery of Medical Care." *Scientific American* 222:15, 1970.
8. Sadler, A. M., Jr. "The New Health Practitioners in Primary Care." *The P.A. Journal* 4:35 (No. 2), Summer 1974.
9. National Academy of Sciences. "New Members of the Physician's Assistants," 1970, pp. 3-4; Association of American Medical Colleges. "Report of the Association of American Medical Colleges Task Force on Physician's Assistant Programs," February 1970, pp. 2-3 (mimeo).
10. LeMaitre, G. D. Letter to the Editor, "Nurse as Physician's Assistant." *New England J. of Medicine* 287:207, 1972.
11. Lewis, D. E. "The Education of the Professional Physician's Assistant." In: Proceedings of the Third Annual Duke Conference on Physician's Assistants, November 1970, pp. 39-40.

12. American Medical Association. *Medical World News* 14:68 (No. 19), May 1973.
13. See reference 3, id. at p. 111.
14. American Nurses Association and the American Academy of Pediatrics. "Guidelines on Short-Term Continuing Education Programs for Pediatric Nurse Associates." Joint Statement. *American J. of Nursing* 71:509, 1971.
15. See reference 3, id. at p. 112.
16. Silver, H. K. and Ott, J. E. "The Child Health Associate: A New Health Professional to Provide Comprehensive Health Care to Children." *Pediatrics* 51:1-7, 1973.
17. Isaacs, G. "The Frontier Nursing Service." *Clinical Obstetrics and Gynecology* 15:394-407, 1972.
18. Coye, R. D. and Hansen, M. F. "The Doctor's Assistant." *J. of the American Medical Association* 209:529-533, 1969.
19. Riddick, F. A., Jr., et al. "Use of Allied Health Professionals in Internists' Offices." *Archives of Internal Medicine* 127:924-931, 1971.
20. Yankauer, A., et al. "Pediatric Practice in the United States." *Pediatrics* 45:521-554, 1970.
21. Borland, B. L., et al. "A Summary of Attitudes of Physicians on Proper Use of Physician's Assistants." *Health Services Reports* 87:467-472, 1972.
22. Id. at p. 469.
23. Id. at p. 471.
24. Powers, L. E. "Physicians' Interest in Physician's Assistants." In: *Proceedings of the Third Annual Duke Conference on Physician's Assistants*, November 1970, pp. 175-178.
25. Maeck, J. V. S., et al. Letter to the Editor, "Physician Associates and Assistants." *American J. of Public Health* 62:626-627, 1972.
26. OB-GYN News, December 15, 1973, p. 1.
27. OB-GYN News, September 15, 1973, p. 25.

28. Pondy, L. R. "Evaluation of the Physician's Assistants' Productivity." In: Proceedings of the Third Annual Duke Conference on Physician's Assistants, November 1970, pp. 20-35.
29. See reference 12, id.
30. Id.
31. Editorial, "MEDEX: An Operational and Replicated Manpower Program: Increasing the Delivery of Health Services." *American J. of Public Health* 62:1564, 1972.
32. *OB-GYN News*, October 15, 1973, p. 43.
33. See reference 31, id.
34. Id.
35. Chappell, J. A. and Drogos, P. A. "Evaluation of Infant Health Care by a Nurse Practitioner." *Pediatrics* 49:871-877, 1972.
36. Yankauer, A., et al. "The Costs of Training and the Income Generation Potential of Pediatric Nurse Practitioners." *Pediatrics* 49:885, 1972.
37. Lan, D. M. "Providing Maternity Care Through a Nurse Midwifery Service Program." *Nursing Clinics of North America* 4:509, 1969.
38. Silver, H. K. "The Pediatric Nurse Practitioner and the Child Health Associate: New Types of Health Professionals in Education and the Health Related Professions." *New York Academy of Sciences Transactions* 166:927-933, 1969.
39. See reference 35, id. at p. 875.
40. See reference 31, id.
41. Dixon, J. E. "Ask the Man Who Uses One." In: Proceedings of the Third Annual Duke Conference on Physician's Assistants, November 1970, pp. 49, 59.
42. Sadler, A. M., Jr. and Sadler, B. L. "Recent Developments in the Law Relating to the Physician's Assistant." *Vanderbilt Law Review* 24:1196, 1971.
43. See reference 3, id. at p. 2.
44. Forgotson, E. H., et al. "Health Services for the Poor—the Manpower Problem: Innovations and the Law." *Wisconsin Law*

- Review, 1970, p. 756; Leff, A. A. "Medical Devices and Paramedical Personnel: A Preliminary Context for Emerging Problems." Washington University Law Quarterly, 1967, p. 332.
45. Ballenger, M. D. "Accommodation of the Physician's Assistant into the Framework of Health Care Delivery." In: Proceedings of the Third Annual Duke Conference on Physician's Assistants, November 1970, p. 15.
 46. Forgotson, E. H., et al. "Health Services for the Poor—the Manpower Problem: Innovations and the Law." Wisconsin Law Review, 1970, p. 756.
 47. Alaska Statutes § 08.64.170 (1972).
 48. Arkansas Acts § 72-604 (2) (p) (1971).
 49. Colorado Rev. Stat. Ann. § 91-1-6 (3) (m) (1963).
 50. Connecticut Gen. Stat. Ann. § 20-9 (1971).
 51. Delaware Statutes § 1731 (d) (6) (1972 Noncumulative Supp.).
 52. Kansas Stat. Ann. § 65-2872 (g) (1964).
 53. Montana Revised Codes 1947, 2d Replacement (1969) § 66-1012 (2) (1) (1970).
 54. See reference 52, *id.*
 55. See reference 45, *id.* at p. 16.
 56. *Id.* at p. 17.
 57. Alabama Code § 297 (22mm) (1971) Cum. Supp. to Vol. 10.
 58. Arizona Rev. Stat. Ann. § 72-604 (2) (p) (1972) § 32-1421 (9) (1972).
 59. California Bus. and Prof. Code § 2511-2522 (1970) Amended (1972).
 60. Florida Stat. Ann. § 458.135 (1971).
 61. Georgia Code § 84-62 (1972).
 62. Idaho Code § 54-1806 (d) (1972).
 63. Iowa Acts § 148 B.1-B.10 (1971).
 64. Maryland Annotated Code § 122 (b) (6) (1972).

65. Michigan Compiled Laws Ann. § 338.3710.379 (1973).
66. New Hampshire Repts. § 329.21 (1971).
67. New Mexico Statutes Ann. § 67-5-3.3 (1973).
68. New York Education Law § 6530 (1971) and New York Public Health Law § 3700 (1971).
69. North Carolina Gen. Stat. § 90.18 (13) (1971).
70. Oklahoma Stat. Ann. § 519-523 (1972).
71. Oregon Revised Statutes § 677.612 (1972).
72. South Dakota Compiled Laws Ann. § 36-4A (1973).
73. Utah Code Ann. § 58-12-40 (1971).
74. Vermont Repts. § 1725-1729 (1972).
75. Virginia Code § 54-281.4 (1973).
76. Washington Laws, 1971 1st. ex. sess. Chpt. 30 (1971).
77. West Virginia Code Ann. § 30-3A (1971).
78. Wyoming Statutes § 33-338.1 (1973).
79. Colorado Rev. Stat. Ann. § 91-10-3 (2) (a) (Supp. 1969).
80. Nebraska Rev. Stat. 1943 § 85-170.01 (1972).
81. See reference 32, *id.*
82. See reference 42, *id.* at p. 1200.
83. Silver, H. K. "New Allied Health Professionals: Implications of Colorado Child Health Associate Law." *New England J. of Medicine* 284:304-307, 1971.
84. Idaho Code § 39-131 (1972).
85. Personal interview with the Coordinators, Pediatric Nurse Practitioner Program, University of Michigan School of Nursing, December 1973, and Margaret Craig, R.N., Nurse-Midwife, November 1973.
86. Cal. Bus. and Prof. Code § 2519, 2520 (Amended 1972).
87. Personal interview with the Nurse Coordinator, Pediatric Nurse Practitioner Program, University of Michigan School of Nursing, December 1973.
88. Mich. Compiled Laws Ann. § 338.371 (c), § 338.372.

89. Personal interview with the Coordinators, Pediatric Nurse Practitioner Program, University of Michigan School of Nursing, December 1973.
90. Mich. Compiled Laws Ann. § 338.1152.
91. Arizona Rev. Stat. Ann. § 32-1421 (b) (Supp. 1971).
92. Arizona Att'y Gen. Op. No. 71-30 (August, 1971).
93. Id.
94. South Dakota Compiled Laws Ann. § 36-4A-9 (1973).
95. See reference 12, id. at p. 72.
96. Andrew, B. J. "First National Certifying Examination for Primary Care Physician's Assistants." *The P.A. Journal* 4:21 (No. 2), Summer 1974.
97. Id.
98. Mason, P. F. "President's Message: National Board Examination for P.A.'s." *The P.A. Journal* Vol. 3 (No. 3), Summer 1973.
99. See reference 12, id. at p. 72.
100. National Board of Medical Examiners. "The P.A. Certifying Examination." *The P.A. Journal* 3:23-24, Fall 1973.
101. Personal communication from the Registrar, National Board of Medical Examiners.
102. See reference 96, id.
103. See reference 96, id. at p. 22.
104. Id.
105. Comment, "Physician's Assistant in California— a Better Legal Framework." *Santa Clara Lawyer* 12:107, 114, 1972.
106. Comment, "Tort Liability and the California Health Care Assistant." *Southern California Law Review* 45:776, 1972.
107. Id. at p. 780.
108. Dean, W. J. "State Legislation for Physician's Assistants: A Review and Analysis." *Health Services Reports* 88:12, 1973; See reference 31, id.; See reference 45, id. at p. 17.