

Chapter 3
Access to Care

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In the late 1960s and the 1970s, health policy focused on making health care accessible to all Americans; much effort went toward helping people enter the health care system (1). A particular concern was geographic access to primary care, because the geographic maldistribution of physicians and their patterns of specialization had left many of the Nation's inhabitants without adequate access to primary care.

Indeed, the creation and development of nurse practitioners (NPs) and physician assistants (PAs) occurred in large part in response to the limited accessibility of basic medical services, especially in rural and inner-city areas, where physicians were disinclined to practice (74,169,183).¹ The stated purpose of the early training programs for NPs was to improve access to primary care for people in areas without enough physicians (236). Similarly, PAs were intended to "help remedy the shortage of primary care physicians, particularly in medically underserved areas" (180). Much of the impetus for the growth in the number of certified nurse-midwives (CNMs) during the 1970s can be attributed to concern about the limited supply of obstetricians in the United States (180).

The various barriers to providing care must be considered in assessing the success of NPs and PAs in improving health care in medically underserved areas. Legislation and regulations vary widely from State to State but generally tie medical practice by NPs, PAs, and, to some extent, CNMs to associations with physicians and limit such practice where physicians are not present. Although NPs may provide nursing services independently, for the most part neither NPs nor PAs 'can provide medical services unless local physicians are willing to hire them. Medicare and Medicaid rules re-

garding payment also significantly impede NPs, PAs, and CNMs by restricting payment for medical services to the supervising physician or institution. The Rural Health Clinic Services Act (Public Law 95-210) waived the restriction for direct supervision of NPs, PAs, and CNMs practicing in certified rural health clinics located in designated underserved areas (see app. B).

Whether NPs, PAs, and CNMs are needed to improve access to primary medical care in underserved areas remains an issue, even though the supply of physicians has increased, and some physicians have moved away from urban areas (174, 264). Some experts believe that competitive pressures will eventually remedy the maldistribution of medical manpower (222) but, the proportions of physicians in urban and rural areas have remained fairly constant since 1970 (255).

Furthermore, large overall increases in physician supply in a State may still leave some areas in the State without adequate access to medical care (112). The situation may worsen in those areas as older physicians are not replaced by younger ones. Indeed, the Bureau of Health Professions has predicted that unmet needs for primary care will persist in many currently designated shortage areas. Although the dispersal of young primary-care physicians is expected to reduce overall shortages, reducing shortages in all underserved areas may take an extensive period of time (250).

Although the need remains for NPs, PAs, and CNMs to provide care to underserved populations and in underserved areas, interest has increasingly focused on these providers' abilities to deliver good medical care in certain institutional settings, such as jails, and to specific populations, such as elderly people and poor women and their infants. In addition, by functioning as case managers, these providers can help patients find appropriate care in our increasingly complex health-care system. (The effect of NPs, PAs, and CNMs on access to specific services, such as health education, counseling, and health promotion, is addressed more completely in chapter 2.)

¹Other factors, including improved integration of nursing and medicine, bolstered the NP movement, which signified a deliberate move to expand the nursing role and to meet the health-care needs of many underserved populations. Other factors that contributed to the success of NPs, PAs, and CNMs are the consumers' and women's movements, the new focus on self-help and self-care, and other pushes for social and personal change that emerged during the late 1960s and continue today (229).

NURSE PRACTITIONERS' CONTRIBUTIONS TO ACCESS TO CARE

Although legal constraints (such as requirements for supervision by physicians¹) have hindered NPs' dispersal to isolated settings, NPs have helped improve geographic access to primary care (31,86,160,168,261). In 1977, 23 percent of NPs worked in inner-city settings and 22 percent in rural areas (238)—the geographic areas of greatest need (120). In 1980, the proportion of NPs working in these settings had increased to 47.3 percent in inner cities but decreased to 9.4 percent in rural areas (255). In both inner cities and rural areas, more than half of NPs' patients had annual incomes of less than \$10,000 (255).

NPs alone cannot entirely resolve the problem of provider maldistribution, because the professional, social, and cultural attractions of the suburbs and cities that appeal to many physicians also appeal to many NPs. An early survey of NPs in six States found that generally they "do not work in the inner city or in rural areas" (81), but a Pennsylvania NP-training program surveyed its graduates through 1982 and found that 70 of the 102 graduates worked in urban programs with low-income people (151).

NPs tend to view themselves as being able to function effectively and appropriately not only in settings with physicians, but also in practices without physicians on the premises. Starting in the mid-1960s a significant minority of NPs worked in satellite settings as the sole providers of services; they received medical supervision from physicians working in other communities. Often, the backup physicians would be available for telephone consultations, would visit the satellite settings, and would be responsible for ensuring that the NPs adhered to the protocols guiding the provision of medical services. These NPs increased access to care by working in places where physicians had not located.

NPs' extension role is no longer as significant as it was in the 1960s and 1970s. A national sample of 44 rural communities identified in 1975 as

¹Requirements for physicians' supervision of NPs vary from State to State. In many States, physicians must be on the premises but not necessarily in the same rooms as the NPs providing the services.

The communities had populations of less than 10,000, with an average population of less than 2,000, and were at least ½ hour in travel time from communities that had populations of more than 10,000.

having satellite practices (most of which were staffed by NPs; some by PAs) illustrates this decline. By 1979, only 24 of the centers were staffed by NPs or PAs alone (37). By 1984, 18 were staffed only by NPs or PAs, 8 were staffed only by physicians, and 6 were staffed by a combination of physicians and NPs or PAs. In all but 4 of the remaining 12 communities, where satellite clinics had ceased functioning, physicians' practices had been established (38).

More recently, NPs' contribution to access has been in nongeographic settings where not enough physicians have been available. Case studies report the satisfactory performance of NPs in a wide variety of settings. NPs act as team members in home health and nursing home care for elderly patients (220) and in correctional institutions (104), and in home health care for children with chronic illness (234). NPs also provide terminal care in patients' homes (268); ambulatory care in large municipal teaching hospital units (30); and primary care in inpatient units (224), in normal newborn nurseries (188), and in occupational health settings (26). NPs also deliver preventive care in the workplace (216), in retirement communities (109), and in industrial settings (47,162). These descriptive reports are only a beginning; larger scale studies are needed to evaluate the quality of care NPs provide in these settings.

Whether NPs can improve access to health care in schools has been carefully examined. A large-scale study, involving 18 school districts in 5 States, reports that NPs working as part of health-care teams in schools can have highly favorable effects on school children's health (197). NPs are especially valuable in improving access to primary care and supplementary care in rural areas and in health programs for the poor, minorities, and people without health insurance.

People over 65, a growing segment of the population, suffer serious gaps in their ability to obtain health care. Many physicians lack the expertise or time required for managing all aspects of elderly patients' health problems. Although private attending physicians provide most of the medical care in nursing homes, many physicians are unwilling to care for patients in nursing homes (166).

NPs are trained to care for the older population. Indeed, 40 of the approximately 200 NP-training programs focus on geriatrics, and 31 other NP programs have gerontological components (254). Furthermore, much of the care that institutionalized elderly people need is the kind that NPs can best give—health maintenance, personal assistance, chronic-disease management, recognition of acute or exacerbating chronic conditions, ongoing accurate and comprehensive health assessment, appropriate and expeditious referral to other team members, medication management and review, coordination of daily services, family and patient education and counseling, and so on. NPs have the assessment skills to recognize complicated acute illnesses or serious exacerbations of chronic diseases and to make medical referrals (157).

The few available studies show that NPs have the professional ability to assist with the care of institutionalized elderly patients (124,220,262). But of the more than 23,600 nursing homes in the United States, only approximately 250 have geriatric NPs on their staffs providing patient care (76). Interest in the effectiveness of NPs in nursing homes is growing rapidly, however, as evinced by the number and size of current studies of the issue.⁴

NPs improve access for the general population by acting as case managers, matching the needs of patients with appropriate services (88). NPs are effective in coordinating the care of many other

health professionals, interservice transfers, and continuity of care, and in mobilizing family, institutional, and community resources (77).

NPs also are particularly effective in improving access to care for groups that, for a variety of reasons, have difficulty in obtaining the care they need. For example, NPs and PAs work well as members of multidisciplinary teams in improving access for chronically ill elderly people, whose needs for health services are great and whose abilities to manage the health-care system are limited (155). The NPs and PAs facilitate linkages between the community and the nursing home. NPs, working as members of teams with physicians, are also effective in educating couples about the nature of treatment for infertility and in providing emotional support to people seeking such treatment (175).

In general, NPs appear to improve continuity of care. In institutional settings, their patients miss fewer appointments than do physicians' patients (30). Studies have generally shown that patients of NPs in fee-for-service settings (34,84), as well as in clinics and health maintenance organizations (225), have higher rates of completed followup visits than do patients of physicians (213). These findings may explain the special success NPs have in caring for chronically ill patients and may reflect the adequacy (or inadequacy) of relationships between the practitioners providing care and the patients.

NPs affect access by expanding the scope of care for their patients into dimensions that physicians might ignore. For example, some studies show that NPs provide greater amounts of health education than do physicians. NPs are more likely than physicians to explain why medications are administered and what side effects are possible, and to discuss health-promoting behaviors with patients (34,84). Unfortunately, these studies do not say whether the need for health education is greater among the patients seen by NPs or among those seen by physicians.

NPs spend about 50 percent more time than physicians spend on each encounter with a patient (143). The time an NP spends over the course of an illness, especially a chronic illness, may be less than that spent by a physician, however, because the NP has fewer encounters with the pa-

⁴Ongoing studies include a large-scale research project measuring how geriatric NPs employed in nursing homes affect the quality and costs of care. This project is being conducted by the Mountain States Health Corp., the Rand Corp., and the University of Minnesota School of Health Sciences and funded by the Health Care Financing Administration and the R.W. Johnson and the W.K. Kellogg Foundations. The faculties of the Geriatric Nursing Programs at the University of Arizona, the University of California at San Francisco, the University of Colorado, and the University of Washington are examining the role of the geriatric NP in concert with the study, and the Group Health Cooperative of Puget Sound has received funding from the Fred Meyer Charitable Trust to evaluate NPs employed by the health maintenance organization to serve elderly enrollees living in nursing homes—if a Medicare waiver of mandatory physician visits can be obtained (157). In addition, the Health Care Financing Administration has granted a waiver under Medicare and Medicaid to permit fee-for-service reimbursement for the provision of medical services to residents of nursing homes by physician-supervised NPs and PAs. A cost and utilization evaluation is being carried out by the Health Care Financing Administration's Policy Center at Rand.

tient (143). The fact that NPs provide a more personal kind of care may account for the greater time they spend with patients. One study found that pediatric NPs are as efficient as physicians in gathering historical data and suggesting therapy, and attributed the NPs' greater time per encounter to greater communication with patients—gathering more information from patients and

offering more advice to them (178). However, evidence from other studies is insufficient to support or refute this study's finding, and other factors may play a role. For example, the greater amount of time NPs spend with patients might be due in part to management. When NPs are used efficiently in practices, physicians might be able to spend less time with patients.

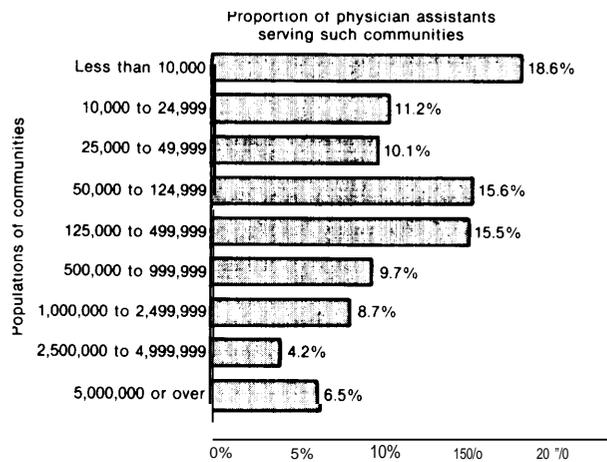
PHYSICIAN ASSISTANTS' CONTRIBUTIONS TO ACCESS TO CARE

PAs have also contributed notably to improving geographic access to care. A number of studies have shown that they are more interested than physicians in locating in nonaffluent, medically underserved areas with high percentages of non-white populations (90,137,147,169). This willingness is reflected in statistics on where PAs practice in the United States. Whereas about 27 percent of the general population and 14 percent of the Nation's physicians are located outside standard metropolitan statistical areas (SMSAs), 32 percent of PAs practice outside SMSAs (49). And the percentage of PAs working in communities with populations of 10,000 or less has remained constant from 1974 to 1981 (45). The 1984 Masterfile Survey of Physician Assistants reports that 6.5 percent of PA respondents were located in rural areas of fewer than 10,000 people and that 40 percent were in communities of fewer than 50,000 people (6) (see figure 3-1).

More NPs than PAs have staffed rural satellite health centers (38), perhaps because some NP-training programs recruited students from rural areas hoping they would return there as NPs. Nonetheless, in States that permit satellite clinics and permit PAs to practice apart from physicians, a significant minority of PAs work in such settings (45),

As members of health-care teams, PAs have improved access to care in settings where sufficient physician care is not always available. PAs are employed in industrial organizations; community clinics; drug and alcohol abuse clinics; nursing homes and extended-care facilities; and Federal, State, county, and city prisons (25).

Figure 3-1.—Distribution of Physician Assistants by Size of Community



Average community population = 980,235

SOURCE American Academy of Physician Assistants, 1984 *Physician Assistant Masterfile Survey* (Arlington, VA 1984).

Few physicians are trained in geriatric medicine (126), and the inadequacy of physician services for the growing population of institutionalized elderly patients is especially serious (122). Although more and better physician care for these patients may be available in the future (122), whether physicians can satisfy all the health-care needs of this group is questionable.

The potential of PAs in providing care for the elderly has been discussed in the literature (160, 215, 218). Nearly 5 percent of PAs now provide care in nursing homes—the same proportion as in 1981 (6). The Federal Government has recognized this potential and requires an increased ger-

iatric content in the curricula of federally funded PA-training programs. A survey of 34 federally funded programs' curricula, in fiscal year 1983, reported that three-fourths had varying degrees of geriatric content (254). Furthermore, the Federal Government (through the Administration on Aging of the Office of Human Development Services of the U.S. Department of Health and Human Services) partly supported the American Association of Physician Assistants in its report on the assessment and improvement of PAs' knowledge and skills in geriatrics (215). The report found a fivefold increase in the number of required and elective experiences in geriatrics among PA programs since 1980, which appear related to the Federal funding rules. However, the report

noted the need for more uniform teaching of geriatric medicine in training programs. (The report includes guidelines for standardizing geriatric curricula during the training period and in continuing education programs for PAs.)

PAs have also expanded the scope of care that most patients receive. PA training programs require competence in interviewing, educating, and counseling patients (93). Although research is limited as to the interpersonal components of care that PAs provide, they appear to expand access to patient education and counseling by mixing competence in technical care with interpersonal skills (182).

CERTIFIED NURSE-MIDWIVES' CONTRIBUTIONS TO ACCESS TO CARE

Modern nurse-midwifery started in this country in 1925, when Mary Breckenridge established the Frontier Nursing Service to serve rural Kentucky. As of 1977, 10 percent of CNMs worked in communities with populations below 10,000 (9). CNMs still practice extensively in underserved areas, such as the rural South, Indian reservations, and inner cities, and significantly improve access to health care in those areas. For example, in Holmes County, Mississippi, the infant mortality rates dropped from approximately 38 per 1,000 live births to 20 per 1,000 live births 2 years after CNMs began providing primary care to pregnant women as part of a communitywide focus on the health problems of mothers and babies (158).

CNMs have also reduced financial barriers to access by providing care at relatively low cost, particularly in short-stay, out-of-hospital births. Many such births occur in birth centers not affiliated with hospitals. The number of these centers increased from 3 in 1975 to more than 100 in 1982 (33). They have made prenatal, labor and delivery, and postnatal services increasingly accessible to poor patients (65,149,193). For example, 15 birth centers are accessible to families in New York's Lower East Side, a low-income area (150). The relatively low cost of CNMs' services may result from shorter inpatient stays as well as lower

fees (53,65). One study, however, found that CNMs' fees exceeded physicians' fees in urban locations (200), but nearly a year had elapsed between the measurement of physicians' fees and the measurement of CNMs' fees, which may account for the finding. Also, a disproportionately large number of CNMs practice in academic medical centers, which have higher costs than community hospitals (200).

CNMs affect access (as well as quality) by providing person-oriented services, such as communicating thoroughly with patients, counseling, promoting self-help, and attending to patients' emotional needs (196). CNMs interact with patients more than physicians do (66,190,265). Patients feel more comfortable about asking questions of CNMs than of physicians (181,190). In addition, CNMs' patients obtain care relatively early in their pregnancies and continue to receive prenatal care relatively frequently (140,193,226). CNMs tend to increase the amount of prenatal care their patients receive.

In general, then, CNMs continue not only to lower financial barriers to care, but to offer a considerable amount of care that includes both health advisory and health-promotion services. This expertise is reflected in the valuable care CNMs on



Photo credit American College of Nurse-Midwives

CNMs are particularly effective in managing the care of pregnant women who are not at risk of having low-weight babies.

SUMMARY

NPs and PAs have long been recognized for increasing geographic access to primary health care, particularly for residents of inner cities and rural communities. Although indications are that physicians are migrating to smaller communities (174), the growing supply of physicians appears to be affecting different communities differently (250). Overall increases in the supply of physicians in a State may still leave some areas in need of primary care services (112). In those areas where access to physicians' services remains inadequate to serve the population or has decreased (112), NPs and PAs can continue to serve as a source of primary care. In areas where access to physicians' services has increased, employment opportunities for NPs and PAs might decrease. But the employment of NPs and PAs in rural areas has previously been limited by the scarcity of physicians willing both to practice in rural areas and to supervise NPs and PAs. Thus, the growing numbers of physicians in previously underserved areas may well increase employment opportunities for NPs and PAs. The physicians moving into smaller communities are mainly young physicians, who are

multidisciplinary teams provide for high-risk pregnant adolescents (184), especially in clinic settings (42). Indeed, the Institute of Medicine's report on preventing low birthweight calls for:

... more reliance ... on nurse-midwives ... to increase access to prenatal care for hard-to-reach, often high risk, groups. This recommendation is based on the studies that indicate that CNMs can be particularly effective in managing the care of pregnant women who, because of social and economic factors are more likely to deliver low weight babies (121).

more likely than older physicians to accept the team approach to health care and to use the services of NPs and PAs. Furthermore, a small town might be able to support a physician-NP or a physician-PA team but not two physicians. Whether these factors or others reduce the role NPs and PAs play in improving geographic access to care, these practitioners will continue to be valuable, especially in rural areas.

The evidence (primarily from case studies) is that NPs and PAs are improving access to primary health-care services in settings not adequately served by physicians. For example, NPs and PAs are trained to provide primary care for elderly patients in nursing homes, a growing population with poor access to standard health care. The effectiveness of NPs and PAs in this role is under scrutiny. They are also helping people to obtain primary care in an increasingly complex health-care system.

Studies have shown that NPs are especially valuable in providing primary care in school settings to previously unserved or underserved children,

and in expanding the content of available care to include interpersonal and preventive care for all patients.

CNMs have not only made care more accessible in underserved areas, they have also contributed to making care financially available and have contributed to social and psychological access to

care by the personal orientation of their services. Studies have shown that CNMs' communication skills and attention to the social and psychological needs of pregnant adolescents, as well as the technical care CNMs provide, have reduced the rate of low-birth-weight babies among this high-risk population.