Constraining the Supply of Physicians: Effects on Black Physicians

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AFTER TEN YEARS OF PROGRESS, FROM THE MID-1960s to the mid-1970s, the movement to bring blacks into the mainstream of American medicine, both as providers and consumers, appears to be marking time or retrogressing. The report of the Graduate Medical Education National Advisory Committee (GMENAC) in 1982 predicted a surplus of physicians, although it noted that the "surplus" did not apply to minority, including black, physicians (see appendix note). While there is a continuing dispute about the predictions of a surplus of physicians, the theme of surplus has contributed to withdrawal of federal funds from both institutions and students, negatively affecting the socioeconomic make-up of the total medical school applicant pool, minority enrollment, and active efforts of some medical schools to attract and retain minority students. The commitment of the government and educational communities to increase the representation of minority health professionals has waned, and financial support has declined substantially.

Of particular importance is the current retrenchment in the provision of funds for financial assistance to medical and other health profession students. The change in levels and types of student assistance can be expected to erode much of the progress made thus far. There has already been a negative impact on the enrollment of low-income students in medical schools (U.S. Department of Health and Human Services 1987). The change in student aid is also affecting the proportion

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of black students entering college, with long-range effects on the medical school black applicant pool.

In 1985 there were an estimated 15,600 black physicians (53.7 per 100,000 black population compared to 218.5 total physicians per 100,000 total United States population) representing only 3 percent of the total physician population. It is projected that, if current trends continue, this number will increase to only 28,500 (79.7 per 100,000 black population compared to 260 total physicians per 100,000 total population) by the year 2000, at which time black physicians will represent 4.1 percent of total physicians (Department of Health and Human Services 1986a). Actual current data suggest that these estimates may be optimistic.

Historical Background

From 1920 to 1968 two medical schools, Meharry Medical College and Howard University School of Medicine, were responsible for graduating the vast majority of black physicians. All other medical schools graduated a total of 15 to 20 black physicians a year during that period (Shea and Fullilove 1985). Even as late as 1948, one-third of the existing 78 medical schools imposed a color bar, and it was not until 1966 that all medical schools were opened to blacks (Morais 1976; Shea and Fullilove 1985). Until the early 1950s there were also "quotas" that affected Jews and Catholics. These quotas, however, disappeared during the 1950s and 1960s.

As Morais notes, however, opening the doors of all medical schools to blacks did little to increase the number of blacks admitted. In 1967–1968, there were almost two applicants for every first-year place. Admission standards were high, and black applicants were at an educational and cultural disadvantage. Only 6 percent of college-age blacks were enrolled in college in 1967. More than half "were in predominantly Negro institutions, where the dropout rate averaged more than 50 percent" (Morais 1976). Recognizing this problem, the American Medical Association and the National Medical Association issued a joint statement in 1968 in which they called for "development of special college courses for promising black students, summer programs of special study and additional scholarship aid at both college and medical school levels." At that time, there were an estimated 6,000

black physicians, representing 2 percent of all practicing physicians (Morais 1976). Subsequently, the greatest *relative* gain occurred by 1975.

The impetus to increase the number of minority physicians stemmed not only from the desire to assure equal access to all levels and types of education for all population groups, but from the need for more physicians who would provide care to underserved urban and rural communities, the populations of which were disproportionately black (Keith et al. 1985; Berk, Bernstein, and Taylor 1982).

A comparison of the practice patterns of black physicians with all physicians in 1973 showed that black physicians were practicing in the inner-city and ghetto areas of urban communities in higher proportions than the general physician population, were found in higher proportions in the primary care specialties, and tended to have a patient clientele that was mostly black (Gray 1977). Other studies showed that "physicians are most likely to practice among members of their own ethnic group" (Strelnick et al. 1986). Thus, policies that would encourage the entry of black physicians into the medical profession were believed essential to the success of any program designed to bring medical care to the poor and underserved (Association of American Medical Colleges 1970). No studies exist as to whether locational and specialty patterns are matters of choice or opportunity, although some survey data show that black students indicate choice patterns differently from their white counterparts.

From the mid-1960s to the early 1970s, medical schools were also being urged and encouraged to expand first-year entering classes to meet a projected physician shortage. Federal funding of medical education began in 1963. In 1965 funds were given to schools to expand enrollment, and in 1971 legislation was enacted to pay schools on the basis of the number of students. Medical school enrollment had not kept up with population expansion or advances in medical technology and extended life expectancy. With an expansion of medical school places, an opportunity existed to increase minority enrollment substantially without displacing nonminority students.

In 1970 the Association of American Medical Colleges (AAMC) committed itself to increase the representation of blacks (and other minorities—as yet a relatively small number) in the first-year entering classes to 12 percent of the total by 1975, a goal endorsed by the American Medical Association and other leading medical organizations

(Association of American Medical Colleges 1970; Shea and Fullilove 1985). The 12 percent was based on the proportion of the black population to total population or "parity."

We will now examine the assumptions behind the one series of projections that indicated achievement of the AAMC goal was possible in the time frame of five years. In 1970 blacks comprised 6 percent of the freshman enrollment in undergraduate colleges. Approximately 6 percent of enrolled black freshmen indicated an interest in attending medical school, compared to 4 to 6 percent of white freshmen. At that time, 25 percent of those blacks who indicated interest in attending medical school actually applied (this was referred to in the AAMC report as the retention rate), compared to 35 percent of whites. According to the AAMC report, the acceptance rate for black applicants was, historically, 75 percent. The AAMC calculations showed if the black retention rate could be raised to that of whites (i.e., 35 percent), the short-term goal of raising black representation in first-year entering classes to parity could be achieved. The report does not give the basis for its projections of the increase in numbers of black college freshmen, but this point is almost moot, since, in fact, the number of black applicants to medical school for the years projected was greater than the projections (Association of American Medical Colleges 1985). What was greatly overestimated was the acceptance rate. Efforts to trace the reasons for the decline of the acceptance rate from 75 percent as stated in the 1970 report to the 43 percent reported for 1974 have been unsuccessful. In 1974 there were 2,423 black applicants to medical school. If 75 percent had been accepted, blacks would have represented about 12 percent of the entering medical school class of 1974.

Federal monies, in the form of scholarship programs and low-interest loan programs, were appropriated to support the AAMC's goal (Hall and Whybrow 1984). Additionally, affirmative action programs were introduced at all levels of higher education in an attempt to enlarge the potential pool of qualified applicants, and to overcome problems caused by lack of access to quality education resulting from years of de facto segregation. Admissions criteria were broadened, both at the undergraduate level and at professional schools, to include noncognitive measures of academic potential. Remedial programs were instituted to provide special attention to areas such as test-taking and study methods in order to improve the probability of success of the

expanding minority enrollment (Keith et al. 1985). In addition, two minority schools were developed in the 1970s, Charles Drew Postgraduate Medical School, which is part of the University of California at Los Angeles, and Morehouse Medical College in Atlanta. (Schools referred to as minority schools are predominantly designed for black students.) The Charles Drew School began as a postgraduate school and now educates third- and fourth-year students. Morehouse is a private medical school.

In medicine, these actions quickly showed positive returns, though falling far short of the AAMC's stated goals. By 1975 black representation in the first-year entering classes had increased to 7.5 percent and minorities as a whole represented 10 percent of first-year medical school enrollment (Hanft, Fishman, and Evans 1983). During the next ten years, however, enrollment of nonminorities increased at a faster rate than that of minorities, so that by 1985 the 1,117 black first-year medical students represented only 6.6 percent of first-year enrollment, an actual decrease proportionately from the 1975 peak (table 1) (Hanft, White, and Fishman 1986).

Though some questioned the premise that affirmative action programs would improve access to health care for minority and low-income populations, recent studies show that blacks and other minority graduates are indeed serving or expect to serve in inner-city areas and are training in primary care specialties at greater rates than nonminorities (Keith et al. 1985; Gregory, Wells, and Leake 1986; Lloyd and Johnson 1982). A 1986 report to the Association of Minority Health Professions Schools showed that 28 percent of matriculants at Howard, Meharry, and Morehouse planned on locating their practice in inner-city areas; this compared to 12 percent of matriculants at nonminority schools. This same distribution was found for the years 1978, 1980, and 1983 (Hanft and White 1986).

Undergraduate Trends

The potential applicant pool for professional colleges and schools has been deleteriously affected by declining enrollment rates for all population groups at undergraduate institutions. The rate of increase in all enrollments declined from 8 percent for the period of 1975 to 1980 to 1.2 percent from 1980 to 1984 (American Council on Education

TABLE 1
Black Enrollment in First-year Classes in U.S. Medical Schools, Academic Years 1969–1970 through 1985–1986*

	Total first-year enrollment	First-year black enrollment	Percentage of blacks of total first-year enrollment
1985–1986	16,963	1,117	6.6%
1984–1985	16,997	1,148	6.8
1983–1984	17,150	1,173	6.8
1982–1983	17,254	1,145	6.6
1981–1982	17,268	1,196	6.9
1980–1981	17,186	1,128	6.6
1979–1980	16,930	1,108	6.5
1978–1979	16,501	1,061	6.4
1977–1978	16,136	1,085	6.7
1976–1977	15,613	1,040	6.7
1975–1976	15,295	1,036	6.8
1974–1975	14,763	1,106	7.5
1973–1974	14,154	1,027	7.3
1972–1973	13,677	957	7.0
1971–1972	12,361	882	7.1
1970–1971	11,348	697	6.1
1969–1970	10,422	440	4.2

* Includes new entrants, repeaters, reentrants, and those continuing their initial year. Data include three Puerto Rican medical schools, whose students are recorded in the "total" column.
Sources: Association of American Medical Colleges, 1986b, and earlier issues; 1983.

1986). This slowing trend is partially accounted for by the downward trend in the size of the 18- and 19-year-old population group, which began in 1980. For blacks, there has been a 4 percent decrease in the number of 18- and 19-year-olds since 1980; during the same period, black enrollment at both four-year and two-year colleges declined 3.3 percent (American Council on Education 1986).

But the decline in enrollments cannot be attributed solely to declining population figures. The cost of undergraduate tuition and fees has risen an average of 9 percent per year at public four-year institutions and 10 percent per year at private institutions during the past ten years (Gutek 1985). At the same time, sources and levels of financial

assistance have declined or have been withdrawn, making it all the more difficult for lower-income students to obtain a postsecondary education (Tuckson 1984; Thomas 1986).

The decline in the college-age population group, coupled with ever-increasing costs of postsecondary education, only serves to make the task of increasing black representation in all areas of professional education more difficult. In 1984 blacks still accounted for only 8 percent of the undergraduate enrollment at four-year institutions, and received only 6.5 percent of the undergraduate degrees awarded (Baratz et al. 1985). Recent data on minority medical school enrollments and graduations are at least as discouraging. If the United States is to keep its commitment to provide access to quality medical care to all segments of its population, it must also fulfill its promise to supply the means by which the less fortunate may share in the wealth of quality education available in this country.

Applicants/Acceptances

During the early 1970s, the acceptance rates for blacks were higher than those for nonminority students; as noted earlier, the Association of American Medical Colleges reported acceptance rates for blacks at 75 percent prior to 1970, when the rate for whites was reported to be about 45 percent. By 1974, however, the rate of acceptance for blacks had declined to 43 percent and continued to decline to 41 percent by 1985. It dipped to a low of 39 percent in 1981. During the same period, acceptance rates for all students rose from 35 percent to 52 percent (table 2) (Hanft, White, and Fishman 1986).

In 1981 there were 2,644 black applicants to medical school, comprising 7.2 percent of the total applicant pool; 1,037 or 39.2 percent of these were accepted. In 1985 the number of applicants decreased by 8.2 percent to 2,428. Because of a steeper decline in the total applicant pool to medical schools, the proportion of applicants who were black actually rose slightly to 7.4 percent (table 2). Forty-one percent (993 individuals) of the black applicants in 1985 were accepted, and 38 percent (923) actually enrolled. This compares to the enrollment of 49 percent of all applicants (Association of American Medical Colleges 1986b).

TABLE 2
Total Applicants and Percentage of Acceptances to U.S. Medical Schools, 1974 to 1985

		Total	Non-minority	Total minority*	Blacks	Blacks as percentage of applicants
1985–1986	Total number	32,893	29,572	3,321	2,428	7.4%
	percentage	52	53	45	41	
1981–1982	Total number	36,727	33,186	3,541	2,644	7.2
	percentage	47	48	42	39	
1977–1978	Total number	40,557	37,258	3,299	2,487	6.1
	percentage	39	39	40	39	
1974–1975	Total number	42,624	39,450	3,174	2,423	5.7
	percentage	35	35	44	43	

* Includes blacks, Mexican-Americans, mainland Puerto Ricans, native Americans, Asian/Pacific Islanders.
Source: Association of American Medical Colleges 1985, 1986b.

Enrollment

In 1967, 83 percent of all black first-year students were enrolled at the two minority medical schools, Howard and Meharry. The remaining 34 blacks represented 0.4 percent of first-year students at nonminority medical schools (Shea and Fullilove 1985). Following federal initiatives in the late 1960s and the announced commitment of the medical community leadership to increasing the number and percentage of black and minority physicians, the number of blacks in all first-year classes increased. By 1974 there were 1,106 blacks enrolled in first-year classes, 17.6 percent at the two minority schools, with the remainder representing 6.3 percent of all first-year students at the nonminority schools (Epps 1986; Shea and Fullilove 1985).

Since 1974, as the total first-year medical school class continued to increase in size, blacks as a proportion of the total first-year class have lost ground, although continuing to make absolute gains in numbers until the last several years. Following the opening of Morehouse College of Medicine in 1978, the proportion of first-year black medical students at the three minority medical schools rose to 24.9 percent, but by 1985 this had once again declined to 17.5 percent (table 3). (Charles Drew Postgraduate School of Medicine also opened in the late 1970s. Data on student enrollment at Charles Drew are included in the data for the University of California at Los Angeles and are not separately identifiable.) In part, this decline reflected the reduction in first-year places at Meharry Medical School by 40 students, a result of recommendations from the Liaison Committee on Medical Education to reduce enrollment (Tuckson 1984). In addition, Morehouse has not yet been able to increase its enrollment from 32 students per year to the planned 64. The number of black first-year students (including students repeating the first year) peaked at 1,196 in 1981, but since 1983 has been declining and was at 1,117 in 1985, below the figure for 1980 (Hanft, White, and Fishman 1986).

While concerns about a surplus of physicians are not the reason for reduction in enrollment at Meharry or the problem of increasing enrollment at Morehouse, a number of individuals and organizations have called for a cutback in enrollment. In addition, a number of medical schools, primarily the lower-cost public schools, have reduced enrollment in the last several years.

The reasons for reductions are complex and include a decline in

TABLE 3
Black Enrollment in First-year Classes by Majority/Minority Medical Schools, Academic Years 1977–1978 through 1985–1986

	Total black first-year enrollment	Blacks at majority schools	Percentage of total black enrollment	Blacks at minority schools*	Percentage of total black enrollment
1985–1986	1,117	922	82.5%	195	17.5%
1984–1985	1,148	952	82.9	196	17.1
1983–1984	1,173	955	81.4	218	18.6
1982–1983	1,145	934	81.6	211	18.4
1981–1982	1,196	912	76.3	284	23.7
1980–1981	1,128	856	75.9	272	24.1
1979–1980	1,108	832	75.1	276	24.9
1978–1979	1,061	802	75.6	259	24.4
1977–1978	1,085	865	79.7	220	20.3

* Includes Howard University, Morehouse School of Medicine, and Meharry Medical College.
Sources: Association of American Medical Colleges, 1986b, and earlier issues.

the number of applicants, state fiscal constraints, and national pressure to reduce enrollment because of concerns with surplus. The decline in first-year places, however, combined with the change in acceptance rates for whites and blacks, bodes ill for increasing black participation in medicine.

In 1985, ten years beyond the target date set by the Association of American Medical Colleges, only five of the 122 medical schools (excluding Howard, Meharry, and Morehouse) could report that blacks comprised 12 percent of total enrollment, the proportion of blacks to total population. These were the University of Illinois, the College of Medicine and Dentistry of New Jersey (CMDNJ), Michigan State University, Southern Illinois University, and East Carolina University. Another four nonminority schools reported black enrollment of 10 to 12 percent. These nine schools, representing 8 percent of nonminority schools, had a total of 577 black students enrolled—18 percent of the total black medical student enrollment at all nonminority schools. Forty of the 122 nonminority medical schools in 1985 had 3 percent or less black enrollment, and more than half of the nonminority schools had the same or a smaller percentage of blacks in 1985 than in 1978. These discrepancies cannot be accounted for solely on the basis of population distribution (Baratz et al. 1985; Hanft, Fishman, and Evans 1983). The data suggest that the majority of medical schools are not actively pursuing the stated goals of increasing black participation in medicine. Certainly, the enrollment trends of the last five to ten years do not presage an expanded role for blacks in the medical education process, either as students or faculty.

Retention

The plateau in the enrollment of blacks is all the more discouraging when one examines data relating to successful graduation of this minority group. Data published by the Association of American Medical Colleges (1985) for the entering classes of 1978, 1979, and 1980 show attrition rates between 10 and 12 percent for black students actually entering the fourth year of medical school. In 1985, 17 percent of blacks repeated the first year—an increase from 14 percent in 1978—and 6 percent repeated one or more of the remaining three years. For all other students, the comparable figures were 3 percent

attrition, with 3.3 percent repeating the first year and 1.1 percent repeating one or more years two through four (Association of American Medical Colleges 1985; Hanft, White, and Fishman 1986).

Attrition rates vary widely, but studies show that an institution committed to ensuring that qualified individuals are given every opportunity to complete their studies can achieve positive results in enhanced graduation rates and overall retention. For example, at the University of Illinois, only 55 percent of minorities in the classes from 1969 to 1978 graduated on time, with total attrition amounting to 18.75 percent. The introduction of an enhanced support program aimed at assisting minorities in the areas of test-taking, study skills, and stress reduction, resulted in an increase in the percentage graduating on time (to 72.5 percent), and a reduction in total attrition to 6.7 percent (Payne et al. 1986).

A similar intervention program introduced at the University of North Carolina, Chapel Hill, resulted in significantly improved performance by minority students on the National Boards Part I (Frierson 1984). Since passing this examination is required for advancement to the third year of medical school, successful programs such as this tend to reduce the time required for graduation. Other intervention programs described in applications for Health Careers Opportunity grants emphasize the low or zero attrition rates for students who have participated (U.S. Department of Health and Human Services 1987). Unfortunately, the enrollment and graduation data for blacks and other minorities suggest that relatively few schools are making a serious effort either to increase the proportion of minorities enrolled, or to ensure the successful completion of studies for those that are enrolled.

Costs of Medical Education

The fact remains, though, that retention and intervention programs cannot directly overcome a major obstacle to obtaining a medical education—cost. In 1985 a student entering medical school faced, on average, a minimum four-year cost of about $46,000 at public schools and $89,000 at a private school (Hanft, White, and Fishman 1986). Senior medical school students in 1985 graduated with average debts of $30,256, an increase of 12.5 percent over the previous year (Association of American Medical Colleges 1986a; U.S. Department of Health and

Human Services 1986b). Repayment of loans with interest can be daunting for all but the most affluent and those willing to assume high debt. For individuals from lower-income groups, the costs of medical education, with the attendant burden on themselves and their families, are overwhelming. In addition, census data indicate that the mean income of black health professionals is considerably less than that of the majority health professionals, making it more difficult to repay debt. In 1980 there was a $10,000 annual difference in the mean income between black and white health professionals (U.S. Bureau of the Census 1984).

Family resources to meet these financial burdens are limited, especially so for minority students. A comparison of family income reported by matriculants at medical schools shows a lower percentage from lower-income families in 1985 than in 1978. In 1978, 49 percent of minority school matriculants reported parental income below the median range for all students, compared to 37 percent of nonminority school matriculants. By 1985 these figures had changed to show 34 percent of minority school matriculants and 27 percent of nonminority school matriculants with parental income below the median for all matriculants (Hanft and White 1986). A recent report to Congress cites data showing that a "disproportionate share of recent applicants are coming from more affluent families" (U.S. Department of Health and Human Services 1986b).

The Hanft and White (1986) report also shows that students entered medical school with substantially more education debt in 1985 than in 1978. Whereas, in 1978, 54 percent of minority school matriculants and 70 percent of nonminority school matriculants reported no educational debt on entry into medical school, less than one-half of matriculants in both groups reported no educational debt in 1985. Nine percent of minority and 5 percent of nonminority school matriculants reported debts in excess of $6,000 in 1978. Those reporting debts over $6,000 had increased to 18 percent of minority and 24 percent of nonminority school matriculants by 1985. One recent study of medical student indebtedness notes that greater access to low-interest loans and scholarships for students from low socioeconomic backgrounds may account for the lower debt amounts reported by minority students (Bazzoli, Adams, and Thran 1986). But continued access appears to be in jeopardy.

Concomitant changes occurred from 1978 to 1985 in the percentages

of students requiring large amounts of financial assistance. For minority school matriculants, those requiring $20,000 or more increased from 25 to 52 percent and for nonminority school matriculants the change was from 19 to 48 percent (Hanft and White 1986).

The availability of scholarships and low-cost government loans until recently has made it possible for individuals from all socioeconomic levels to enter even the most prestigious medical schools during the last decade and a half (Bazzoli, Adams, and Thran 1986). Most of the funds have been provided by the federal government. Funds under the Health Professions Student Loan Program, the Scholarship Program for First-year Students of Exceptional Financial Need, and the National Direct Student Loan Program are provided directly to the medical schools for disbursement to qualifying students. The National Health Service Corps scholarship program, which required service payback, was drawn on extensively by minority and low-income students. Under the Health Education Assistance Loan Program (unsubsidized) and the Guaranteed Student Loan Program (subsidized), students may obtain loans from banks or other lending institutions. Some programs provide for repayment through required service in designated shortage areas; some pay only tuition and fees; others include a stipend to cover living expenses (Bazzoli, Adams, and Thran 1986; Association of American Medical Colleges 1986a).

The relatively low-cost Guaranteed Student Loan Program is still the primary source of financial assistance sought by medical students (Association of American Medical Colleges 1986a). Funds to support this program have, however, been cut back in the last two years, and it is becoming increasingly necessary for students to turn to the much higher-cost loans provided under the Health Education Assistance Loan program (HEAL). It has been estimated that for a student borrowing under the HEAL program, at an interest rate of 15 percent compounded semiannually, the total repayment of a $40,000 loan over a period of 25 years will amount to $400,000. As other sources of financial assistance continue to decrease, it is projected that within a few years the HEAL program will constitute 20 percent or more of the financial assistance available to students, up from its present level of 7 percent (Sandson 1983).

The Health Resources and Services Administration recently reviewed the literature to determine the effects of high rates of debt on an individual's choice of career in the health professions. While they

conclude that there is no hard evidence to support the theory that high rates of debt discourage individuals from choosing the health field, they also note that only in recent years has the amount of indebtedness risen to its present levels. This report also points out that "applications and enrollment of persons from disadvantaged and minority backgrounds were greatest during the period of readily available scholarships and low-interest loans, suggesting that participation of these groups in health professions training programs may be sensitive to the availability of programs that reduce out-of-pocket student costs." In addition, the report cites anecdotal evidence that increasing numbers of minority students are choosing engineering, business, and computer careers, which take less time to compete and are less expensive (U.S. Department of Health and Human Services 1986b).

Faced with ever-increasing medical school tuition and expenses and falling levels of financial assistance, it is likely that medical education will once again become the province of those individuals with substantial family resources available to them. The pool of qualified applicants from lower socioeconomic backgrounds, already dwindling, is likely to become smaller as individuals look to other professions with shorter training periods and lower costs to fulfill their ambitions.

The Minority Schools

There are four minority medical schools in the United States: Meharry Medical College, Morehouse School of Medicine, Charles Drew Postgraduate Medical School, and Howard University School of Medicine.

The rationale for the development of the first two minority schools was clearly related to the issue of segregation and the denial of opportunity in state and private professional schools, similar to the rationale for development of historically black colleges. This is not a unique phenomenon. The development of Albert Einstein and Mt. Sinai medical schools was in response to the long-standing quotas limiting Jewish participation in medical education. Separate Catholic schools are a long-standing national phenomenon. None of the racial or ethnic or religious schools, however, limits enrollment to its group.

The rationale for the development of the two newer minority medical schools, Drew and Morehouse, was in part a response to the slower than anticipated progress toward increasing black enrollment at majority

schools and the decline in acceptance rates. There is continuing evidence that acceptance rates for blacks in majority schools remain a problem. Furthermore, a number of groups in our pluralistic nation believe that some students benefit and achievement is enhanced when the minority students are a "majority" at an institution.

Drew is part of the University of California system, and Howard University receives a special federal appropriation. The financial base of Meharry and Morehouse differs significantly from the financial base of virtually all other medical schools. They do not receive substantial amounts of support from biomedical research, which constitutes on average 23 percent of medical school revenues. Though they do receive some indirect assistance from those states that contribute to the tuition of their students, they do not receive direct underwriting from any state.

Because the patient population served as part of the education function is a low-income group, Meharry and Morehouse do not generate a high proportion of faculty salaries from patient care services as do the nonminority schools. Their economic foundation is fragile, limiting their ability to provide the support services and developmental capability that most schools take for granted (Hanft, Fishman, and Evans 1983). In the current era of cutbacks in federal financial assistance programs, the economic base of these two schools becomes even more fragile, as medical schools are increasingly required to draw upon their own resources to provide scholarship and loan funds (Association of American Medical Colleges 1986a).

In 1981 Meharry was required to reduce its enrollment, and Morehouse has been unable to expand its first-year class from the current 32 students to its goal of 64. Part of the problem is the lack of financial resources to recruit faculty and obtain access to clinical facilities and support services. These schools also take "higher risk" students, students that score below-standard grade point averages and MCAT scores. More investment in remediation and individual tutorials is necessary. In spite of these setbacks, these two schools, together with Howard University, continue to enroll 17.5 percent of all black first-year students, and, in 1984, 20 percent of black graduates were from these three schools (Association of American Medical Colleges 1985).

The minority schools clearly have made a major contribution to the education and production of black physicians. Some mechanism for providing stable funding and developmental funds is needed to

ensure their continued contributions. Relatively modest funding would be needed to sustain and enhance these few institutions that contribute disproportionately to the education of black physicians.

Clashing Goals: Reducing Oversupply and Increasing Minorities in Medicine

Recent federal cutbacks in support of medical education and student aid are not merely a function of the federal deficit and a shift in federal priorities between defense and domestic sectors of the economy, but a response to a perceived but controversial "surplus" of physicians. Evidence of the service that minority physicians provide to low-income, inner-city and rural areas marries goals of improved access to care and equal education opportunities as critical components of improved minority health status. Furthermore, the public policy goal has been to increase the proportion of primary care physicians. The distribution of blacks between primary care and all other specialties already achieves the recommendation in the 1980 GMENAC report. In 1985 almost 60 percent of black residents were concentrated in the areas of internal medicine, family practice, pediatrics, and obstetrics-gynecology, compared with 46 percent of nonblack residents. Blacks were twice as likely to be training in obstetrics-gynecology and pediatrics as were their nonblack counterparts. They were underrepresented in almost all other specialties, especially surgery and its subspecialties. In 1985, however, blacks still constituted only 4.5 percent of all residents—barely higher than their 4.4 percent representation in 1978 (Hanft and White 1986). Clearly, the generic issue of surplus should be disaggregated in public policy discussions to assure that the goal of increased participation of minorities in medicine is not undermined.

Conclusions

While health policy analysts argue whether there is a real surplus of physician manpower and the degree of the surplus, the shortage of minority physicians continues, and progress made to date to increase the number of minority physicians is being reversed. Numerous studies and national data show continued disparities in the health status of

minorities (U.S. Department of Health and Human Services 1985). Studies also show that minority physicians fill critical needs of access to care in low-income inner-city and rural areas. Society bears the cost of lack of access to health care through premature death and disability, high infant mortality, and lowered productivity, in addition to the high costs of health care incurred when prevention, early diagnosis, and treatment are forgone. Access to care is directly dependent on the availability of manpower and the sensitivity of that manpower to the problems of the population they serve. There are still underserved areas and underserved populations in these United States. As access to health care has become an increasing problem, despite several prior decades of progress, equal education opportunity is again emerging as a problem, particularly for lower-income people, a disproportionate number of whom are minorities.

An increase in opportunities for minorities to become physicians is dependent on a number of factors. These factors include: the commitment of majority schools to increase acceptance rates and retention rates for minority students; improved high school and college preparation for minority students; a stable financial base for the minority medical schools; and—critical to the ability of minorities to enter the protracted education process—affordable student financing. We are in grave danger of slipping backward to the era before affirmative action when there was an acute scarcity of minority health professionals and continuing disparities in health status between the majority population and minorities.

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Appendix Note

The term minority in the context of this report refers to those racial and ethnic groups whose representation in the physician population is less than their representation in the general population. The term as used in the majority of statistics cited includes blacks, who are 11.7 percent of the United States population but only 3 percent of physicians; Mexican-Americans and mainland Puerto Ricans who are 6.5 percent of the population and 4 percent of physicians; and native Americans (American Indians, Eskimos, Aleuts) who are .6 percent of the population but .1 percent of physicians. Asian/Pacific Islanders are 1.6 percent of the population but 10 percent of physicians—thus, they are not included in the minority counts (Association of American Medical Colleges 1985).

The minority schools referred to in this report are Howard University, Meharry Medical College, and Morehouse College of Medicine, each of which has a student population that is predominantly but not exclusively black. Although the Charles R. Drew Postgraduate Medical School is also a minority school (predominantly black), published student statistics for this school are included with those of the University of California, Los Angeles, and cannot be separately identified. The program at Charles R. Drew is designed to attract individuals committed to caring for disadvantaged and underserved populations regardless of the race of the applicant.