University of New Mexico's Approach to Continuing Medical Education for National Health Service Corps Professionals Assigned to Rural Areas

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IN LITTLE MORE THAN HALF A DECADE, continuing medical education (CME) has become a major factor in the professional lives of health care providers in both rural and urban settings nationwide. In 1972, New Mexico was the first State to require continuing medical education for relicensure of physicians. By 1978, 36 other States had this requirement. Since access to educational resources is often cited as a necessary component of provider satisfaction (*1*), how to deliver CME is critically important to persons engaged in developing viable health systems—whether government, universities, private medical centers, or other entities. Despite seemingly numerous scheduled conferences and resources, the nature and isolation of rural practice often makes access to these resources difficult for rural health providers.

In 1976, officials of the Bureau of Health Manpower (BHM) and the National Health Service Corps (NHSC) saw a need to develop methods and resources for providing continuing medical education to NHSC physicians, nurse practitioners, and physician's assistants. Toward this end, the officials envisioned a university-associated physician with rural experience as a CME coordinator who would be a link between professionals in the field and numerous academic and professional organizations and departments having CME resources.

The BHM awarded three demonstration contracts in 1976 to academic centers to create special CME resources and systems for reaching "Federal providers." One contract was implemented at the University of New Mexico. During the first year of the contract, the

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targeted NHSC professionals included 19 physicians, 15 nurse practitioners, and 4 physician's assistants assigned to 17 rural clinics in southern Colorado and northern New Mexico. Many of these professionals had completed their training recently enough so that their practices would reflect current medical knowledge and techniques. However, they had little, if any, exposure to the realities of community-based primary care without immediate access to medical center technology, clinical experts, and tertiary backup. Also, the community clinics where the professionals were based were far from medical teaching centers and other traditional CME sources.

In this report we describe the approach taken by the University of New Mexico to provide continuing medical education for NHSC professionals in rural areas and to begin building an academically based support system. We also present results of the project after 18 months of operation.

University of New Mexico Project

Because of the varied educational and training backgrounds of the NHSC professionals, the requirements of licensure, and the differing needs of the communities they served, no single approach was sufficient to assist all these professionals or to support the broader needs of a rural primary care practice.

At the University of New Mexico, a methodological approach was devised that was flexible enough to accommodate a wide range of provider needs without duplicating or fragmenting other CME related efforts. Also, the limited view of CME was expanded into a larger concept—a clinical support structure that would channel medical center resources to rural providers.

A critical feature of the project was the educational needs assessment. An educational contact team, consisting of a physician coordinator and an educational specialist, conducted the assessment during the first months of the project. This needs assessment process allowed the team to identify, in cooperation with providers, the differences between what the providers needed to know, based on the needs of their patients, and what they did know, based on their earlier education and experience.

After investigating several existing instruments for analyzing and evaluating medical practices, such as computer-based practice profile systems, the University of New Mexico team decided that other methods would be more effective in the process involving its target group. Several data-gathering methods were used, including pre-interview questionnaires to collect baseline information, onsite interviews with each provider, and an analysis of each provider's practice situation.

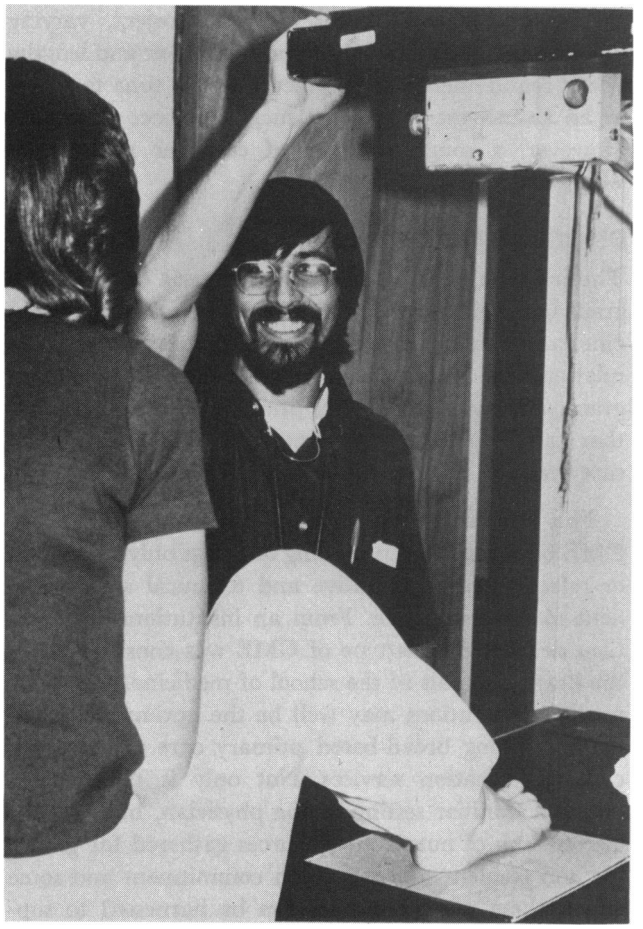
Three pre-interview questionnaires were mailed to each clinic. One questionnaire sought type and location of physicians' internships, residencies, and fellowships; board certification; previous professional experience; published papers; involvement with rural health issues; and preferred educational formats. Another questionnaire sought baseline data on nurse practitioners and physician's assistants. The third questionnaire was designed to obtain information on clinic facilities, including laboratory capability, staff size, and total registered population. All three questionnaires were promptly completed and returned.

Next the contact team visited each clinic. The physician coordinator interviewed providers and saw patients on a consultant basis when time permitted. Educational deficiencies were identified by both the provider and the physician coordinator, and they discussed ways to bridge these educational gaps. Topics included learning styles preferred by the provider, amount of suitable learning time, and location of educational resources. During subsequent visits, the physician coordinator updated the needs assessment and kept in touch with the providers concerning the current problems and successes in their clinics.

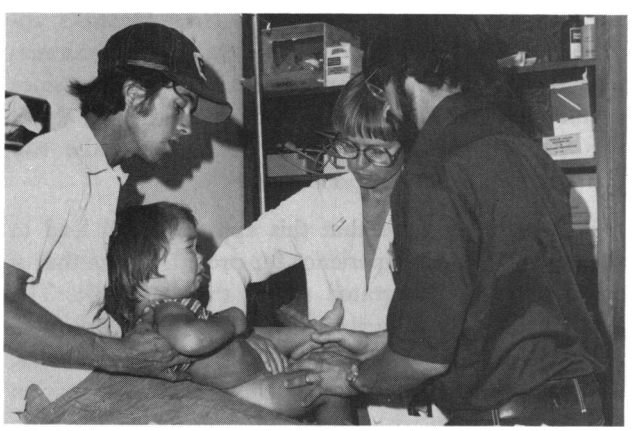
During the initial visit, the educational specialist gathered important peripheral information by discussing clinic operations with front-office personnel, nurses, and others; assessed patient education materials; and conducted informal interviews with patients to learn community response to the clinic.

The University of New Mexico's personalized approach to educational needs assessment resulted not only in candid discussions between the contact team and providers, but also in unexpected information concerning the politics and financial resources of the clinics and how they affected the opportunity for CME. For example, it was learned that in the predominantly Hispanic communities of northern New Mexico and southern Colorado it was often more important for a provider to learn Spanish than to learn additional medical procedures.

After the information was gathered and needs identified, each provider was encouraged to participate in workshops, conferences, and other educational opportunities created specifically to meet their needs. Mini-residencies, clinical symposiums, and workshops held at rural clinics were part of the overall strategy. Supplementary educational packets, including reprints, slides,



Dr. Allan M. Firestone, at clinic in Bernalillo, N. Mex., establishes rapport with patient who has a foot injury (above). Firestone and nurse practitioner are assisted by the father in treating child (below). (Photos from the University of New Mexico Medical Center)



texts, and other materials, were also distributed to NHSC professionals, based on their clinical needs and interests.

Another component of the project was a clinical "hotline" consultation service for NHSC providers. If management of day-to-day clinical problems could be assisted through consultation with other professionals, the NHSC provider could call the hotline number from 8 am to 5 pm, Monday through Friday, and speak with the physician coordinator. When the physician coordinator was not available, calls were routed to the attending physician in the Family Practice Clinic at the University of New Mexico School of Medicine. Other inquiries could also be directed to appropriate clinical specialists. Faculty members from the school of medicine were enlisted to help as clinical experts for NHSC provider consultation requests and hotline followup.

A major objective was to promote a responsive personal support system for and among NHSC professionals. The sharing of information and increased communications among assignees and clinical resource persons had been seen by all concerned as important in maximizing continuing medical education opportunities as well as contributing to the stability of the NHSC practice. In addition, the project staff tried to telephone each NHSC professional at least once a month, especially when weather conditions did not permit travel.

A CME "Newsletter" was distributed every 4 weeks to each NHSC professional. It included such features as a clinical management column, an education resources column, a listing of continuing medical education activities, and a section devoted to topics of general interest and concern. A "Physician's Sourcebook and Survival Manual" was compiled to help orient new assignees to their respective assignments. The sourcebook was conceived as a handy reference to answer questions about the specific site, the community, continuing education, and clinical resources. It included such topics as "CME Leave—What Steps to Take," "Continuing Medical Education—Related Policies of the National Health Service Corps," and "Your Personal Learning Plan: A Handbook for Physicians, Illinois Council on CME."

The project staff of the university maintained frequent contact with the two NHSC regional offices. The regional program consultants from Region VI (Dallas) and Region VII (Denver) wrote letters of introduction to NHSC professionals, endorsed the project staff's activities, and supplied the staff with updated information. The regional consultants were extremely supportive in helping to facilitate the CME linkage program. The university project staff also established an effective relation with the central office of the Bureau of Health Manpower; this enabled a constant interchange regarding obstacles and successes. In addition, conference calls were held regularly among members of the three demonstration projects.

A variety of programs were tailored to the identified needs of individual NHSC professionals, who also participated in the educational planning process. These programs included, for example, 2- to 4-hour seminars on the "Management of Facial Trauma in the Rural Setting" and the "Management of ENT Problems by the Primary Care Physician." Much of the CME program activity took place at the practice sites, and special attention was given to information and contacts that would be helpful in establishing a practice in a new and unfamiliar setting.

Because of the contact team's experience and position within the medical school, it was possible to tell the NHSC providers almost immediately whether a clinical resource was available within our system and when it could be delivered. Linkages for continuing consultation were made more accessible through followup by the physician coordinator. CME linkages were also established for appropriate NHSC professionals with the University of Colorado Medical Center, the Gallup (N. Mex.) Indian Medical Center, and the Phoenix Indian Medical Center.

Findings

Because of the project's individualized approach, many of our findings are subjective. NHSC professionals indicated, for instance, that the needs assessment techniques employed reflected an accurate determination of their needs. The "Newsletter" was also endorsed, and suggestions for other topics were transmitted to the project staff.

Workshops on orthopedics, plastic surgery techniques, and dermatology were held at six clinics, and mini-residencies and symposiums were conducted at the school of medicine. Because of the practical and rural orientation of the educational presentations, other non-NHSC primary care providers in the area requested permission to attend.

Initially, the clinic hotline was used at the rate of 3 calls per month; 6 months into the project, the number increased to 15 calls a month.

Faculty consultants were enthusiastic about the concept of supporting the project. They also appreciated the chance to "get out to the field" for a fresh perspective. They expressed pleasure with the opportunity to meet NHSC professionals and observe how they practice—a perspective they could bring back to the classroom. Most faculty offered their services for future programs.

Costs of the project per assignee were high owing to the experimental nature of the project, varying conditions at each NHSC site, and frequent and lengthy travel requirements. It is difficult at this time to arrive at an assessment of cost for such a project elsewhere. However, a rough estimate of cost per professional would range from $400 to $1,000.

Discussion and Conclusions

The individualized CME assessment and delivery program benefited rural practitioners, the school of medicine, and the citizens in two rural States. Cooperative relationships were established between Federal programs and university-based primary care departments that can help to further a network of stable primary care practices in rural areas.

The services expanded the traditional concept of CME beyond that of providing offerings only to develop or refresh specific cognitive and technical skills pertinent to clinic practice. From an institutional perspective, delivery of this type of CME was consistent with the outreach goals of the school of medicine. Academic medical institutions may well be the optimal locations for continuing broad-based primary care support and clinic information services. Not only is the medical school a familiar setting to the physician, but it is the central hub of numerous resources gathered for graduate and resident training. With commitment and some effort, these same resources can be harnessed to support rural clinical practice and continuing medical education.

Close cooperation among the academic, Federal, and private sectors is needed in the development of such CME services. The University of New Mexico's approach to CME delivery was predicated on maximum inter-institutional arrangements and cooperation since its targeted NHSC assignees were located not only in two States, Colorado and New Mexico, but also two HEW administrative regions.

It is our hypothesis that this approach will lead to an improved CME experience for providers, one that is continuous and integrated rather than sporadic. The approach should contribute to a demonstrably more positive attitude of providers toward their practice. The assumption, yet to be tested, is that this position will be associated with improved levels of clinical care and will help reduce the rate of turnover of providers working in the NHSC in rural areas.

Reference

1. Cooper, J. K., Heald, K., and Samuels, M.: Affecting the supply of rural physicians. Am J Public Health 67: 756–759, August 1977.