Scholarship Support for Indian Students in the Health Sciences: An Alternative Method to Address Shortages in the Underserved Area

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THE DISTRIBUTION of health manpower in underserved areas has received broad attention and concern in recent years. Federal and State assistance has been in the form of scholarship and loan programs for students entering training in the specific health professions. Although both types of assistance have eased the entry of students from underserved areas into training, a concern about scholarship programs has been that the students may not return to work in underserved areas. The funds might provide the opportunity for talented persons to leave their economically disadvantaged and underserved milieu permanently. Consequently, loan programs have become a popular alternative for assisting students through their education as well as a device for improving manpower distribution. Typically, loans are made available to students who show an interest in working in underserved areas—repayment is waived for persons who subsequently return to serve in such areas. Leverage is applied by stringent schedules for repayment and imposing interest rates for those who do not subsequently return to the underserved areas. The Health Professions Educational Assistance Act of 1976 is an example of legislation with such provisions (*1*).

Loan programs as a device for addressing manpower in underserved areas also raise concern. Just as with scholarships, the recipient may not sustain commitment to a career in such areas. Students may seek to repay the loan in cash and avoid such service, or some students doing service in lieu of repayment may feel coerced and resentful; they may leave at an early date, thus perpetuating the manpower shortage problem.

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We report an alternative method for recruiting all types of health care personnel into underserved areas. This method is the scholarship award program, for which recipients are chosen because they express a desire to return to work in their home towns or underserved areas. A scholarship program with no obligatory repayment or other coercion for health sciences students was organized by the Area Health Education Center (AHEC) of the University of New Mexico (UNM) and the Navajo Health Authority (NHA). The UNM-NHA AHEC, 1 of 11 AHECs funded in 1972 by the Department of Health, Education, and Welfare to supply health manpower in identified underserved areas, serves the Navajo Indian Reservation and immediately adjacent communities.

Major AHEC long-term efforts have included the development and support of nursing, allied health, paramedical, and medical programs within the AHEC area, principally for Indians. However, these efforts will show meaningful impact in increasing the number of Indian health professionals only in the future when their respective graduates begin to emerge. In the interim, the more direct expediency of recruiting Indian students from the area and supporting their enrollment in existing programs (in the Four Corners States—Arizona, Utah, Colorado, and New Mexico—and elsewhere nationally) was a way to begin manpower development immediately. To this end, a student support program was established, including identification and recruitment of students, financial needs assessment and scholarship support, culturally based counseling and support, and reinforcement of the students' intentions of ultimately returning to serve Indian people. The program, funded by an AHEC contract with DHEW's Bureau of Health Manpower and the Kellogg Foundation, is administered by the Office of Student Affairs (OSA) at NHA.

It was decided not to link the scholarship award to required service on Indian reservations or with other Indian health programs or particular programs in un-

derserved areas. This decision was based on the fact that Indian students historically have sustained higher than average rates of attraction from educational programs, attributed to inadequate education at the primary and secondary levels, to cultural disruption, and to problems with the English language. It was theorized by the program organizers that the threat of stringent payback penalties might be a barrier to recruitment of students. Also, during their studies, some students might identify alternative career tracks more suitable to them individually. Or, upon graduation from a health-related program, some might find productive career opportunities in geographic settings not identified as underserved. Such situations might detract from meeting the goals of the AHEC, although they would not necessarily be socially detrimental. However, the students would avoid the anticipated difficulties of unwilling indentured service after training. Furthermore, it was hoped that if required service in underserved areas was not tied to the support, the stigma associated with the concept of payback service could be averted.

As an alternative to a financial loan program with a payback clause, the strategy at NHA has been to identify and encourage Indian students who express an initial intention to work in the underserved areas (in this case with Indian people), to support them with a program administered by Indians, and to offer them counseling and periodic encouragement to reinforce their original intentions. The numbers of graduates who have returned to positions serving Indians are summarized later in this paper.

Student Support Program

Scholarship support was limited to Indian students pursuing education in health-related areas. Most of the students resided inside the Four Corners region. Students were attracted to the program primarily by an advertising campaign that disseminated information in high schools, in newspapers, at conferences, and so forth. Student selection for scholarships was made by a committee composed of NHA staff members and others, including representatives from local high schools and from the Indian Health Service (IHS). Criteria used by the committee to judge applicants included (*a*) financial need, (*b*) acceptance into a course of study in a health career area at a college, university, or appropriate training program, and (*c*) full-time enrollment. A scoring system that included knowledge of tribal language and heritage and expressed commitment to return to serve an Indian population after graduation was used in determining priorities for making the awards. Size of the award depended on the number of total eligible applicants, funds available, and financial needs, including other support available to individual students. Students in a training program had to maintain at least a 2.0 grade average to receive or continue receiving scholarship support.

Scholarship awards ranged from $650 to $11,000 per year, with the majority in the range of $2,000 to $5,000. A typical funding period was a full academic year; some students received support for only a summer session. The average total duration of support was slightly more than three semesters.

The OSA had a full-time Indian staff, including an administrator, two to four counselors, and clerical workers. The counselors attempted at least one site visit for each scholarship recipient at his or her school during the academic year; however, ongoing counseling services were maintained for those attending school in the immediate AHEC area. Students were encouraged to return to the reservation during the summer to work in health-related jobs arranged by the OSA staff through a work experience program that was funded separately. Several times each year current and potential students and graduates were encouraged to attend conferences to discuss health careers for Indians. These conferences were designed to recruit new students and to reinforce the intention of existing students to return to Indian-related jobs.

Methods

The Navajo Health Agency's Office of Student Affairs maintains records of all students seeking scholarship assistance. Records were reviewed for all students receiving support and graduating (academic degree or certificate) from October 1973 through June 1977. Information about postgraduate activities had been collected and verified by OSA counselors and other staff. Data were tabulated during the academic year subsequent to the 4-year support period.

Results

From October 1973 through June 1977, 290 students were supported by AHEC scholarships. Their outcomes were as follows:

Outcome	*Number*
Graduates, including certificates (125 degrees)[1]	124
Remained enrolled full-time	88
Changed major before graduation	14
Leave of absence	7
Left school before graduation—personal reasons	25
Left school before graduation—academic reasons	13
Lost to followup	18
Died before graduating	1
Total	290

[1] 1 had more than 1 degree.

The followup status of the graduates was:

Status	*Number*
Continuing education, full time, health-related areas	31
Continuing education, non-health-related	3
Employed	76
Unemployed	5
Lost to followup	8
Died	1
Total	124

Of the 124 graduates, 76 were employed—61 of these were from tribes within the AHEC area, and 56 of the 61 (92 percent) were serving Indian people within the AHEC area.

Of the 272 students receiving scholarships and for whom there was followup information, 119 (44 percent) were either still enrolled in their original educational programs (88) or they were furthering their studies in health-related areas (31). Fifty-five (20 percent), we assume, were unlikely to remain in a health-related area: 14 dropped their original course of study to pursue another field; 3 completed their original training and sought further training in a non-health-related field; others dropped out for academic reasons (13) or for personal reasons (25). The 76 students who graduated and were employed in a health-related field represent 28 percent of all the students for whom followup information was available.

Discussion

The outcome of the AHEC scholarship program demonstrates that a high proportion of students will return to the targeted area—without the program's resorting to a coercive loan program with a forgiveness clause for service in the area—although the length of time spent in these jobs has not been determined. Our outcome focuses on all types of health professionals, including nurses, mid-level practitioners, and other personnel who, like physicians, have proved difficult to recruit—at the National Health Service Corps sites (*2*), for example.

The following degrees were received by the AHEC scholarship program graduates.

Degree	*Number*
Medical	19
Doctor of dental surgery	2
Master of social work	13
Master of public health	12
Master of public administration	2
Master of science	3
Master of arts	1
Master of library science	1
Master of science, education	1
Bachelor of arts	8
Bachelor of science	34
Associate	13
Certificate	16
Total	125

Elements that distinguish this AHEC scholarship program that may account for its success in retaining graduates in jobs in the underserved target area include the following:

1. The program was administered geographically within the general area to be served.
2. It was staffed by Indians.
3. Counseling was available for students during recruitment and support phases.
4. Special conferences and summer work experiences were encouraged to foster motivation to return to the underserved areas.
5. Support was targeted to students expressing an intention to return.
6. Many students were recruited from the target areas. (The best return rates were for students from the Four Corners States, where the program was administered and where the expressed impact areas were located. The program serves southwestern Indian tribes whose cultural integrity has been maintained, resulting in strong ties between the students and their people.)
7. Receipt of the scholarship was not stigmatized by the payback clause.

Published studies on the distribution of health professionals in underserved areas focus on Federal and State programs for physicians and on mobility patterns and determinants for physicians. Unfortunately, we do not know of any studies that deal with the relationship between the support for training other health care workers and their eventual distribution to jobs in areas of underservice after graduation.

Mason (*3*) has reviewed 17 State "forgiveness" programs that were designed to encourage young physicians to practice in rural communities. These programs are so called because they characteristically cancel the principal or interest, or both, in exchange for practicing medicine in a rural area for a stipulated period. Only 1 of the 11 programs analyzed by Mason had "outstanding" success over its 25-year history; typically, fewer than 60 percent of the borrowing physicians followed through by practicing in the rural areas of their States. In all 17 programs, at least one-third of the physicians chose to buy out of their obligation to practice in a small community. In his discussion, Mason noted characteristics that are borne out by our experience, albeit in a different setting:

> It appeared that the programs having one or more professional employees working full time in a separate office devoted exclusively to the administration of the program had a better chance for success than those where its administration was one of many other responsibilities of a State agency or division of a medical society. The program should have its own home and its own full-time caretaker.

The professional personnel connected with the program should develop an on-going relationship with students applying for loans and should become well versed in the criteria for selecting students who are likely candidates for small town practice.

Yett and Sloan, in a study of physicians' migration patterns, found that "recently trained physicians have a higher propensity to establish practices in States where their previous level of attachment (the 'events' —birth, medical school, internship, and residency) is strongest and most recent" (*4*). It was noted in the Rand-AMA survey of 1965 and the 1973 followup of U.S. medical school graduates that: "By far the most significant finding of the present surveys is the confirmation of the strong relationship between the primary care physician's place of rearing and his eventual practice location choice" (*5*). The AHEC concept of taking up residence in the area of need—a primary consideration of eligibility for the scholarship award—may contribute substantially to the program's success, as the findings of Yett and Sloan suggest.

Kane, in a study of the Indian Health Service in the Four Corners region, observed that, "Indian people working in their own communities form the backbone of the organization [Indian Health Service] and provide the potential for its ultimate success . . . [the Navajo] is tied to the reservation. By whatever bonds a man is linked to his home, the Navajo usually wants to remain on the reservation" (*6*). Navajos and other Native Americans, particularly in the Southwest, are tied to their residential communities through strong cultural bonds. In addition, Indians of the Southwest have longstanding bonds to particular rural communities. Such ties may greatly influence these students to return to work in or near their places of origin after graduation. Our data show an impact greater than the aforementioned programs.

Our results suggest the possibility of a more effective policy option than forced employment in underserved areas based on coercive payback loans for the cost of education. The keys to the student support component of the AHEC program have been to provide financial resources to a disadvantaged group to pursue health careers, reinforce motivation to return to the targeted areas, and assist in their return to useful employment. The approach has avoided imposing burdensome financial penalties for the student whose entry into an educational pathway turns out to be misdirected, or if unable to complete training, must redirect the student's efforts into other career pathways. At least in this setting, this approach contrasts sharply with less effective programs designed to get cultural, socioeconomic, and geographic outsiders to practice in an area in which they have no ties, no commitments, and often little desire to practice.

References

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SYNOPSIS

WEISS, LAWRENCE D. (University of New Mexico), WEISE, WILLIAM H., and GOODMAN, ALAN B.: *Scholarship support for Indian students in the health sciences: an alternative method to address shortages in the underserved area. Public Health Reports, Vol. 95, May–June 1980, pp. 243–246.*

The University of New Mexico Area Health Education Center was established in conjunction with the Navajo Health Authority to begin health manpower development immediately in the Navajo Nation and surrounding areas (a territory approximately the size of West Virginia). To this end, a student support program was established at the Navajo Health Agency to recruit and support Indian students with scholarships, to provide them with culturally based counseling, and to reinforce the students' intentions of ultimately returning to serve Indian people. No payback penalties or other forms of coercion were used in this program to encourage students to return to the underserved Indian areas.

From October 1973 through September 1977, 124 students graduated with 125 degrees or certificates in all aspects of health care. Of these 124 students, 76 were employed. The remaining were continuing their education, unemployed, untraceable, or deceased. Of the 76 employed, 61 were from tribes within the Navajo Nation; of these 61, 56 returned to their area to serve Indians. This return rate to an underserved area is substantially better than anticipated from a review of programs that employ a variety of coercive methods to encourage recipients of loans to settle in specific underserved areas after the necessary training.