The three major components of the HCSP, Academic Course Work, Academic Tutorial, and Clinical Tutorial, are discussed in detail, as well as budgeting considerations, program effectiveness, and recommendations for the future. See also TM 000 760 and TM 000 761. (AG)
AN EVALUATION REPORT
OF THE
HARVARD HEALTH CAREERS SUMMER PROGRAM
FOR MINORITY STUDENTS*

SUMMARY

by

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THE PROBLEM

Dr. Roger Egeberg put it simply. "...It is the black American and other minorities for whom the 'system' works least well ..."

The "system to which the Assistant Secretary for Health, Education and Welfare referred, was the American system (or "non-system", as many have termed it) of medical care delivery.

But the problem is not simply providing better medical care for minority groups. It goes much deeper. At the core is the inequality of educational opportunities in the United States. It starts early in the lives of disadvantaged peoples. Nowhere, however, is it more visible than in the area of college and graduate education, particularly in the professions and glaringly so in the health professions.

One set of simple statistics tells the sad story.

There are but 7,000 black physicians and dentists in the United States -- one per 3,000 of black population. There are 600,000 white physicians in the United States -- one per 300 of white population.

And the blacks are far better off than the Mexican-Americans, Puerto Ricans and American Indians in these respects.

To turn the tide to provide for a more equitable ratio of physicians, dentists and other health professionals, it
is estimated that 8,000 minority students must be trained in the next five years -- by 1976.

This was the question which faced the nation's professional schools of medicine and dentistry back in 1968. The question was posed during and after one of the most severe crises faced by American academic institutions in the more than 300 years of their existence. From the riots, the sit-ins, the tragedies of Kent State and Jackson, to mention a few, came the "demands". Among the most vociferous were those of the disadvantaged minorities seeking an equitable share in the American system of education. And nowhere was the cry more strident than in the demands made upon those responsible for education in the health professions.

HARVARD'S RESPONSE

Harvard -- the Harvard Medical School and the Harvard School of Dental Medicine -- heard the cries loud and clear: More minority group students in the Medical School and School of Dental Medicine ... More financial aid ... More assistance in raising the academic preparation of minority students ... More and better recruitment of minority groups for college and for graduate schools.

Acting on both student and Faculty petitions, Robert H. Ebert, M.D., Dean of the Faculty of Medicine at Harvard, together with Paul Goldhaber, D.D.S., Dean of the School of Dental Medicine, in April 1968 created a Committee for Disadvantaged Students.
One of the major recommendations which emerged from the proddings of the Committee for Disadvantaged Students was one which recognized the great need for enhancing the academic preparation of potential applicants to the medical schools and dental schools -- not only at Harvard, but over the United States.

THE HEALTH CAREERS SUMMER PROGRAM

Two options were considered. The first would take the form of some type of extra preparation for graduate school after students had completed their college education. The second would provide the prerequisites during a portion of the summer vacation, in an academic environment.

Harvard chose the latter. Thus was created the Health Careers Summer Program (HCSP), a cooperative educational effort of the Harvard Medical School, the Harvard School of Dental Medicine and the Harvard Summer School. The Program -- suggested, in fact, by black students who were members of the Committee for Disadvantaged Students -- was organized to parallel the Intensive Summer Study Program (ISSP) which had been organized in 1965 by Harvard, Yale and Columbia to provide white and black students from small Southern colleges with academic training needed to prepare them for graduate school.

Establishment of the HCSP marked the first time a major American university had attempted to provide an academic
uplift program aimed specifically at enhancing the entry of minority students into graduate education in medicine, dentistry and other allied health professions.

HCSP Format

The academic program of the HCSP was fairly straightforward. Some students would be accepted at the end of their freshman year in college and would continue through two succeeding summers in course work in the basic sciences at the Harvard Summer School, with the Medical School and School of Dental Medicine supplying a pre-medical/pre-dental character to the Program. Other students would enter the Program at the end of their sophomore or junior year in college and continue for one or two successive summers.

The following format for HCSP was decided upon:

(1) Enroll each student in a small group seminar in biology, physics, chemistry or mathematics, to be called the Academic Tutorial and patterned after the Harvard College tutorial of selected readings and discussion.

(2) Enroll each student in a regular Harvard Summer School course in the sciences or mathematics.

(3) Have each student spend at least one afternoon per week observing or participating in a hospital-related health care activity under the supervision of a physician.

(4) Have available individual compensatory tutorials as required and supplemental tutoring as desired.

Refinement of the suggested format led to the formation of the three major components of HCSP for 1969 and 1970:
The HCSP started in the summer of 1969. A total of 267 students applied.

Since the Intensive Summer Study Program (ISSP) had been in existence four years prior to 1969 and had developed good working relationships with the administrations and student bodies of many small Southern black colleges, the ISSP was asked to handle the majority of Southern recruitment for the 1969 HCSP.

Aid was also solicited from the following organizations: National Medical Association, Student National Medical Association, Medical Committee for Human Rights, Student Health Organization, and Oklahomans for Indian Opportunities. These organizations were to contact physicians practicing within areas heavily populated by minority groups and solicit their help in disseminating information about HCSP. It was rationalized that the local doctors would have good interaction with the community and would be knowledgeable of the intentions of some of the youths within their areas who were interested in medicine. This phase of the recruitment, however, produced very few applications.

Application forms and Program information were also sent to the biology department chairmen and premedical advisors at many Northern institutions. "Ivy-League" schools were
excluded since it was felt that minority students who attended these schools were receiving the type of academic training that would adequately prepare them for professional school entrance. On the other hand, special attempts were made to recruit minority students who attended the Northern community colleges.

Since the Program was being held in Boston, it was felt that a major recruiting emphasis should be placed on that area since there is a shortage of minority-group physicians and dentists in Greater Boston and vicinity. Even though this feeling of local obligation was promulgated extensively, it also produced few applications from the Boston area.

Fifty-five students were admitted to the first class. Each was fully funded. They received travel expenses, full tuition, room and board, book allowances, prepaid fees (laboratory, health, etc.), personal expenses, a living allowance and a stipend equal in value to the money they would have gained during summer employment.

The fall and winter following the end of the first summer's Program were spent in soul-searching evaluations of the Program's effectiveness. Students, faculty and members of the administrative staff joined in the sessions. Typical of the questions posed were these:

... Did the Program serve its purposes sufficiently well to merit its continuance?

... Could improvements be made in the methods of operation?
... Could the HCSP serve as a model; be transferred to other universities?
... Did it reach the "right" students?
... Did it help those who participated toward a choice of a health career?
... Where could the Program be strengthened?

The consensus was that the HCSP was meeting its goals and merited continuance.

HCSP - 1970

The administrative format of the 1970 HCSP was set by an ad hoc committee appointed by Dean Robert Ebert. It included several faculty and staff members at the Harvard Medical School and two black medical students. Dr. Blacklow served as chairman of the committee and was named Director of the 1970 Program. Managerial and operational aspects of the Program were the responsibilities of Mr. Reid E. Jackson, II, a doctoral candidate in Science Education at the Harvard Graduate School of Education. Mr. Thomas Crooks, Director of the Harvard Summer School, was the administrative officer from the Faculty of Arts and Sciences who served as coordinator of the HCSP within the Summer School framework. Dr. Matthew Budd, from Boston's Beth Israel Hospital (an affiliated hospital serving the Harvard Medical School) served as Head Clinical Tutor. The sole full time employee of the Program was Miss Carol Sander as an administrative assistant.

Given a "go" for the second year, recruitment started earlier and with some changes in the pattern.
Recruitment of applicants for the 1970 HCSP followed patterns similar to those followed in 1969, with certain changes considered necessary to increase the applicant pool. The science department chairmen at colleges attended by previous HCSP and ISSP participants were sent HCSP information and application forms for distribution on their campuses.

A second change involved the use of the 1969 participants in the HCSP. Each of the latter was given five application forms for distribution. Special efforts were made to recruit more Puerto Rican, Mexican-American and native American Indian students. The filing date was pushed back to enable more to apply. Once again an extensive recruitment drive was made in the Boston area. The major thrust in the latter came through the Big Brother Alliance in Boston and through Mr. Mark A. Goode, Community Relations Director at the Harvard Medical School.

The results were excellent. Four hundred fifty-two applications resulted from the intensified campaign. Black applications rose 55%, Mexican-American 750%, Puerto Rican 117%. Four American Indians applied, as opposed to none in the first year. The ratio of another minority group (females) also rose. The male:female ratio in applications rose from 2:1 in 1969 to 3:2 in 1970. The bulk of the applicants continued to come from college sophomores and juniors.

Use of similar recruiting procedures in 1971 has resulted in 843 applicants for the 1971 Program.
One major policy recommendation had been made prior to the selection of the 1970 class. It was hoped that 25 per cent of the class would come from the Boston area; 25 per cent from other urban areas; and 50 per cent from colleges in the South and Southwest. The only senior students accepted were those who had not been accepted into a medical school by the fall of 1970. High school seniors were admitted only if they had been accepted by a college. Sixty-one applications were received from students in the Greater Boston area in 1970.

The admissions procedure was lengthy and quite elaborate. Each application was read by at least four members of the Committee. Among the problems facing the Committee was the unfamiliarity of many with some of the colleges. The precise (or rather imprecise) definition of what constituted "intellectual promise" also proved to be a stumbling block. The Committee chairman was Dr. Richard A. S. Williams, a black Teaching Fellow at Harvard and the Peter Bent Brigham Hospital.

On April 15, 1970, 100 applicants were mailed letters of acceptance; 18 others were placed on the waiting list. Of the initial 100, 18 declined -- thus moving the 18 on the waiting list to acceptance by the Program. Two of the 100 did not come, leaving the 1970 class at 98. Twenty-eight were female, 70 male. The mean age of the class was 21. Fifty-five per cent were concentrating in biology at their respective colleges.
Twenty-four Academic tutors were utilized in 1970; six were black. They came from Harvard, Massachusetts Institute of Technology, Brandeis, Tufts, Northeastern and the University of Rochester. Clinical Tutors were selected by the Chief Clinical Tutor to serve at each Harvard Teaching Hospital. Two first-year black medical students at the Harvard Medical School were selected as student advisors. A black guidance counselor from the Greater Boston school system was employed as a "Program Rapper".

Members of the 1970 group proved to be slightly militant. Their action took the form of a petition to Dean Ebert calling for the Medical School to play a more relevant role in leading all medical schools in the United States to expand the numbers of graduates and to change their qualifications for admittance to permit minority students to compete with top students. They also questioned the selection of Dr. Blacklow (a white) over Reid Jackson (a black) as Program Director.

As a result of other requests, unrelated to the above, a speakers series was instituted during the summer of 1970 and a number of social events (dance, beach party, and banquet-dance at the end of the Program) were instituted.

At the close of the 1970 session there was agreement that the HCSP was reaching minority students from segments of the population who were interested in having careers in the health professions; who have the ability to prepare themselves for such careers despite the absence of the traditional types of evidence to support such a presumption and who were unlikely,
because of inadequate preparation and lack of stimulation, to undertake such preparation in the absence of special stimulus and training such as provided by the HCSP. However, it was clear that more students could have been admitted on the basis of an analysis of admission data, based on the applicants' transcripts, school ratings, socio-economic status, recommendations and essays. A computerized model of the admissions procedure showed that at least 198 applicants out of the 452 to the 1970 HCSP were qualified. (Funds were available to support only 98 participants.)

Financial Support

The major problem facing the HCSP -- whether at Harvard or a similar program at any university -- is that of financial support.

The average cost per student in 1970 was $2,000. The total expenditure for the students in 1970 was $160,000, plus an additional $30,000 in Academic and Clinical Tutorials.

The HCSP ran a deficit in its first year (1969), but with the help of funding from the National Fund for Medical Education, the Rockefeller Foundation, the Macy Foundation, the Weir Foundation, the Sloan Foundation, and the Day Foundation, managed to balance receipts and expenditures in 1970.

In 1971, however, the HCSP is encountering new kinds of financing problems. Many foundations, for example, have changed their priorities. Some feel that they should contribute directly to predominantly black Southern schools. As a result, Harvard is only reasonably hopeful that the HCSP will
receive funds sufficient to finance the Program subsequent to the summer of 1971.

Among the possibilities for support are the pending Federal Health Education Assistance Act, as well as the Bureau of Health Manpower Education and the Bureau of Higher Education.

The numbers of students HCSP can admit in 1971, or in any summer, are dependent upon the funds available.

**Effectiveness of the HCSP**

How effective is the HCSP in terms of its stated objectives? Is it transferrable elsewhere? Take a look, first, at the record of the 1969 group.

Eight of nine students who participated in the 1969 HCSP and were subsequently eligible for admission to either a medical or a dental school, were able to enter an American medical school as first-year students in 1969. The ninth was enrolled in a fifth-year program for additional academic preparation.

A more detailed analysis was made of those who attended the HCSP in 1970 and who were eligible (as post-junior college students) to apply either to medical or to dental school. Response to a questionnaire revealed that 88 per cent (37 of 42) post-juniors enrolled in the 1970 HCSP, as compared with 32 per cent (30 of 93) post-juniors rejected for admission to HCSP in 1970, applied to a professional school. A statistical analysis shows that this is a highly significant difference.
Of equal significance is the fact that of the total applicants to the 1970 HCSP who applied to medical or dental school, 78 per cent were accepted. In contrast, only 43 per cent of those who were rejected after applying to the 1970 Program were accepted by a medical or dental school. Thus the HCSP has been shown to be effective academically as well as motivationally.

It is clear from the response of students, tutors and observers to questionnaires, that each of the three components of the Program has had a strong positive effect in increasing the knowledge and reinforcing the career goals of its participants.

Those responsible for the administration and operation of the HCSP believe that the experiences of two summers have demonstrated its value as a summer, rather than a fifth-year program.

It is noted that Dr. Lloyd Elam, president of Meharry Medical College, has expressed his uneasiness with the "extra-year approach".

Further, it is pointed out that the cost per student for a full extra year of education may amount to as much as $6,000, as compared with the estimated $2,000 for HCSP.
CONCLUSIONS AND RECOMMENDATIONS

Summer programs at established summer schools throughout the country, as at Harvard, with strong basic science programs, can offer the student an opportunity to upgrade his academic qualifications while at the same time they enable him to decide whether he is interested in the health professions.

The two-year experience with HCSP has made evident the need to place the administrative and financial control of such a summer program under the aegis of the Summer School.

Those responsible for the HCSP also are confident that the experience can be organized at other universities and colleges with these provisos:

... That the university or college have in existence an open enrollment summer school with strong science courses.

... That medical and dental schools and affiliated hospitals and clinics are near the university.

... That the student enrolled in the program is part of the general environment of the summer school.

Regional availability of programs such as the HCSP is a second possibility. Such offerings could reduce the operational costs of such programs by lowering the funds required for transportation, tuition and room and board. (Both the latter, it is noted, will vary from institution to institution.)

Another key suggestion relative to the transfer of the HCSP concept to other institutions of higher learning stresses that representatives of minority groups should be involved in all phases of planning and program development. This would include minority-group faculty members as well as minority-group students.
Already the HCSP has moved to implement one of its own recommendations. Control of the 1971 HCSP has been placed under the leadership of the Harvard Summer School. The Harvard Medical School and Harvard School of Dental Medicine will continue to provide the stimulus for the Program as well as assist in the fund-raising. However, the administrative and financial control of the Program has been transferred to the Harvard Summer School under the leadership of Mr. Crooks.

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