REPORT OF THE
DEPARTMENT OF HEALTH PROFESSIONS
AND THE
VIRGINIA HEALTH PLANNING BOARD ON

The Potential for Expansion of the Practice of Nurse Midwives

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 12

COMMONWEALTH OF VIRGINIA
RICHMOND
1992

COMMONWEALTH of VIRGINIA

December 4, 1991

TO: The Honorable Lawrence Douglas Wilder
Governor of the Commonwealth of Virginia

The Members of the General Assembly of Virginia

The Members of the Commission on Health Care for all Virginians

It is our privilege to present this report which constitutes the response of the Department of Health Professions and the Virginia Health Planning Board to the request contained in House Joint Resolution No. 431 of the 1991 Session of the General Assembly of Virginia.

The report provides the findings of a special task force regarding expansion of the use of certified nurse-midwives in the provision of prenatal and obstetric services in the Commonwealth. We appreciate the efforts of the members of this task force and endorse the findings and recommendations of their report.

The task force report was prepared with the support of staff members of the Department of Health Professions and the Department of Health with funding provided by the Department of Health Professions.

Bernard L. Henderson, Jr.
Director, Department of
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Robert B. Stroube, M.D.
Acting State Health Commissioner

cc: The Honorable Howard M. Cullum
Secretary of Health and Human Resources
Chairman, Virginia Health Planning Board

VIRGINIA DEPARTMENT OF HEALTH PROFESSIONS

AND

VIRGINIA HEALTH PLANNING BOARD

REPORT OF THE TASK FORCE ON THE STUDY OF OBSTETRIC ACCESS AND CERTIFIED NURSE-MIDWIVES

In Response To

House Joint Resolution Number 431

of the

1991 Session of the General Assembly of Virginia

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HOUSE JOINT RESOLUTION NO. 431

Requesting the Health Planning Board in conjunction with the Department of Health Professions to study the potential for expansion of the practice of nurse midwives.

Agreed to by the House of Delegates, February 22, 1991
Agreed to by the Senate, February 21, 1991

WHEREAS, access to prenatal care is essential in preventing low birthweight, which is the leading cause of infant mortality; and

WHEREAS, problems with medical malpractice and other factors are causing some obstetrical providers to stop delivering babies, and the resulting shortage of providers is threatening to reverse the progress made in infant mortality prevention; and

WHEREAS, the number of family physicians, who are often the sole source of primary care—including obstetrics—in rural areas, is decreasing; and

WHEREAS, the use of nurse practitioners, nurse midwives, and physicians' assistants can ease the problem of provider shortages; and

WHEREAS, nurse midwives are dually educated in the discipline of nursing and the profession of midwifery; and

WHEREAS, nurse midwifery programs provide quality patient care for a low average cost; and

WHEREAS, nurse midwives are "prepared to provide prenatal, intrapartum and postpartum care geared to the individual needs of each mother and family"; and

WHEREAS, 80 certified nurse midwives are currently licensed to practice in Virginia; and

WHEREAS, an increase in the number of nurse midwives could improve access to care for pregnant women; and

WHEREAS, finding methods of encouraging family physicians and obstetricians to continue or resume the practice of delivering babies and finding methods of encouraging physicians and nurse midwives to work together effectively in a collaborative practice would also improve access to care for pregnant women; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Health Planning Board in conjunction with the Department of Health Professions be requested to study (i) the potential for expansion of the practice of nurse midwives; (ii) methods of encouraging family physicians and obstetricians to continue or resume the practice of delivering babies; and (iii) methods of encouraging physicians and nurse midwives to work together effectively in a collaborative practice. The Board and Department shall determine and analyze the barriers to the practice of midwifery and determine ways to increase the number of persons who are interested in midwifery as a career.

The Health Planning Board in conjunction with the Department of Health Professions shall complete their work prior to December 1, 1991, and present their joint findings and recommendations to the Commission on Health Care for All Virginians and the Governor and the 1992 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

VIRGINIA HEALTH PLANNING BOARD
Howard M. Cullum, Chairman
Secretary of Health and Human Resources

BOARD OF HEALTH PROFESSIONS
Bernard L. Henderson, Jr., Director

TASK FORCE ON NURSE MIDWIVES & OBSTETRIC CARE

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The Honorable Jerrauld C. Jones
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House Joint Resolution Number 431
1991 Session of the Virginia General Assembly
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EXECUTIVE SUMMARY

House Joint Resolution No. 431 of the 1991 Session of the Virginia General Assembly requested the Virginia Health Planning Board and the Virginia Department of Health Professions to:

- **evaluate the potential for expansion of the practice of certified nurse-midwives (CNMs);**
- **evaluate methods of encouraging family physicians and obstetricians to continue or resume the practice of delivering babies;**
- **analyze barriers to the practice of nurse-midwifery; and**
- **determine ways to increase the number of persons interested in nurse-midwifery as a career.**

A Task Force was jointly appointed by the Director of the Department of Health Professions and the State Health Commissioner to conduct this review. The Task Force was chaired by a citizen member of the Board of Nursing and included representatives of the Health Planning Board, the American College of Nurse-Midwives (Virginia Chapter), the Medical Society of Virginia, the Virginia Hospital Association, the Organization of Obstetrical/Gynecologic and Neonatal Nurses, and the Virginia Baptist Hospital (Lynchburg).

The Task Force developed this report on the basis of four meetings, a public hearing and analysis of public comments, a review of the relevant policy literature and available data, and the results of a number of national and State policy studies of access to prenatal and obstetric care and of the role of nurse-midwives in extending access to cost-effective, quality care.

House Joint Resolution No. 431 establishes the premise that "access to prenatal care is essential in preventing low birth weight, which is the leading cause of infant mortality," and that nurse-midwives provide quality patient care for a low average cost. Moreover, the Resolution observes that nurse-midwives are prepared to provide prenatal, intrapartum and postpartum care geared to the individual needs of each mother and family and that an increase in the number of nurse-midwives could improve access to care for pregnant women. The Resolution concludes that finding methods of encouraging family physicians and obstetricians to continue or resume the practice of delivering babies, and finding methods of encouraging physicians and nurse-midwives to work together effectively in a collaborative practice would also improve access to prenatal and obstetric care.

Virginia has made great strides in reducing rates of infant mortality and low birth weight over the past decade, but the Commonwealth continues to experience rates above both the national average and the objective set by the U.S. Surgeon General. "Average" rates of infant mortality and low birth weight also obscure unacceptable differences between poor and minority women and those women who can afford and who seek essential prenatal care. Infant mortality and low birth weight rates in rural and inner city areas, and among nonwhite women are often twice the rates of middle-class urban women with adequate insurance.

Certified nurse-midwives are licensed jointly by the Board of Nursing and the Board of Medicine as nurse practitioners in the Commonwealth. As nurse practitioners, nurse-midwives are registered nurses with additional training and experience who practice nursing autonomously at an advanced clinical level and perform other acts which constitute the practice of medicine under the supervision of a collaborating physician. The practice of nurse-midwifery in Virginia is defined as "the independent management of care of essentially normal newborns and women, antepartally, intrapartally, postpartally, and/or gynecologically, occurring within a health care system that provides for medical consultation, collaborative management, or referral."

The competence of nurse-midwives to practice safely and effectively within their scope of practice has been established authoritatively by the U.S. Congress Office of Technology Assessment (1986) and other scientific reviews. The 1986 Congressional review also established that, on average, collaborative practices between physicians and nurse-midwives increase productivity by a factor of 1.5.

There are about 4,000 CNMs in the United States, two percent of whom (76) are licensed and reside in the Commonwealth. This number is disproportionately low given the population of Virginia. A survey of CNMs for the purpose of this review found that one-third of all Virginia CNMs are not engaged in the practice of their chosen profession. The major reasons nurse-midwives expressed for not engaging in nurse-midwifery practice are:

- difficulty in finding collaborating physicians;
- difficulty in obtaining hospital privileges;
- substantial increases in malpractice insurance rates, and;
- lack of direct third-party reimbursement by private insurers.

Despite the obvious need for more adequate prenatal care, the number of obstetricians and of primary care physicians who provide obstetric care has declined drastically over the past

decade. A Medical Society of Virginia survey shows that one-third of all physicians who had at one time practiced obstetrics had discontinued that practice by 1989. For family practitioners (excluding obstetricians), the drop-out rate was much worse: only one-quarter of the physicians in this group who had formerly provided obstetric care continued to do so.

The major barriers to continued prenatal and obstetric care expressed by physicians were:

- the high cost of malpractice premiums and fear of malpractice litigation (particularly when serving Medicaid patients and practicing with nurse-midwives);
- low reimbursement rates for Medicaid patients, and;
- "hassles" associated with reimbursement generally.

It is within this context that the Task Force presents its findings and recommendations. The recommendations build on findings of earlier reviews and experiences with previous programs and interventions, and address the following topical issues:

- regulatory barriers to the optimal use of nurse-midwives;
- ensuring a continued supply and appropriate use of nurse-midwives;
- providing incentives for prenatal and obstetric care for the underserved;
- hospital privileges for nurse-midwives;
- ensuring continuity of care;
- building a system for essential prenatal and obstetric care.

Regulatory barriers to the optimal use of nurse-midwives.

The goal of nurse-midwifery is collaborative practice with physicians and not "independent" practice. Collaboration is endorsed as the preferred practice form by the leading national organizations of obstetricians (American College of Obstetricians and Gynecologists) and nurse-midwives (American College of Nurse-Midwives).

Collaborative practice is a regulatory requirement in Virginia. Collaboration can be facilitated under existing statutes and regulations governing the practice of nurse-midwifery, but nurse-midwives and others perceive that these laws and rules are often interpreted narrowly by

physicians, hospitals and others to restrict, inhibit, or prevent effective physician/nurse-midwife practice.

The Task Force believes that the Commonwealth should explicitly endorse collaborative physician/nurse-midwife practices. There is also a widely perceived need to differentiate among the scopes of practice of nurse-midwives and other nurse practitioners (primary care nurse practitioners and nurse anesthetists) in regulations promulgated to govern nurse practitioners by the Boards of Medicine and Nursing. This need was recognized in the recent study of access and barriers to the services of nurse practitioners conducted by the Department of Health Professions.

The Task Force endorses the collaborative practice concept of physicians and nurse-midwives emphasized by the American College of Obstetricians and Gynecologists and the American College of Nurse-Midwives.

The Task Force endorses the recommendations of the Department of Health Professions that the Board of Nursing and the Board of Medicine, through the Committee of the Joint Boards for the Licensure of Nurse Practitioners consider the need to define and delineate the scopes of practice of certified nurse-midwives through regulations to be developed and promulgated by the two Boards.

Ensuring the supply and appropriate use of nurse-midwives

There are disproportionately few nurse-midwives practicing in the Commonwealth. While the reasons for this are complex, they include the absence of a nurse-midwifery education program and the lack of familiarity and exposure of Virginia physicians with the competence of nurse-midwives and the cost-effectiveness of collaborative practice.

The Task Force recommends that the General Assembly provide funding and determine the site for an accredited nurse-midwife education program to be established at either or both the health science centers in the Commonwealth -- the Medical College of Virginia/Virginia Commonwealth University or the University of Virginia.

To provide role models for collaborative physician/nurse-midwife practices, the Task Force recommends the joint obstetric practice of certified nurse-midwives, obstetricians and family practitioners in all existing and future medical education programs conducted in the Commonwealth.

Providing incentives for prenatal and obstetric care for the underserved

The cost of one day of preventable care in a neonatal intensive care unit is about $2,000. For this amount, a pregnant woman can be provided essential prenatal and obstetric care. It

is thus in the economic interest of the Commonwealth that current disparities in pregnancy outcomes be addressed through incentives for physicians and nurse-midwives to practice in underserved areas and with underserved populations. These incentives include scholarship programs and subsidies to address the costs of malpractice insurance coverage.

Scholarship programs should avoid the pitfalls and problems of earlier educational support programs which prevented these programs from realizing the goal of more even distribution of medical services.

The Task Force recommends that a scholarship program be established for nurse-midwives, initially to provide funding for Virginia residents who are, or will be, in nurse-midwife education programs outside the Commonwealth, then to provide funding for nurse-midwifery students in Virginia educational programs. Recipients of these scholarships should agree to serve in medically underserved areas of the Commonwealth for a minimum time period. Special preference should be given to applicants who currently live in medically underserved areas of Virginia.

The Task Force further recommends that scholarship funding be equivalent to the average annual cost of nurse-midwifery training with the ultimate aim of producing ten certified nurse-midwives each year, with annual adjustments in numbers as needs become more specified.

Finally, with regard to medical and nursing scholarships, the Task Force recommends that current programs be reexamined with the goals of: (a) providing more realistic awards; (b) ensuring future funding to maintain a steady stream of graduates, and (c) ensuring preference for students from rural or other medically underserved areas who agree to return to serve in these areas. Existing and future scholarship programs should build carefully on the experience developed with scholarship programs over the past two decades.

Subsidization of malpractice insurance coverage should occur only after the Commonwealth is convinced that premiums and premium surcharges for the obstetric practices of physicians, nurse-midwives, and collaborative physician/nurse-midwife practices are equitable and actuarially sound. There is evidence that premiums do not reflect actual malpractice experience.

The Task Force recommends that the Commission on Health Care for all Virginians study the actuarial basis for the cost of malpractice insurance for obstetricians and for other physicians who offer obstetric services, for certified nurse-midwives, and for collaborative obstetric services involving physicians and nurse-midwives who provide care for Medicaid and indigent patients and for others in medically underserved areas of the Commonwealth.

The Task Force recommends further that the General Assembly provide for annual actuarial studies of the Birth-Related Neurological Injury Compensation Act and for premiums to be set consistent with actuarial experience.
Contingent upon the outcome of these reviews, the Task Force recommends that the General Assembly consider a plan to subsidize malpractice insurance premiums for physicians and nurse-midwives who provide prenatal and obstetric services to Medicaid, medically indigent, or other women in medically underserved areas of the Commonwealth. Such subsidies could consist of direct payments or increases in Medicaid reimbursement of providers of obstetric services who meet conditions of participation.

Other incentives should also considered. While the competence and cost-effectiveness of collaborative nurse-midwife/physician practice is firmly established, the health care enterprise is slow to integrate nurse-midwives into the mainstream of prenatal and obstetric care. "Most favored" status may be necessary to stimulate change.

The Task Force recommends that appropriate State agencies develop financial incentives for health care practitioners, hospitals, and local health departments who agree to work with certified nurse-midwives to provide perinatal services in medically underserved areas or for medically underserved populations.

The Task Force recommends that the Department of Medical Assistance Services consider providing reimbursement for the ancillary services (e.g., family planning, nutritional counseling) provided by nurse-midwives to Medicaid recipients. In addition, it is recommended that the Department review the possibility of providing incentive payments for prenatal and obstetric services to Medicaid recipients provided by collaborative physician/nurse-midwife practices.

Hospital privileges for nurse-midwives

Nurse midwives maintain that difficulties in securing hospital privileges remains a major obstacle to their fuller utilization in the communities in which they live and work. While it would appear that current regulatory and accreditation standards, as well as existing hospital bylaws and policies do not prohibit the granting of privileges to nurse-midwives, some evidence exists of resistance to the granting of these privileges. Again, it may be necessary to provide protective legislation to prevent **exclusion** of nurse-midwives for any but legitimate reasons. A precedent for such legislation exists in current statutes preventing the exclusion of podiatrists from hospital staff privileges (see Code of Virginia Sec. 32.1-114.1 et seq.).

The Task Force recommends that the Commission on Health Care for all Virginians initiate and support legislative proposals to amend open staff provisions of current hospital

licensing statutes to include certified nurse-midwives whose collaborating physicians have privileges.

Ensuring continuity of care

The Task Force heard repeated evidence of pregnant women arriving at hospital emergency rooms for delivery or other maternal health care with no coordination of these services with prenatal services provided by health department clinics or private practitioners. These practices are dangerous and costly to hospitals, particularly for those women who have no health insurance or benefits.

The Task Force recommends that health departments that provide antepartum care be required to make appropriate arrangements to ensure linkage with delivery and postpartum care services. As part of this arrangement, the patient's medical records should be readily available to the involved health care providers (e.g., through computer linkages or hard copy transfer).

Ensuring a system for essential prenatal and obstetric care.

While subsidy of malpractice insurance, provision of hospital privileges for nurse-midwives, establishment of educational programs to produce more nurse-midwives, and creation of scholarship programs to recruit new members of the nurse-midwifery profession can contribute to a better match between prenatal and obstetric needs and resource, these interventions alone cannot ensure a balance of needs and resources at the local level.

To meet the demand for essential care throughout the Commonwealth, policymakers must focus their efforts on developing systems of collaboration and support among providers, consumers and payers in each community so that local leaders may effectively coordinate services to meet community needs.

The Task Force found evidence of effective local collaboration and coordination in a number of innovative models in Virginia and elsewhere. These local models incorporate the philosophy that maternal care is an essential public service, analogous to public utilities and fire and police protection, a

concept that enjoys wide acceptance in other industrial and post-industrial societies. The philosophy is based on recognition of the fundamental value of human capital, as well as upon simple economics.

The roles of the State and of local health departments are critical to the ultimate success of any community models for collaboration and coordination of maternal care. The State must provide leadership, encouragement and support and stand ready to fund any shortfall between the limits of community resources and the totality of community need. The community must provide both a commitment to the goal of universal, cost-effective, quality care and a nexus for coordination of the concerns of local health department representatives, hospital officials, family practitioners, obstetricians, certified nurse-midwives, and citizens.

The Task Force recommends that the General Assembly mandate and fund local health departments to arrange for the provision of essential prenatal care for their patients with local options for providing such care.

The Task Force endorses the concept of perinatal regional care practiced in a manner systematically related to the essential perinatal care needs of individual communities and the regions. To assess local needs and priorities and to develop strategies to meet these needs at a local level, community advisory panels should be developed (and existing panels expanded) to include local health department representatives, hospital officials, family practitioners, obstetricians, certified nurse-midwives, and citizen members.

Finally, the Task Force wishes to recognize the existence and growth of the phenomenon of "birthing centers" as an innovation worthy of exploration in the Commonwealth.

Birthing centers are facilities that may or may not be administered by hospitals but are separate from them, as well as facilities that are attached administratively and physically to hospitals. These centers provide delivery services to low-risk women in home-like settings. Typically headed and staffed by certified nurse-midwives, birthing centers were developed as a socially warmer, lower cost alternative to traditional hospitals.

The first free-standing facilities were established to serve medically underserved, rural communities. The birthing center movement has spread to urban centers and to the provision of services to economically advantaged women who prefer both the environment and the nurse-midwife as primary caregiver. A number of studies indicate that birthing centers are safe and cost-effective. Some states now regulate these centers, and a program of private accreditation has been developed.

The Task Force recommends that the Virginia Health Planning Board study the efficacy of birthing centers in extending access to obstetric care. The study should include exploration of other states' experiences (e.g. Florida, North Carolina, Tennessee, and California) and of their regulatory requirements.

The Task Force appreciates this opportunity to be of service to the government and the people of Virginia.

I. INTRODUCTION

House Joint Resolution No. 431 of the 1991 Session of the Virginia General Assembly requested the Virginia Health Planning Board and the Virginia Department of Health Professions to:

- **evaluate the potential for expansion of the practice of certified nurse-midwives (CNMs);**
- **evaluate methods of encouraging family physicians and obstetricians to continue or resume the practice of delivering babies;**
- **evaluate methods of encouraging physicians and CNMs to work together effectively in a collaborative practice;**
- **analyze barriers to the practice of certified nurse-midwifery; and**
- **determine ways to increase the number of persons interested in nurse-midwifery as a career.**

A Task Force was jointly appointed by the Director of the Department of Health Professions and the State Health Commissioner to study these issues and prepare recommendations to the Commission on Health Care for all Virginians and to the Governor and the General Assembly. Members of the Task Force were selected to represent the perspectives of medicine and nursing, health professional regulation, hospital administration, public health, health planning, and the public.

The Task Force was chaired by a citizen member of the Board of Nursing and included representatives of the Health Planning Board, the Board of Medicine, the American College of Nurse-Midwives, the Medical Society of Virginia, the Virginia Hospital Association, the Organization of Obstetrical/Gynecologic and Neonatal Nurses, and the Virginia Baptist Hospital in Lynchburg. The Virginia Baptist Hospital was represented by a nurse-midwife who is active in a community-based effort to foster collaborative obstetrician/nurse-midwifery practice to meet the needs of indigent pregnant women.

This Report is the result of the study conducted by the Task Force. The findings and recommendations are based on four meetings of the Task Force, a review of the policy literature and available data sources, a survey to determine the number of nurse-midwives who actually practice nurse-midwifery in the Commonwealth, and comments resulting from an invitation for comment and a public hearing convened in Richmond in mid-August, 1991.

House Joint Resolution No. 431 establishes the premise that "access to prenatal care is essential in preventing low birth weight, which is the leading cause of infant mortality." A significant volume of public policy attention has been directed to the issue of access to adequate prenatal and obstetric care in Virginia and in the nation. The primary focus of this attention has been on the access problems of Medicaid recipients, "medically indigent" patients, and residents in medically underserved areas.[1]

Consistent with the premise that access to prenatal care is associated with positive pregnancy outcomes, recommendations in the general policy literature tend to focus on increasing the supply of prenatal and obstetric care providers and ensuring that these providers are available wherever the need exists. Recommended mechanisms to ensure a proper supply and distribution include: (1) the provision of financial inducements to recruit and retain obstetricians and family practitioners willing to provide obstetric care, and (2) fostering greater use of mid-level health care providers such as nurse-midwives and other nurse practitioners, clinical nurse specialists, and physician's assistants.[2]

At least one policy review (Brown, 1988) stands apart from others in recommending a fundamental change in the way that maternity care is conceptualized and administered in the United States. Brown envisions maternal care as an essential public service, analogous to public utilities and fire and police protection. This concept enjoys wide acceptance in other industrial and post-industrial societies and is based on recognition of the fundamental value of human capital, as well as upon simple economics.

Provision of adequate prenatal and obstetric care is cost-effective. The average cost of care in a neonatal intensive care unit is $2,000 per day in the United States (Koop,1991). The cost of essential prenatal and obstetric care for one woman

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[1] "Medically Underserved Areas" is a term used by the U.S. Department of Health and Human Services to designate areas which are eligible for National Health Service Corps Personnel placements and Community Health Center funds. Virginia also uses the terms to designate areas which qualify for some of its programs. The qualification criteria for federal and State designation are presented in Appendix A.

[2] See, for example, American College of Obstetrics and Gynecology, 1988; Brown, 1988; General Accounting Office, 1987; National Commission to Prevent Infant Mortality; Southern Regional Task Force on Infant Mortality, 1985, 1991; Virginia Health Planning Board, 1990.

is probably no more than the cost of one day in intensive care for an infant.

Following a review of the general and Virginia-specific policy literature, the Task Force determined that a better understanding of certain issues was essential in order to address the focal concerns of HJR 431.

- What is the relationship between prenatal care and pregnancy outcomes?
- What constitutes essential prenatal care?
- What is the status of maternity care in the Commonwealth?
- What are the competencies and qualifications of nurse-midwives?
- What are the barriers to greater collaboration between physicians and nurse-midwives in the provision of essential prenatal and obstetric care?

II. PRENATAL CARE AND PREGNANCY OUTCOMES

Most credible policy studies report a strong relationship between adequate prenatal care and positive pregnancy outcomes.[3] Miscarriage, preterm birth, low birth weight, and infant death have all been demonstrated to be more prevalent among mothers who received no prenatal care than among women who received "adequate" care. The documentation is sufficient for Leong (1988) and others to conclude that public health policy should require early entry to maternal health care services for all pregnant women.

Although negative pregnancy outcomes are not entirely preventable, there are specific factors associated with maternal health and lifestyle that are considered by clinicians to influence pregnancy outcome. While some of the scientific literature is open to interpretation, many of these lifestyle factors (e.g., inappropriate and insufficient nutrition, tobacco use, alcohol use, self-medication, and drug consumption) may be amenable to medical, counseling, and educational interventions. In addition, risks posed by the physiological and emotional immaturity typical of teenage mothers can be ameliorated by close monitoring and follow-up (Sharma, 1987; Tom, 1987).

Accepting this reasoning, the policy question becomes: what constitutes "adequate" prenatal care?

Standards for Prenatal Care

The standards of practice of the American College of Obstetrics and Gynecology recommend that women who are pregnant be seen as soon as possible after pregnancy has been confirmed. The initial visit should consist of a thorough medical history, a careful physical examination, and a conference which includes at least the following information:

- estimated delivery date;
- selection of a pediatrician;
- advantages/disadvantages of breastfeeding and formula feeding;
- danger symptoms (e.g., fever, vaginal bleeding, abdominal pain, loss of fluid from the vagina and --later in the pregnancy -- signs of possible toxemia such as headache, excessive swelling, and visual disturbances);
- the schedule of visits;
- expected weight gain and changes in rate of gain;

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[3] Institute of Medicine, 1985, 1988; National Commission to Prevent Infant Mortality, 1988; Nesbitt, Connell, Hart, & Rosenblatt, 1990.

- diet requirements;
- the need for adequate rest and sleep to help the mother and to improve blood flow to the placenta;
- exercise guidelines;
- avoidance of drugs and medications without prior approval because of their teratogenic effects;
- dangers of alcohol (no amount is safe);
- avoidance of cigarette smoking (risk of spontaneous abortion, prematurity, and low birth weight);
- daily hygiene;
- guidelines for sexual intercourse;
- use of loose clothing and flat heeled shoes;
- travel guidelines and restrictions; and
- elective surgery (medical or dental) to be avoided.

After the first visit the standards recommend that the patient be seen regularly at intervals of three to four weeks. After the 29th week of pregnancy, the intervals should be reduced to two to three weeks. During the last month, visits should be weekly and, if complications occur, more frequently.

At each follow-up visit -- in addition to further clinical evaluations deemed appropriate by the provider -- the following procedures should be conducted:

- the patient's blood pressure and weight monitored;
- a complete urinalysis;
- the uterus examined for size, contour, and irritability;
- the fetus examined for position presentation, movement and heart tones; and
- any problems or complaints should be discussed (American Academy of Pediatrics/American College of Obstetrics and Gynecology, 1983; Tom, 1987).

III. VIRGINIA'S OBSTETRIC CARE NEEDS

Given the economic and social importance of adequate prenatal and obstetric care, it is surprising that available data resources have not been linked to provide a full picture of the need for and availability of prenatal and obstetric resources, either Statewide or at the local level. Because the best solutions to problems of health care supply and demand require community endorsement and participation, the need for small area analyses of supply and need is particularly evident.

The Virginia Department of Health Center for Health Statistics provides infant mortality, low birth weight and maternal mortality rates, and other data including specific causes of the death of mothers and infants. On the assumption that lack of access to prenatal and obstetric care is correlated with indicators of poor obstetric outcome, these data constitute at least a rough measure of demand or need: the higher the rates of poor pregnancy outcomes, the greater the need for prenatal and obstetric services.

Supply information, particularly concerning the number of obstetricians and family practitioners available for prenatal and obstetric care, tend not be be collected or analyzed systematically. Instead, available information comes from studies organized on an ad hoc basis.[4]

With the caveat that data have not been collected or arranged for the special needs of this study, the following discussion documents that there is a poor match between prenatal and obstetric care needs and provider availability in the Commonwealth.

Infant Mortality

In 1979, the U.S. Surgeon General set an infant mortality rate of not more than nine infant deaths per 1,000 births as a national goal for 1990. While Virginia has made great strides in reducing infant mortality rates, it has yet to reach this goal. Moreover, the Statewide infant mortality rate obscures the reality that there are significant geographic and social differences in infant mortality rates.

In 1990, ten of the twelve states with the highest infant death rates were in the South (Southern Governors' Association and Southern Legislative Conference, 1991). In Virginia the infant mortality rate was 10.0 (963 total infant deaths Statewide). This was the lowest rate ever recorded, representing

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[4] See, for example, Medical Society of Virginia, 1990; Virginia Department of Health Professions, 1989; Virginia Health Planning Board, 1990; Task Force on Innovative Health Care Delivery Systems, 1991.

a 32 percent reduction since 1979 when the rate was 14.8 deaths per 1,000 births. While there has been a continuous reduction in infant mortality in the Commonwealth since 1963, the current rate is greater than either the national goal or the actual national rate of 9.7 infant deaths per 1,000 births.

Low Birth Weight

A consistently high incidence of low birth weight (less than 2,500 grams or 5 pounds, 8 ounces) is also characteristic in many Virginia communities. Low birth weight is usually associated with prematurity and other serious infant health risk factors. Since 1979, the proportion of low birth weight infants born in Virginia has remained relatively constant, ranging from 7.1 and 7.7 percent of all births. The national goal of five percent for the year 2000 is unlikely to be met given the trend in the Commonwealth over the past decade.

Geographic and Social Variation

As with infant mortality rates, low birth weight rates are not evenly distributed with respect to either geography or subpopulation. Rural areas such as the Eastern Shore, Southside Virginia, and the Piedmont and Cumberland regions, and inner city areas with high poverty rates tend to experience greater infant mortality and low birth weight rates. A greater proportion of residents in these areas are Medicaid recipients or uninsured, and pregnant women in these areas receive prenatal care later than the privately insured (Virginia Health Planning Board, 1990; Task Force on Innovative Health Care Delivery Systems, 1991).

While this finding is consistent with other studies of Medicaid and uninsured women, it is of interest that other studies show that pregnant Medicaid women are more likely to delay entry into the prenatal care than are uninsured women with no entitlements or benefits (Colburn, 1991).

Between 1983 and 1987, infant mortality rates averaged between 15.0 to 19.0 deaths per 1,000 births on the Eastern Shore and in Alexandria. By contrast, for the same time period, the mortality rate was between 7.0 to 8.0 deaths per 1,000 in Loudoun County and 9.0 to 10.0 in Chesterfield County. Similarly, on the Eastern Shore the percent of low birth weight babies during this time ranged from 10.1 to 11.3 percent, while in Chesterfield County it was between 5.5 to 6.5 percent

There are also distinct disparities in infant mortality and low birth weight rates between white and nonwhite mothers. In fact, while the infant mortality and low birth weight experience of white mothers declined or remained stable between 1988 and 1989, these rates increased for nonwhite women. In 1988, the Statewide infant mortality rate for white women was 8.0, and low birth weight babies accounted for 5.5 percent of all births among these women. In 1989, the infant mortality rate dropped slightly

to 7.3 while the low birth weight experience remained stable. Among nonwhite women, the infant mortality rate increased from 16.9 to 17.2 and the proportion of low birth weight babies rose slightly from 11.7 to 11.8 percent of all nonwhite births.

Similar disparities have been tracked for more than a decade (from 1975 to 1989). The disparities result from socioeconomic factors which impact differently on the two racial groups. For example, adolescent pregnancy births to unwed mothers pose greater risks for low birth weight and other health problems in infants. Nonwhite women are disproportionately represented among both teenage pregnancies and unwed motherhood and these trends are long-standing (Task Force on Innovative Health Care Delivery Systems (1991).[5]

Provider Availability

Physicians In a survey of local health directors conducted by the Department of Health in mid-1991, the majority of respondents cited significant problems in obtaining prenatal and delivery services for medically indigent patients and Medicaid recipients. Most reported a dearth of providers willing to accept Medicaid reimbursement and some noted a total lack of support for prenatal care by community physicians who were unwilling to serve uninsured patients.

These public health directors also described a serious shortage of obstetricians in medically underserved and rural areas. The 1990 Virginia Health Planning Board review of obstetric access indicated that in 51 of the state's 99 counties, the local health department clinic served as the only source of perinatal health care.

While the Department of Health directs local health departments to **emphasize** prenatal care services for women who would qualify for Medicaid, there is no current statutory mandate in Virginia to **require** local health departments to provide prenatal care for medically indigent women.

The Department standard for prenatal care is established in Maternal and Child Health Guidelines which requires the Division of Maternal and Child Health to ensure that quality prenatal care is available, accessible, and acceptable to all pregnant women, and especially to those with low incomes, i.e., the medically indigent as well as Medicaid recipients.

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[5] In 1989 white teenage pregnancies occurred at a rate of 73:1000 vs. 136:1000 for nonwhites. The rate of single parent, white teenage pregnancies was 7:1000, while for nonwhites the rate was 93:1000.

Unfortunately, there are not always enough dollars or other resources available to achieve this goal. For example, in Williamsburg in 1990, there was no physician available through the health department to provide care for medically indigent women. In this locality, a family practitioner and a nurse-midwife provide all prenatal and postnatal care. There is a long waiting list and little money available to purchase the appropriate diagnostic tests for those women who do not qualify for Medicaid (Virginia Hospital Association & Virginia Obstetrical and Gynecological Society, 1991).

Access problems in most areas are further complicated by service hours and transportation. Transportation is a particular hardship on rural women seeking routine prenatal and intrapartum care. Many health departments are open only during "business hours" (typically 9:00 a.m. to 5:00 p.m. on weekdays). For those who work or must travel long distances, use of health department clinics may not be practical.

Often hospital emergency rooms in the locality serve as the sole backup for health department clients at the time of delivery. Women who have been followed by local health departments frequently present in labor to a hospital emergency room where no records of the pregnancy experience or of other health factors that may affect childbirth or the health of the infant exist or are readily available.

Additional data sources include a 1989 survey of physicians who provide obstetric services conducted by the Medical Society of Virginia, a 1991 information bulletin provided by the American College of Nurse-Midwives, and a survey of nurse-midwives conducted for this review. A survey by the Health Planning Board (1990) also provides information on the geographic distribution of family practitioners and obstetricians from 1988 and 1989.[6]

The Medical Society of Virginia survey showed a shortage of physicians, generally, in rural areas. More importantly for the present purposes, the survey shows a sharp decline in the number of family practitioners who provide prenatal, delivery, or other obstetric services. Of a group of family practitioners who indicated that they had, in the past, provided these services, fewer than one-quarter continued to do so in 1989. Presumably, most of these were in metropolitan areas.

Certified nurse-midwives (CNMs) There were approximately 4,000 certified nurse-midwives (CNMs) in the United States in 1990, about two percent of whom (76) are licensed and reside in Virginia. This number is disproportionately low given the

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[6]A map of the distribution of obstetricians, gynecologists and family practitioners in medically underserved areas is included in Appendix B.

population of the Commonwealth, reflecting the fact that there are no educational programs for nurse-midwives in Virginia.

According to the American College of Nurse-Midwives, only about one-quarter their Virginia membership actually conduct "nurse-midwifery practices." The College provides the following distribution of CNMs and "nurse-midwifery practices" for the Commonwealth.

	Total CNMs	Total Practices	
		Number	(Percent)
Northern Virginia	37	4	(11)
Tidewater	6	3	(50)
Piedmont	10	3	(30)
Shenandoah Valley	8	3	(38)
Richmond	3	1	(33)
Southwestern Virginia	2	2	(100)
Total	**66 (100)**	**16**	**(24)**

A survey conducted for this study showed a higher proportion of all respondents who reported that they were engaged in the actual practice of nurse-midwifery. The survey was directed to 76 licensees, fifty-four (71 percent) of whom responded. Of these respondents, two-thirds (36) reported that they were actually engaged in the practice of midwifery. Discrepancies between the survey conducted for this study and the data reported by the American College of Nurse-Midwives remain to be resolved, but it is significant that as many as one-third of all Virginia CNMs confirm directly that they are not engaged in the practice of their chosen profession.

CNMs attended the birth of 1,526 Virginia babies in 1989, accounting for about 1.5 percent of the 96,538 resident births that year. The American College of Nurse-Midwives reports that midwives attended the births of five percent of all babies in at least twelve states in this same period.

In summary, infant mortality rates and low birth weight rates in many areas and among some subpopulations in Virginia exceed national and State norms. These rates imply a need for greater access to prenatal and obstetric services. Despite this need, obstetricians, primary care physicians and certified nurse-midwives are underutilized and their services are maldistributed in the Commonwealth. As House Joint Resolution No. 431 observes

> **. . . finding methods of encouraging family physicians and obstetricians to continue or resume the practice of delivering babies and finding methods of encouraging physicians and nurse-midwives to work together effectively in a collaborative practice would improve access to care for pregnant women.**

In the following sections, the training and qualifications of CNMs are outlined, barriers to physician practice, nurse-midwife practice, and to collaborative physician/midwife practices are identified, and recommendations are presented to address the concerns of HJR 431.

IV. NURSE-MIDWIVES: DEFINITIONS, QUALIFICATIONS

The American College of Nurse-Midwives defines a certified nurse-midwife as "an individual educated in the two disciplines of nursing and midwifery and certified according to the requirements of the American College of Nurse-Midwives" (Cohn, 1990, p. 104). The core competencies required for certification by the College (and for licensure as a nurse-midwife in Virginia) are provided in Appendix C.

In many countries and in all 50 United States and the District of Columbia in collaboration with an obstetrician or family practitioner who serves as backup for high risk cases, the services of CNMs have been used a means to improve accessibility to prenatal and obstetric services .

Competence and Productivity.

The competence of nurse-midwives to practice safely and effectively within their scope of practice has been established by the U.S. Congress Office of Technology Assessment:

> **. . . Within their areas of competence, nurse practitioners [and nurse-midwives] provide care that is equivalent to that of care provided by physicians.**
>
> **Nurse practitioners [and nurse-midwives] are more adept than physicians in providing services that depend on communication with patients and preventive actions, and nurse practitioners [and nurse-midwives] perform better than most physicians in the provision of supportive care and health promotion activities.**

This same Congressional study found that, on average, collaborative practices between physicians and nurse practitioners increase productivity by a factor of 1.5. But the report also forecasts an uncertain future for nurse practitioners and nurse-midwives in the current competitive health care environment. At the same time that nurse practitioners offer a cost-effective means for extending the productivity of physicians, other forces are working to block their participation in the labor force.

> **The use of nurse practitioners and nurse-midwives to provide primary health care traditionally reserved to physicians developed in the 1960s as a response to a perceived shortage and maldistribution of physicians. Societal support for this innovation in the delivery of health care was based on the potential for nurse practitioners and nurse-midwives to improve access and to lower costs while maintaining the quality of health care.**
>
> **In the past two decades, the ranks of nurse practitioners and nurse-midwives and their responsibilities for providing**

care to patients have increased, despite the resistance these practitioners have encountered in their attempts to assume more prominent and more independent roles in delivering health care. . .

. . . Changes in the health care environment have altered the forces that spurred the development and growth of these groups of providers. The health care sector has become increasingly competitive as the supply of physicians practicing in the primary care specialties has decreased. New forms of organization for the delivery of medical care have emerged. Concern over the rapidly rising costs of health care has grown, and new methods of paying for hospitals' inpatient services have been implemented. All of these changes have implications for the role nurse practitioners and nurse-midwives will play in the future, and for the quality, accessibility, and costs of health care.

U.S. Congress, Office of Technology Assessment, 1986

CNM Licensure in the Commonwealth.

The practice of nurse-midwifery is defined in Virginia as:

the independent management of care of essentially normal newborns and women, antepartally, intrapartally, postpartally, and/or gynecologically, occurring within a health care system that provides for medical consultation, collaborative management, or referral. (Department of Health Professions, 1991).

Although nurse-midwives are licensed in all states, the structure for their regulation as health professionals varies. In Virginia, nurse-midwives are one of three categories of nurse practitioner (primary care nurse practitioners, nurse-midwives, nurse anesthetists) licensed jointly by the Board of Medicine and the Board of Nursing, and regulated through a Committee of the Joint Boards for the Licensure of Nurse Practitioners. Nurse practitioners are defined in Virginia as

registered nurses with additional training and experience who practice nursing autonomously at an advanced clinical level and perform other acts which constitute the practice of medicine under the supervision of a collaborating physician.

In a 1991 report of a comprehensive study of access and barriers to the services of nurse practitioners, the Department of Health Professions carefully considered the current structure for nurse practitioner licensure. In that report, definitions of key regulatory terms were reviewed with respect to their impact on practice and accessibility, and recommendations were made for improvement in the clarity of the regulation of the three major types of nurse practitioner.

Some of these key regulatory terms are "supervision," "protocol," and "collaboration."

> **'Supervision,' as defined by regulation means that the physician documents being readily available for medical consultation by the nurse practitioner or the client with the physician maintaining ultimate responsibility for the agreed-upon course of medical treatment.**

Although this definition can provide considerable flexibility, according to nurse-midwives and other nurse practitioners the regulatory language also permits overly-restrictive interpretation of terms such as "readily available" and "ultimate responsibility."

Flexibility in the nature of collaborative practice and in levels or arrangements for supervision are intended to be facilitated through the required use of a "protocol," a legal document tailored to specific collaborative practices. That term is also also defined in regulations:

> **. . . the practice must be based on the nurse practitioners specialty preparation and in accordance with a protocol. . . defined as a written statement, jointly developed by the physician and the nurse practitioner that delineates and directs the procedures to be followed and the medical acts appropriate to the medical specialty practice area to be performed by the nurse practitioner.**

The term "collaboration" is not defined in statute or regulation, but the Department recommended the following action be taken by the Committee of the Joint Boards of Nursing and Medicine for the Licensure of Nurse Practitioner:

> **The Department of Health Professions recommends that 'collaboration' be defined in statute or regulation to mean the process in which a nurse practitioner works with a physician to deliver health care services within the scope of the practitioner's professional expertise with medical direction, and appropriate supervision, as provided for in jointly developed protocols as defined by law and regulation in the Commonwealth.**

The Department report supported continuation of the existing regulatory structure and system for all nurse practitioners in Virginia, but concluded also that a need existed for more careful

delineation of the practices of primary care nurse practitioner, nurse anesthetists, and nurse-midwives:

> **[The Department] recommends that the Board of Medicine and the Board of Nursing, through the Committee of the Joint Boards, consider the need for definition and delineation of the scopes of practices of nurse anesthetists, nurse-midwives and primary care nurse practitioners in regulations promulgated by the two boards.**

The present Task Force also supports the existing regulatory system, and encourages the Committee of the Joint Boards to reexamine any statutory or regulatory language ("readily available," "ultimately accountable," "medical consultation," etc.) which may have a chilling effect on physicians or nurse practitioners seeking to practice collaboratively.

In addition to regulatory barriers which are perceived by nurse-midwives to dampen physicians' willingness to engage in collaborative practices, a number of other barriers -- both perceived and real -- are identified in the literature and in recent Virginia studies.

V. BARRIERS TO COLLABORATIVE PRACTICES

Barriers for Physicians

Two recent surveys provide information on the opinions of Virginia physicians regarding barriers to obstetric practice: a survey of physician opinion concerning nurse practitioners conducted by the the Department of Health Professions (1991) and the Medical Society of Virginia (1990) survey, previously discussed.

The Department of Health Profession surveyed a random sample of all physicians licensed and practicing in Virginia. Because the sample was carefully constructed and the response rate was high, the study is believed to be the most valid and reliable assessment of physician attitudes regarding nurse practitioners currently available. Barriers to collaborative practice cited most often by responding physicians were:

- **high malpractice premiums;**
- **fear of malpractice litigation, particularly when serving Medicaid patients and in practicing with nurse-midwives;**
- **relatively low reimbursement rates for Medicaid patients; and**
- **"hassles" associated with reimbursement.**

The Medical Society of Virginia (1990) report indicates that 32 percent of all physicians who had at one time practiced obstetrics had discontinued at the time of the survey. Reasons given by the obstetricians and family physicians for discontinuing obstetric practice included:

Reason for Discontinuing Obstetrics	Percent OB	Percent FP
High malpractice insurance premiums	**66**	**81**
Fear of malpractice action	**64**	**63**
Personal reasons	**54**	**57**
Lack of physician backup	**22**	**22**
Retirement	**9**	**18**

The Medical Society survey also reported on the opinions of physicians who were **considering** discontinuing practice. Seventy-eight percent of obstetricians and 83 percent of family practitioners were "very" to "somewhat" likely to stop providing obstetric service due to fear of malpractice liability, while 24 percent of obstetricians and 39 percent of family practitioners would leave due to lack of physician backup.

Of those who continued to practice, only 63 percent accepted any Medicaid payments, and about 45 percent were accepting new Medicaid patients. Of these, one-half were restricting the number they would accept. About one-half of all Medicaid deliveries in 1989 were handled by 14 percent of the physicians delivering babies (see also Virginia Health Planning Board, 1990). In medically underserved areas one-sixth of the population is at or below poverty level, and as many as one-quarter are on Medicaid.

The reasons selected for rejecting Medicaid included the following:

- **Low reimbursement rates (97 percent)** [Medicaid rates are improving, but apparently not fast enough. As of July 1991 the Medicaid reimbursement rate was anchored to the 25th percentile of rates charged the area; in 1988 it had fallen as low as 10th percentile]
- **Paperwork (89 percent),**
- **Slow reimbursement (81 percent),**
- **Post-service denials (81 percent), and**
- **Patient eligibility changes (37 percent).**

In addition to believing that Medicaid patients posed a greater risk for malpractice exposure, responding physicians characterized Medicaid patients as less likely to seek preventive care and more likely to present with high-risk factors. Clearly, malpractice anxieties dominate physicians' decisions to practice obstetrics and to enter into collaborative practices with nurse-midwives. With respect to the cost and risk of malpractice exposure for the practice of obstetrics, the anxiety appears to be justified.

The American Medical Association estimated that malpractice insurance rates increased for all physicians by 81 percent between 1982 and 1985 and by 113 percent for obstetricians. Rates have gradually increased since that time. The Medical Society survey revealed that nearly one-half (48 percent) of all private practice obstetricians had been named at least once as a defendant in a medical malpractice suit by an obstetrical patient. Nationally, the numbers are estimated to be as high as 70 percent (American College of Obstetricians and Gynecologists, 1987; Institute of Medicine, 1989).

Finally, the Medical Society of Virginia survey asked those who had discontinued practicing obstetrics to indicate what incentives might induce them to return. The following were the most frequently selected responses:

- **Increased Medicaid reimbursement level (91 percent)** [the average increase deemed sufficient was 70 percent]
- **Less paperwork (54 percent)**
- **Financial assistance with malpractice premiums (41 percent)**
- **Reduced exposure to malpractice liability (33 percent), and**
- **State tax credit for providing Medicaid patient care (30 percent).**

The Department of Health Professions survey focused on the barriers to collaborative practices with nurse practitioners, including CNMs. Overall, a plurality (46 percent) of physicians personally supported the involvement of nurse-midwives in patient care (23 percent were opposed, and about 30 percent were indifferent). Notably, physicians were much more positive about the involvement of primary care nurse practitioners and nurse anesthetists in patient care than about the involvement of nurse-midwives. Two-thirds of all physicians were positive about the involvement of primary care nurse practitioners and nurse anesthetists in patient care.

Careful analysis of survey results documents that physicians' willingness to engage in collaborative practice with nurse practitioners is strongly correlated with past experience with nurse practitioners. Stronger support for primary care nurse practitioners and nurse anesthetists reflects the fact that substantially greater numbers of physicians had practiced with or been exposed to primary care nurse practitioners (66 percent) or nurse anesthetists (60 percent). By contrast, only 22 percent of responding physicians had been exposed to the practice of nurse-midwives.

The primary concern expressed about practicing collaboratively with nurse-practitioners (including CNMs) was the fear of incurring greater malpractice liability risk (71 percent). In this instance -- as opposed to the experience of obstetricians -- physicians' apprehension regarding malpractice risk appears to be unfounded. Nationally, fewer than ten percent of all CNMs are estimated to have been named in malpractice suits (Kraus, 1990). In Virginia, the nurse practitioner survey showed that fewer than one in ten (7.8 percent) of responding nurse-midwives had ever been named in a malpractice suit, and none of these had a judgment entered against her [one respondent reported a judgment against a collaborating physician for an action the nurse-midwife may have taken].

Despite this evidence of high risk in solo or group physician practice vs. relatively low risk in collaborative physician/nurse-midwife practice, some malpractice insurers have levied surcharges against physicians who employ CNMs. A recent

survey conducted by the American College of Obstetricians and Gynecologists (1987) revealed that an estimated 7.7 percent of obstetricians nationwide employed CNMs and that 47 percent of them had been subjected to a surcharge ranging from $34 to $23,000 per physician. No Virginia-specific information is available, but at the public hearing held in connection with the present study, one physician reported he had been charged $7,000 because he chose to work with CNMs.[7]

Nurse-Midwife Barriers

The primary barriers to the practice of nurse-midwifery expressed by CNMs during the course of the current study included:

- **difficulty in finding a collaborating physician;**
- **difficulty in obtaining hospital privileges;**
- **substantial increases in malpractice insurance rates, and;**
- **lack of direct third-party reimbursement by private insurers.**

Most of these barriers were explored in detail in the 1990 study of nurse practitioners.[8] A discussion of each of the identified barriers follows.

Difficulty in Finding a Collaborating Physician. CNMs responding to the 1990 nurse practitioner study were split almost evenly with regard to their perception of physician support: about one-third each believed physicians were supportive or that they were not supportive; a final one-third thought physicians were disinterested, or did not respond to the question.

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[7] In Washington, D.C., the doctor-owned National Capitol Reciprocal Insurance Company has just raised malpractice premiums for obstetricians who back up nurse-midwives by 25 percent. Obstetricians will have to pay $13,200 per year for each nurse-midwife. In addition, two underwriting limitations require that babies be delivered in the hospital and physicians be present at the birth (Professional Licensing Report. September, 1991).

[8] Malpractice rate increases and coverage decreases are also discussed in a number of recent articles and studies, e.g., Cohn, 1990; Kendellen, 1987; Patch and Holaday, 1989; Scott and Harrison, 1990.

Two of every five responding CNMs reported that they had had difficulty in finding a collaborating physician. They believed their rejections by physicians to be based on:

- o concerns about malpractice - 37 percent
- o lack of interest in CNM services - 33 percent

Small numbers of respondents cited factors such as resistance to women providing health care, concerns for financial competition, ego problems, power concerns, turf considerations, or the belief that too many OB/GYN practices were already present in the area.

Overt resistance was encountered frequently among survey respondents. More than one-half indicated that a physician had at least once tried to exclude them from providing care in their role as a nurse-midwife, and more than one-third had been exposed to a physician who refused to refer patients to them. More seriously in terms of public protection, nearly one-third reported that physicians had refused to accept patient referrals from the nurse-midwife. These rejections ostensibly include high risk cases which are inappropriate for CNM care.

Hospital Privileges Four-fifths of all CNMs report that hospital privileges are important to their practice, but fewer than one-half currently possess these privileges. Of the 46 percent of respondents who reported hospital privileges, a substantial number were actually employed by the hospital.

CNMs report that hospital administrators are generally supportive of their involvement, and that the great majority of those who are engaged in collaborative practice with a physician who has privileges in particular hospital have no difficulty in securing collaborative staff privileges. A persistent irony, given the salience of the issue for CNMS, is that the majority of those who do not have hospital privileges simply have not applied for these privileges.

As part of the 1989 study, a review of a sample of hospital bylaws, regulations, and accreditation standards was conducted. No structural barriers were found to explicitly exclude nurse practitioners, including CNMs, from hospital privileges.

In reviewing these data, the Task Force was impressed by the power of perception in motivating or deterring action. It is possible that the perception of barriers to hospital privileges for CNMs could be overcome if all CNMs who desired privileges actually applied for [and the majority] received them. More likely, however, explicit State policy will be required to raise the consciousness of all interested parties to this issue. To this end, the Task Force has recommended that the General Assembly consider legislation to deem improper any unjustifiable denial, curtailment, or termination of privileges to CNMs whose collaborating physician has privileges at a given hospital and to

permit CNMs to seek injunctions against hospitals to stop further violations (see Code of Virginia Sec. 32.1-134.1 for analogous "open staff" requirements for other professions).

Increases in Malpractice Insurance Rates In a review of malpractice insurance rates and experiences for CNMs nationwide, Patch and Holaday (1989) found that from 1983 to 1987 the average annual premiums increased from $35 to $3,500 (a 10,000 percent increase). The average premium in 1988 was approximately $4,000. Moreover, as of 1987, insurance carriers provided $1 million coverage per case and $1 million per year, as opposed to $1 million per case and up to $3 million per year as had been the previous norm. Others note that there has been no evidence to substantiate these increases on an actuarial basis: from 1983 to 1987 litigation of CNM cases increased by only six percent (Koeppen, 1987; Cohn, 1990).

The following "case study" demonstrates the effects of increased malpractice premiums on nurse-midwife practices.

[In 1984, the commercial carrier that had been insuring most CNMs cancelled the master policy. Other carriers were found in 1985 but these policies were also cancelled and the members were without an American College of Nurse-Midwives-sponsored carrier until July of 1986.

During the crisis, the ACNM sponsored an actuarial analysis based on the claims data available from the ACNM-sponsored carrier. The results revealed that the claims rate and severity data were insufficient to set premiums. However, premiums were being set; some actuaries used these same data to project very high premiums for CNMs. They justified the rates based on a percentage of obstetrician risk. This estimate was then inflated further to protect the insurer from unanticipated losses (Cohn, 1990)

To determine the effect of changes in premiums and coverage CNM practices, Patch and Holaday (1989) surveyed a national stratified sample of ACNM members. Sixteen to 21 percent were doing more diagnostic and fetal monitoring testing as a result of the insurance costs to their practice. Thirteen percent gave up practicing nurse-midwifery. Of this group, 34 percent cited the increased cost of coverage and 6 percent cited the decreased amount of coverage to be the cause. More than 30 percent of CNMs indicated that there had been fewer job opportunities than before the cost increases and coverage decrease.

Based on the Patch and Holaday survey results, Cohn (1990) observed that because gross salaries for CNMs typically center around $30,000 to $40,000 and are not sufficient, after taxes, for the CNM to afford a $4,000 to $5,000 payment for malpractice insurance. Further, for CNMs whose whose professional liability insurance premiums are paid by physicians, there is pressure to earn their salaries plus insurance expenses. These financial constraints have the effect of decreasing job opportunity, and it would be extremely difficult for those who are so inclined to establish practices in areas where a significant proportion of

the patient population is poor.]

Lack of Direct Third-Party Reimbursement In the Department of Health Professions study of nurse practitioners, it was found that 71 percent of nurse practitioners think direct third-party payment is important for their practice. Under direct third-party reimbursement, payment is made either to the CNM or the patient receiving their obstetric care. In the current, indirect system billing is handled either through a physician or institution (Kelly, 1985).

Physicians are generally opposed to direct reimbursement of nurse practitioners, including CNMs. However, in this respect as well as others, opposition declines based upon experience. Only 20 percent of physicians who have had no experience with nurse practitioners support their direct reimbursement; twice that proportion, (40) percent, of physicians who have had experience with nurse practitioners are supportive of their direct reimbursement. As noted in the 1991 report on the nurse practitioner study, the shift toward support of nurse practitioners occurs most often with those who had no opinion or were "disinterested." Those who firmly oppose nurse practitioners seem relatively obdurate in their views.

The U. S. Congress has enacted legislation to directly reimburse nurses under Medicare, Medicaid, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), and the Federal Employee Health Benefits Plan (FEHBP). However, under Virginia law, private payors such as Blue Cross Blue Shield are not obligated to make direct payment for perinatal services to CNMs.

Twenty-six states have passed mandatory benefit laws requiring private insurers to reimburse nurse practitioner services. Virginia is not among these states, although benefit mandates were enacted for psychiatric mental health nurse specialists in 1989.

CNMs view acquisition of direct third-party reimbursement by private insurers as important to their goal in establishing a professional identity (Scott & Harrison, 1990). In addition, CNMs argue for their right to receive direct payment based upon the quality of care they provide and on the cost-effectiveness of their practices. Generally they cite the U.S. Congress Office of Technology Assessment study (1986) as evidence for their competence.

The cost-savings of utilizing a CNM under conditions of normal pregnancy and delivery are also well documented (see Knox, 1988; Miller, 1985; Office of Technology Assessment, 1986; Scott, 1990). For example, in a six-year study conducted in New York City, maternity care for Medicaid recipients using nurse-midwives cost $855 to $1,840 less per birth compared with average birth charges (Miller, 1985). In addition, it is reported that nurse

practitioners who receive fee-for-service and direct third-party payment reimbursement charge less for services than nurse practitioners salaried under a physician or institutional employer (Griffith, 1986).

While this information, if valid, is persuasive, the Task Force is unable to recommend direct third-party reimbursement for nurse-midwives at this time for three reasons. First, there is evidence that mandated provider laws generally increase the overall cost of health services. Second, greatly increasing numbers of self-insured groups are exempted from State mandates by federal law creating inequities in coverage (see Report of the Task Force on Managed Health Care, 1991). Finally, the General Assembly has established an Advisory Commission on Mandated Health Benefits to assess objectively the cost-benefits of mandated insurance benefit provisions.

It is notable, however, that the recent study of nurse practitioners observed that the fundamental problem with third-party reimbursement was a structural bias against primary care and prevention services of the kinds nurse practitioners, including CNMs are competent to provide (Task Force on the the Practice of Nurse Practitioners, 1991). Thus, if CNMs were granted direct reimbursement as providers, many of the services they provide might remain non-reimbursable. A current example of exclusions is Medicaid's policy of not directly reimbursing CNMs for "ancillary services." Ancillary services include any care not directly related to labor and delivery, including nutritional counseling, family planning consulting, or care delivered when the mother experiences false labor or has a non-pregnancy related illness such as an upper respiratory infection. Currently, Medicaid payment for these services is available only when the CNM's corroborating physician bills for these services actually delivered by the CNM.

VI. FINDINGS AND RECOMMENDATIONS: BUILDING ON THE PAST

In the preceding sections, the following areas of concern and issues requiring action have been identified:

- o Infant death and low birth weight provide measures of the need for better access to prenatal and obstetric care. Progress in reducing the incidence of these poor pregnancy outcomes has been generally good in Virginia, but there is wide variation in the experiences of geographic and socioeconomic subpopulations. Solutions to these community problems are more likely to be successful when generated at the local level with encouragement and support from State government.

  - incentives should be provided for physicians and for nurse-midwives willing to practice with underserved populations.

  - the role of local health departments in the provision of prenatal care should be codified in State statute and realistically funded.

- o Collaborative physician/nurse-midwife practices can contribute to greater productivity, lower cost and high quality prenatal and obstetric services.

- o Barriers to greater use of collaborative practice models exist and should be addressed by Virginia policymakers. These barriers include:

  - the lack of exposure of physicians to the competence and cost-effectiveness of nurse-midwifery.

  - an uncertain supply of nurse-midwives willing to practice in the Commonwealth.

  - unrealistically high costs of malpractice insurance for physicians who provide obstetric services, for nurse-midwives, and for collaborative physician/nurse-midwife practices.

  - perceived and real barriers to the granting of hospital privileges to nurse-midwives.

  - inadequate reimbursement for services provided for Medicaid services and the lack of underwriting for under-insured and uninsured women.

  - Most importantly, historic approaches to resolving the dilemma of increasing demand and shrinking

supply of prenatal and obstetric care provide useful experiences upon which to build.

In the following discussions, findings and recommendations of the Task Force build upon critiques of past and current initiatives to bring adequate and accessible prenatal and obstetric care to all Virginians. This discussion begins by addressing policymakers and continues through identification of efforts which will require collaboration with the private sector and with communities and localities throughout the Commonwealth.

Regulatory barriers to the optimal use of nurse-midwives.

Nurse midwives perceive that current statutes and regulations governing their licensure as nurse practitioners are subject to interpretation which can prevent their full utilization at the local level and are not conducive to the development and understanding of their unique identity. At the same time, it is important to public policymakers that it be understood that the goal of nurse-midwifery is not independent, but collaborative practice with physicians.

A recent study of nurse practitioners -- while recommending that the joint regulation of nurse practitioners by the Boards of Nursing and Medicine be continued -- concurs with nurse-midwives that clearer delineation of the scopes of practice of the several types of nurse practitioners is needed.

The Task Force endorses the collaborative practice concept emphasized by the American College of Obstetricians and Gynecologists and the American College of Nurse Midwives.

The Task Force endorses the recommendations of the report of the Department of Health Professions (Task Force on the Practice of Nurse Practitioners (1991)) that the Board of Nursing and the Board of Medicine, through the Committee of the Joint Boards for the Licensure of Nurse Practitioners consider the need to define and delineate the scopes of practice of certified nurse-midwives through regulations to be developed and promulgated by the two Boards.

Ensuring the supply and use of nurse-midwives.

There are disproportionately few nurse-midwives practicing in the the Commonwealth. While the reasons for this are complex, they include the absence of a nurse-midwifery education program in Virginia and the lack of familiarity and exposure of Virginia physicians with the competence of nurse-midwives and the cost-effectiveness of collaborative practice.

The Task Force recommends that the General Assembly provide funding and determine the site for an accredited nurse-midwife education program to be established at one or more of the health science centers in the Commonwealth.

To provide role models for collaborative physician/nurse-midwife practices, the Task Force recommends the joint obstetric practice of certified nurse-midwives, obstetricians and family practitioners in all existing and future medical education programs conducted in the Commonwealth.

Providing incentives for prenatal and obstetric care for the underserved.

It is in the economic interest of the State that current disparities in pregnancy outcomes be addressed through incentives for physicians and nurse-midwives to practice in underserved areas and with underserved populations. These incentives include scholarship programs and subsidies to address the costs of malpractice insurance coverage. In addition, Medicaid reimbursement rates for physicians and nurse-midwives who serve Medicaid clients require reexamination.

Scholarship programs and subsidization of malpractice insurance costs should build on past experience of success or failure with similar initiatives. To that end, it is necessary that these experiences be summarized.

Scholarship programs. Past experience with scholarship programs as incentives for practice with underserved populations derives from both federal and State programs.

In 1972 the federal government established the National Health Service Corps (NHSC) to generate a supply of health care providers to provide primary care services in areas designated as Medically Underserved or Health Manpower Shortage.[9]

NHSC scholarships pay for tuition and fees, educational expenses at medical, dental, or osteopathy schools, and provide a monthly stipend for living expenses. The period of obligation is equal to the number of years the scholarship was received with a minimum of two years obligation to practice in underserved populations. Additional requirements address the need to assure financial and physical access to these practitioners. For example, NHSC physicians must accept Medicare assignment, accept

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[9] "Health Manpower Shortage Areas" is another measurement of underservice used by the federal government. This label designates an urban or rural area, population, group, or public or nonprofit private medical facility. This designation is generally made in consideration of the health manpower personnel to population ratios and the availability of contiguous area health resources (Task Force on Indigent Virginians and Their Access to Primary Medical Care, 1989).

Medicaid, and offer a sliding scale of fees based on the patient's income and family size.

The success of NHSC in achieving its goals has been limited, and the impact of these scholarships is diminishing. In 1981, Congress slashed the number of scholarships from 1,772 to 162. In 1986, the number fell to 37. By 1992, the program will be phased out entirely.

From 1977 to 1988, 147 NHSC physicians of all specialties were located in Virginia. In 1989, only 30 remained in shortage areas in the state. It is projected that in 1992, **none** will remain (Task Force on Indigent Virginians and Their Access to Primary Medical Care, 1989; Virginia Health Planning Board, 1990). It is clear that any plan to provide prenatal and obstetric care cannot depend upon NHSC placements.

At the State level, Virginia has two relevant health care scholarships programs. Since 1972, a medical scholarship has been in place designed to locate medical students in State-designated medically underserved areas to provide primary care after completion of their education. The State also has a scholarship program for nursing students.

Major criticisms of the medical scholarship program were reported by the Task Force on Indigent Virginians and Their Access to Primary Medical Care (1989). Because recipients may repay their obligations through service in medically underserved areas designated by the State Board of Health **or** through monetary payment, many opt for the latter mechanism. Approximately 64 percent of recipients from 1977 through 1983 chose this option over repayment through service; in effect, the scholarship program served as a low interest loan.

In addition, the program was not effective in placing graduates where they are most needed. From 1977 through 1983 all those repaying with service did so in **State-designated** underserved areas, but only 31 percent did so in **federally** designated areas. Because federal criteria are more restrictive than State criteria, this meant that many graduates served in areas that were not areas of the greatest need.

In addition, a "threshold effect" appears to influence how long a NHSC or State scholarship recipient remains in underserved areas. Recipients who repay with service tend to serve for ten or more years **if** they reach a threshold of four years of service. Those who serve fewer than four years tend to fulfill the minimum obligation and leave.

While national and State medical scholarship programs merit close attention, nursing scholarships in Virginia are in even greater need of reexamination. The scholarships are underfunded and provide little incentive for prospective students. The current stipend is $500 per year.

Both medical and nursing scholarship funds in the State will soon be depleted unless additional appropriations are made. For example, while eighteen medical students were funded in 1991, the $200,000 appropriation has not been scheduled for increase in subsequent years. The effect will be that the current students may continue to be funded, but no new students can be supported.

Despite these problems, scholarships continue to merit attention as incentives for medical and nursing students to practice in underserved areas. In addition, because there are currently no nurse-midwife education programs in the Commonwealth, a scholarship mechanism for Virginia students trained elsewhere may be an effective means for increasing the supply of Virginia nurse-midwives, especially if these scholarships are realistically funded and linked to future practice in underserved areas.

The Task Force recommends that a scholarship program be established for nurse-midwives, initially to provide funding for Virginia residents who are, or will be, in nurse-midwife education programs outside the Commonwealth, then to provide funding for nurse-midwifery students in Virginia educational programs. Recipients of the scholarship should agree to commit to serve in medically underserved areas of the Commonwealth for a minimum time period. Special preference should be given to applicants who currently live in medically underserved areas of Virginia.

The Task Force further recommends that scholarship funding be equivalent to the average annual cost of nurse-midwifery training with the ultimate aim of producing ten certified nurse-midwives each year, with annual adjustments in numbers as needs become more specified.

Finally, with regard to medical and nursing scholarships, the Task Force recommends the current programs be reexamined with the goals of: (a) providing more realistic awards; (b) ensuring future funding to maintain a steady stream of graduates, and (c) to ensure preference for students from rural or other medically underserved areas who agree to return to serve in these areas. Existing and future scholarship programs should build carefully on the experience developed with scholarship programs over the past two decades.

Malpractice insurance incentives. Periodically and with some regularity, the malpractice insurance industry suffers "crises" in which underwriters withdraw, the cost of insurance becomes prohibitive, providers cease to practice, and steps are taken at the State level to resolve the crisis at hand.

Tort reform has occurred over the past ten years in 49 states in response to a rapid rise in medical malpractice litigation and costs of malpractice coverage. The reforms

include limitations on awards to plaintiffs and contingency fees to attorneys and imposition of statutes of limitation

According to the National Academy of Sciences Institute of Medicine (IOM, 1990) and other sources, the primary goals of a medical tort system are:

- to provide compensation expeditiously to victims of medical malpractice;
- to deter health care providers from performing unreasonable and dangerous activities;
- to ensure that the threat of liability not deter beneficial conduct, and
- to bolster the belief of claimants and defendants in the justice of the system

The prevailing medical tort system in the United States has been criticized because it fails to adequately meet any of these objectives. For example:

- compensation occurs only after considerable delay;
- medically inadvisable procedures are overused to prevent suits;
- the threat of liability has had far reaching and severe effects on access and availability of obstetric care; and
- medical providers believe the system is unfair. (Institute of Medicine, 1990; Kendellen, 1987).[10]

According to the Institute of Medicine, efforts to reform the tort system have included the following:

- imposing ceilings on personal injury awards;
- collateral source disclosure (i.e., if compensated by some other means such as personal insurance, it is disclosed to judges and juries during trial);
- imposing a statute of limitations on how long claimants have to bring suit; and

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[10] In Virginia, these national findings are corroborated by Medical Society of Virginia (1990) and Department of Health Professions (1991) studies of the perceptions and experiences of providers with regard to malpractice liability risk and the cost of malpractice premiums.

- legal case management to eliminate "bad" claims before they come to trial.

The Institute concluded that these attempts at tort reform were largely ineffective because the number of claims and amounts paid out consistently rose despite these initiatives. Instead, IOM recommends that:

> State legislatures should not focus on further reform efforts within the existing tort system but should instead redirect their energies toward developing alternatives to the traditional tort system for resolving medical malpractice claims and toward implementing these alternatives in certain circumstances (p. 11).

Among the recommended alternatives is a no-fault system for certain compensable events. This system seeks to provide compensation for victims without the expense associated with determining fault. Under this system practitioners continue to carry malpractice insurance but also pay into a compensation fund. Damages not falling under the specified criteria continue to be handled through traditional tort procedures. It is presumed that costs reductions from fewer tort cases should will offset the cost of the compensation fund.

Virginia established just such a system in the Birth-Related Neurological Injury Compensation Act (BRNICA). Analogous programs exist in Florida and in the federal Childhood Vaccine Injury Compensation Act.

BRNICA has been in place since January 1, 1988. It is funded by proceeds from an annual assessment of $250 from each licensed physician, regardless of speciality, premiums of $5,000 for those volunteering to participate, and $50 assessments per delivery (up to $150,000 per year) for each participating hospital. The program is modeled after workers' compensation programs and is administered by the Industrial Commission of Virginia.

Until age 18, the neurologically injured infant is awarded living expenses and medical, hospital, rehabilitative, and custodial care expenses which are not funded by collateral sources. Eligibility criteria are extremely difficult to meet. The act covers only those infants who suffered injury to the brain or spinal cord due to the deprivation of oxygen or to mechanical injury incurred during the course of labor, delivery or resuscitation in post delivery. The infant must be rendered permanently non-ambulatory, aphasic, incontinent, and in need of assistance throughout all phases of daily living.

The Act excludes genetic or congenital disorders and applies only to live births. Further, to qualify for compensation under the act, an infant must be delivered in a hospital and by a physician who participates. The Act also requires that a

participating physician must assist in developing a plan to provide for obstetric patients eligible for Medicaid and for indigent patients, but provides no mechanism to ensure that indigent patient care actually occurs.

BRNICA was intended to make professional liability insurance both available and affordable for obstetrician-gynecologists by taking claims for specific catastrophically injured infants out of the civil justice system. Its further aim was to provide quicker compensation and to increase access to obstetrical care. Critics maintain that no claims have been made to date and that the intended effect of increasing access to medically underserved women has not resulted. It is also unknown whether the program has had any impact on the cost of malpractice insurance for providers of prenatal and obstetric services.

These observations, coupled with the review of malpractice costs and availability in Part V of this report lead the Task Force to offer the following recommendations. While it is clear that subsidy of malpractice insurance premiums could offer an incentive to physicians and nurse-midwives to provide care in underserved areas, it is equally clear that State funds should not enrich any insurance underwriting which is not actuarially sound.

The Task Force recommends that the Commission on Health Care for All Virginians study the actuarial basis for the cost of malpractice insurance for obstetricians and for other physicians who offer obstetric services, for certified nurse-midwives, and for collaborative obstetric services involving physicians and nurse-midwives who provide care for Medicaid and indigent patients and for others in medically underserved areas of the Commonwealth.

Contingent upon the outcome of this review, the Task Force recommends that the General Assembly consider a plan to subsidize malpractice insurance premiums for physicians and nurse-midwives who provide prenatal and obstetric services to Medicaid, medically indigent, or other women in medically underserved areas of the Commonwealth. Such subsidies could consist of direct payments or increases in Medicaid reimbursement of providers of obstetric services who meet conditions of participation.

The Task Force recommends further that the General Assembly provide for annual actuarial studies of the Birth-Related Neurological Injury Compensation Act and for premiums to be set consistent with actuarial experience.

Other incentives. In spite of the evidence of the competence and cost-effectiveness of the use of nurse-midwives, the health care enterprise appears slow to integrate these practitioners into systems for the provision of prenatal and

obstetric care. For this reason, "most favored" status may be required to stimulate change.

To optimize the availability of obstetric care providers, the Task Force recommends that appropriate State agencies develop financial incentives for health care practitioners, hospitals, and local health departments who agree to work with certified nurse-midwives to provide perinatal services in medically underserved areas or for medically underserved populations.

The Task Force recommends that the Department of Medical Assistance Services consider providing reimbursement for the ancillary services (e.g., family planning, nutritional counseling) provided by nurse-midwives to Medicaid recipients. It addition, it is recommended that the Department review the possibility of providing incentive payments for prenatal and obstetric services to Medicaid recipients provided by collaborative physician/nurse-midwife practices.

Hospital Privileges for Nurse-Midwives

Nurse midwives maintain that difficulties in securing hospital privileges remains a major obstacle to their fuller utilization in the communities in which they live and work. While it would appear that current regulatory and accreditation standards, as well as existing hospital bylaws and policies do not prohibit the granting of privileges to nurse-midwives, some evidence exists of resistance to the granting of these privileges. Again, it may be necessary to provide protective legislation to prevent **exclusion** of nurse-midwives for any but legitimate reasons. A precedent for such legislation exists in current statutes preventing exclusion of podiatrists from hospital staff privileges (see Code of Virginia Sec. 32.1-134.1 et seq.).

The Task Force recommends that the Commission on Health Care for all Virginians initiate and support legislative proposals to amend open staff provisions of current hospital licensing statutes to include certified nurse-midwives whose collaborating physicians have privileges.

Ensuring Continuity of Care

Repeatedly during this review, the Task Force heard evidence of pregnant women arriving at hospital emergency rooms for delivery or other maternal health care with no coordination of these services with those provided by health department clinics or private practitioners. These practices are dangerous and costly to hospitals for those women who have no health insurance or benefits.

The Task Force recommends that health departments that provide antepartum care be required to make appropriate arrangements to ensure linkage with delivery and postpartum care services. As part of this arrangements, the patient's medical records should be readily available to the involved health care providers (e.g., through computer linkages or hard copy transfer).

Building a System for Essential Prenatal and Obstetric Care

Available evidence cannot confirm that tort reform or the subsidy of excessive malpractice premiums, scholarships, or other interventions recommended -- either singly or in combination -- will resolve the problem of access to prenatal and obstetric care. The Task Force believes that only a firm commitment from State government to foster, support, encourage and lead local efforts to resolve discrepancies between community supply and need for these services will suffice.

At the present time, Virginia, as a governmental entity, lacks the appropriate mechanism to ensure that all have access to adequate prenatal, delivery and postnatal care. Although prenatal and postnatal care may be obtained at public health facilities, the majority of deliveries are attended by physicians and certified nurse-midwives in **private practice.** It is the sum of individual practitioners' decisions that determine which segments of the population will and will not be able to obtain affordable and accessible services (Rosenblatt, Whelan, & Hart, 1990).

Total dependence on the free market can have a disastrous effect on the local population when, for example, malpractice premiums rise precipitously or Medicaid fee schedules lag far behind the market. Given such circumstances the individual practitioner, in order to remain solvent, will tend to make economically rational decisions that may include leaving practice in the area entirely. These decisions adversely affect those least likely to have other options.

To meet the demand for essential care Statewide, the Commonwealth must focus its efforts on developing systems of collaboration and support among providers, consumers and payers, in each community so that **they** may effectively coordinate services to meet the community needs. The State must stand ready to support and encourage these efforts and to fund any shortfall between the limits of community support and the totality of community demand.

It may be useful to examine several examples of how community efforts, supported and encouraged by State government, can result in a balance between need and supply of services. The first is a model established and operated in Lynchburg, Virginia. The second focuses on the role State government might play in

bringing about community-based coordination and care throughout the Commonwealth.

The Lynchburg Model is the result of community level planning in Lynchburg, Virginia. Certified nurse-midwives have been effectively integrated into a system of backup and support with obstetricians and other health care providers at the local hospital and the 18 local health department clinics.

Prior to 1985, obstetricians in this area were performing approximately 1,000 deliveries each per year. An insurance carrier for approximately half of the obstetricians in the area threatened to discontinue coverage if they did not reduce patient loads. They then stopped seeing medically indigent patients, consequently leaving the remaining obstetricians with the additional patient load.

To deal with the burden, those remaining organized into a group and contracted with the local hospital. The group decided to provide obstetric services to all and bill Medicaid for reimbursable services. Additional obstetric providers were recruited subsequently including a perinatologist to accept high-risk cases and certified nurse-midwives to help meet the needs of the health department and private patients. The hospital's maternal and child health department originally had one CNM on staff, and additional CNMs were hired by the hospital to provide services to patients in both the hospital and the local health department clinics.

The CNMs manage the labor and delivery of normal cases, and provide postpartum care. The group obstetricians serve as backups in cases of high risk and for health department deliveries when a CNM is not available.

The general consensus is that:

- patients have enthusiastically accepted the CNM practice;
- the community has been receptive and has even approached the CNMs to participate in maternal/child health education efforts;
- the hospital staff have been receptive; and
- obstetricians have been generally supportive. (the few objections that some obstetricians have center around concerns about liability and not the quality of care provided by the CNMs).

The Gavin and Leong Model. A more theoretical model is provided by Gavin and Leong (1989) who contend that one of the main problems with obstetric care access in the United States is that it has been left totally to the vagaries of the free market system. Fluctuations in physician numbers are to be expected. Doctors enter and leave practices for a variety of reasons (e.g., income considerations, personal decisions about quality of life, professional growth). Communities with high poverty rates, sparse populations, and relatively few cultural and professional attractions are especially vulnerable.

The authors' fundamental position is that given supply fluctuations and the essential nature of locally accessible prenatal and obstetric care, it is incumbent upon the State to facilitate the development of a safety net for each community.

The mechanism for the development of this safety net is the creation of local community panels designed to determine the resources, needs, and priorities within each area. The state's role is to oversee the panels, to establish standards of care, to coordinate resources, and to ensure adequate financing. Within the model, the state does not necessarily provide the health care services, but it must ensure continuous services by using various methods to achieve working systems within each community. Each community and state must consider its own circumstances within this approach.

A highly recommended role for states is the inclusion of nurse-midwives in all community care systems. CNMs are present in every state and have have successfully reduced the case burdens on obstetricians and family practitioners in underserved areas. Obstetricians and other qualified physicians would still attend obstetric emergencies within a reasonable time period, but these physicians would largely be freed from routine care to focus on providing care for high-risk cases. (The Lynchburg experience is one example of the success of this approach in Virginia.)

The system hinges on state coordination and support within and across communities to ensure continuity. The model includes reference to a statewide communication systems established to provide expert obstetric consultation for CNMs and physicians 24-hours per day. Also proposed is the use of a pool of local or regional providers, analogous to the emergency medical system approach) so that urgent medical obstetric services could be provided rapidly in any given area.

Rather than having communities compete for provider coverage as is currently the case, sharing providers could prevent and react to crises in service provision and a

minimum level of service in each community could be maintained. The authors further suggest that state consider arranging for or subsidizing liability coverage in exchange for the cooperation and flexibility required of the health care providers.

[As yet, no state has fully employed this approach. Currently, Vermont is in the process of reviewing the results of demonstration projects developed to incorporate major elements of the model.]

The Task Force believes that the development of community-based approaches to essential prenatal and obstetric services throughout the Commonwealth is feasible. What is lacking is the demonstration of State leadership and commitment to the goal of universally accessible, quality services. The role of the local health department -- as an agent of State government -- is instrumental to begin the development of community programs.

The Task Force recommends that the General Assembly mandate and fund local health department to arrange for the provision of essential prenatal care for their patients with local options for providing such care.

The Task Force endorses the concept of perinatal regional care practiced in a manner systematically related to the essential perinatal care needs of individual communities and the regions. To assess local needs and priorities and to develop strategies to meet these needs at a local level, community advisory panels should be developed (and existing panels expanded) to include local health department representatives, hospital officials, family practitioner, obstetricians, certified nurse-midwives, and citizen members.

An additional innovation in improving access to obstetric care is the development of "birth centers" or "birthing centers" across the nation. Many states are experimenting with or rapidly implementing plans for networks of birthing centers.

These centers are family-centered maternity care facilities[11] designed to to provide delivery services to women judged to be at low risk for obstetrical complications. Childbirth takes place in a more home-like setting than that found in traditional hospitals. Typically headed and staffed by

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[11]There are free-standing birthing centers that may or may not be administered by hospitals but are physically separate from them and birthing centers that are attached administratively and physically to hospitals.

CNMs, they were developed to be a socially warmer, lower cost alternative to traditional hospitals.

The first free-standing facilities were established to serve medically underserved, rural communities; in 1975, the first urban birth center was established in New York City (see Rooks, Weatherby, Ernst, Stapleton, Rosen, & Rosenfield, 1989; Schupolme & Ramos, 1987). A number of studies indicate that birth centers are safe and effective (e.g., Rooks et al., 1989). Also, many states now regulate these centers, and a program of accreditation has been developed.

While there was not sufficient time or resources available to the Task Force to study the effects of these developments on access, cost and quality of obstetric services, it is in the interest of the Commonwealth to review these developments carefully and critically as an approach to extending access to essential services to all who are in need.

The Task Force recommends that the Virginia Health Planning Board study the efficacy of birthing centers in extending access to obstetric care. The study should include exploration of other states' experiences (e.g., Florida, North Carolina, Tennessee, and California) and of their regulatory requirements.

The fundamental importance of adequate obstetric care to the well-being of the Commonwealth is clear. It is incumbent upon the state to explore and evaluate alternative approaches to meeting this need.

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APPENDIX A: CRITERIA FOR MEDICALLY UNDERSERVED AREAS

FEDERAL CRITERIA FOR DETERMINING MEDICALLY UNDERSERVED AREAS

Medically Underserved Areas are urban or rural communities that have a shortage of personal health services. These areas are designated based on four factors:

(1) the primary care physician to population ratio,
(2) the infant mortality rate,
(3) the percentage of the population living below the federal poverty level, and
(4) the percentage of the population that is age 65 and older.

This designation is used by the U. S. Department of Health and Human Services to target localities eligible for the National Health Service Corps Personnel placements and Community Health Center funds.

(source: Virginia Health Planning Board, 1990)

Rules and Regulations for the Identification of Medically Underserved Areas in Virginia

Part I
General Information

§ 1.1. Authority for Regulations

In accordance with the provisions of § 32.1-122.5 of the Code of Virginia, the State Board of Health is required to establish criteria for determining medically underserved areas within the Commonwealth. The criteria are required to be quantifiable measures, sensitive to the unique characteristics of urban and rural jurisdictions.

§ 1.2. Purpose of the Regulations

The purpose of identifying medically underserved areas within the Commonwealth is to establish geographic areas in need of additional primary health care services. These areas may be selected by trained primary care physicians and other health professionals as practice sites in fulfillment of obligations that the physicians and other health professionals accepted in return for medical training and scholarship grant assistance. Each year of practice in a medically underserved area satisfies the repayment requirement of a year of scholarship support from the Virginia Medical Scholarship program. Additionally, these medically underserved areas will be eligible locations for practicing primary care physicians and other health professionals participating in the state or federal physician loan repayment programs. Further, these medically underserved areas may become eligible for assistance, state or federal, to establish primary care medical centers.

Part II
Designating Medically Underserved Areas

§ 2.1. Criteria for Determining Medically Underserved Areas

The following five criteria, as available, and as indicated, shall be used to evaluate and identify medically underserved areas throughout the Commonwealth of Virginia:

1. Percentage of population with income at or below 100% of the Federal poverty level. The source for these data shall be the most recent available publication of the Bureau of the Census of the U. S. Department of Commerce.

2. Percentage of population that is 65 years of age or older. The source for these data shall be the Economic Services Division of the Virginia Employment Commission.

3. The primary care physician to population ratio. The source for these data shall be the Department of Family Practice of the Medical College of Virginia of Virginia Commonwealth University.

4. The four-year aggregate infant mortality rate. The source for these data will be the Center for Health Statistics of the Virginia Department of Health.

5. The most recent annual civilian unemployment rate. The source for these data will be Information Services Division of the Virginia Employment Commission.

§ 2.2. Application of the Criteria

A. Determining medically underserved cities and counties.

The criteria enumerated in § 2.1 above shall be used to construct a numerical index by which the relative degree of medical underservice shall be calculated for each city and county within the Commonwealth. Observations for each of the five criteria will be listed for each Virginia city and county. An interval scale will be used to assign a particular value to each observation. This will be done for each of the five criteria. Each interval scale will consist of four ranges or outcomes of observations. The ranges will be numerically equal. The four ranges will be labeled as Level 1, Level 2, Level 3, and Level 4. The numerical difference between the ranges will be established beginning with the Level 2 range.

The Level 2 range shall have the statewide average for each respective criterion, except the population to primary care physician ratio, as its upper limit. The Level 2 upper limit for the primary care physician to population ratio is established by dividing the difference between the Level 4 upper limit for this criterion and the Level 1 upper limit by 2. Each observation which is equal to or less than the Level 2 upper limit, but greater than the Level 1 upper limit, will be assigned a numerical value of two.

The Level 1 range shall have an upper limit which is the quotient of the statewide average divided by two. For the ratio of population to primary care physician criterion, the upper limit of Level 1 shall be the ratio 2500:1 as recommended by the American Academy of Family Physicians. Each observation that is equal to or less than the Level 1 upper limit will be assigned a numerical value of one.

The Level 3 range shall have an upper limit that is equal to the sum of the upper limit of the Level 1 range and the upper limit of the Level 2 range. For the ratio of population to primary care physician criterion, the upper limit of Level 3 shall be established at 3500:1, the federal standard for designating health manpower shortage areas. Each observation that is equal to or less than the Level 3 upper limit will be assigned a numerical value of three.

The Level 4 range will include any observation greater than the upper limit of the Level 3 range. Each observation in the Level 4 range will be assigned a numerical value of four.

The values for each of the ranges of the five criteria will be summed for each Virginia city and county. Each Virginia city and county will have an assigned value of five or greater, to a maximum of twenty. A statewide average value will be determined by summing the total city and county values and dividing by the number of cities and counties. Any city or county assigned a value that is greater than the statewide average value shall be considered medically underserved. The application of criteria for determining medically underserved cities and counties shall be performed annually and published by the Board.

B. Determining medically underserved areas within cities and counties - Geographic subsections of cities or counties may be designated as medically underserved areas when the entire city or county is not eligible if the subsection has: 1) a population to primary care physician ratio equal to or greater than thirty-five hundred to one; and 2) a population whose rate of poverty is greater than the statewide average poverty rate; and 3) a minimum population of three thousand and five hundred persons residing in a contiguous, identifiable, geographic area. The Board shall from time to time, on petition of any person, or as a result of its own decision, apply criteria for determining medically underserved subareas of cities and counties. Once determined to be medically underserved any subarea of a city or county shall appear on the next list of medically underserved areas published by the Board. Areas which qualify as medically underserved areas under § 3.2.A. above and that are within Standard Metroplitan Areas as defined by the U. S. Department of Commerce, must also qualify under this section (§ 3.2.B.) for purposes of placement of health professionals.

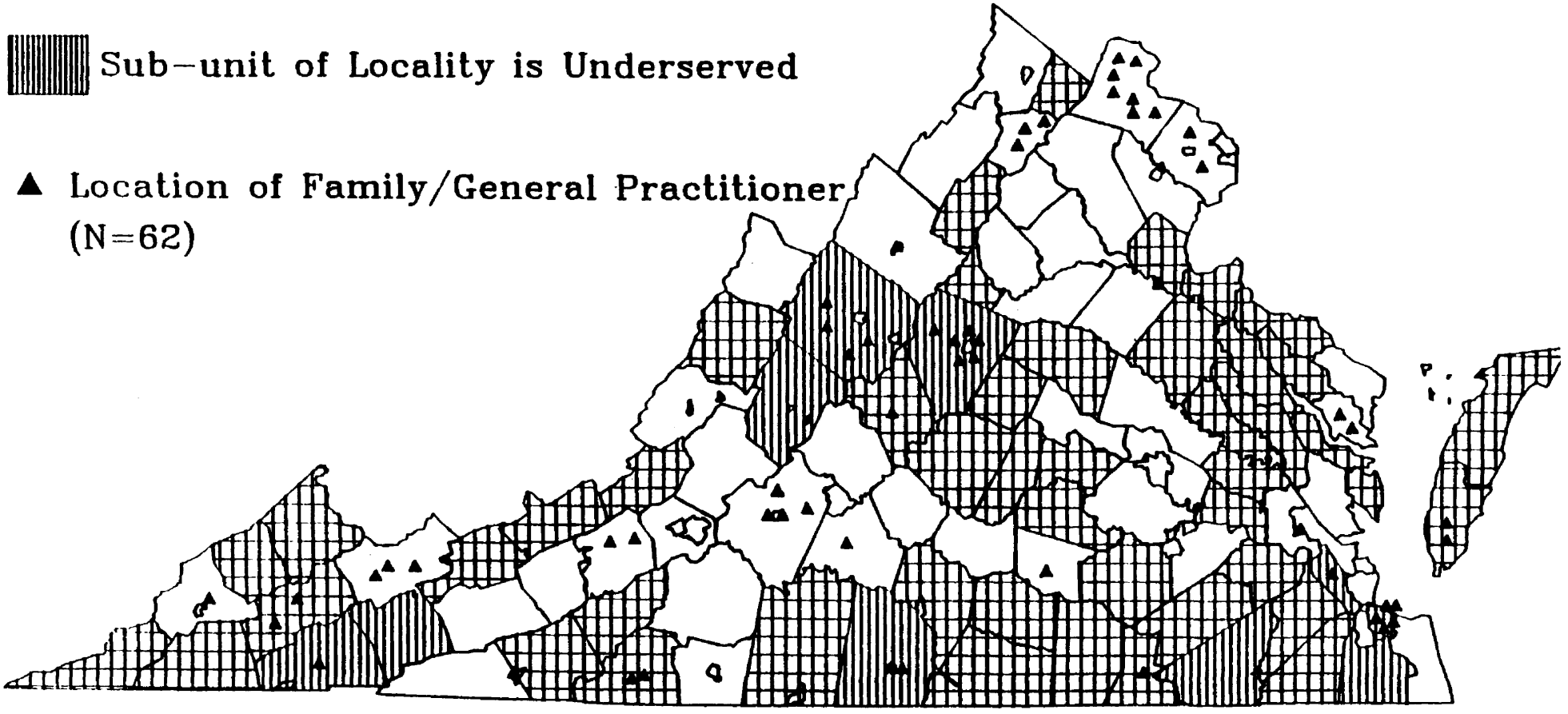
APPENDIX B: PHYSICIAN DISTRIBUTION

FAMILY AND GENERAL PRACTITIONERS PERFORMING ONE OR MORE MEDICAID DELIVERIES DURING 1988; BY LOCATION, SHOWING MEDICALLY UNDERSERVED AREAS

Underserved Locality

Sub-unit of Locality is Underserved

▲ Location of Family/General Practitioner
(N=62)



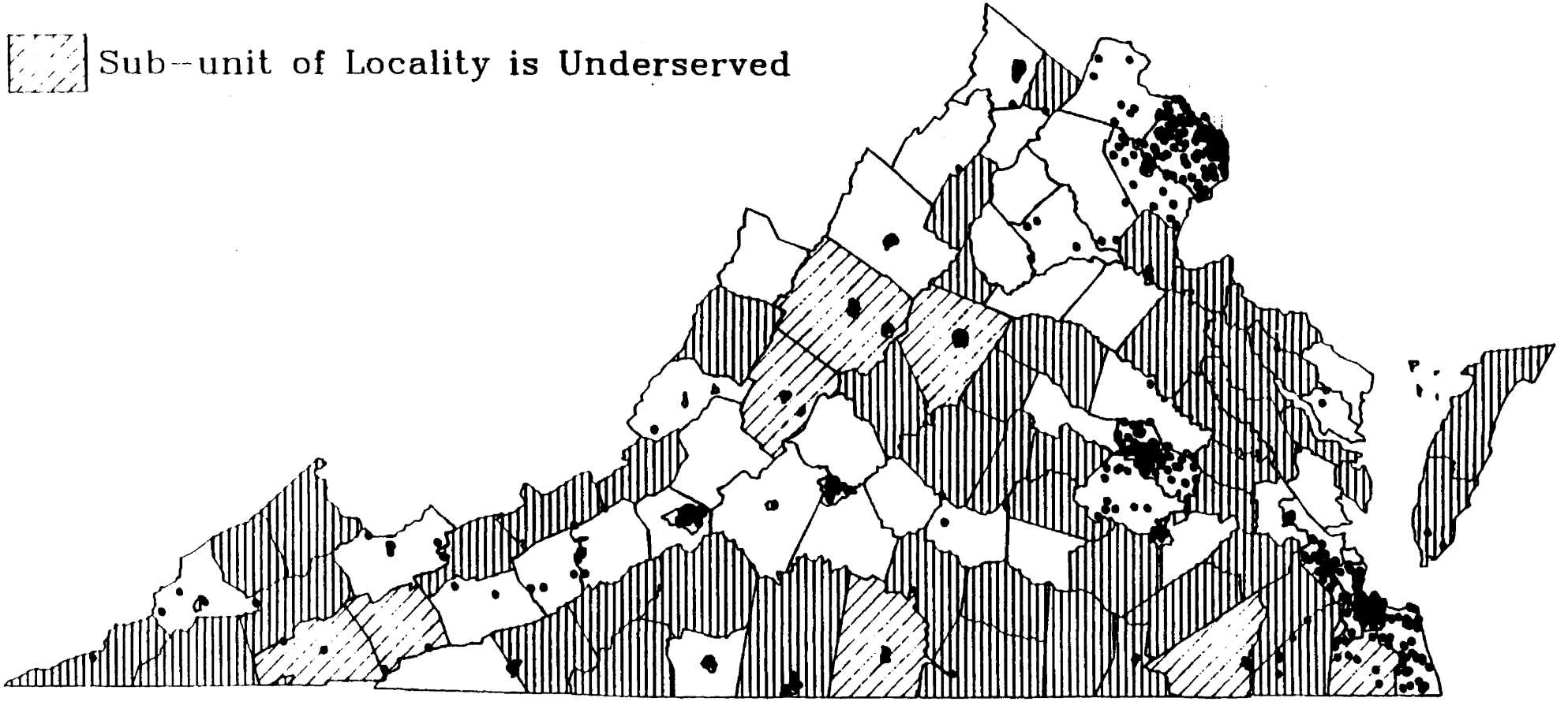
Source: Dept. of Medical Assistance Services Data,
Physician Specialty – Medical Society of Virginia

DISTRIBUTION OF VIRGINIA OBSTETRICIANS AND GYNECOLOGISTS – 1989
SHOWING PRACTICE LOCATIONS IN RELATION TO MEDICALLY UNDERSERVED AREAS

1 Dot = 1 Ob–Gyn Placed randomly within the physicians' practice location

Underserved Locality

Sub–unit of Locality is Underserved



Source: Va. Department of Health, Division of Health Planning

APPENDIX C: CERTIFIED NURSE-MIDWIFE CORE COMPETENCIES

AMERICAN COLLEGE OF NURSE-MIDWIVES
1522 K Street, N.W., Suite 1120, Washington, D.C. 20005 202/347-5445

CORE COMPETENCIES IN NURSE-MIDWIFERY

AMERICAN COLLEGE OF NURSE-MIDWIVES

Core Competencies

Nurse-Midwifery education is based upon theoretical preparation in the sciences and clinical preparation for the judgment and skills necessary for management and care of essentially normal women and newborns. The care as defined by the American College of Nurse-Midwifes includes antepartum, intrapartum, postpartum, neonatal, and family planning/gynecology, and occurs within a health care system that provides for medical consultation, collaborative management, or referral. Nurse-midwifery practice is based upon a management process that is used in all aspects of care. It includes knowledge and skills for competent practice and incorporates the Functions, Standards, and Qualifications of the American College of Nurse-Midwives.

Core competencies are the fundamental knowledge, skills, and behaviors expected of a new graduate. This statement indentifies the core of knowledge and skills basic to preparation for nurse-midwifery practice. Because we recognize that nurse-midwifery practice continues to be a dynamic and changing discipline, these core competencies are presented as a guideline only for educators, physicians and other professionals, consumers, employers of nurse-midwives. They will continue to evolve with the practice of nurse-midwifery. The concepts and skills identified below and the aspects of the nurse-midwifery management process outlined in the following section apply to all components of nurse-midwifery care. This document must therefore be used in its entirety.

Because creativity, individuality, and experimentation in nurse-midwifery education are essential to the vitality of the profession, educational programs are encouraged to be innovative. Each program will develop its own characteristics and may extend into other areas of health care. (It is the responsibility of each graduate to adapt practice to be consistent with state laws and institutional protocols.) Core competencies remain, however, as the basic requisites for the graduate of any educational program.

Certain concepts and skills from the behavioral sciences, communication, and public health permeate all aspects of nurse-midwifery practice. The following have been identified:

1. Family-centered approach to client care.
2. Constructive use of communication and of guidance and counseling skills.

   Communication and collaboration with other members of the health team.
4. Client education.
5. Continuity of care.
6. Use of appropriate community resources.
7. Health promotion and disease prevention.
8. Pregnancy as a normal physiologic process.
9. Informed client choice and decision making.
10. Bioethical considerations related to reproductive health.

NURSE-MIDWIFERY MANAGEMENT

The nurse-midwifery management process has three aspects: primary management, collaborative management, and referral as well as medical consultation. Implicit in the management process is the documentation of all its aspects.

I. PRIMARY MANAGEMENT

A. Systematically obtains or updates a complete and relevant data base for assessment of the client's health status.

B. Accurately identifies problems/diagnoses based upon correct interpretation of the data base.

C. Formulates and communicates a complete needs/problems list with corroboration from the client.

D. Identifies need for consultation/collaboration/referral with appropriate members of the health care team.

E. Provides information to enable clients to make appropriate decisions and to assume appropriate responsibility for their own health.

F. Assumes direct responsibility for the development, with the client, of a comprehensive plan of care based upon supportive rationale.

G. Assumes direct responsibility for implementing the plan of care.

H. Initiates emergency management of specific

complications/deviations.

I. Evaluates, with corroboration from the client, the achievement of health care goals and modifies the plan of care appropriately.

II. COLLABORATIVE MANAGEMENT

Collaborative management builds upon the steps of primary management; additionally the nurse-midwife:

A. Anticipates and identifies problems and related complications.

B. Plans and implements physician consultation and nurse-midwifery/physician management.

C. Carries out the plan of care as appropriate.

D. Continues nurse-midwifery care, including teaching, counseling, support, and advocacy.

III. REFERRAL

A. Identifies the need for management and/or care outside the scope of nurse-midwifery practice.

B. Selects an appropriate source of care in collaboration with the client.

C. Transfers the care of the client to medical management as appropriate.

COMPONENTS OF NURSE-MIDWIFERY CARE

Implicit in a nurse-midwifery knowledge base is the ability to perform skills pertinent to each of the outlined areas of practice.

I. ANTEPARTUM CARE

A. Assumes responsibility for management of the care of the pregnant woman, using the nurse-midwifery management process.

B. Uses a foundation for nurse-midwifery practice that includes but is not limited to the knowledge of:

1. Female anatomy and physiology.
2. Anatomy and physiology of conception and pregnancy.
3. Anatomy of the female bony pelvis.
4. Preconceptional factors likely to influence pregnancy outcome.
5. Clinical application of genetics, embryology, and fetal development.
6. Effects of pregnancy on the woman.
7. The etiology and management of common discomforts of pregnancy.
8. Parameters and methods for assessing the progress of pregnancy.
9. Parameters and methods for assessing fetal well-being.
10. Nutritional assessment of the maternal-fetal unit.
11. Environmental influences on the maternal-fetal unit.
12. Psychosocial/emotional/sexual changes during pregnancy.
13. Common screening/diagnostic tests used during pregnancy.
14. Pharmacology of medications commonly used during pregnancy.
15. Indicators of risk in pregnancy and appropriate intervention.
16. Assessment of relevant historical data regarding the client and her family.
17. Assessment of physical status.
18. Assessment of the soft and bony structures of the pelvis.
19. Assessment of the emotional status of the client and the dynamics in her support system.
20. Diagnosis of pregnancy.
21. Nutritional counseling.
22. Counseling in the physical and emotional changes of pregnancy and preparation for birth, parenthood, and change in the family constellation.
23. Prescription of medications.
24. Planning for individual/family birth experiences.
25. Planning and implementation of individual and/or group education.

II. INTRAPARTUM CARE

A. Assumes responsibility for management of the care of the client and neonate during the intrapartum period.

B. Uses a foundation for nurse-midwifery practice that includes but is not limited to the knowledge of:

1. Normal labor process, including the mechanisms of labor and delivery.
2. Pelvic anatomy and physiology.
3. Anatomy of the fetal skull and its critical landmarks.
4. Parameters and methods for assessing progress of labor and delivery.
5. Parameters and methods for assessing maternal and fetal status.
6. Common screening/diagnostic tests used during labor.

7. Emotional changes during labor and delivery.
8. Pharmacology of medications commonly used during labor and birth, including effects on mother and fetus.
9. Comfort and support measures used during labor and birth.
10. Anatomy, physiology, and indicators of normal adaptation of newborn to extrauterine life.
11. Methods to facilitate newborn's adaptation to extrauterine life.
12. Indicators of deviations from normal and appropriate interventions.
13. Assessment of relevant historical data about clients.
14. Assessment of general physical and emotional status of clients.
15. Diagnosis and assessment of labor and its progress through the four stages.
16. Prescription or administration of appropriate medications/solutions during labor and birth.
17. Techniques for spontaneous vaginal delivery.
18. Techniques for placental expulsion.
19. Techniques for repair of episiotomy and episiotomy/laceration.
20. Techniques for administration of local and pudendal anesthesia.
21. Establishment of maternal/infant/family bonds.

POSTPARTUM CARE

A. Assumes responsibility for management of the care of the client and neonate during the postpartum period, using the nurse-midwifery management process.

B. Uses a foundation for nurse-midwifery practice that includes but is not limited to the knowledge of:

1. Anatomy and physiology of the puerperium, including the involutional process.
2. Anatomy and physiology of lactation and methods for its facilitation or suppression.
3. Parameters and methods for assessing the puerperium.
4. Etiology and methods for managing discomforts of the puerperium.
5. Emotional/psychosocial/sexual changes of the puerperium.
6. Establishment of maternal/infant/family bonds.
7. Pharmacology of medications commonly used during the puerperium, including effects on lactation and the infant.
8. Prescription or administration of appropriate medications and solutions.
9. Common screening/diagnostic tests used during the puerperium.
10. Assessment of relevant historical data about the client.
11. Assessment of client's general physical and emotional status.
12. Nutritional needs during the puerperium.
13. Indicators of deviations from normal and appropriate interventions.
14. Appropriate anticipatory guidance regarding self-care, infant care, family planning, and family relationships.

IV. NEONATAL CARE

A. Assumes responsibility for management of the care of the neonate using the nurse-midwifery management process.

B. Uses a foundation for nurse-midwifery practice that includes but is not limited to the knowledge of:

1. Anatomy and physiology of continuing adaptation to extrauterine life and stabilization of the neonate.
2. Parameters and methods for assessing neonatal status.
3. Parameters and methods for assessing gestational age of the neonate.
4. Nutritional needs of the neonate.
5. Establishment of maternal/infant/family bonds.
6. Pharmacology of medications commonly used for the neonate.
7. Screening/diagnostic tests performed on the neonate.
8. Assessment of relevant historical data about maternal and neonatal course.
9. Indicators of deviations from normal and appropriate intervention.
10. Resuscitation and emergency care of the newborn.

V. FAMILY PLANNING/ GYNECOLOGICAL CARE

A. Assumes responsibility for management of the care of women seeking family planning and/or gynecological services, using the nurse-midwifery management process.

B. Uses a foundation for nurse-midwifery practice that includes but is not limited to the knowledge of:

1. Anatomy and physiology of the reproductive systems through the life cycle.
2. Anatomy and physiology of the female breast.
3. Anatomy, physiology, and psychosocial components of human sexuality.
4. Factors relating to steroid, mechanical, chemical, physiological, and surgical conception control methods, including:
   a. Rationale for use.
   b. Contraindications to use.

c. Effectiveness rates.
d. Mechanisms of action.
e. Advantages/disadvantages.
f. Side effects/complications.
g. Cost.
h. Client instructions/counseling.
i. Psychological factors.
j. Provision of appropriate method, including but not limited to, oral contraception, vaginal diaphragms, and IUDs.
k. Discontinuation or change of method.

5. Indicators of common problems of sexuality and methods for counseling.
6. Factors involved in decision making regarding unplanned and/or undesirable pregnancies and resources for counseling and referral.
7. Indicators of deviations from normal and appropriate interventions, including but not limited to:
   a. Vaginal/pelvic infections.
   b. Sexually transmitted diseases.
   c. Pelvic and breast masses.
   d. Abnormal pap smears.
   e. Problems related to menstrual cycle.
   f. Pelvic relaxation.
   g. Urinary tract infections.
   h. Infertility.
8. Assessment of relevant historical data about client/partner.
9. Assessment of general physical and emotional status of client.
10. Common screening and diagnostic tests.

VI. COMPLICATIONS

As members of the health care team, nurse-midwives might manage some deviations in collaboration with a physician, or they might refer clients to a physician with or without continued nurse-midwifery support and teaching. Basic knowledge of the more common complications is essential to preparation for nurse-midwifery practice. The depth of knowledge needed will vary with the frequency of the complication and the role of the nurse-midwife. This basic knowledge generally includes:

A. Causative and risk factors and preventive measures.

B. Anatomical and/or physiological deviations from normal.

C. Effects of these changes on the health of the woman.

D. Effects of these changes on the health of the fetus or infant.

E. Signs and symptoms for screening and detecting existing abnormality.

F. Adjunctive laboratory data.

Professional Aspect

Assumes the role and professional responsibilities of nurse-midwifery practice. As a leader or change age the nurse-midwife demonstrates:

1. Knowledge of the historical development of nurse-midwifery in the U.S., structure and function of the American College of Nurse-Midwives, and the legal base for nurse-midwifery practice.

2. Knowledge of contemporary issues and trends in maternal-child health care nationally and internationally.

3. Knowledge of standards for quality maternal and child health services.

4. Knowledge of current and pending health legislation.

5. Knowledge of the role and responsibilities of the nurse-midwife in supporting legislative contributions to high-quality maternal and child health services.

6. Knowledge of the various nurse-midwifery practice options and the resources available for their development and evaluation.

7. The ability to carry out the philosophy of American College of Nurse-Midwives.

8. Respect for the dignity and rights of health care providers and clients.

9. Responsibility and accountability for:
   a. Personal management decisions made in caring for clients.
   b. Periodic self-evaluation and peer review.
   c. Administration and delivery of services to families in collaboration with other health care providers.

10. The ability to use and collaborate in research.

11. Awareness of the responsibility of the professional to participate in the education of nurse-midwives.

Prepared by A.C.N.M. Education Committee, B. Decker, CNM, Chairperson
Approved by A.C.N.M. Board of Directors, May 1985.

APPENDIX D: 1990 NURSE PRACTITIONER STUDY (CNM DATA)

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Certified Nurse Midwife Survey Results

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- Prescriptive Authority
- Third - Party Reimbursement
- Malpractice Issues
- Physician and Hospital/Clinic Administrator Attitudes
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- Main Practice Setting
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- Incentives and Disincentives for Physician - Nurse Practitioner Collaboration
- Third Party Reimbursement for Nurse Practitioners
- Hospital Privileges for Nurse Practitioners
- Prescriptive Authority for Nurse Practitioners

Summary

This document reports selected results from two surveys conducted by the Task Force on the Practice of Nurse Practitioners during the Summer and Fall of 1990. The first section presents the collective attitudes and experiences of 51 certified nurse midwives, developed from a survey of Virginia licensed nurse practitioners. The second section presents the reported attitudes and experiences of a random sample of Virginia physicians.

Certified Nurse Midwives

CNMs were asked to respond to a series of questions concerning their work experience and other issues related to their practice. The following is a summary of the survey results.

- One-half of all CNMs were between the ages of 36 and 45.
- On average, CNMs have been practicing for 9.6 years.
- Responding CNMs are exclusively female.
- Almost one-half of the CNMs (45.1%) reported holding a master's degree in nursing
- The preponderant majority (80.4%) of CNMs indicated that they were currently practicing either as an employee, or through self-employment, or a combination of these.
- CNMs work primarily in urban and suburban areas.
- Only seven individuals (17.1%) indicated that their practice area was rural.
- Among the currently practicing CNMs, those with and without hospital privileges are split into almost equal groups. That is, roughly half (46.3%) noted having hospital privileges, while (48.8%) noted that they did not have privileges.
- CNMs were asked to note limitations on prescriptive authority which would be acceptable if they were granted that authority. Two-thirds (66.7%) noted that limiting prescriptive authority to drugs used in the nurse practitioner's and supervising physician's specialty area would be an acceptable condition, either exclusively or in combination with other conditions.

- CNMs believe overwhelmingly that the ability to directly bill third party payers is important to their practice and to the practice of other nurse practitioners.

- Only four CNMs (7.8%) indicated ever having been named in a malpractice suit. One CNM noted that a malpractice judgement, based on actions the nurse practitioner may have taken, had been entered against a collaborating physician.

Physicians

Virginia physicians were asked to respond to a series of questions concerning their experiences with and attitudes about nurse practitioners. The following list provides a summary of the survey results.

- Most physicians (81%) had some experience working with nurse practitioners.

- Physicians indicated that the most important incentives for practicing in collaboration with nurse practitioners were to allow more time to spend with their patients and to provide more preventive services.

- Physicians reported that the most important disincentives for practicing in collaboration with nurse practitioners were potential malpractice liability and the time required for supervision.

- Most physicians were opposed to extending eligibility for direct third party reimbursement to nurse practitioners.

- Most physicians support extending hospital privileges to nurse anesthetists but are opposed to extending the same privileges to primary care nurse practitioners and nurse midwives.

- Two-thirds of all physicians would accept extending prescriptive authority to nurse practitioners with certain limitations.

- Most physicians who would accept limited prescriptive authority for nurse practitioners would prefer a written protocol developed collaboratively by nurse practitioners and their supervising physicians as the mechanism for specifying limitations on prescriptive authority.

Introduction

This document presents selected results of two surveys that were conducted in the Summer and Fall of 1990 by the Task Force on the Practice of Nurse Practitioners of the Virginia Department of Health Professions. One survey was directed to Virginia physicians and the second to Virginia nurse practitioners. The survey instruments were developed collaboratively by members and staff of the Task Force, the office of the Secretary of Health and Human Resources, Department officials, nursing organizations, and the Medical Society of Virginia. The objective of the surveys was to provide information on the relevant views of physicians and nurse practitioners in Virginia.

A randomly selected sample of 2,600 Virginia physicians, or 20% of the 12,600 licensed in-state physicians, were sent a survey that included 19 questions. The response rate was 37.5% (960 returned surveys), after the subtraction of surveys returned as undeliverable. The physician survey responses provide a highly reliable indication of the views and experiences of the total physician population. The result obtained for any single question from the sample represents the actual distribution in the total physician population at a confidence level of 95% within plus or minus 3.5%.

Although the survey sample and response rate yield strong reliability estimates, the effects on the results of physicians who did not respond are unknown. Non-respondents, as a group, may have views and experiences that differ from those who responded. Attribution of the results of the survey to the physician population at large requires the assumption that non-responders and responders do not have important differences in their views and experiences.

Response anonymity was an important requirement established in the survey and sample design. This same anonymity makes it impossible to validate absolutely the assumption that responders and non-responders do not differ in significant ways.

Every Virginia licensed nurse practitioner (1,922 individuals) was sent a survey that included 37 questions. The nurse practitioner survey response rate was 53.8% (990 returned surveys), after the subtraction of surveys that were returned as undeliverable. The results presented here are limited to the 51 individuals who indicated that they were a certified nurse midwife. Results for the complete sample of nurse practitioners are available in the Report of the Task Force on the Practice of Nurse Practitioners on Access and Barriers to the Services of Nurse Practitioners.

Since the nurse practitioner survey was sent to the entire population, inferential reliability estimates based on sample distributions are inappropriate. However, the high response rate obtained for the survey contributes substantially to the general reliability of the results. Indeed, 51 of the 80 certified nurse midwives (64%) who were licensed in Virginia on August 31, 1991 responded to the survey. Once again, attributing the results of the nurse practitioner survey to the nurse practitioner population at large requires the assumption that non-responders do not have important differences in their views and experiences.

The first section of this report summarizes the reported attitudes and experiences of certified nurse midwives obtained from the nurse practitioner survey. The second section summarizes results obtained from the physician survey. The third section includes copies of the survey instruments.

Certified Nurse Midwife Survey Results

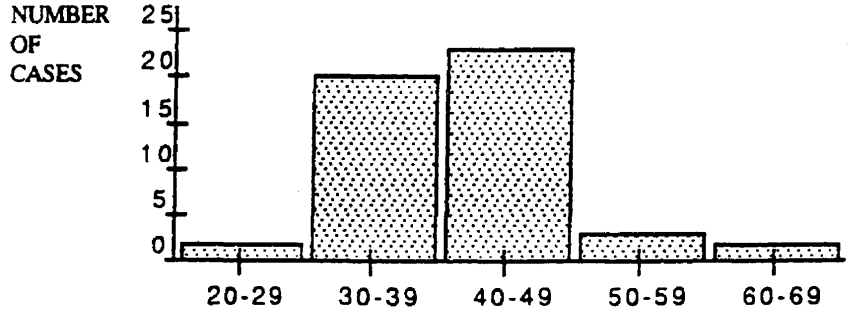
CNM Age, Years in Practice, and Gender

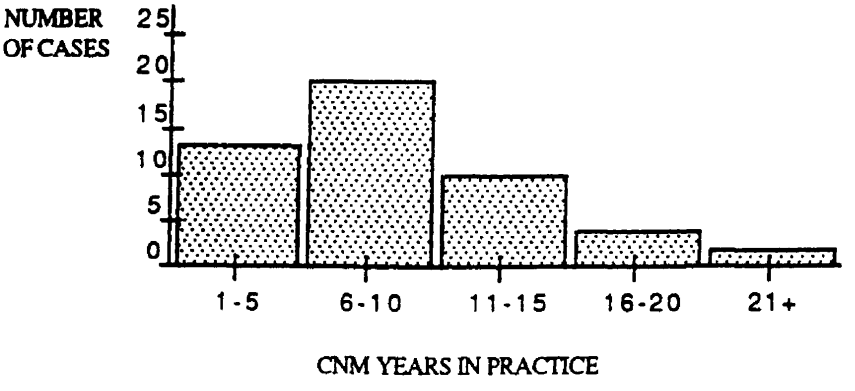
The average age of certified nurse midwives responding to the survey was 40.7, and a wide range of ages are represented. The middle range of the age distribution (50% of all responding CNMs) was between the ages of 36 and 45.

Certified nurse midwives have been practicing for 9.6 years, on average. The middle range of the years in practice distribution was between 5 and 11 years.

All of the certified nurse midwives responding to the survey indicated they are female.

Certified Nurse Midwife Age and Years in Practice



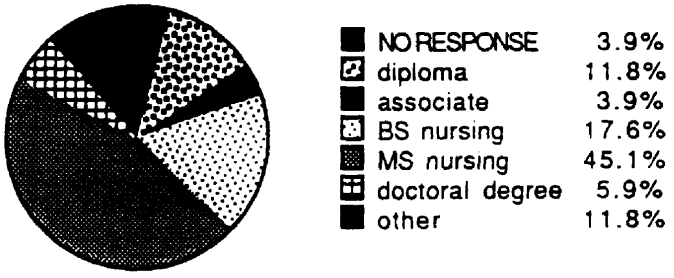


Educational Degrees and Preparation

Almost one-half of the CNMs (45.1%) reported holding a master's degree in nursing. Four individuals reported earning master's degrees in various disciples: including public health, and science. A bachelor of science in nursing was the second most frequent indicated category (17.6%). A small group reported that a diploma (11.8%) was their highest degree. Three of the CNMs (5.9%) reported having earned a doctoral degree.

Beyond their basic preparation for professional nursing, CNMs were also asked to indicate what their nurse practitioner preparation was. Almost one-half of the respondents (49.0%) reported having a certificate as their nurse practitioner preparation, while over one-third (37.3%) reported master's level preparation.

Highest Degree Held by Certified Nurse Midwives



Current Employment Status

The preponderant majority (80.4%) of certified nurse midwives indicated that they were currently practicing either as an employee, or through self-employment, or a combination of these. Those who practiced at least partially as an employee accounted for (68.6%) of the total respondents. The bulk of these individuals (74.2%) reported working forty hours or more a week. Only six of the CNMs (11.8%) indicated that they were exclusively self-employed. Half of the self-employed indicated working over forty hours a week.

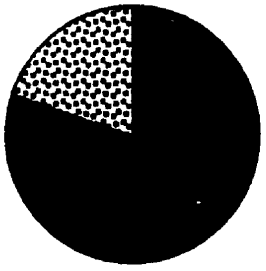
Ten CNMs (19.6%) noted that they were not currently practicing. Of all those responding, one (2%) was completely unemployed, while nine (17.6%) were employed, but not as a nurse practitioners.

The CNMs who were employed but not practicing were working largely in other nursing related positions. Four were involved in administrative or faculty positions, two were working as staff registered nurses, and two were working in health related non-nursing positions. Only one respondent was employed in a non-health related position.

The ten unemployed and employed non-practicing CNMs were asked to note the primary reason that they were not practicing. Their responses are listed below.

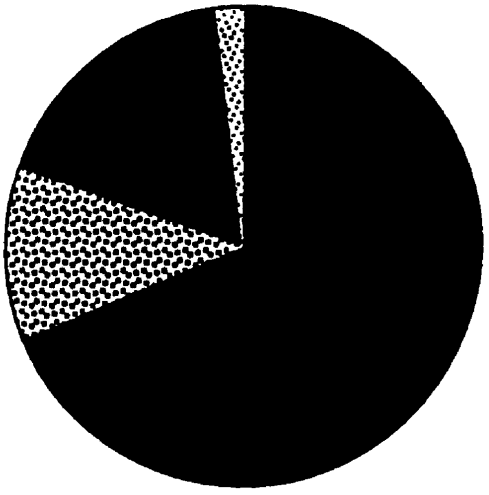
- No available CNM positions (3)
- Low earnings
- No collaborating physicians available
- Reasons not related to professional issues
- Accepted faculty position
- In medical school
- Went to Africa
- No Response

Active Practice Status of CNMs



Practicing	80.4%
Not Practicing	19.6%

Employment Status of CNMs



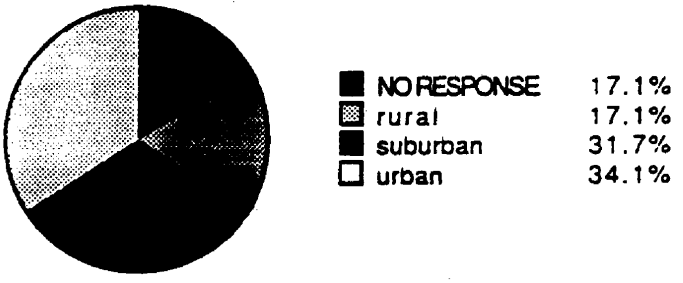
currently employed as nurse practitioner	68.6%
currently self-employed as nurse practitioner	11.8%
currently employed, not as nurse practioner	17.6%
currently unemployed	2.0%

Practice Characteristics

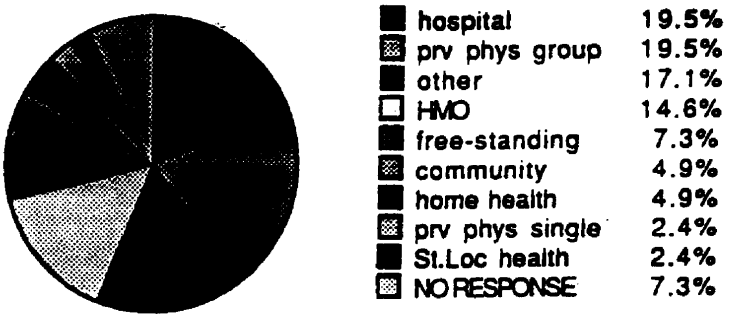
CNMs were working primarily in urban (34.1%) and suburban (31.7%) areas. Only seven individuals (17.1%) indicated that their practice area was rural. Seven individuals (17.1%) noted that they either worked in several areas or failed to respond.

CNMs are ~~employed in a~~ wide variety of ~~practice~~ settings, with no individual dominant setting. Hospitals (19.5%) and private physician groups (19.5%) provided the main practice setting for one in four CNMs.

Practice Locations of CNMs



Practice Settings of CNMs



Hospital Privileges

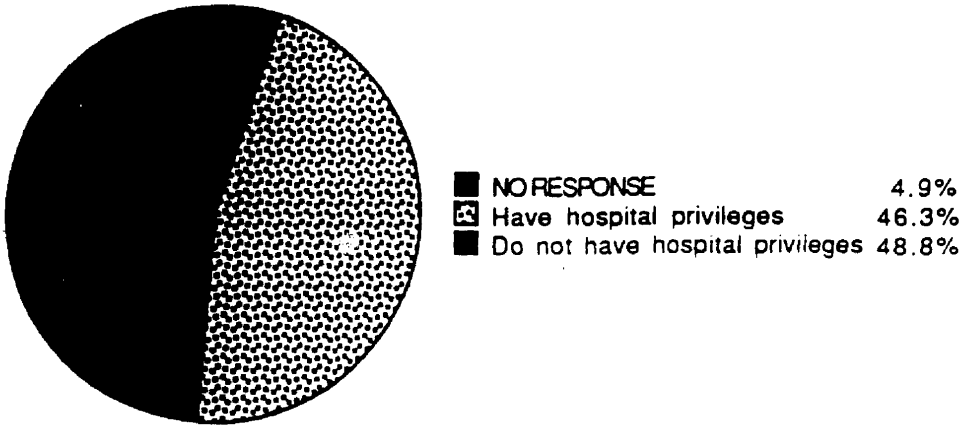
A series of questions in the survey concerned the importance and characteristics of hospital privileges held by certified nurse midwives. All of the CNMs were asked to indicate the importance of hospital privileges. A preponderant majority (80.4%) noted that hospital privileges were very important to appropriately practice their specialty.

Among the currently practicing CNMs, those with and without hospital privileges are split into almost equal groups. That is, roughly half (46.3%) noted having hospital privileges, and roughly half (48.8%) noted that they did not have privileges. Most of the CNMs with hospital privileges (68.4%) received them within three months of the date they applied for them. The majority of CNMs who did not have hospital privileges (60%) noted that they had never applied for them.

CNMs with hospital privileges were asked to indicate which specific activities were included. The distributions for each type of activity included in the survey are listed below.

- 68.4% had Admitting privileges
- 73.7% had Discharge privileges
- 89.5% had Diagnosis privileges
- 94.7% had Treatment privileges
- 94.7% had Writing Orders privileges

Possession of Hospital Privileges Among CNMs



Prescriptive Authority

CNMs were asked in the survey to note which limitations on prescriptive authority would be acceptable, if they were granted prescriptive authority. Three conditions were specifically described, and a fourth condition was provided for a unique response. A substantively identical question concerning conditions for extending prescriptive authority was included in the physician survey.

More than half of the responding CNMs (57.1%) selected only one of the four possible conditions. Few nurse practitioners (12.2%) selected all of the three specified conditions.

Prescriptive authority limited to drugs used in the nurse practitioner's and supervising physician's specialty area was the most frequently selected condition (66.7%), either singly or in combination with other conditions.

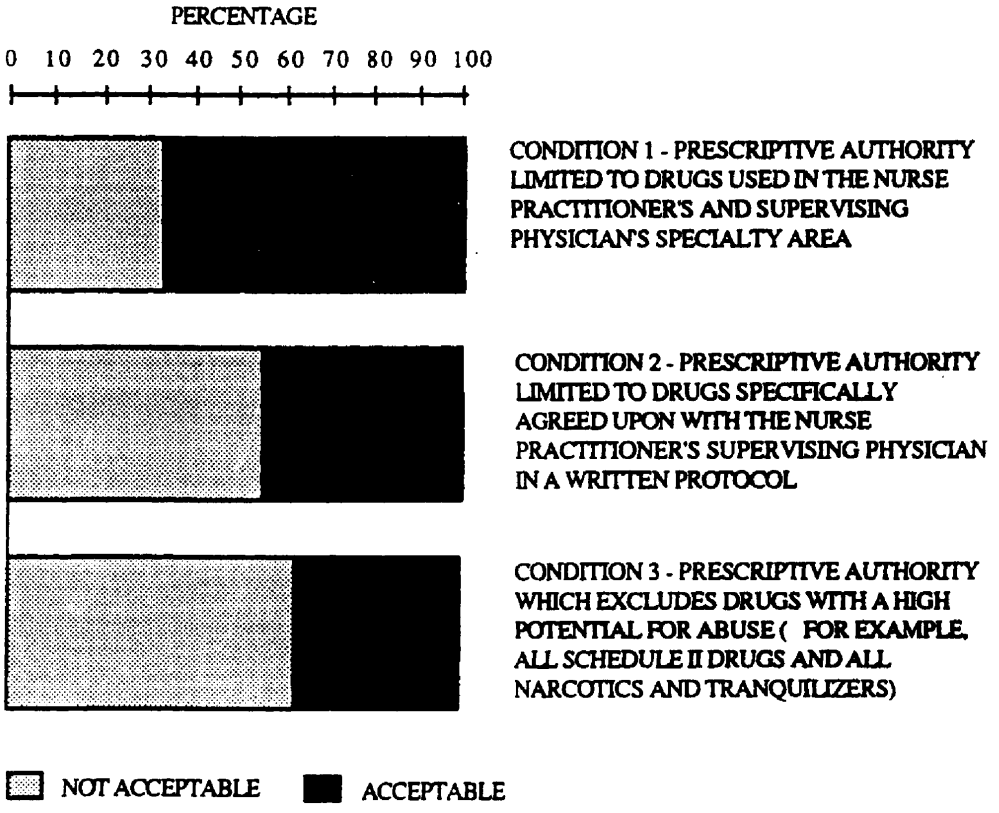
Prescriptive authority limited to drugs specifically agreed upon with the nurse practitioner's supervising physician in a written protocol was selected, either singly or in combination with other conditions, by (45.1%) of the nurse practitioners.

Over one-in-three CNMs (37.3%) indicated that excluding drugs with a high abuse potential would be an acceptable limitation upon prescriptive authority.

CNMs were also asked two follow-up questions about prescriptive authority. The first concerned the extent to which prescriptive authority would enhance their ability to care for patients. The second asked about the extent to which the lack of prescriptive authority had resulted in delays in patient treatment.

Almost three-fourths of the CNMs (72.5%) noted that extending prescriptive authority would greatly enhance their ability to care for patients. Two-thirds of the CNMs (66.7%) reported that not having prescriptive authority resulted in brief or moderate delays in treatment for their patients. A small group (17.6%) noted long delays, with significant impacts on patient health.

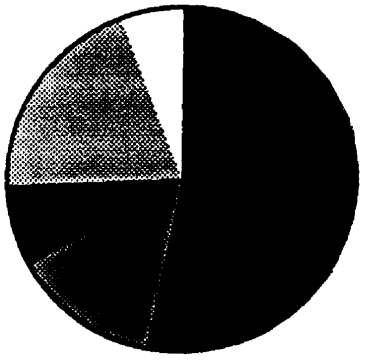
Individual Comparative Acceptability of Conditions Upon Prescriptive Authority Among CNMs



Third Party Reimbursement

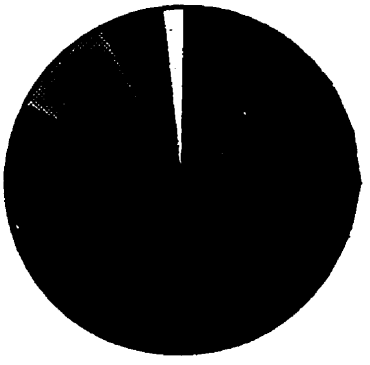
CNMs were asked to indicate how important it would be, for both their own practice and the practice of other nurse practitioners, to have the ability to directly bill third party payers. While the majority of CNMs (66%) indicated that it would be personally important to have direct reimbursement, almost all of the CNMs (92%) indicated that it would be important to other nurse practitioners.

Importance of Direct Third Party Reimbursement for Self and for Others Among CNMs



SELF

very important	52.9%
important	13.7%
ambivalent - no opinion	7.8%
unimportant	19.6%
NO RESPONSE	5.9%



OTHERS

very important	82.4%
important	9.8%
ambivalent - no opinion	5.9%
NO RESPONSE	2.0%

Malpractice Issues

A series of questions concerning malpractice issues were included in the questionnaire. CNMs were asked whether they had ever been named in a malpractice suit that was associated with their role as a nurse practitioner. Only four CNMs (7.8%) indicated that they had ever been named in such a suit.

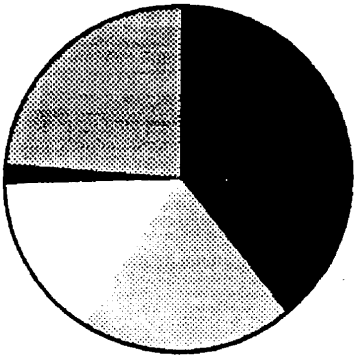
CNMs were also asked whether a malpractice verdict had ever been entered against them personally, or if a malpractice verdict had ever been entered against their collaborating physician based on their personal actions. None of CNMs noted that they have had a malpractice verdict entered against them personally, while one individual noted that a verdict had been entered against their collaborating physician.

Physician and Hospital/Clinic Administrator Attitudes

General perceptions about the attitudes of physicians and hospital administrators were also collected. CNMs were split about the attitudes of physicians, with (37.3%) noting physicians were supportive and (35.3%) noting they were not supportive. Many CNMs (23.5) choose not to answer this question about physician attitudes. Comparatively, a majority of CNMs believed that hospital administrators are supportive of their involvement in providing patient care.

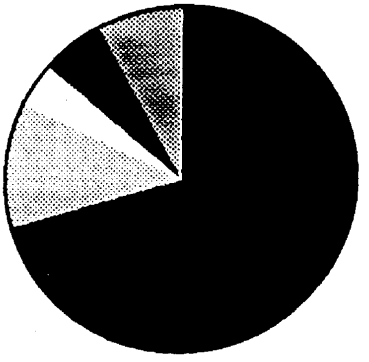
CNM Characterizations of Physician and Hospital Administrator Attitudes

Physicians



very supportive	15.7%
supportive	21.6%
uninterested	2.0%
mildly opposed	19.6%
very opposed	15.7%
no opinion	2.0%
NO RESPONSE	23.5%

Administrators



very supportive	29.4%
supportive	35.3%
uninterested	5.9%
mildly opposed	11.8%
very opposed	3.9%
no opinion	5.9%
NO RESPONSE	7.8%

CNM Practice Barriers

CNMs were asked to respond to a series of questions concerning specific barriers to their occupational practices.

Roughly half of the CNMs (47.1%) indicated that they have had difficulty finding collaborating physicians. Those who noted having this difficulty were asked for their opinion about the most significant reason, and a listing a the responses are provided below.

- (9) Malpractice concerns
- (8) No physician interest
- (2) Financial competition
- (1) Economics and egos
- (1) MDs guard practice
- (1) Power, finance issues
- (1) Resistance to women practitioners
- (1) Too many OB-GYNs

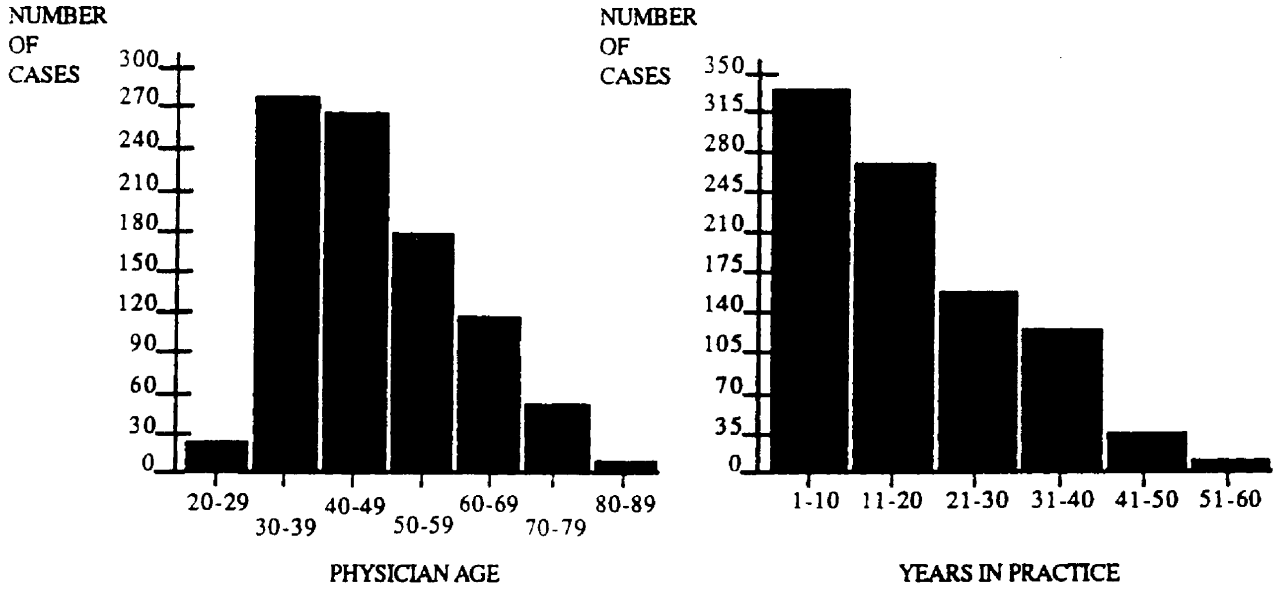
CNMs were also asked to indicate whether or not they have had experience with more direct barriers to their practice. A majority (52.9%) noted experiencing at least one instance in which a physician had tried to exclude them from providing care in their role as a nurse practitioner. Almost one-third (31.4%) noted at least one instance in which a physician had refused to accept patient referrals from them, while over one-third (37.3%) were aware of at least one instance in which a physician had refused to refer patients to them.

Physician Survey Results

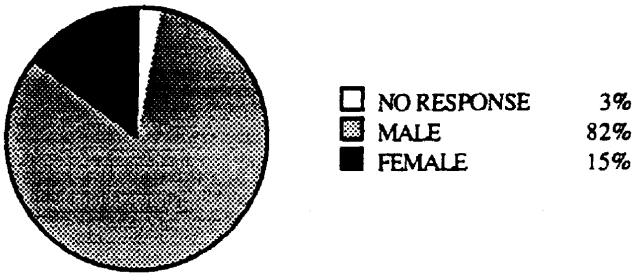
Age, Years in Practice, and Gender

The average age of physicians responding to the survey was 47, and a wide range of ages are represented. The middle range of the age distribution (50% of all responding physicians) includes individuals between the ages of 37 and 56. Physicians were also asked to indicate the number of years that they have been practicing. On average, the physicians have been practicing 18 years. The preponderant majority of physicians responding to the survey were male (82%); female physicians represented 15% of the respondent group. A small number of physicians (3%) did not indicate their gender.

Physician Age and Years in Practice



Physician Gender

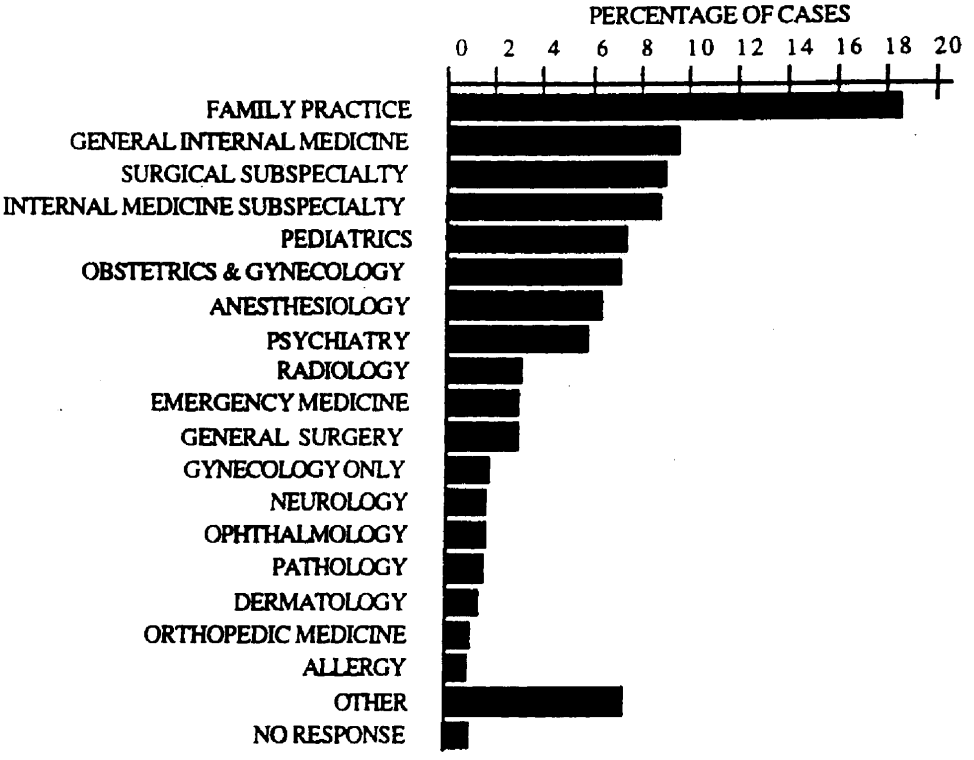


Type of Medical Practice

Physicians were asked to indicate the type of practice that best described their activities or to write in their response. One in four responding physicians chose to write in their response.

The graph below indicates the survey categories as well as the most frequently written-in responses for medical practice type. A wide range of practice types are represented. The most frequently occurring types were family practice, general internal medicine, surgical subspecialties, internal medicine subspecialties, pediatrics, and obstetrics/gynecology.

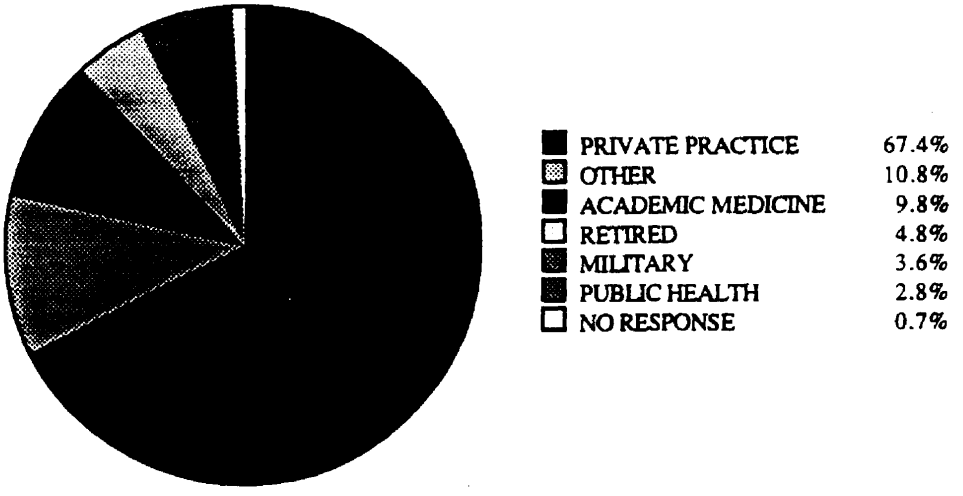
Physician Medical Practice Type



Main Practice Setting

A clear majority (67.4%) of the responding physicians indicate that they were in private practice. Academic medicine represented the next largest practice setting at 9.8%. Physicians practicing in military settings and those practicing in public health collectively accounted for 6.4%. Retired physicians made up 4.8% of the respondents. The remaining physicians (10.8%) wrote in their practice setting; these respondents were largely hospital-based, practicing in an HMO, or in federal/state facilities.

Physician Main Practice Setting



Area Availability of Physicians, Need for Practice Assistance, and the General Need for Nurse Practitioners

Four questions were included in the survey to assess physician opinions about the need for additional care providers.

The first question asked about the general availability of physicians in the area. The largest single group (41.7%) noted that physician services were readily available. Indeed, 16.5% believed that physicians were over-abundant in their area of practice. A relatively small group (13.5%) indicated that physician availability in their area was limited.

The second question asked physicians whether they needed any assistance to improve available service in their practice. Nearly three quarters (73.3%) reported that they did not require assistance.

The third question asked physicians about adding a specific type of health care provider to their existing practice. They were asked how helpful it would be to add: 1) a physician in the same specialty, 2) a physician with a different specialty, and 3) a primary care nurse practitioner.

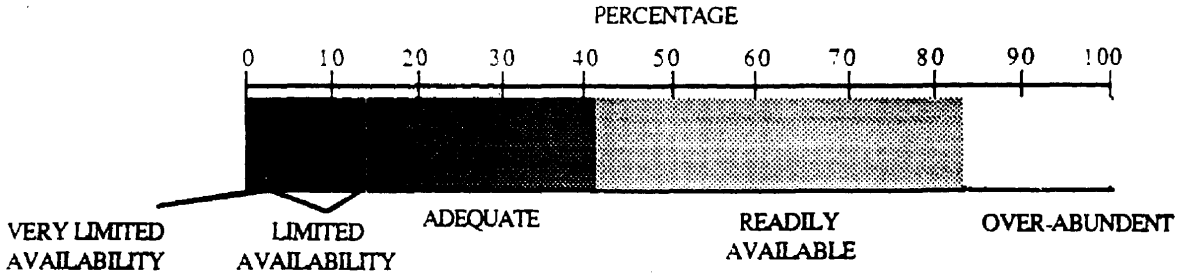
Respondents were about equally divided in their responses regarding the addition of a physician with the same specialty: 31.8% noted that such an addition would be very helpful, and 31.1% noted it would be somewhat helpful, while 37.1% believed such an addition would not be helpful.

In contrast, a strong majority of physicians (70.9%) indicated that the addition of a physician with a different specialty would not be helpful to their practice.

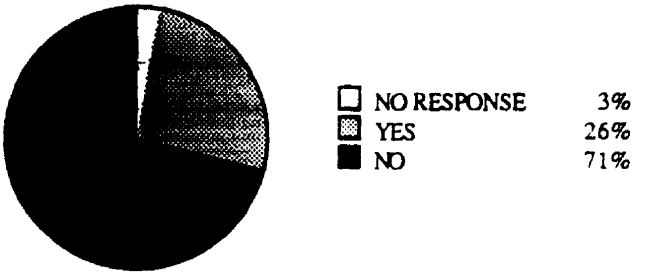
Less than one-half of the responding physicians (42.9%) indicated that the addition of a primary care nurse practitioner to their practice would be either somewhat helpful or very helpful.

The final question asked physicians to indicate their opinion about the necessity of nurse practitioners for improving the general availability of health care services in Virginia. A majority of physicians (54%) held the opinion that nurse practitioners were necessary for improving service availability. While 26.2% were ambivalent about the issue, only 19.7% believed that they were unnecessary for improving availability.

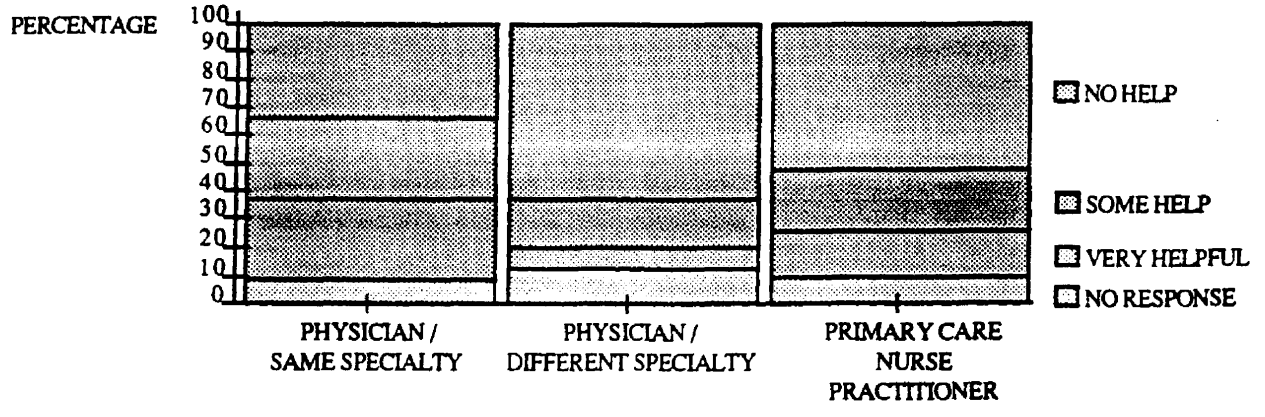
Area Availability of Physicians



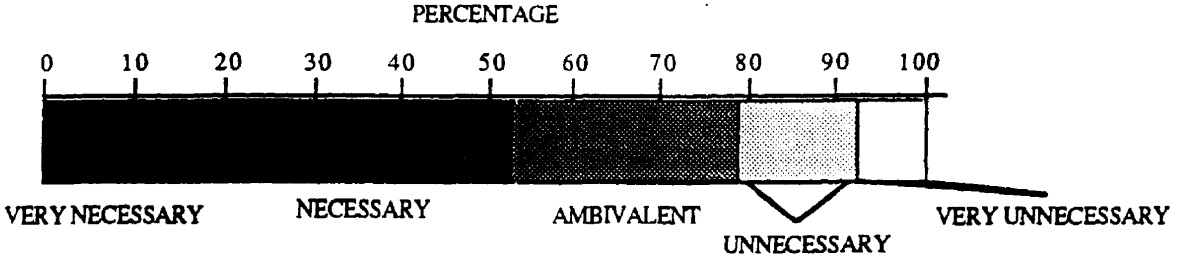
Need Help to Improve Service Availability



Helpfulness of Adding Physician/Same Specialty, Physician/Different Specialty, and Primary Care Nurse Practitioner to Existing Practice



Necessity of NPs for Improving Health Service Availability



Experience with Nurse Practitioners

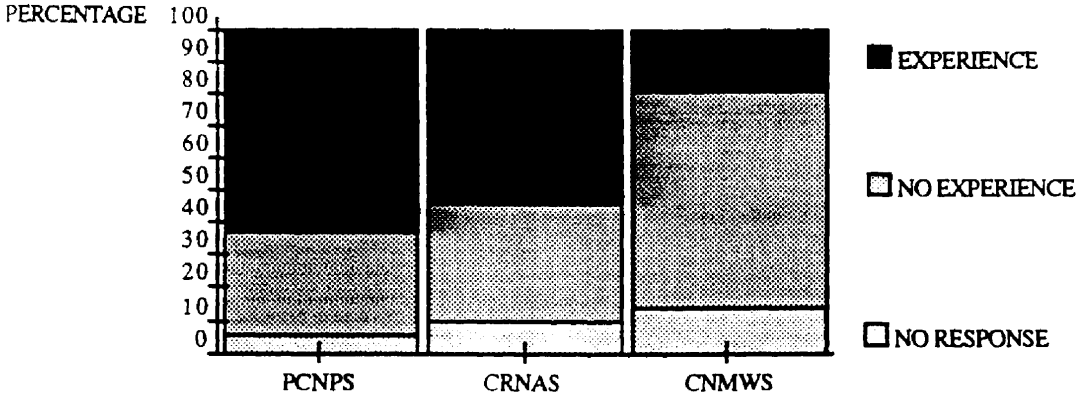
Assessing the level of physician experience with nurse practitioners was an important consideration of the survey. Physicians were asked to report their work experience with each of the three types of nurse practitioners: primary care nurse practitioners (PCNPs), Certified Registered Nurse Anesthetists (CRNAs), and Certified Nurse Midwifes (CNMs).

Four-fifths (81.4%) reported at least some experience with one of the three types. However, experience varies by major type of nurse practitioner.

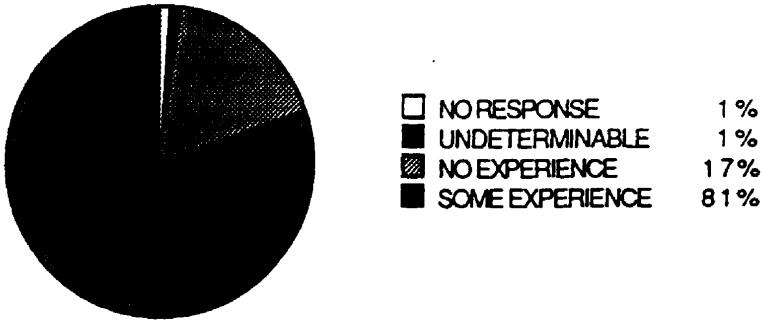
Few physicians (22.2%) have had any experience with certified nurse midwives. Among all responding physicians, (8%) noted having limited experience, (7%) noted having worked with a CNW employed or associated with a clinic, hospital, or other physician, and (4%) worked with a CNW while in residency training.

In contrast, two-thirds (66.3%) had some experience with PCNPs. Most either have previously or currently employed a PCNP, 18.8%; have worked with a PCNP associated with a clinic, hospital, or other physician,17.2%; or have only limited experience,16.4%. A majority of responding physicians had some experience with CRNAs (60.1%); a large group of those with experience have worked with a CRNA associated with a clinic, hospital, or other physician (30.4%).

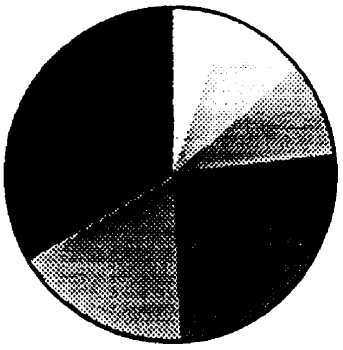
Comparison of Physician Experience with Types of Nurse Practitioners



Physician Work Experience with Nurse Practitioners in General

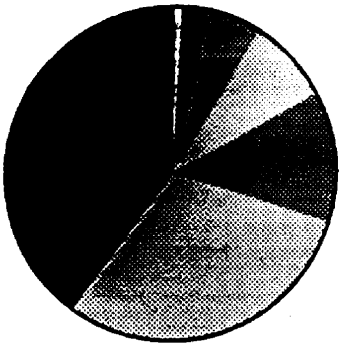


Experience with Primary Care Nurse Practitioners



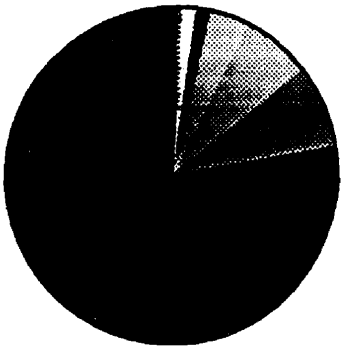
W. HEALTH DEPT	6%
RESIDENCY	8%
CURR EMPLOY	9%
PREV EMPLOYED	10%
LIMITED EXPERIENCE	16%
ASSOCIATED	17%
NO EXPERIENCE	34%

Experience with Certified Registered Nurse Anesthetists



W. HEALTH DEPT	1%
PREV EMPLOYED	2%
CURR EMPLOY	6%
RESIDENCY	8%
LIMITED EXPERIENCE	13%
ASSOCIATED	30%
NO EXPERIENCE	40%

Experience with Certified Nurse Midwifes



CURR EMPLOY	1%
W. HEALTH DEPT	1%
PREV EMPLOYED	1%
RESIDENCY	4%
ASSOCIATED	7%
LIMITED EXPERIENCE	8%
NO EXPERIENCE	78%

Attitudes about the Involvement of Nurse Practitioners in Providing Care

Physicians were asked to indicate both their own general attitude and their impression of other physician's attitudes about the involvement of nurse practitioners in the provision of patient care. The results reveal an interesting discrepancy between self-reported attitude and the perception of other physicians' attitudes.

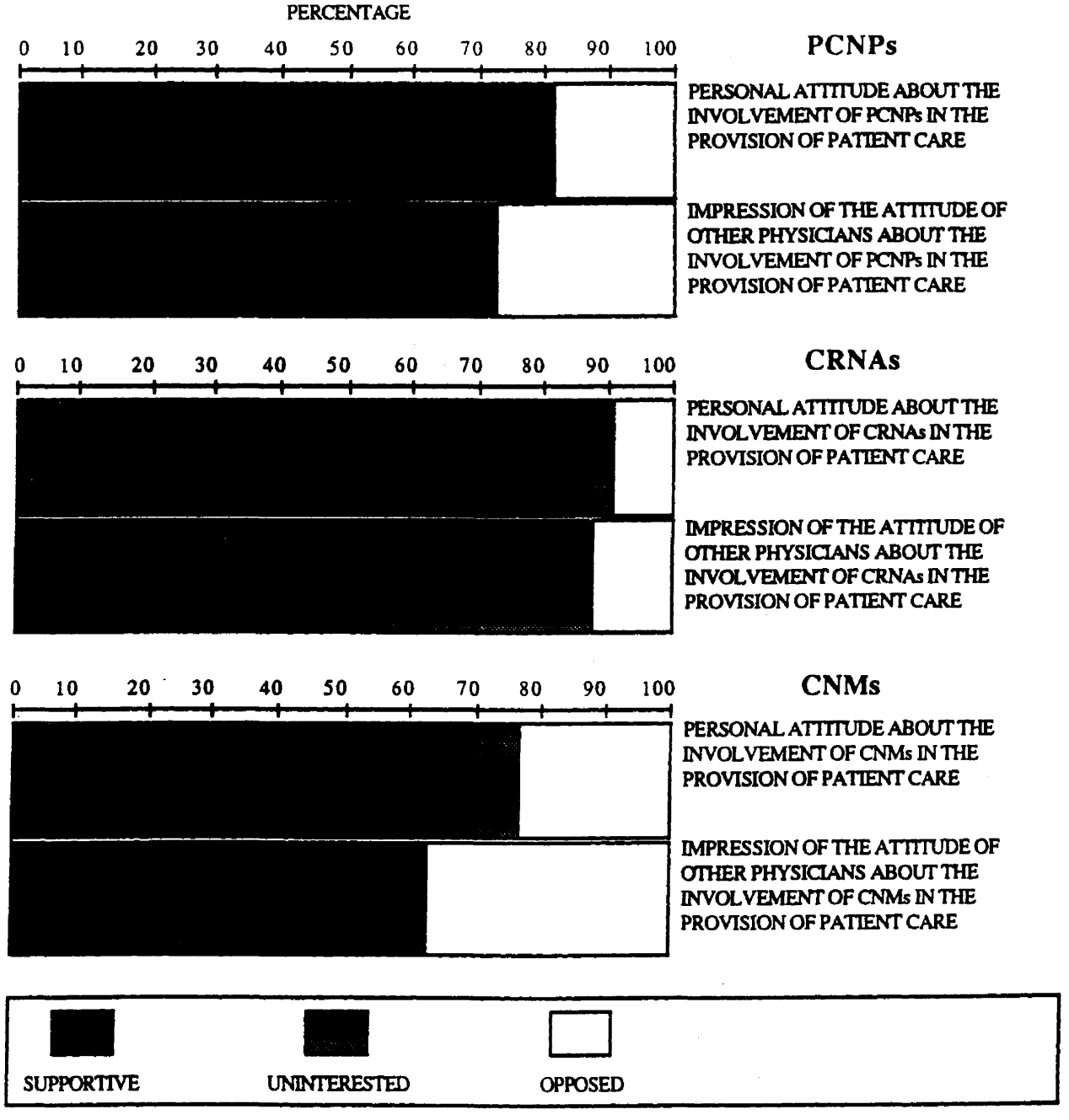
In general, respondents indicated that they personally support the involvement of nurse practitioners in the provision of care. However, they tend to have the perception that other physicians are not as supportive. The responses varied with each type of nurse practitioner.

A substantial minority (45.6%) of physicians indicated that they personally supported the involvement of CNMs. One-in-four (23.3%) indicated that they were opposed. However, when asked for their impression of the attitude of other physicians, only one-in-four (25.0%) believed other physicians were supportive, and over one-third (37.4%) believed other physicians were opposed to the involvement of certified nurse midwifes.

Two-thirds (67.3%) of responding physicians indicated that they personally support the involvement of primary care nurse practitioners, but only 44.9% believed other physicians were supportive. Most physicians (67.7%) were personally supportive of the involvement of CRNAs, but only 57% believed "other" physicians were supportive.

The graph in this section shows the comparative distribution of responses for a physician's personal opinion, and the physician's impression of "other" physicians' opinions, for each of the three types of nurse practitioners. The discrepancies between personal views and the perception of colleagues' support is evident for each type of nurse practitioner.

Physician Attitudes about the Involvement of Primary Care Nurse Practitioners, Certified Registered Nurse Anesthetists, and Certified Nurse Midwifes in the Provision of Patient Care



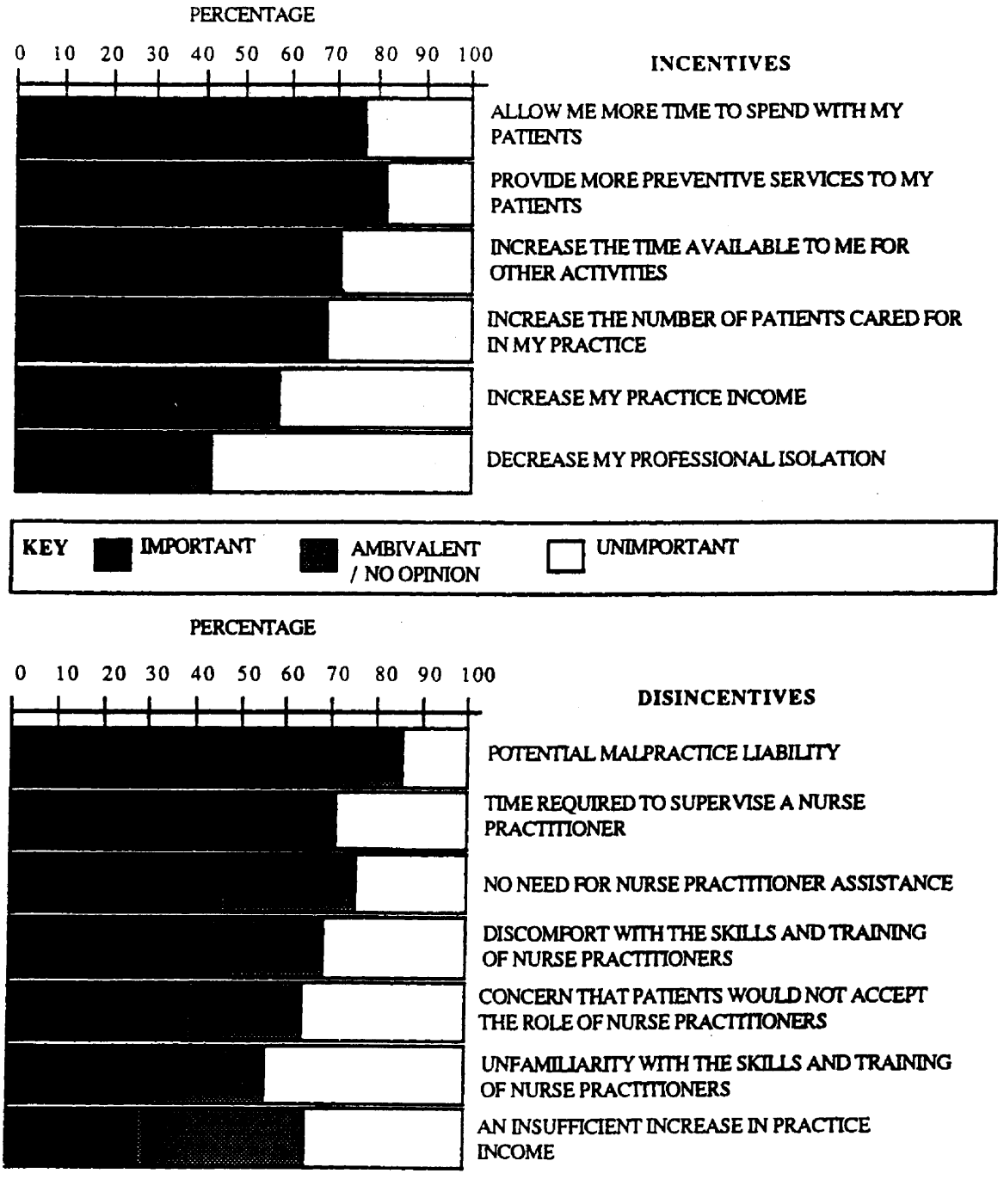
Incentives and Disincentives for Physician - Nurse Practitioner Collaboration

Physicians were asked to rate the relative importance of various incentives and disincentives for practicing in collaboration with nurse practitioners. Physicians considered allowing more time to spend with patients and providing more preventive services to their patients as the most important incentives. Decreasing professional isolation and increasing practice income proved to be relatively unimportant.

Potential malpractice liability was clearly the most important disincentive to collaborative practice. Of the physicians responding to this question, 70.8% reported that potential malpractice liability was an important disincentive; only 13.7% indicated that it was unimportant.

The time required to supervise a nurse practitioner was the second most important factor, with one-half (50.3%) of responding physicians noting it as important. Insufficient increase in practice income, and discomfort with the skills and training of nurse practitioners proved to be the least important disincentive. Almost half (44.2%) indicated that their unfamiliarity with the skills and training of nurse practitioners was unimportant as a disincentive to forming a collaborative practice.

Comparative Importance of Various Incentives and Disincentives for Physicians to Collaborate with Nurse Practitioners



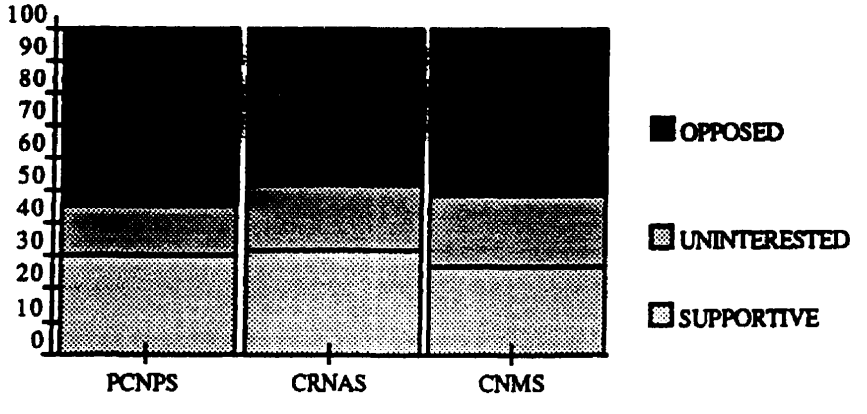
Third Party Reimbursement for Nurse Practitioners

Physicians were asked to indicate their view about extending eligibility for direct third party reimbursement for each type of nurse practitioner. Across all categories, most physicians indicated that they were opposed. Specifically, a majority of physicians (54.8%) were opposed to extending eligibility to PCNPs, 50.9% were opposed to extending eligibility to CNMs, and 48.8% were opposed to eligibility for CRNAs.

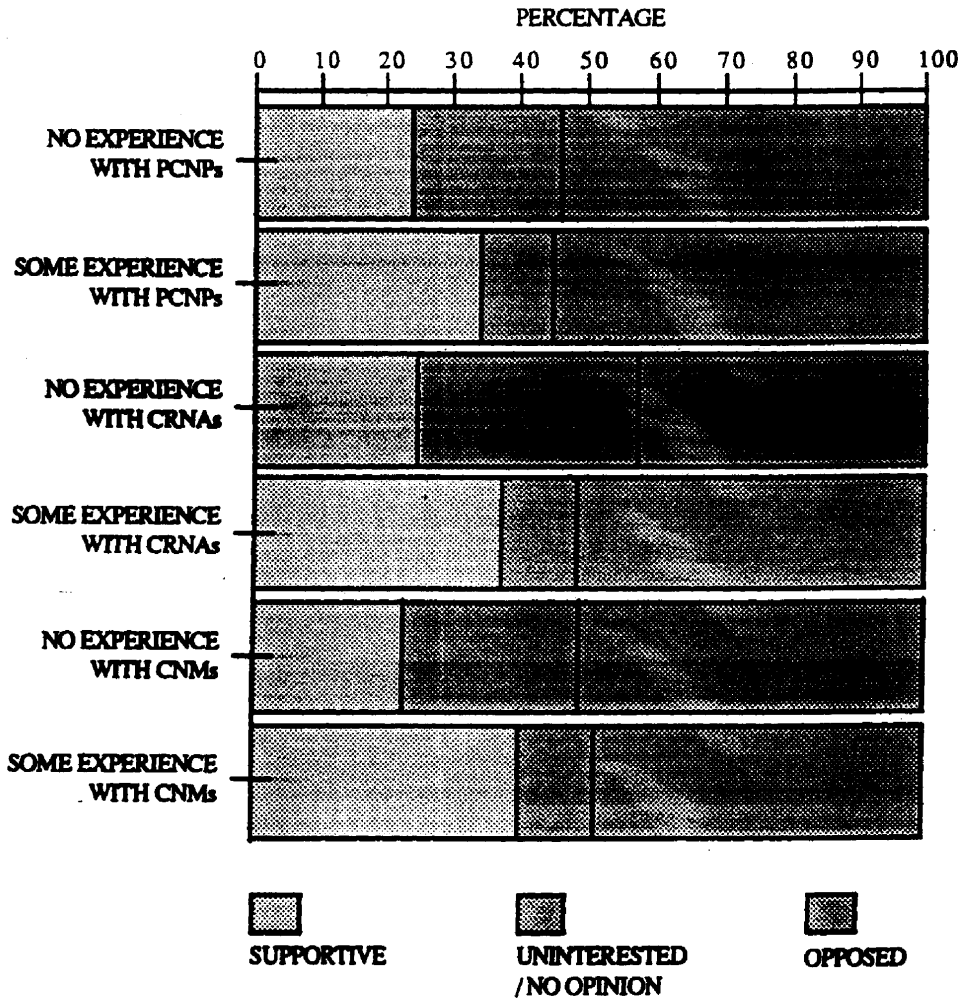
Because physician attitudes about nurse practitioners were believed to be related to their experience with nurse practitioners, physician views were analyzed in association with their experience. The results demonstrate that there is an association. However, the association results largely from shifts between the supportive and no opinion categories. The level of opposition to extending eligibility to PCNPs and CNMs does not shift significantly with the level of physician experience.

Experience is appreciably associated with both the level of opposition to and support for eligibility for CRNAs: those with some experience were less likely to have no opinion.

Physician Views About Extending Eligibility for Direct Third Party Reimbursement to Nurse Practitioners



Physician Views About Extending Eligibility for Direct Third Party Reimbursement to Types of Nurse Practitioners by Physician Experience with Types of Nurse Practitioners



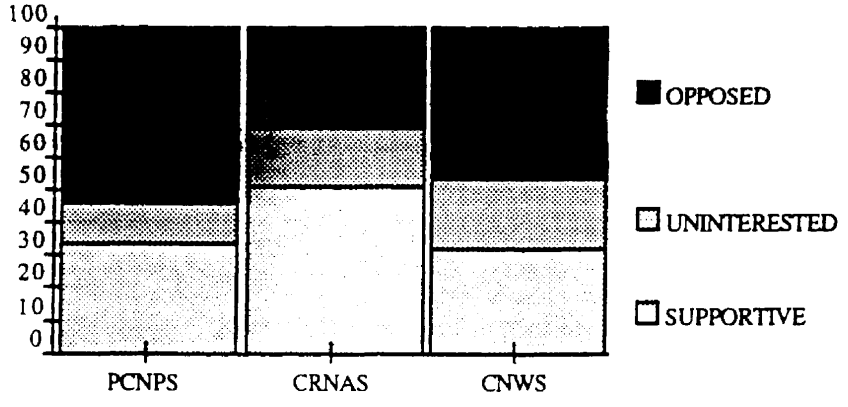
Hospital Privileges for Nurse Practitioners

Physicians were asked to indicate their views about extending hospital privileges to each nurse practitioner group. The results demonstrate that a majority of physicians support extending hospital privileges to CRNAs but are largely opposed to extending the same privileges to PCNPs and CNMs. Fully one-half of the responding physicians (50.9%) indicated that they supported extending hospital privileges to CRNAs. Comparatively, only about one-in-three physicians (33.5%) supported hospital privileges for PCNPs, or for CNMs, 31.6%.

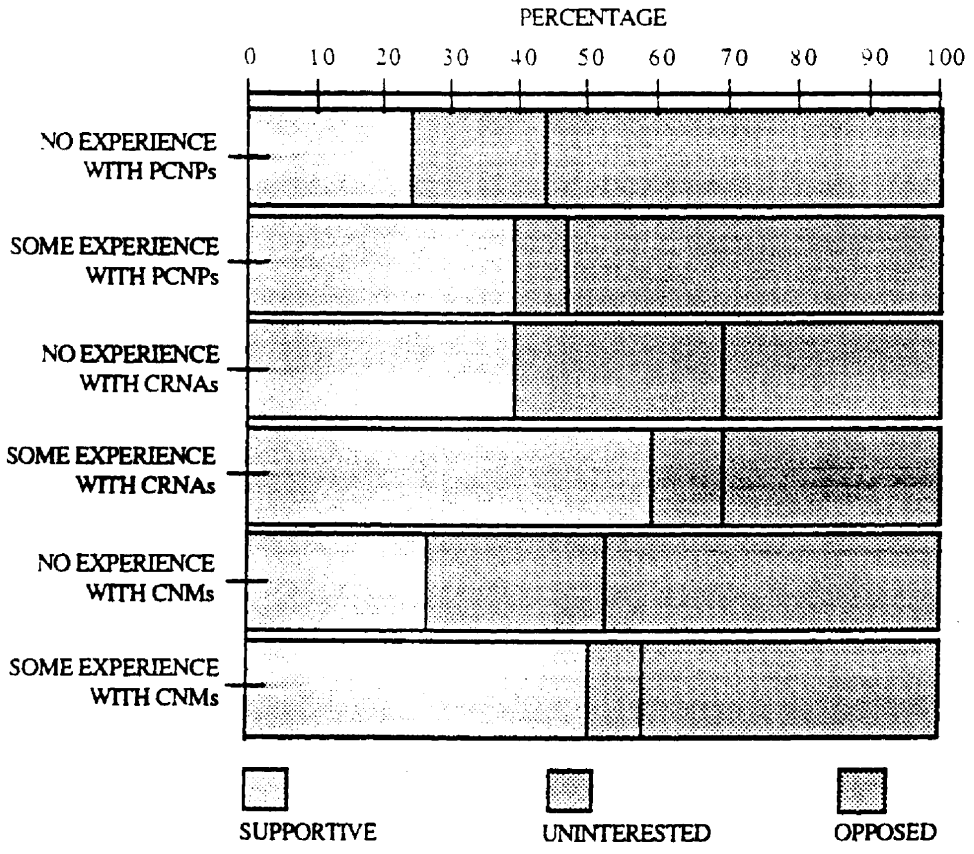
These views were analyzed in association with experience with each type of nurse practitioner. Experience makes the strongest difference among the supportive responses. Physicians who had some experience with the different types of nurse practitioners tended to be more supportive of extending hospital privileges to them. However, experience is not associated with opposition to hospital privileges.

With regard to CRNAs, the level of physician experience appears to make a difference only for the very supportive opinions. There is almost no difference in the proportional distributions for physicians with and without experience for those who are opposed to hospital privileges for CRNAs.

Physician Views About Extending Hospital Privileges to Nurse Practitioners



Physician Views About Extending Hospital Privileges to Types of Nurse Practitioners by Physician Experience with Types of Nurse Practitioners



Prescriptive Authority for Nurse Practitioners

Physicians were asked to respond to a two-part question about extending prescriptive authority to nurse practitioners. The first question established whether physicians would accept the extension of prescriptive authority. A minority (32%) opposed extending prescriptive authority to nurse practitioners under any circumstances. Two-thirds (65.6%) indicated that they would accept extending prescriptive authority to nurse practitioners. A small group of physicians (3.6%), however, would accept such an extension without any conditions.

The second part of the question concerned the conditions that would be required for the physician to accept prescriptive authority. The remaining analysis is limited to the 595 physicians who noted required conditions.

The requirement of a specifically agreed upon written protocol was selected by well over three-fourths (76.3%) of the physicians. Prescriptive authority limited to drugs used in the nurse practitioner's and supervising physician's specialty area, and prescriptive authority which excludes drugs with a high potential for abuse were both consistently selected by one-half of the responding physicians as necessary conditions. Very few physicians (3.4%) chose to write-in a forth condition.

Each physician could select one, two, three, or four limitations. A majority of physicians who would accept prescriptive authority subject to certain conditions selected two or more conditions. The most common combinations included a specified, written protocol.

Physician views about prescriptive authority were crosstabulated against other characteristics to assess patterns of association. Views about prescriptive authority were compared to physician experience with any type of nurse practitioner. There is little evidence of any association between prescriptive authority views and experience with nurse practitioners. This is particularly striking since experience is associated with views about hospital privileges and reimbursement.

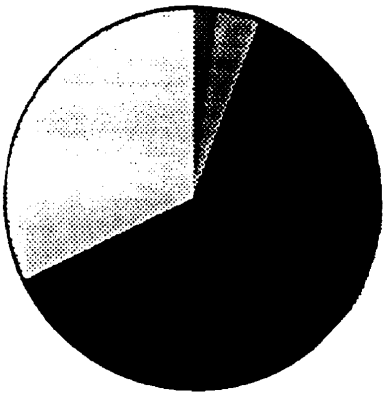
In another analysis, physicians were divided into surgery and primary care practice types and compared. Physicians in surgery-related practices registered opposition to the extension of prescriptive authority in far larger proportions than those involved in primary care practices.

Physicians were also divided into private practice and other practice settings (including public health, academic medicine, and the military). Physicians in

private practice were more opposed to the extension of prescriptive authority than those in other practice arrangements.

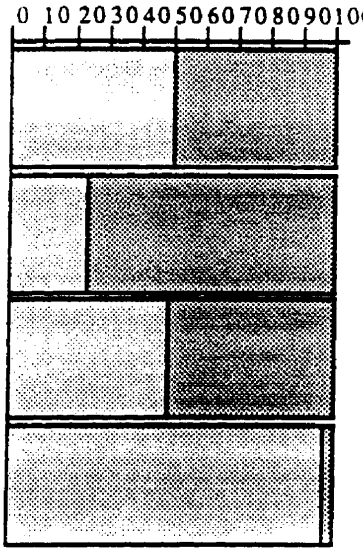
Finally, acceptance of prescriptive authority was compared to physician views about the need for assistance in their practice and the general need for nurse practitioners to improve the general availability of health care services. Physicians who indicated a need for assistance in their own practice were proportionally more willing to accept extending prescriptive authority than those who noted no need for assistance. Physicians who considered nurse practitioners as necessary for improving health care availability were also proportionally more willing to accept extending prescriptive authority.

Physician Views About Extending Prescriptive Authority to Nurse Practitioners



NO RESPONSE	2%
SUPPORT WITHOUT CONDITION	4%
ACCEPT WITH CONDITIONS	62%
OPPOSED UNDER ANY CIRCUMSTANCES	32%

Individual Comparative Importance of Conditions Required for Extending Prescriptive Authority to Nurse Practitioners



CONDITION 1 - PRESCRIPTIVE AUTHORITY LIMITED TO DRUGS USED IN THE NURSE PRACTITIONER'S AND SUPERVISING PHYSICIAN'S SPECIALTY AREA

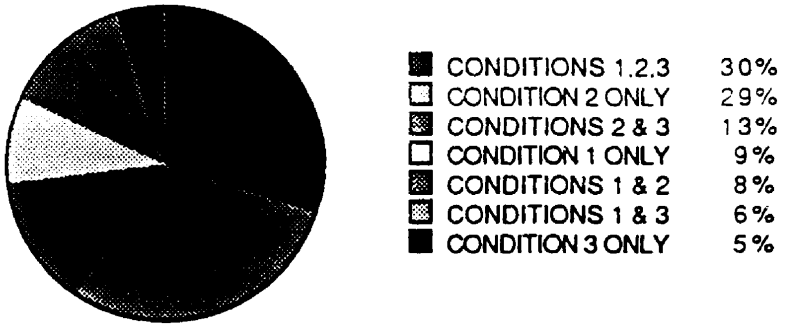
CONDITION 2 - PRESCRIPTIVE AUTHORITY LIMITED TO DRUGS SPECIFICALLY AGREED UPON WITH THE NURSE PRACTITIONER'S SUPERVISING PHYSICIAN IN A WRITTEN PROTOCOL

CONDITION 3 - PRESCRIPTIVE AUTHORITY WHICH EXCLUDES DRUGS WITH A HIGH POTENTIAL FOR ABUSE (FOR EXAMPLE, ALL SCHEDULE II DRUGS AND ALL NARCOTICS AND TRANQUILIZERS)

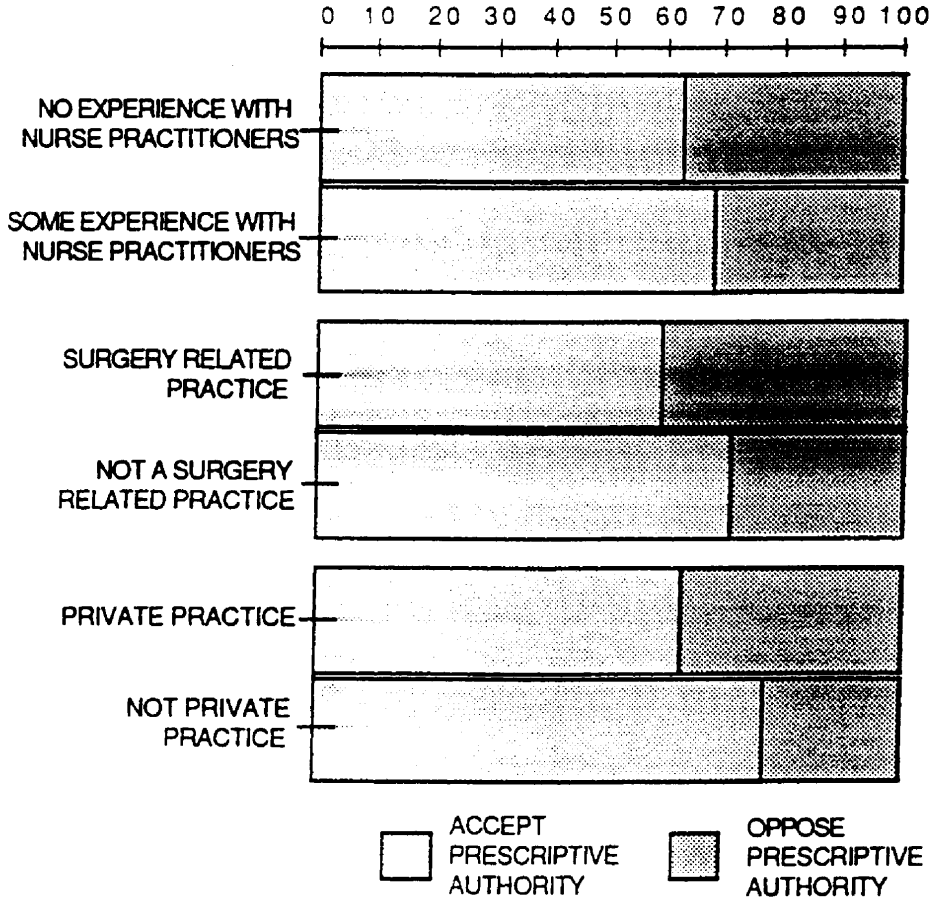
CONDITION 4 - OTHER RESTRICTIONS (SPECIFIED)

NOT REQUIRED
REQUIRED

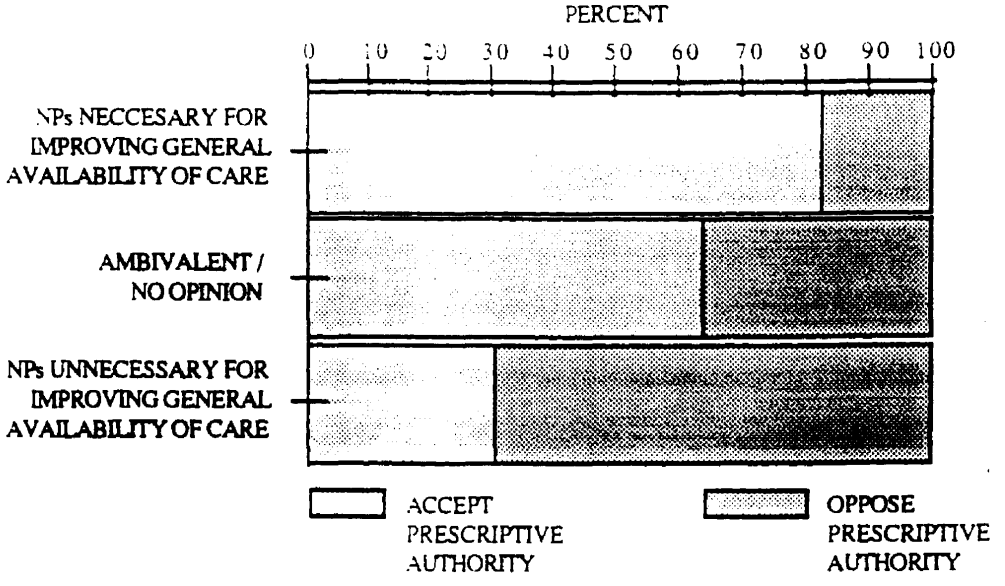
Specific Collection of Conditions Required for Extending Prescriptive Authority to Nurse Practitioners



Physician Acceptance of Prescriptive Authority by Experience with Nurse Practitioners, Type of Medical Practice (Surgery or Other), and by Main Practice Setting (Private Practice or Other)



Physician Acceptance of Prescriptive Authority by Perceptions of Need for Nurse Practitioners to Improve Availability of Health Care



Physician Acceptance of Prescriptive Authority by Perceptions of Need for Additional Help Within Practice