Medical Education Scholarship Loans *in the* Mississippi Integrated Health Program

By FELIX J. UNDERWOOD, M.D.

THERE ARE years in the life of a State, just as in the life of an individual, that mark a kind of coming of age. Such a year in the history of Mississippi was 1946. At that time nearly half a century of work on medical, hospital, and nursing problems culminated, and new surveys, studies, and plans were made that launched the State on a new medical era.

Among the programs inaugurated in 1946 was the medical education scholarship loan program, which is helping to meet one of Mississippi's greatest medical needs—that for general practitioners in rural areas. By January 1, 1953, 120 physicians who had been granted loans under the program were in practice in the State, representing almost one-third of the total increase in physicians since 1946. An additional 15 loan recipients were in the Armed Forces, and another 52 were serving their internships.

Background of the Integrated Program

Mississippi is a rural State, with 70 percent of its people living in rural areas and securing their incomes from farm production, and, although there is some trend toward urbanization, it can be expected to be one for some time to come. In a rural State personal income can be expected to be less than that in more urban States, and the population can be expected to be scattered rather than concentrated. Thus, the large cash outlays necessary for a medical education are frequently not available from family funds, and the scattered, isolated population creates special problems in providing adequate medical care.

In 1946, Mississippi was suffering along with the rest of the Nation from 5 years of war and 10 years of depression, which had left both material and personnel problems in medical care. Few hospitals, health departments, or clinics had been built; few doctors, nurses, or other medical personnel, trained. Inquiries and surveys by the Mississippi State Board of Health and other agencies interested in the medical problems of the State, including the State medical society, the business research station at Mississippi State College, and the Farm Bureau Federation, revealed the following conditions:

Physicians. The number of physicians in the State had decreased each year since 1909, from 2,054 in that year to 1,112 in 1946, while the population of the State had increased from 1,790,000 to 2,186,000. Actually, only 915 physicians were actively practicing in 1946. The number of persons per physician had increased from 871 in 1909 to 1,966 in 1946, whereas the national average had remained around 700 dur-

Dr. Underwood, executive officer of the Mississippi State Board of Health since 1924, is a member of the Mississippi State Medical Education Board. His career in public health and medicine has included the presidencies of the Southern Medical Association (1931), the State and Provincial Health Authorities (1939), and the American Public Health Association (1944).

ing the entire period. More than half of the physicians licensed to practice in the State were over 60 years old; only 139 were less than 40 years old.

Medical and Nursing Education. The 2-year medical school at the Mississippi State University could accept only 25 students each year; it had been compelled to reject 102 qualified applicants in the 4 preceding years. There was no college-level nursing education available for training nurses for teaching or other positions of leadership and responsibility.

Hospitals. Of the 114 hospitals in the State, only 5 were as large as 100 beds, and no general internships or residencies were available. Only 2,988 of the 4,200 beds in the general hospitals were of acceptable quality according to standards for safety, compared with a need of 7,594. The ratio of beds per thousand persons was 1.6, compared with a need of 4.5.

Health Department Facilities. There were only 12 adequate health department buildings, compared with a need for at least 70. (There are 82 counties, but several counties are in districts so that one main office serves several counties.)

Hospitalization Insurance. No statewide voluntary, nonprofit hospitalization insurance was available.

The State board of health, the State medical society, the Farm Bureau Federation, and others carried these facts to the people by personal visits and talks in almost every county. By newspaper and radio articles, by pamphlets and leaflets, the campaign went forward.

Legislative Action

These facts were also presented to the State legislature when it met in 1946, and a number of legislative committees went to work on plans to improve the situation. As a result, the legislature passed laws which (*a*) created the Mississippi State Medical Education Board, with sufficient funds for 2 years' operation, to grant and supervise medical scholarships; (*b*) created the Commission on Hospital Care to plan and direct the construction of hospitals and health centers; (*c*) provided for the construction of a 4-year medical school to be undertaken as soon as the rural hospital construction program should reach a late stage of completion; (*d*) directed the Commission on Hospital Care to make a study of nursing needs and to plan a State program of nursing education; and (*e*) directed the Commission on Hospital Care to establish a statewide program of voluntary hospitalization insurance.

This was the broad outline of the integrated program to improve medical care in Mississippi. The medical education scholarship loan program, an important segment of the overall program, will be discussed in detail.

Operation of the Program

The State medical education board, which administers the scholarship loan program, is composed of five members: the dean of the University of Mississippi Medical School, the executive officer of the State board of health, the president of the State medical society, and two members appointed by the Governor for 4-year terms. It reviews applications, awards the scholarships, and approves the scholarship physician's location for practice.

A loan made through this program may not exceed $1,250 a year for expenses, including tuition, payable direct to the medical school, or $5,000 for 4 years. Veterans receiving aid under the GI bill of rights are eligible for loans of $500 to $1,000 per year payable direct to the students themselves.

To be eligible for a loan, an applicant may be either white or Negro, male or female, and must meet the following qualifications:

1. Be a resident of Mississippi.
2. Be in need of funds to complete his medical education.
3. Have completed his premedical work and be acceptable for enrollment in a class A medical school.
4. Agree to sign a contract with the State to return to Mississippi after graduation and 1-year internship (under exceptional conditions, 2-year internship may be permitted) to engage in the practice of medicine in a rural area approved by the board for a minimum of 2 years, regardless of the amount of the loan. If the scholarship physician elects to remain in the approved area for 5 years, the entire loan plus

interest is canceled at the rate of one-fifth for each year. Should he elect to repay the balance of his loan with interest at the end of 2 years, he may do so.

By the end of 1947, after the program had been in operation a year, 73 students, selected from 400 applicants, had been awarded scholarships. Applications had been received from persons in 79 of the 82 counties in Mississippi. The students were to attend 14 medical schools in the United States, including the 2-year medical school of the State university. Forty-two of these awards went to veterans of World War II; 7 went to women and 8 to Negroes.

The board's report to the legislature at the end of 1948 specified that 164 scholarships had been thus far awarded. This figure may be compared with the total of 48 awards which had been made by that time in the 8 other States having some kind of medical scholarship program in effect—Alabama, Georgia, Illinois, Indiana, Kentucky, North Carolina, South Carolina, Virginia. The Mississippi plan had produced 3 practicing physicians; the 8 other States had produced 1.

Accomplishments of the program by January 1, 1953, may be summarized as follows:

Scholarships awarded	406
Men, white	362
Men, Negro	30
Women, white	14
Medical graduates	195
Scholarship physicians now in practice in State	120
Scholarship physicians in the Armed Forces	15
Graduates serving internships	52
Physicians who served minimum of 2 years and repaid loan in cash	5
Physicians who died before fulfilling 5-year contract	3
Students who failed in medical studies and repaid loan in cash	2
Students still in school	209

The 120 scholarship physicians now in practice in the State are located in 77 towns in 52 of the 82 counties. This fact gives some idea of the wide distribution of these physicians.

Problems of the Program

Most of the problems which have arisen in connection with the scholarship program have been those of routine administration common to the handling of substantial sums of money and the selecting of the most apt and promising candidates from hundreds of applicants.

There has been some misunderstanding on the part of the students as to the objectives of the program. Some students have felt that the board should allow completion of residencies which would qualify them for practice in such specialties as surgery, gynecology, obstetrics, or eye, ear, nose, and throat. One or two medical schools have also criticized the board's policy of restricting postgraduate training to general internship. The board feels, however, that the objective of the program is to increase the supply of general practitioners, which are so badly needed in the rural areas, and not the training of specialists. The board also feels that even if a physician intends to specialize at some time in his life, it is a sound and desirable procedure for him to spend as much as 5 years in general practice prior to specialization.

Two of the scholarship recipients failed in their medical studies, but they represent such a low percentage of those receiving scholarships (0.6 percent) that this is not considered a serious problem.

The death of three of the scholarship recipients before completion of their contract to practice presents a more serious problem. Perhaps more effective health examinations for applicants should be given consideration. One of the deaths, however, occurred in a young physician who 8 months after entering practice contracted poliomyelitis of the fulminating type; no way is known to have prevented this death.

Opportunities for the Student

The scholarship program offers the opportunity for qualified persons in Mississippi who are interested in becoming rural physicians but who are unable to finance a medical education to reach their goal without incurring debts which must be repaid in cash. It should be noted that the per capita income for Mississippi is only half as large as that for the Nation as a whole, $700 as compared with $1,400 in 1950. The program makes it possible for the student to make a plan for his medical education and for the first 5 years of practice with reasonable

assurance that he can carry out his plan, thus relieving him of many worries and giving him freedom to concentrate on his studies.

The student under this program also has the advantage of the guidance services of the medical education board, who can offer the student much information about the professional problems of preparing for medical practice and concerning desirable locations for practice in the State. Much of this information comes from the State medical society, the American Medical Association, the State board of health, and other agencies. The scholarship medical student is supplied with monthly reports on the general economic status of the State and of each of 14 specific subdivisions of the State. This information is furnished by the business research station of Mississippi State College, chambers of commerce, and local physicians and residents of various parts of the State.

Although a scholarship recipient is somewhat restricted as to postgraduate training and location for practice, he is free to attend any class A medical school in the United States. and his first choice of location for practice is approved if it is within the provisions of the law and in keeping with the objectives of the program. Furthermore, he is not prevented from specializing nor from practicing in any location he may choose after 2 years, if he wishes to repay the balance of the loan in cash, or after 5 years, debt free.

Advantages to the State

One of the chief advantages of this program to the State is the opportunity it provides for influencing physicians to render medical service where the service is most needed. The board accomplishes this objective primarily by its approval of the scholarship physician's location for practice, but, to some extent, also by its selection of applicants. There is some advantage, for example, in securing at least a portion of the medical students from small towns and rural areas, since it has been found that physicians reared in such areas are generally better adapted to practice there.

The program also gives the State an opportunity to influence medical students to become the type of physician most needed, and gives it some measure of control over the supply of new physicians. Since the scholarship program has provided almost one-third of the increase in number of physicians in the State since its inception, an increase or decrease in the number of scholarships awarded should have a significant effect upon the number of new physicians.

Finally, the program supplements the 4-year medical-school program, giving the school an opportunity to serve Mississippi students who otherwise would be unable to finance a medical education.

Six Years of Medical Progress

The 6 years since the integrated program for improving medical care was begun have brought progress in all the fields of endeavor. The achievements may be summarized as follows:

Physicians. The supply of physicians in the State is on the increase for the first time since 1909. The number has risen from 1,112 in 1946 to 1,500 in 1953.

Medical and Nursing Education. A 4-year medical school, which will be a part of the State university, is under construction in Jackson. It will accommodate 400 medical students and 100 nursing students. As a part of this project, a teaching hospital of 350 beds is also under construction. A nursing school of college grade has already been established at the university and is completing its fourth year of successful operation. Although it is the only school of college grade for nurses in the State, it is ample to meet all needs for this class of nurses. Upon completion of the medical school in Jackson, the nursing school will be transferred there. Three schools for practical nurses, one of which is for Negroes, have been established and are furnishing well-trained practical nurses for the first time in the State's history.

Hospitals. Thirty-eight new hospitals have been constructed and equipped and are in operation; five more are under construction. Although several hospitals have been condemned and abandoned as unsafe, the number has increased from 114 in 1946 to 141 in 1953. A total of 2,258 hospitals beds have been added and 895 more are under construction. Although 195 beds were lost in abandoned hospitals, the number has risen from 4,200 in 1946 to 6,273 in 1953.

Hospitalization Insurance. A statewide program of voluntary hospitalization and surgical insurance (Blue Cross and Blue Shield) was established in 1948 and is now the fastest growing State plan in the United States. It has a membership of 250,000.

Mississippi does not claim that this progress has been made by its efforts alone. Counsel and advice have been obtained from medical leaders all over the United States. Federal funds for hospital construction, provided under the Hospital Survey and Construction (Hill-Burton) Act, have been a welcome addition to State, local, and private funds. All the costs of the medical education scholarship loan program, the various nursing education programs, the hospital and surgical insurance program, and the 4-year medical school project, and more than one-half of all hospital and health department construction costs, however, have been paid with State, local, and private funds.

Mississippi feels that it can indeed be proud of this outburst of medical progress, for it was long in the humble position of one who recognized its needs but whose utmost efforts were unavailing to meet them.

Public Health Service Staff Announcements

Dr. Martin D. Young, scientist-director of the Public Health Service Laboratory of Tropical Diseases, Columbia, S. C., was among the first 11 persons to win a Rockefeller public service award, it was announced in February. The award was granted for outstanding research work in tropical diseases. It will enable Dr. Young to conduct further research in this field through a 9-months' inspection tour of tropical disease centers in Europe and Asia. Dr. Young joined the Public Health Service and the laboratory staff in 1937, and became director of the laboratory in 1941.

Dr. G. Milton Shy has been appointed chief of clinical research of the National Institute of Neurological Diseases and Blindness of the Public Health Service. Dr. Shy will be responsible for the planning and guidance of clinical research into the neurological and sensory disorders, among them multiple sclerosis, cerebral palsy, epilepsy, cataracts, and glaucoma. For these clinical studies, the Institute has been allocated 42 beds and 19 laboratories in the new Clinical Center at Bethesda, Md.

Prior to his appointment, Dr. Shy was chief of the neurological service at the Colorado Medical School and was a consulting neurologist at several Colorado hospitals.

Dr. Shy received his M.D. from the University of Oregon Medical School in Portland and received his special neurological training at Queen Square, London, and at the Montreal Neurological Institute, Quebec.

Dr. James K. Shafer and Dr. Clarence A. Smith were appointed chief and assistant chief, respectively, of the Division of Venereal Disease, Public Health Service, in March 1953, by Surgeon General Leonard A. Scheele.

Dr. Shafer succeeds Dr. Theodore J. Bauer who now heads the Communicable Disease Center of the Public Health Service at Atlanta. As the new assistant chief, Dr. Smith assumes the post to which Dr. Shafer was appointed in 1950.

A veteran of 14 years' service in the commissioned officers corps of the Public Health Service, Dr. Shafer has served as venereal disease control officer in the health departments of Chicago and Moline, Ill., and Wayne County, Mich. He also served as Public Health Service consultant in the Chicago regional office.

Preceding his new appointment, Dr. Smith was venereal disease control officer for Chicago. A Public Health Service commissioned officer since 1937, he has served as medical officer in charge of the Southeastern Medical Center, Savannah, and of the Michigan Rapid Treatment Center, Ann Arbor, and has seen duty in Alabama's and South Carolina's venereal disease control programs. Dr. Smith was assistant professor of tropical medicine and public health at Tulane University School of Medicine from 1948 to 1950.